PARALLEL SESSION 1: ORAL PRESENTATIONS

Thursday, 10 November, 14:00–15:30

1.A. Skills building seminar - Inequalities in health: disentangling the processes, and setting the scene for public health action

Chairs: Eric Breton and William Sherlaw, French National School of Public Health, France

Organiser: The INPES Research Chair in health promotion

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Health inequalities are now regarded as a public health problem in their own right. The problem is however a complex one that calls for a multi-pronged, multi-level endeavour that challenges current practices. This skill building seminar will provide public health practitioners with conceptual and practical tools to develop and evaluate programs and policies that aim to improve health and reduce health inequalities or at the very least not exacerbate them. The seminar will be divided into 4 sections.

In the introductory section, and drawing on findings from different disciplines such as social epidemiology, sociology, moral philosophy, we will review what health inequalities are, the theories that explain them, and why they matter.

In the second section, we will focus on how public health strategies may themselves, despite best intentions, further increase the gap between the health of the wealthiest and the poorest. Different health promotion strategies and their possible shortcomings will be reviewed: risk factor driven programmes, population health initiatives, vulnerable group targeted programmes.

In the third section, we will explore how public health strategies must be reflective in their design and evaluation of both structure- and agency-related factors to ascertain that all individuals and groups are capable of converting resources made available by programs and policies into health gains. The authors will then argue that unless public health practice is informed by theories of social justice, professionals will be at risk of being accused of being unfair. Using as an illustration Sen's capability approach, it will be shown that such a theoretical perspective can assist in distinguishing what falls in the realm of public health intervention and what does not.

To conclude the workshop, in small groups, attendees will be invited to discuss a few questions aiming at facilitating the sharing of their experience on the development, implementation and evaluation of programs/ policies to tackle inequities in health. Syntheses of the discussions will then be presented to the whole group to further capture the challenges and shortfalls of current European public health practice and research.

How do public health programs increase inequalities in health and how to prevent this from happening?

Eric Breton

E Breton, W Sherlaw, M Porcherie

French National School of Public Health, Rennes, France

Health inequalities are not a new phenomena and remain pervasive throughout the world. Since the landmark reports of Black, Acheson and Marmot reviews the evidence is well known and it represents a major challenge for public health and health promotion. Even more disturbing for the public health field is the accumulation of evidence on the contribution of some disease prevention programs and policies to the worsening of health inequalities. In this presentation, we review the theories explaining the enduring inequalities and social gradient in health and then highlight mechanisms involved in programs and policies contributing to widening the gap between the different socio-economic statuses.

We identified two main sets of theories explaining the social gradient in health documented in all Western world societies. The first set, the psychosocial theories, explain the gradient as a function of the differential exposure to stressors while the second, the materialist theories, point to the role of differential access to resources to enhance and protect one's health. Regardless of the theory favoured, we demonstrate that public health programs and policies are often oblivious of these differential exposures to stressors and access to resources and are therefore more likely to benefit one social class or group over another.

Our analysis bring us to consider Frohlich and Potvin's (2008) vulnerable groups approach promising as it has the potential to address the adverse circumstances of the most deprived groups in the population. However, their approach being concerned with a sub-population group is likely to leave untouched the fundamental causes shaping the social gradient in health. On the contrary, Geoffrey Rose-inspired population approaches while taking into account a large section of the population fail to account for the differing circumstances of the different sub-population groups. Moreover, its focus on disease risk-factors is oblivious of the social processes that make members of a social class always better off than those from the one below.

We conclude by proposing an integrated approach to reducing health inequalities that both accounts for the social gradient in health and the specific circumstances of the different sub-groups of the population; an enterprise that will require a research epistemology that allows for more meaningful accounts of the life circumstances of the members of the population.

Questions of agency

William Sherlaw

W Sherlaw, J Raude

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Although populational health approaches (Rose, 1992) have assumed greater and greater importance in recent times, behavioural change programmes are still very much the norm in health promotion programmes. Increasingly Individuals are held accountable for their own health, given evidence based information which demonstrates that the benefits are clear and outweigh the risks and encouraged to make rational healthy choices. However such an agency related factor agenda is simplistic and may be called into question on three main grounds. A) Choice is rarely free and arguably the resources which facilitate healthy choices are unequally distributed throughout the social gradient. B) Choices are not necessarily based solely on risk-benefit calculations but may involve other non-instrumental considerations C) Individual behavioural change programmes may increase health inequalities. Choice is not free and change can pursue lengthy and chaotic paths: opening one door often implies the reluctant closing of many others. Even if individuals have the capacity for healthy choices, changes of embedded habits may well mean the abandon of allegiances and thus have a high cost. Such costs may be easier to bear for those higher up the social gradient. Lay epidemiology suggests individual health decisions are not just simply based on risk benefit calculations, but may be related to both instrumental and moral reasoning. Furthermore unhealthy choices are not just a question of ignorance or error but are taken knowingly after some consideration or even calculation of possible consequences. The benefits are seen and lived as being the necessary constituent of a possible life. Agency driven behavioural change programmes are particularly prey to the well known phenomena that health information, education and promotion campaigns tend to be more acted upon by the richer and better educated members of the population. New strategies are necessary that take into account both individual choice and the complexity and constraints of life. These should be respectful of choices and be articulated with social determinants of health such as environmental and educational factors within which lie possible levers for influencing behaviour on a long term basis. Agency is complex and often dissolves into structure.

Applying theories of social justice to develop ''iniquity-proof'' disease prevention-health promotion programs

Eric Breton

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The work of the WHO Commission on the Social Determinants of Health and the release of its final report have further contributed to bring to the fore the problem of health inequities (CSDH, 2008). That health inequities are the result of powerful and enduring political, social and economic structural factors such as patterns of the distribution of power and wealth within and between societies is no longer debated (Navarro, 2007). Often eclipsed however are the impacts public health programs have on further increasing those inequities. Numerous programs' successes have been in fact overwhelmingly concentrated in middle and upper social classes while leaving behind the most vulnerable groups. Moreover, programs focusing on knowledge, skills and attitudes are sometimes based on the premise that the blame for failing to take up a health promoting/disease preventing behaviour rests on people's weaknesses regardless of the structural barriers experimented by the individuals targeted by the program.

The question is then how can public health institutions avoid this victim blaming bias and distinguish between agency-related choices, i.e., individuals' legitimate decision not to adopt a given health promoting behaviour, and failures that are due to structural barriers that impede or discourage the adoption of the behaviour? How to be as fair and just as possible when intervening to promote health or prevent a public health problem? These questions are unlikely to be answered if not properly framed against some conceptualizations of what social justice is about. Only then could we effectively disentangle inequalities that are inevitable from those that are unfair, i.e. inequitable, and as such to be brought under the scrutiny of public health institutions.

In this paper, we examine the relevance of a theoretical framework to guide public health planning in delivering programs that are more likely to generate equitable outcomes. We thereby present Amartya Sen's capability approach (Sen, 1995) and then set out to appraise its potential by applying it to the public health problem of tobacco use.

We conclude that an ethical tobacco prevention program needs to address the broader social determinants of health such as the socio-economic policies that put a strain on people's capacity to shun or quit smoking. We also identify the potential limitations of this approach and suggest new areas of research.

1.C. Workshop: The Future of Healthcare

Chairs: Angela Brand, The Netherlands and Peter Boyle, France
Organiser: EUPHA Section Public Health Genomics
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The highly technology and computational sciences driven dynamics of genomics as a 'moving target', starting from the Human Genome Project (HGP) to the Personal Genome Project (PGP), is currently changing public health research, policies and practice in a substantial way.

Rapid scientific advances and tools in genomics such as in the light of epigenomics, microbiomics and systems biology not only contribute to the understanding of disease mechanisms, and to the characterization of each person's unique clinical, genomic, and environmental information, but also provide the option of new promising applications in human health management during the whole life-course. In fact, what was little time ago a vision for a new era of public health, in which advances from the -omic sciences would be integrated into strategies aiming at benefiting population health, is now responding to the very pressing need for the translation of health innovations and the development of effective future healthcare going even beyond personalized medicine.

Genome-based innovations in healthcare - challenges for prevention

Peter Boyle

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Life expectancy continues to increase although the 7 year difference in life expectancy in men between 'old Europe' and 'new Europe' is a real cause for concern. While life expectancy approaches 80 years for men and women, healthy life expectancy rarely exceeds 65 years in European Union countries. There are many ways to increase life expectancy around the world: avoid catastrophic war, famine, pestilence, social collapse; implement what is known to reduce disease risk; and make effective treatments progressively more widely accessible worldwide. However, further progress will depend on innovative approaches, since the current approaches to indentifying lifestyle determinants of chronic disease risk has run its course.

The recent shift in healthcare towards a systemic and holistic understanding of the aetiology of diseases is a scientific revolution. Systems biomedicine triggered by next-generation sequencing technologies is likely to become the leading healthcare paradigm in the next decades. It will help to reshape research, policy-making and practice (“from cell to society”) in a fundamental way. A compre-hensive and integrated model of future healthcare that takes into account integrative genomics along-side with environmental, social and life style factors will become essential in order to enable a new approach towards personalized strategies in the prevention, early detection and treatment of disease. While the utility of most genetic tests and biomarkers is still not evidence-based, the real take home message stops here and is a different one. In the personalized medicine setting the traditional as-sessment and evaluation tools just do not work anymore. Thus, we clearly face the need for a new paradigm, because we start to understand that: (1) what we call common complex diseases might be a sum of “rare diseases”, and “rare diseases”, in the sense of Mendelian Disorders and monogenetic diseases, might be indeed very complex; (2) we move from diseases towards diseasomes; (3) we move from risk factors to individual pathways or networks; and (4) we move from clinical utility to personal utility. However, the real paradigm shift depends on the willingness to restructure policies, and on the ability to train practitioners from various professions. The P4 Medicine being predictive, personalized, preemptive and participatory, is not around the corner yet, and there is a clear urgency to prepare healthcare systems and policy makers in time.

The IT Future of Medicine - a flagship initiative to revolutionize our healthcare system

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As data-intensive analysis and computer intensive modelling become common clinical practice, ICT capacity and organization will become key limiting factors in medicine. This will result in a shift of re-sources from personnel-intensive to ICT-intensive applications. Data-rich, individualised medicine poses unprecedented challenges for ICT - in terms of hardware, storage and communication. Making personalised medicine a reality will require fundamental advances in the computational sciences. In-formation Technology Future of Medicine (ITFoM) brings together world leading research groups from across Europe and beyond. ITFoM proposes a medicine based on molecular, physiological, anatomical and environmental data from individual patients. Using these data, ITFoM will develop general models of human pathways, tissues, diseases and ultimately of the human as a whole. Individualised models for each patient (the virtual patient) will then be used to identify personalised prevention/therapy schedules and potential side effects of treatment regimes. This is the first time that the ICT implications of worldwide individualized patient care will be addressed in combination with genomics and medical requirements. The ultimate goals of ITFoM are twofold. The first goal is to give each patient’s doctor the power to analyse a person’s human genome at every stage of disease management – through diagnosis, treatment and follow-up. This will require a revolution in ICT technologies so that relevant computing, storage, networking and modeling technologies are developed. The second goal is to enable the connection of high throughput biomolecular characterization and clinical imaging technologies. Beneficiaries of this linkage will include: the patient and their doctor; drug researchers in both the discovery and development phases; epidemiologists attempting to analyse health trends; and policy- and decision-makers developing effective national and EU-wide health policy options and legislation. Enabling this connection will require a revolution in integrated information management and decision making. This constitutes a fundamental transformation of biomedical science – from probability-based and empirical to evidence-based and knowledge-driven. The project outcomes will enable the prediction of health, disease, therapy and its effects for individual patients and through application in the clinic will change the future of medicine and healthcare as a whole.

Valorization of genome-based technologies in public health

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The success rate of timely translation of genome-based technologies to commercially feasible products/services with applicability in health care systems is significantly low. We identify both industry and scientists neglect health policy aspects when commercializing their technology, more specifically, the Health Technology Life Cycle (HTLC) and early on involvement of Decision Makers (DM) through which market authorization and reimbursements are dependent. While Technology Transfer (TT) aims to facilitate translation of ideas into products, Health Technology Assessment (HTA), one component of the HTLC, assesses translation of products into healthcare services and eventually come up with recommendations for DM. We aim to valorize a new model to optimize integration of genome-based technologies into the healthcare system. Our model proposes, based on market demand, TT should move in parallel with HTLC by consultation through bi-lateral communication, advocating for relevant technologies and public-private partnerships in the HTA pipeline This combination brings into the picture the Public Health Genomics Wheel (PHGW), which demonstrates the integration process of genomics into Public Health and healthcare. The industry and policy makers should go through PHGW to identify gaps in their technology and policy respectively; ensuring all policy/societal aspects of smooth integration is dealt with preemptively. This gives rise to the (innovation) network which is an evolving mutual dependency system based on resource relationships in which their systemic character is the outcome of interactions, processes, procedures and institutionalization. Activities within such a network involve the creation, combination, exchange, transformation, absorption and exploitation of resources within a wide range of formal and informal relationships. This is a learning process with continued iterations and feedback loops, and requires ability to learn, assimilate and use knowledge developed elsewhere through a process that involves substantial investments especially of an intangible nature and is called absorption capacity. Based on our model, we believe higher the absorption capacity, higher the possibility of success. The model speeds the valorization process of new technologies commercially and has potential to guide valorization in context with integration in healthcare systems.

From idea to practice: Issues to be solved by personal medicine on the way to clinical practice and healthcare

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Personalized medicine is an idea of medical treatment with different kind of medical, social and healthcare impact. Beside the medical scientific issues on the different aspects of these kind of treatment, there have to be considered some more special topics on how to get this idea into the health care systems.

Three important hurdles on the way to patient treatments are:

- The authorization step of new treatments
- The reimbursement scheme of new treatments and
- The acceptance and use of health care professionals and patients of the new treatment.

Up to now these different kinds of steps are often seen as independent from each other or even are ignored when an innovative treatment is developed. Just at the end, when time is running and costs are increasing, the different requirements are taken into consideration and advice is at this time very expensive.

Due to this, the DIMDI has developed an overall concept of an integrated, patient focussed information and advice system to support the development of innovative treatments helping a patient in real life and reducing the burden to fulfil all legal and administrative requirements to come to the market. But in addition the system is also aiming for getting positive innovations as soon as possible into real health care by supporting the spreading of the knowledge around the new kind of treatment.

Examples of the different steps and the way how to achieve needed information in less time will be presented.

1.D. Patients in the centre?

Macro-level determinants of health among adolescents in welfare states: a multi-level analysis

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Introduction

Previous studies have shown that macro-level factors, such as income inequality, wealth of countries or welfare state characteristics are crucial determinants of health and health inequalities among adults. So far, comparative research has rarely focused on children and adolescents. This study is among the first to examine whether different macro-level determinants are associated with differences in subjective health and socio-economic related health inequalities among adolescents in high-developed welfare states.

Method

Data were collected from the school based "Health Behaviour in School-aged Children"-study in 2005/2006, which includes 11- to 15-year old students from 27 European and North American countries (N=134.632), classified into five regimes (Scandinavian, Bismarckian, Liberal, Southern, Eastern). Hierarchical linear regression models were conducted for multiple complaints in health, including stepwise individual (family affluence) and extended by macro-level determinants (wealth of countries, income inequality, health expenditure, welfare state regime-dummies).

Results

Boys and girls in the Southern, Eastern and Liberal regimes displayed the highest prevalence rates in multiple complaints in contrast to the social-democratic and conservative regimes. The liberal regime and, thus, countries with high income inequality showed significantly more complaints and a stronger impact of socio-economic determinants on complaints.

Conclusions

Reducing health inequalities should continue to be an important public health strategy with emphasis on the young population in all welfare states regimes and particularly in the Liberal welfare states. Thus, welfare state characteristics and the extent of income inequality are considered as relevant factors in tackling socioeconomic inequalities in health of adolescents.

A comparative study of educational differences in disability-free life expectancy in nine European countries in the 21st century

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Background

Research comparing socioeconomic differences in health between countries has mostly been limited to various measures of either morbidity or mortality. This study combines these data to yield a summary measure of population health for a broad age-group. Educational differences in disability-free life expectancy are studied for nine countries from all parts of Europe in the 21st century.

Methods

Long-standing disability was measured as a Global Activity Limitation Indicator derived from the European Union Statistics on Income and Living Conditions survey. Mortality data were collected by the EURO-GBD-SE project. Sex-specific educational differences in partial disability-free life expectancy between the ages 30 and 79 years were calculated using the Sullivan method.

Results

Disability-free life expectancy varied substantially between the European countries. The lowest figures were found among Lithuanian men and women (33.1 and 39.1 years, respectively), and the highest among Tuscans (42.8 and 44.4, respectively). Both life expectancy and disability-free life expectancy were longer the higher the education, but educational differences were much larger in the latter in all countries. The difference between primary and lower secondary educated and tertiary educated was over 10 years for males in Lithuania and for females in Sweden and about seven years in Finland, England and Wales, Austria and for females in Lithuania and males in Sweden. The lowest difference was in Tuscany (4 and 2 years among men and women, respectively). The proportion of remaining life spent disability- free varied from 72% among low educated women in Sweden to almost 98% among tertiary educated Tuscan men.

Conclusion

Still in the 21st century highly educated Europeans can not only expect to live longer, but also to spend these years in better health than those with lower education. The largest differences in disability-free life expectancy were found in Lithuania, but also countries in Northern, Western and Central parts of Europe showed large inequalities. Smallest differences were in Southern Europe. This study also showed that even though women live longer, they spend a larger absolute amount of time in disability.

Healthcare utilisation among the Belgian elderly in relation to their socioeconomic status

Sarah Hoeck

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Background

The question whether inequalities in healthcare utilisation according to socioeconomic status (SES) among the Belgian elderly exists or not has not been answered yet. The objective of this study was therefore to explore socioeconomic differences in healthcare utilisation by the Belgian elderly, and to check whether the Belgian health policy succeeds in guaranteeing an equal distribution of healthcare among elderly persons with equal needs. Therefore we analysed the associations between GPs and specialists contacts, and SES (household income, highest level of education within the household, and housing tenure).

Methods

In this cross-sectional study based on 4494 elderly participants (≥ 65 years) in the Belgian Health Interview Surveys of 2001 and 2004, socioeconomic gradients in contacts (yes or no) with a GP or specialist were explored using multiple logistic regressions, based on the socio-behavioural model of Andersen.

Results

After adjustment for age and sex, the elderly with a household income in the categories €750–1000 and €1000–1500 are more likely to contact a GP than those with the highest income (OR 2.16, 95% CI 1.19–3.93 and OR 1.91, 95% CI 1.11–3.31, respectively). Those without a degree or with primary education as the highest educational level are more likely to contact a GP than others (OR 1.77, 95% CI 1.12–2.80). After adjustment for age and sex, tenants are more likely to contact a specialist than home-owners (OR 1.42, 95% CI 1.02–1.98). After adjustment for age, sex, health status (self-assessed health, functional restrictions, and comorbidity), region, and living situation, no more differences remain in contacts with a GP and specialist between the SES groups.

Conclusions

Successive adjustment for the determinants of healthcare utilisation among the Belgian elderly nullified the socioeconomic gradients in contacts with a GP and specialist that initially existed. The initial gradient in having a contact with a GP and specialist or not can be explained by differences in the health status of the respondents. The Belgian healthcare system seems to effectively minimise socioeconomic inequalities contacts with a GP and specialist among a the elderly population with high healthcare needs.

Patient preferences in patient education for patients with type 2 diabetes

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Background

Little is known about patient preferences for diabetes patient education. The objectives of this study were to determine the preferences of patients with type 2 diabetes for format and contents of patient education. Patients were asked to value information, participation and competence development, involvement of social network, and group based versus individual education.

Methods

A questionnaire including sociodemographics, BMI, self-management behaviors and HbA1c-level as well as choice games concerning patients' preferences for patient education were sent autumn 2010 to patients from two different populations: 1) patients from a specialist diabetes clinic ($n = 1081$, response rate 54%) and 2), patients derived from a web panel consisting of a representative sample of the Danish population ($n = 1461$). In total $N = 2542$. Choice game answers were analyzed using the conditional logit model. Willingness to pay for the attribute levels was calculated by dividing the estimated coefficients, β for each attribute by the coefficient of payment. For deriving confidence intervals we used bootstrapping. Analyses were stratified in subgroups using a 5% level of significance.

Results

All included attributes were significant predictors of choice ($p < 0.01$) and all parameters had a positive value. Patients consistently valued acquiring competency in the included topics more than receiving information about them. Difference in valuation between becoming competent and acquiring information was large: willingness to pay was up to 92% higher for competency. Becoming able to adjust diet and exercise habits and to prevent complications were valued 35% and 46% higher than being informed about these topics. Patients were willing to pay €199 to be educated individually compared to education in a group of 12. The ranking of the attributes and levels were similar for subgroups. Women had a higher valuation of attributes. Patients with HbA1c $< 7\%$ exhibited higher willingness to pay for all attributes and levels.

Conclusions

Patients with type 2 diabetes significantly value participation in patient education, development of competencies for prevention of complications and support from the social network in disease management. Patients prefer an individually targeted approach.

Factors associated with adherence levels in kidney transplant recipients

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Background

Adherence with medication is an inevitable part of treatment after kidney transplantation (KT) in order to keep a transplanted graft functioning well. In this study we focused on medical and psychological variables associated with different levels of adherence.

Methods

169 KT patients (64.5% male; 49 ± 11.5 years) were split according to adherence, as rated by themselves and their physicians, into three groups: excellent (49.7%), good (43.2%) and average/bad (7.1%) adherence. The patients provided sociodemographic data, medical data (glomerular filtration, Davies' comorbidity index, number of late rejection episodes) and completed a side-effects symptom checklist (ESRD-SCL-TM) and questionnaires on psychological distress (GHQ-12) and social support (SSL). Binary and ordinal logistic regressions were used to identify factors associated with excellent, good and average/bad adherence.

Results

The excellent adherence group reported significantly less severe side effects (ESRD-SCL-TM). Younger (Exp(B) = 0.95*; CI95%:0.91–0.99) female (Exp(B) = 0.28*; CI95%:0.09–0.85) patients with a history of late rejection (Exp(B) = 3.27*; CI95%:1.00–10.72) and higher social support (Exp(B) = 1.08*; CI95%:1.02–1.15) were more likely to behave excellently in adherence over the past month and the model explained 41.1% of variance. Being male (Est = 0.99***; CI95%:0.40–1.58) and divorced/widowed (Est = 1.23**; CI95%:0.24–2.21) with fewer rejection episodes (Est=-0.73*; CI95%:-1.37–0.09) and longer post-transplantation time (Est = 0.01*; CI95%:0.00–0.02) increased the probability of belonging to the good or average/bad adherence group and the model explained 33% of the variance.

Conclusions

The factors associated with different levels of adherence need to be considered when planning an intervention program focused on an increase in adherence. This study offers a more detailed insight into adherence and considers different perspectives of the two key components in the prevention of poor adherence: the patient and the nephrologist. The differences between the adherence groups should be considered in clinical practice in order to prevent under evaluation or underreporting of poor adherence and most importantly, when planning an intervention program in order to ensure its efficiency.

Online learning tools in evidence-based practice: changes in skills across cultures

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Background

Commissioned in 2006 by National Institutes of Health, the interprofessional Evidence-Based Behavioral Practice (EBBP) project creates online learning resources to help bridge the gap between behavioral research and practice.

Objectives

Seven interactive learning modules that target trainees and practitioners are available free of charge at www.ebbp.org. The site hosts 2,000–3,000 users per month from 128 countries, suggesting global interest in evidence-based practice training tools. Learners complete online pre and post-tests that assess knowledge, attitudes, and skills. In this abstract we discuss self-reported change in learner skills across modules. Learners rated skills statements using Likert scales (1 = not at all confident, 5 = very confident).

Results

Learners showed the following self-reported changes in skills from pre- to post-test: EBBP Process: 0.91 scale increase (F(1,1847) = 1536.72, p = .000); Searching for Evidence: 0.73 scale increase (F(1,455) = 218.74, p = .000); Introduction to Systematic Reviews: 1.15 scale increase (F(1,469) = 426.8, p = .000); Critical Appraisal: 0.84 scale increase (F(1,289) = 102.65, p = .000); RCTs: 0.77 scale increase (F(1,189) = 105.74, p = .000); Shared Decision-Making with Individual Clients: 0.76 scale increase (F(1,96) = 77.93, p = .000); Collaborative Decision-Making with Communities: 0.71 scale increase (F(1,58) = 21.12, p = .000).

Conclusions

All modules showed a significant increase in learner-reported skills. This indicates that improvement in self-reported skills in evidence-based practice can be achieved across cultures through online learning modules.

1.E. Workshop: REsearch into POlicy in Physical Activity - which theories and methods are applicable?

Chairs: Arja R Aro, Denmark and Nancy Edwards, Canada
Organiser: REPOPA Consortium and EIRA Network
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The expression ‘Research into Policy’ signals the intention to help policymakers make evidence-informed decisions in policy development and implementation. Scientific research has produced abundant knowledge on the physical activity (PA) -health link, PA levels and trends, cost-effective interventions, and policies in many EU countries. Thus, there is knowledge and know-how about improving patterns of PA both from research and policy making. Challenges remain, however, in integrating this knowledge and know-how into policy making. Based on scientific literature and other documents, the evidence-base of many PA policies developed has not often been made explicit (research evidence and ‘other kind of evidence’ i.e. expert know-how, organizational culture and political pressures. Further, policies are mostly not cross-sectoral although we know that multi-sector structures facilitate physical activity of individuals and groups. Still, evaluation of PA policies remains often at a generic level of combined groups and without concrete steps and indicators of implementation. Finally, accountability has mostly not been agreed upon. All this calls for: a) comprehensive cross-disciplinary frameworks for understanding how evidence can inform policy processes in PA; b) developing feasible and effective tools and indicators for PA policy implementation in different contexts; and, c) feasible evaluation frameworks. This roundtable takes up this challenge, discusses and debates the state of the art in the field. REPOPA consortium (REsearch into POlicy in Physical Activity) includes institutes from six EU countries and Canada, a leading country in knowledge integration development. EIRA (Evidence In Research and Action) is a global health promotion network. The workshop participants represent REPOPA, EIRA and European Community (EC).

Arja R Aro (DK): The main theories in guiding evidence-informed policy development and evaluation.
Timo Stål (FI): Dissemination and translation of research on the policy for physical activity in Finland: good intentions need a proper implementation framework.
Ien van de Goor (NL): Collaborative decision making across sectors and organizations: can gaming simulation help?
Bonnie Spring (USA): Online Training for Evidence-Based Behavioral Practice (EBBP): Introduction and Evaluation Across Cultures
Comment: Kevin Mccarthy (EC): Public Health, DG Research&Innovation, Health Directorate: European Union Research facilitating knowledge transfer.

The main theories in guiding evidence-informed policy development and evaluation: towards a meta-framework

Arja R. Aro

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Evidence-informed policy development consists of decision making processes by stakeholders from academia, community and political contexts. Reflecting this complexity, research on this theme has been scattered and split into separate disciplinary approaches. To enhance coherent, theory and evidence-informed policy development and evaluation, there is a need to integrate and develop theories, which can capture the complex policy development process in different contexts. The main theories used to study evidence-informed policy development and evaluation will be reviewed and debated, especially when applied in different cultural and country contexts and in relation to developing policies to enhance physical activity. Theories and models on contextual decision makings (Lomas 2000, Satterfield et al 2009) depict the overlapping areas of relevant stakeholders in policy development. The Knowledge-to-Action Cycle describes the circular process of research-practice/policy-evaluation-(new) research (Straus et al 2008). The present-day health promotion paradigm includes also 'non-research evidence'- contextual factors such as culture, community and organizational values, resources and politics (Aro et al 2008, Skovgaard et al 2009). Organizational readiness for change framework (Weiner 2009) can help to provide contextually tailored policy interventions. Recently, system thinking, especially in health care field, has paid attention to dynamic, non-linear, complex, self-organizing, unpredictable processes constantly adapting to change, which seem often to be policy-resistant (Best & Holmes 2010). Evaluation theories provide both frameworks and indicators for assessing implementation; e.g. the Stages of Knowledge Utilization framework (Knott & Wildavsky 1980) indicators: reception, cognition, reference, adoption, implementation, and impact, is still a relevant framework to be used. Further, the RE-AIM framework (Reach, Effectiveness, Adoption, Implementation, Maintenance, Glasgow et al 1999, Glasgow et al 2006) originally developed for behavioral interventions, has more recently also been successfully used for policy evaluation and development. The presentation will suggest a meta-level framework, which could guide evidence-informed policy development to enhance physical activity in European societies.

Dissemination and translation of research on the policy for physical activity in Finland: good intentions need a proper implementation framework

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Finland is well known for its extensive national health monitoring systems. Survey data on the health behavior of the Finnish adult population has been gathered annually since 1978 and on the elderly population biannually since 1993. Population health examination data has been gathered since 1972 every fifth year. Additionally, there is a specific monitoring system for sport and physical activity that collects data every fourth year and other studies that have physical activity relevant indicators. The Ministry of Education and Culture and its Sports Division, who are responsible for sport and physical activity policy in Finland, also finance sports science research and communications. Despite all these efforts and information the Ministry's working group for developing strategic knowledge management within the government administration in the field of sport and physical activity concluded in 2006 that 1) the use of knowledge relies to a great extent on the activity of individual civil servants, 2) knowledge is spread out and requires a lot of efforts before it can be used as, within reasonable limits, a basis for decision-making. A more stable, systematic method for utilizing knowledge and developing interaction (transfer of knowledge) between knowledge producers and mediators was called for. It was suggested that the first step towards knowledge management should be a clarification of the knowledge needs.

In 2009 the National Sports Council (an expert body of the Ministry of Education and Culture) started a project aiming at a) the creation of an evaluation model for the assessment of the effectiveness of the Government's measures and b) implementing the first assessment. The project focused on building the evaluation model and did not collect any new evidence for the assessment. The developed model with its flowcharts on national objectives and their logic of effects serves as a good basis for clarifying the knowledge needs and building a framework for knowledge production, transfer and use. The Finnish example serves as a starting point for discussions on the need for a framework for systematic knowledge utilization in decision-making.

Collaborative decision making across sectors and organizations: can gaming simulation help?

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Enhancing physical activity at the local level requires decision making across multiple policy-sectors, on different policy levels (from national to local), across and within multiple organizations (ranging from public health to sports and leisure organizations, and schools for instance). Evidence on cost-effectiveness of programmes and how these can be implemented in the local context can increase impact of local policies. However, due to several reasons, in policy development and decision making scientific evidence is only of minor importance. One of the main reasons is a lack of interaction between the many stakeholder groups involved in these processes. Enhancing interaction between the multiple stakeholders in policy decision making processes can help overcome such problems. Gaming simulation can be a possible tool to bring about and improve interaction and understanding between experts, policy makers and professionals and thus develop more evidence-informed policy on physcial activity that fits best in local contexts and environments.

Gaming simulation is one of several participatory policy analytic methods. It offers participants opportunities for experimenting with policy in a safe environment. Participants take part in a policy exercise: they engage in a structured debate in order to clarify goals and generate and evaluate policy alternatives (Toth, 1988 and Geurts, 1993). By engaging in this policy exercise a forum for communication between policy makers, experts, such as academic researchers and other stakeholders (public health professionals) is created. When involved in the gaming excercise several alternative policies can be experimented with. This results in visible outcomes such as policy documents as well as invisible outcomes such as increased understanding, consensus, or commitment amongst all stakeholders.

Examples from other policy networks in health care, have shown that gaming can help participants to increase their insights and visualize valuable options for actual policy. Participants learn about these interests, strategies, and visions of other actors (Joldersma et al., 1995).

Game simulation approach and experiences with it in cross-sector policy development will be presented. Further, challenges and applicability of this approach in international policy development enhancing physical activity will be discussed.

Online Training for Evidence-Based Behavioral Practice (EBBP): Introduction and Evaluation Across Cultures

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Commissioned in 2006 by the U.S. National Institutes of Health, the interprofessional EBBP project creates online learning resources to help bridge the gap between behavioral research and practice. Seven interactive learning modules targeting trainees and practitioners are available free of charge at www.ebbp.org. The site hosts 2,000 to 3,000 users per month from 128 different countries/territories, suggesting global interest in evidence-based practice across cultures. Learners register online to take the modules and complete optional pre- and post-tests that assess learner knowledge, attitudes, and skills. Learners show an increase in knowledge from pre- to post-test after taking each of the seven modules: EBBP Process: 20.8 percent average increase $(F(1,248) = 266.4,$

p = .000); Searching for Evidence: 15.0 percent increase (F(1,73) = 51.8, p = .000); Introduction to Systematic Reviews:, 22.3 percent increase (F(1,88) = 129.4, p = .000); Critical Appraisal: 13.9 percent increase (F(1,55) = 28.8, p = .000); RCTs: 12.1 percent increase (F(1,37) = 13.0, p = .001); Shared Decision-Making with Individual Clients: 16.0 percent increase (F(1,13) = 8.4, p-value = .012); Collaborative Decision-Making with Communities (n = 10), 12.0 percent increase (F(1,9) = 1.6, p = .245). Attitudes toward EBBP also grew more favorable after taking the modules. The proportion of participants who agreed or strongly agreed with each statement was: ''EBBP improves clients' outcomes'' Pre test: 75%, Post test: 84%; ''The EBBP process allows enough room for considering unique client circumstances : Pre test: 56%, Post test: 80%; ''Trying to engage in EBBP is more ethical than not engaging in it'': Pre test: 66%, Post test: 71%. Findings demonstrate substantial interest globally in evidence based practice. Results also show that the EBBP online learning modules can improve knowledge and change attitudes about evidence-based practice. The presenter will use evaluation data to comment on the feasibility and appropriateness of applying the EBBP learning modules across cultures.

1.F. Regional health differences

Traffic risks by travel mode in the metropolitan regions of Stockholm and San Francisco: A comparison of safety indicators

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Background

According to commonly used measures of traffic safety, Sweden has one of the safest road transportation systems in the world, whereas the US has relatively poor road safety performance. Although national comparisons are useful, they are problematic because they generalize across a diverse mix of travel environments (e.g., urban and rural).

Methods

This study used an array of traffic fatality rates to determine whether comparable urban regions in Sweden and California - Stockholm and San Francisco - have similar road safety performance for various types of road users.

Results

The study found that the Stockholm Region is far safer than the San Francisco Bay Area for pedestrians and bicyclists, even when comparing the regions' core cities, but may not be any safer for motor vehicle occupants. In addition, comparing traffic safety with traditional measures of exposure such as population and motor vehicle travel produced different results than measures that account for mode-specific exposure.

Conclusions

Using mode-specific fatality and injury rates can improve road safety research by highlighting safety disparities across modes. This approach also facilitates international comparisons.

Excess costs due to selected chronic diseases among citizens of Copenhagen in 2007

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Background

Prevalence of chronic diseases increase and healthcare costs rise as well. In Denmark costs of chronic disease comprise of costs to the state (welfare payments), region (health care system) and municipality (welfare payments, health and care costs). The aim of this study was to assess costs and excess costs of four selected chronic diseases in the municipality of Copenhagen (MC) in 2007, and to assess to which sector costs were attributed.

Methods

Analyses were based on data from central Danish registers, and data on health and care costs delivered by MC. Persons $\geq$18 years, living in MC on January 1st, 2007 were included. Persons with chronic obstructive pulmonary disease, diabetes, cancer and heart disease were identified in the National Patient Register and/or by use of relevant medication. For all citizens, total costs of health, care and welfare payments in the municipality, region and state were calculated. Excess cost of chronic disease was calculated as the difference between actual cost and an age- and sex standardized cost of citizens without the selected diseases.

Results

Of 417.338 participants, 44.014(11%) had one or more of the selected chronic diseases. The total health and care costs of all citizens of Copenhagen in 2007 were €2.662 mio. The total health and care costs of citizens with at least one of the diseases were €718 mio. The costs of services to the municipality were €434 mio(60%), the region €198 mio(28%), the state €77 mio(11%) and the citizens €9 mio(1%). Excess costs of citizens with at least one disease were €296 mio, of which €153 mio(52%) were excess costs in the municipality. At a person-level total and excess costs were €16300 and €6700, respectively. Although only 11% of the citizens of Copenhagen had at least one chronic disease, 29% of health and care costs in the municipality were spent on this group.

Conclusion

Costs and excess costs associated with chronic disease are substantial. This analysis indicates that costs to the municipality contribute a major part of the cost of chronic disease. Analyses of cost of chronic disease often focus primarily on cost of services in the health care system. In a Danish setting, estimates of cost only considering costs in the health care setting will be very conservative.

Partnership for sustainable welfare development in four Swedish cities 2003–2009

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Issue/problem

People's well-being is largely dependent on their health. It is affected by people's own choices as well as prerequisites in the social surroundings. A vehicle to reduce health inequalities and improve public health has been programmes at a neighbourhood level. This article analyses the development processes in four municipalities for achieving sustainable structures in area-based development programmes during and after a formal partnership period.

Description of the problem

A partnership was developed as a strategic measure to promote strategic and local public health initiatives. In order to analyse this a case-study database was compiled based on the strategic and local work of four municipalities and four municipal housing companies who cooperated in the Partnership for Sustainable Welfare Development 2003–2009. The case-study database includes nine in-depth studies with interviews (n = 68), participant observations (n = 125), a survey (n = 1,160), and documents. The data is analysed using three theoretical concepts: political support, alliances, and citizen participation.

Results (effects/changes)

Political support, alliances, and citizen participation are important building blocks in neighbourhood development work. However, when the partnership ended there was little left that could function as a sustainable structure. Political support seems to be a means to reach the target, including ensuring a consistent approach and allocation of resources. However, this is mainly during the intervention period; when the formal partnership collaboration ends the political support and the resources for neighbourhood development have either been withdrawn or restructured.

Lessons

Citizen participation seems to be a basis for a sustainable structure able to continue despite reduced municipal support. Alliances have the best chance of forming sustainable structures when they involve both the strategic and the operational level. Even though many evaluations have been conducted to capture the process of interventions, yet little attention has been given to the challenges facing the outcomes of the intervention when it comes to making permanent the activities for reducing health inequalities.

Lifestyle factors and socioeconomic gradients in coronary heart disease in the 2003 Scottish Health Survey cohort

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Background

Coronary disease (CHD) is known to be strongly associated with socio-economic status (SES). Aspects of lifestyle impact on health and are also independently linked with SES, and thus may drive the CHD-SES correlations. However, the relative individual and combined contributions of lifestyle factors to such inequalities have not been well quantified. We addressed this using nationally representative prospective data.

Methods

Analyses were based on 6,060 participants aged over 16 years in the 2003 Scottish Health Survey (60% response) providing data on current and previous cigarette smoking status, weekly alcohol intake, physical activity levels, diet (quality index) and body mass index (BMI; weight (kg)/[height(m)]2), who also consented to linkage of mortality and hospital records. Follow-up health outcome data until 2008 were available. Cox proportional hazards regression was used to assess the relative index of inequality (RII) in CHD event (hospital admission or death) by SES (Registrar General's social class based on the occupation of the household chief income earner) and its attenuation by lifestyle factors.

Results

A total of 213 individuals had a CHD event, 59 of whom died of CHD, during 35,523 person-years of follow-up. The inequality in CHD across the social classes was more than twofold [age-adjusted RII hazard ratio (HR) = 2.10; 95% CI: 1.29 to 3.43] and did not differ by sex (p = 0.393). Mutually adjusting for lifestyle factors reduced differences by 52% [RII HR = 1.53; 0.92 to 2.56], with the greatest individual reductions made by cigarette smoking (31%; 1.77; 1.07 to 2.90), physical activity (15%; 1.93; 1.18 to 3.16) and diet (14%; 1.95; 1.18 to 3.21). Alcohol consumption (2%; 2.08; 1.27 to 3.40) and BMI (6%; 2.04; 1.24 to 3.33) had much smaller impact.

Conclusions

Over half of the SES patterning of CHD was explained by these lifestyle factors. Our findings provide valuable insight on the relative impact of individual lifestyle factors – essential for tackling socio-economic inequalities in health – highlighting the importance of public health initiatives which promote physical activity and dietary improvements as well as further reduce smoking.

Health in depopulating regions in the Netherlands

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Background

Like many European countries the Netherlands has regions in which the population declines (depopulation). In the next decades the total population of the Netherlands will decline as will the population of the European Union. Up to now the debate on depopulation is mainly in demographic and economic terms. Less attention has been paid to the health situation in depopulating regions. Our aim is to examine to what extent health in depopulating regions differs from health in other parts of the Netherlands. Our hypothesis is that health is worse in depopulating regions. This may be caused by changes in the composition of the population as a result of ageing and selective migration of people with a higher education and income, both of which are related to changes in health in the population. Furthermore, more indirect influences of depopulation on health are expected such as a decrease of the volume of (health) services, and changes in livability (such as a decline in neighborhood social cohesion).

Methods

We used data from the 2009 Netherlands Housing Demand Survey (n = 78,071). Three indicators of health were used: self-evaluated health, chronic conditions, and a measure of activities of daily living (ADL) and household activities of daily living (HDL). We compared these indicators in the three main depopulating regions (as defined by others) in the Netherlands to other parts of the Netherlands by using logistic regression models.

Results

The probability of being unhealthy is higher in depopulating regions than in other parts of the Netherlands. The region that is front runner in depopulation in the Netherlands had the largest difference in health in comparison to other parts of the Netherlands. The odds ratio for self-evaluated health for instance was 1.54 (95% CI = 1.30 - 1.84). Adjustment for educational level, household income, age, ethnicity, and sex did hardly change this finding.

Conclusions

Health tends to be worse in depopulating regions than in other parts of the Netherlands, irrespective of the socioeconomic situation of regions and the extent to which regions have an ageing population. We conclude that strategies to cope with depopulation should also include health of the inhabitants of current and future depopulating regions.

Relation between high caesarean section rate and health insurance coverage in rural China

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Background

The increase in Caesarean section (CS) rates is a public health concern worldwide due to adverse health outcomes and increased costs. This study investigates the use of CS in rural China and its relation to health insurance (New Co-operative Medical Scheme, NCMS). The NCMS was introduced in 2003 and it covers vaginal delivery and CS without restrictions on medical indication.

Methods

A population based survey of women who gave birth in 2008–2009 was conducted in five rural counties in central and western China. Of the 5049 women, 3673 (73%) were interviewed. Women with missing value on health insurance and reimbursement were excluded, leaving 3550 women. The association between health insurance coverage (having received reimbursement or paying out-of-pocket) and CS, divided into emergency and non-emergency CS (self-reported) were examined by cross-tabulation and logistic regression, adjusting for maternal age, education, and occupation, and household income, previous abortions and births, type of birth hospital and county.

Results

Almost half (46%) of the births occurred with CS, 13% having a (self-reported) emergency and 33% non-emergency CS. In the counties with mid-range CS rates (28%-63%), women who had received reimbursement from health insurance were more likely to have had CS (OR 1.75, 95% CI = 1.45–2.11) and particularly to have had non-emergency CS (OR 2.17, 95% CI = 1.76–2.66) than women who paid out-of-pocket. In the counties with the highest (82%) and lowest (13%) CS rate, there was no association between health insurance coverage and CS. Half (50%) of the non-emergency CSs (n = 1163) were recommended (also) by a doctor and half were only requested by the women. In both groups more insured women than women paying out-of-pocket had non-emergency CS.

Conclusion

In rural China caesarean section (CS) are overused. Health insurance coverage may have contributed to it. Interventions with payment mechanisms discouraging CS could be a way to reduce non-medically indicated CS.

1.G. Sickness absence certification

Physical Activity, Sickness Absence and Self-rated Health among Norwegian Doctors

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Background

Physical activity is associated with health benefit. Healthy doctors have a positive value for the stability of health care system. More knowledge is needed on the relationship between physical activity and health of Norwegian doctors. The aims of this study are to (a) examine the trend in physical activity among Norwegian doctors, (b) the reasons for physical activity and (c) the associations between physical activity and self-rated health, sickness absence and quality of life.

Methods

Data were collected in nation-wide postal surveys among Norwegian doctors in 1993 (n = 1,023) and 2010 (n = 959). The questionnaires contained items on self-rated health (4 response alternatives from very good to bad), number of days of sickness absence in a 12 month period, quality of life (7-point scale from very dissatisfied to very satisfied) and the frequency of and reasons for physical activity.

Results

The frequency of physical activity increased significantly. There were higher proportion of physical activity 5–7 times a week (6% vs. 12%), lower proportion of activity 1–4 times a week (72% vs. 61%) and stable proportion of activity <1 time a week (22% vs. 27%) from 1993 to 2010.

Doctors who were physically active at least ones a week gave quality of life, health, enjoyment and job capacity as reasons for engaging in physical activity higher than the less frequent physically active.

Doctors participating in physical activity ≥ 1 a week compared with < 1 a week significantly more often reported their health as very good (47% vs. 25%), had no sickness absence in the past year (72% vs. 63%), and a very high quality of life score (55% vs. 41%). There were no gender or age differences in level of physical activity.

Conclusions

Norwegian doctors increased their physical activity from 1993 to 2010. Weekly physical activity was associated with better quality of life, lower sickness absence and higher self-rated health. The results are useful for policy professionals in the public health sector.

Motives for early retirement of self-employed GPs in the Netherlands: a comparative study of two periods

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Background

Workforce planning for general practitioners needs to be informed by data on retirement intentions of GPs and factors that influence them. Several studies have investigated the association of explanatory factors with intentions to leave practice and actual leaving (e.g. in the UK, USA, Belgium). This study focuses on the actual leaving of GPs and factors that may influence this, in the Netherlands. At the start of the 21st century, measures were taken to reduce high workload among GPs by e.g. organizing out-of-hours primary care. Therefore we analyze reasons to leave and their influence on the retirement age before and after the measures took place.

Methods

A first retrospective survey was sent in 2003 to 520 self-employed GPs, who retired between 1998 and 2002. The same survey was sent in 2008 to 405 GPs who retired between 2003 and 2007. The response rates were respectively 60 and 54%. Analyses were performed with retirement age as outcome variable and work perception, external factors and personal reasons as independent factors to compare the periods.

Results

Retirement age was higher in 2003–2007 (M: 56; F: 51) than in 1998–2002 (M: 52; F: 50), especially for male GPs. Female GPs retired at an earlier age than males in both periods. Significant differences were found between both surveys on reasons for leaving. Almost all reasons mentioned had less influence in 2003–2007 than in 1998–2002, by male, female or all GPs. Demands from government and health insurers (female), societal developments (all), demands from patients (female), health (female) and emotional exhaustion (male) were less important in 2003–2007 than in 1998–2002. However, external control (male) was a more important reason to leave in the second period. Job satisfaction was reported (all) higher in

2003–2007. In 1998–2002, external control was positively and career change negatively related with retirement age. In 2003–2007, career change was negatively related to retirement age and being female contributed significantly to a lower retirement age.

Conclusions

The results suggest that the measures taken by the government may have improved job satisfaction among GPs, may have caused a higher retirement age and less (negative) explanatory factors influencing actual turnover in 2003–2007.

Physicians' sickness certification practices: a systematic review

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Background

Physicians have an essential role in sickness absence processes and several interventions have taken place to influence physicians work with this. However, such interventions are seldom evidence based.

Aim To establish the current evidence regarding physicians' sickness certification

Methods

A systematic review was conducted according to the standards of Cochrane and the Swedish Council on Health Assessment (SBU). Included were publications with empirical data about physicians' sickness certification practices published in scientific journals in English in 2002–2009. Identified publications were assessed regarding relevance and quality. The existence of scientific evidence was assessed for specific results, including results from the 15 of the studies in a previous systematic review by the SBU, covering the years before 2002.

Results

Of the 61 relevant studies, 28 had enough quality to be included. Most studies were small and included only GPs. All studies were of limited quality. There was a large variation between the studies regarding design, data, analyses and outcome measures. There was no scientific evidence with regard to the impact of patient (e.g. age, sex, SES) or physician (e.g. sex, age, attitudes) aspects on sickness certification practices, due to divergent results or too few studies for each factor. There was scientific evidence (on the lowest level) for that physicians find sickness certification problematic, and at a mere detailed level for the following five aspects: to handle the two roles as treating physician and medical expert, to handle situation when the physician and patient do not agree on the need for sickness absence, to assess work capacity and need of sick leave, lack of knowledge in insurance medicine, and to cooperate with others in these cases.

Conclusion

There were surprisingly few studies considering the great impact of physicians sickness certification on the life situation of patients, costs and that many interventions have taken place in recent years in several countries. The aspects physicians find problematic all relate to professional competence. There is a need to scrutinize physicians' possibilities to develop, maintain, and use such competences, in the organizational context they work.

What physicians need in order to ensure high quality in managing sickness certification cases

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Background

In most sickness insurance systems patients need a sickness certificate issued by a physician after some days of sick-leave. Thus, physicians have an important role in sickness certification; however, studies have shown that this task often is perceived as problematic.

Objective

To gain knowledge about what physicians' state they need in order to ensure high quality regarding sickness certification of patients.

Methods

A national questionnaire survey in 2008 to all 37,000 physicians working in Sweden about their work with sickness certification cases. The response rate was 61%, and all answers from physicians <65 years of age who had sickness certification tasks (n = 14,992), were analyzed. Main outcome measures: Physicians' ratings of importance of different types of continuing professional development and other measures for ensuring high quality in their work with sickness-certification.

Results

Many physicians (62%) valued contacts with fellow physicians in order to ensure high quality regarding sickness certification. About one third stated they valued the possibility to get a second opinion from a colleague, to be tutored, contacts with experts in insurance medicine, case officers at the SIO and coordinating meetings. A joint instrument for assessment of work capacity was indicated as "very beneficial" by 41%. One third stated that courses in insurance medicine would be very beneficial and one quarter found the newly introduced national sickness certification guidelines to be beneficial. Only a few rated educational strategies such as written information and conferences/seminars as beneficial. There were large variations in ratings between physicians of different specialties and educational levels.

Conclusions

A large rate wanted different types of tutorships in sickness certification cases. There are several measures aiming at increasing and improving continuing professional development that the physicians themselves held as beneficial.

Strong to Work - ill and resilient in primary care. Evaluation of a Dutch project on care innovation

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Background

General Practitioners (GPs) are often confronted with patients with problems concerning work, societal participation and lack of assertiveness or empowerment. However, GPs do not have enough time or sufficient skills to treat these patients effectively. 'Strong to Work - ill and resilient in primary care' (StW) regarded a project in which occupational physicians (OPs) worked in a primary care health centre for four-eight hours on average. GPs referred eligible clients to the OPs for help and the promotion of empowerment and self-management. A second goal of the project was to obtain more attention in primary care for occupational health and recovery of daily functioning.

Methods

Experiences of clients from StW and from an occupational health service (reference group = RG) were examined by questionnaire distributed immediately after the first consult, and again four months later (T0 response: n = 205 and n = 139, respectively). Moreover, repeated interviews were held with professionals to evaluate their experiences regarding this care innovation project.

Results

StW clients differed from RG clients regarding demographic characteristics. The StW group reported work-related problems more often, were less assertive and dealt more often with (work) stress. They experienced more health complaints and reported longer sick leave. Empowerment scores showed that StW clients were less resilient at T0 than RG clients. At follow-up, 75% of the StW clients reported reduced complaints and significantly increased empowerment score. In both groups, the appreciation of the OP support is high. The process evaluation shows that time is a limiting factor: consulting hours of GPs are too short to address work-related problems. Moreover, a project lasting only one year was too short to change GPs' behaviour.

Conclusion

There are clear differences in demographic characteristics between the two groups of clients. The StW clients appreciate the support and become more resilient. GPs learnt much from the OPs and vice versa. GPs pay more attention to occupational health, but the number of referrals is rather limited.

Influences of guidelines on crucial information in sickness certificates classified according to the International Classification of Functioning, Disability and Health. A comparative study of sickness certificates in Sweden

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Background

In Sweden and other western European countries the responsibilities of physicians include issuing sickness certificates with information on diagnoses, functioning and rehabilitation proposals. Descriptions of functioning as a result of sickness or injury are often poor. Sick leave guidelines for this information were implemented by the Swedish Board of Health and Welfare in 2008. The aim of this study was to investigate certificates regarding the description of patient's functioning and the prescribing of suggestions on early rehabilitation, before respectively after implementation of this guideline.

Methods

During two weeks in 2007 and 2009 all certificates were collected as soon as they arrived at the social insurance offices in Östergötland County, Sweden. Prolongation of a sick leave spell was included until the last date of sick listing. The text on functioning was analysed, in 475 certificates from 2007 and 501 certificates from 2009, using the International Classification of Functioning, disability, and health (ICF) as a reference. The text on rehabilitation prescribed in the first certificate, or within 28 days was analysed and defined as early rehabilitation.

Results

In 2007 two third of the certificates, 65%, had a description of functioning linkable to ICF, in 2009 more information, 78%, could be linked to ICF. Descriptions of functioning according to the body were given in 58 % respectively 65% of the certificates from 2007 and 2009. The activity component was more frequent in certificates issued in 2009 compared with those in 2007, 33% versus 26%. Also the prescriptions of early rehabilitation increased from 27% in 2007 to 35% in 2009, primarily due to more frequent prescriptions of counselling.

Conclusions

There is a tendency towards increased attention to activity limitations and prescriptions of early rehabilitation after implementation of the guideline. Still, improvements regarding rehabilitation proposals and descriptions of functioning are needed.

1.H. Round Table: The Year of Noncommunicable Diseases: Implications of the Global Movement for the European Region

Chairs: Dr Gauden Galea, WHO and Dr Iveta Nagyova, EUPHA

Organiser: WHO/EURO Division of Noncommunicable Diseases and Health Promotion & EUPHA section on Chronic Diseases

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Background

On 13 May 2010, the United Nations General Assembly (UNGA) passed resolution A/RES/64/265 on noncommunicable diseases (NCDs). This step is of historic significance in global health and development as the resolution calls for global and national action at the highest level to address this issue. To incite action to tackle the rising prevalence, morbidity and mortality of NCDs worldwide, the UNGA will be convening a High-level Meeting in September 2011 in New York, with the participation of Heads of State and Government, on the Prevention and Control of NCDs.

The European Region has been very active in the preparations for the UN High Level Meeting. A Regional High-level Consultation, hosted by the Government of Norway, was held in Oslo on 25–26 November 2010. The First Global Ministerial Conference on Healthy Lifestyles and NCD Control took place in Moscow on 28–29 April 2011. In addition, the 61st Session of the WHO Regional Committee for Europe that will take place in Baku on 12–15 September 2011 will consider a five-year NCD Action Plan and a ten year Alcohol Action Plan for Europe. All this is happening in the context of the development of a new European Health Policy (Health 2020) and a Public Health Framework for Action in WHO.

There has never been such a large global movement around the issue of noncommunicable diseases, and this is highly relevant for Europe, the Region that, alongside the Americas, leads the world in terms of burden. Many questions remain. How to make these global developments relevant to national governments? How to generate interest in sectors outside health, and sustain the political will to act? What does the outcome of these movements mean for health governance and for public health practitioners in Europe?

Workshop objectives

This WHO/EUPHA workshop will try to explore answers to these questions and to make the outcomes of the High-level Meetings better known within the EUPHA community. It will consider options for the way forward and the follow-up actions to be taken to identify scientific, education/training, practice and policy gaps, needs and challenges for public health to fight NCDs in the European region.

Speakers / Panellists

- *Dr Zsuzsanna Jakab, Regional Director, WHO Regional Office for Europe* "The New European Health Policy: Links with the emerging global NCD movement"
- *Dr Bjørn-Inge Larsen, Director-General, Norwegian Directorate of Health* "The year since Oslo: The emergence of a global movement"
- *Dr Michael Hubel, Head of Health Determinants Unit, DG SANCO, European Commission* "The Year of Noncommunicable Diseases from an EC perspective'
- *Dr Iveta Nagyova, President of the EUPHA section on Chronic Diseases* "Challenges and opportunities for EUPHA to take action to fight NCDs"
- *Dr Gauden Galea, Director, Division of Noncommunicable Diseases and Health Promotion, WHO Regional Office for Europe WHO* (panellist/ moderator}

1.I. Workshop: The introduction of new vaccines at the European level: challenges to optimise immunisation policies

Chair: Giuseppe La Torre, Italy
Organiser: EUPHA section on Public Health Epidemiology
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Vaccines represent some of the most important tools available for the prevention of diseases. In addition to protecting the vaccinated individual from developing a potentially serious disease, they may help protect the community by reducing the spread of the infectious agents targeted by the vaccine. Therefore, there are not only benefits for the single vaccinated individual, but also advantages for the entire community and the society. This very simple consideration makes unique the public health evaluation of vaccines, and with these substantial differences from other public health interventions there is a need to adopt different criteria to develop recommendations for use.

Assessing safety and efficacy of vaccination products in the field is an essential part of the success of any vaccination programme. Consequently, the impact of universal vaccination programmes to reduce disease burden is not much questioned in the scientific community. In addition to that, there are several aspects of the vaccination programme that have to be evaluated and carefully assessed, such as the disease burden, the technology, the epidemiological aspects, the economic, societal and ethical issues, in order to improve the overall quality of vaccination programmes.

At the European level, a paradoxical effect can be observed: while vaccines are licensed in the European Union with common indications, at the national level vaccination policies, immunization programme delivery services and health services infrastructures are quite different among European countries. Moreover, we have to take into account that countries use different methods to monitor vaccination coverage and adverse events, and this does not facilitate comparison between States. Moreover, we have to consider that in our Continent, the impact of national vaccination programmes goes beyond the national political borders. Lack of understanding of the different immunisation programmes within Europe due to insufficient communication might be a major impediment to optimising immunisation policies in all Member States.

The aim of this workshop will be to find possible convergence between the technology assessment and the industry perspective for the introduction of new vaccines at the European level, using the perspectives of the Institutional and Academic bodies, as well as of the Vaccine Companies.

National Health Technology Assessments in EU/EEA countries for the introduction of new vaccines. The example of pneumococcal vaccination from a VENICE survey

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Objective

The aim of this presentation is to evaluate if Health Technology Assessment (HTA) reports on pneumococcal vaccination could be conducted at the national level in EU/EEA countries. This work was carried out within VENICE activity, a European project in the field of vaccination sponsored by ECDC, involving 27 EU members plus Norway and Iceland.

Methods

During summer 2010, VENICE gatekeepers and HTA experts were asked to answer an on-line questionnaire exploring the availability of pneumococcal-related diseases data (assessments of costs, economic assessment/impact, ethical issues) at the national level and collecting information on National HTA agencies.

Results

Out of 29 eligible countries, 27 agreed to participate into the survey. 86% have at least one data source (hospitalization, laboratory database, surveillance system) on pneumococcal-related diseases, 48% have national publications. Direct costs are available in 72% of countries from at least one data source (hospitalization fees, outpatients services price, drug price list), and 69% have national publications. Indirect costs are available for 45%.

Cost effectiveness (59%), cost-utility (41%) and literature review (55%) are mainly used for economic analyses on this topic. Interestingly, 27% reported a threshold value to define the cost effectiveness at the national level. 52% of respondents declared HTA Agencies exist at the national level, mainly governmental bodies (73%).

Finally, 35% reported an HTA on pneumococcal vaccine already performed at the national level.

Conclusion

HTA is a tool used in some European countries only. A new proposal of a European HTA on pneumococcal vaccine should be launched to help the MS in the decision about this vaccine introduction in the schedule.

Improving the introduction (and implementation) of new vaccines in EU countries to maximise Public Health benefits – an Industry perspective

Christine Seigneu, Christelle Saint Sardos

C Seigneu, C Saint Sardos
European Vaccines Manufacturers

In every country, the introduction of a new vaccine in the immunisation programme undergoes a specific process, which reflects the public health nature of vaccines and vaccination. Despite some commonalities, the decision-making process differs from one Member State to another in Europe because of considerations such as: the local burden of disease and epidemiology, determination of specific populations which will particularly benefit from the vaccination, fit with the national schedule, or acceptance of vaccination.

The experience with recent introduction of new vaccines in Europe indicates that there are differences in the decision-making processes of EU member states and these may lead to discrepancies in time to implementation and population access to vaccination. Indeed, in the last decade, several new vaccines have received approval from regulatory authorities. However, according to a survey conducted by the EVM, population access to these vaccines has taken a considerable period of time in European countries. Notably in fact, for some countries or regions, the population still does not have access to all of these vaccinations.

Therefore, a cross-country comparison of the decision-making process in Europe is key to identifying "best practices" that optimise population access to vaccinations. In particular, there are principles (e.g. transparency) which could enhance vaccination decision making processes, by enhancing the efficiency of the overall existing system.

The EVM has been conducting this exercise and will present some of its findings/views on existing best practices regarding the introduction of new vaccines.

Panel Discussion

After the presentations, the speakers from Venice and industry, together with Member States representatives involved in the decision making process to introduce new vaccines in the national immunisation programmes, will be involved in a panel discussion giving their views on the conference's topic and comments on the presentations.

1.K. Workshop: How to collect data to improve the health of European citizens living in urban areas

Chairs: Arpana Verma, United Kingdom, Erik van Ameijden, The Netherlands and Chris Birt, United Kingdom
Organiser: EUPHA Section on Urban Health
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In Europe, 80% of the population now live in urban areas. Defining this population is difficult; studying the health of this changing population even harder and monitoring health for effective policy-making harder still. The European Urban Health Indicator System projects (www.urhis.eu), EURO-URHIS 1 (DG SANCO) and EURO-URHIS 2 (DG Research), have sought to define what factors are important for urban health and what is an urban area. Both project are co-funded by the European Commission.

From there, the discussion of what health determinants, risk factors and indicators are important to urban health became a priority. In previous workshops, the EUPHA Urban Health section has presented the preliminary work supporting these concepts and a review of current urban health projects.

The aims of the EURO-URHIS 2 project are to determine whether health data at urban level can be collected and whether the data can be used for urban policy making. The aim of the workshop is to describe the different data collection methodologies employed by the EURO-URHIS 2 project. We will also describe the different methodologies and the validation checks required to ensure comparability.

National data is often used where local data is not available for monitoring, comparisons and health policy. The project will demonstrate how inter-urban differences and urban-national differences are vast and bi-directional. This adds the legitimacy of urban health as a discipline within public health. All health indicators are not possible to be collected from only one data collection methodology. If policy is to be influenced, multi-modal qualitative and quantitative methodologies should be employed.

Currently, over 40 cities are collecting data for the EURO-URHIS 2 project. The methodology for data collection has proven successful in the majority of urban areas. The workshop will detail specific methodologies employed for the different types of data collection, as well as the pitfalls and strategies employed to ensure comparability of the data collected.

In summary, this workshop will focus on the data collection of the health indicators and development of the ideal methodology to collect comparable data at sub-national level.

EURO-URHIS 2: Collecting data for urban areas

Erik van Ameijden

E van Ameijden, C Birt, A Verma, on behalf of the EURO-URHIS 2 steering group
EURO-URHIS 2 steering group, www.urhis.eu

Background

The European Urban Health Indicator System 2 project (EURO-URHIS 2) is a study co-funded by the European Commission. It is targeted at comparing the health status and its determinants between urban areas, in order to guide evidence-based health policy choices. 45 indicators were chosen to be important for urban health. The data sources are postal surveys among adults; classroom-based youth surveys; compilation of existing data, contextual and meta-data; and health policy data. The aim of the project is to ascertain whether it is possible to obtain high quality and comparable data in urban areas in a variety of European and non-European countries, which can then be replicated.

Methods

The "ideal" protocols were developed based on literature, expert opinion and other contextual information. The first part of the project was to collect the existing data for 22 indicators. The adult postal survey followed an ideal evidence-based sampling and follow-up strategy. The sample was stratified by two age groups (19–64, >65 years) and gender. The a priori checklist ascertained expected local deviations from the "ideal" protocol. The classroom-based youth survey was developed for urban schools. Urban area partners received individual and group training to maximise comparability of the methodologies. Evidence-based eligibility criteria were set to decide whether the final results were sufficient to be included in benchmarking.

Results

Over 40 urban areas are part of the EURO-URHIS 2 project from 14 different countries (12 countries within Europe). Preliminary analyses show that 44 urban areas have collected data for some of the urban health indicators. The main reasons for failure were (delays due to) ethical regulations and lack of a random sampling frame for the postal survey.

Conclusions

It is possible to carry out sub-national data collection at urban area level. The EURO-URHIS-2 is the first comprehensive urban health monitoring study achieving this in the EU. International urban area comparisons are important for health policy as they will reveal a larger heterogeneity in health status and its determinants than within-country comparisons. The workshop will describe each of the data collection tools in detail.

EURO-URHIS 2: Collecting existing data for urban areas

Laurens van Buren

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Background

The EURO-URHIS 2 existing data collection tool collected data on 22 urban health indicators from 44 diferent urban areas. The main question is whether it is possible to obtain high quality and comparable data on the urban level from existing data sources. A supplementary aim was to compare the data collected at urban area level to country level existing data.

Methods

The development of the indicator list started with the 39 indicators recommended as the result of EURO-URHIS 1 together with a comprehensive search of the literature for other indicators. The piloting of the data collection tool asked all partners the availability of the indicator using the specified definitions of the indicator. This included specific age ranges and time periods to qualify for inclusion. In order to maximise the quality and comparability of data, urban area partners received training for the data collection. All included countries had the national level data collection of all indicators performed by the co-ordinating partner to ensure the same data sources were used. Extensive quality checks were performed during and after data collection.

Results

Data has been collated for 44 urban areas and 13 countries in the EURO-URHIS 2 project. The preliminary data has undergone extensive quality checks with queries to the partners. The data was then re-entered and revalidated. Country to urban area comparisons revealed the legitimacy of collecting data at urban area level. This is because national level data masks the large differences between urban areas within the same country and the national indicators are very different to the city level data obtained.

Conclusion

Existing data at national level do not reflect the health of urban populations. It is essential to collect data at urban area level to study urban health. Existing data sources for health indicators are present for the majority of urban areas. Stringent quality criteria and intensive checks are needed to guarantee sufficient quality and comparability of data. Comparison of urban health data with national data is important, as are inter-urban differences when considering urban health policies.

EURO-URHIS 2: Collecting adult data for urban areas

Elisa Puzzolo

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Background

The EURO-URHIS 2 adult data collection tool collected data from 33 urban areas (UA) from 11 participating countries. The main question is whether it is possible to obtain high quality and comparable data on the urban level from a postal survey.

Methods

A standardised questionnaire (translated and back-translated into the languages of participating urban areas) was developed based on the urban health indicators (UHI) list identified as part of EURO-URHIS 2, relevant to adults living in UAs. After detailed literature review, a methodology was employed in order to collect reliable, comparable UHI information relevant to young people living in urban areas across the EU. A cross-sectional postal survey was used with questionnaires being mailed to individuals randomly (stratified by age: 19–64 years and 65+ years) selected from the best available population register (representative of adults from each UA) for the 32 participating UAs. Based on an a priori sample size calculation 666 individuals (333 from ages 19–44 and 65+ years) were required from each UA to obtain robust estimation of one of the core UHIs. Based on published response rates from health surveys across the EU 1600 questionnaires (800 for each age group) were initially mailed to random samples of adults from each UA. To maximise response rates, up to two additional mailings were carried out to non-responders after 2 week intervals with telephone calls being made to persistent non-responders (questionnaires completed over the phone if possible). Training in this methodology was provided to all partners at two workshops. The questionnaire and methods were successfully piloted in two UAs in the UK.

Results

Data for 32 UAs has been collected, entered and cleaned; a total of 19,179 records. A total of 777 questionnaires (4.1%) had less than 75% completion. 17 of the 32 UAs achieved a response rate in excess of 30%. In the UK surveys were delayed due to delays in legislative approval and so intensive follow-up of non-responders is currently being undertaken.

Conclusion

This phase of EURO-URHIS 2, collection of standardised UHI data at an individual level in the adult population for urban areas across the EU, has been successful. The data will provide valuable information on health and health determinants for adults living in urban areas in Europe and will be presented to policy makers in relation to health related policy decision making.

EURO-URHIS 2: Collecting adult data for urban areas

Joyeeta Guha

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Background

The EURO-URHIS 2 youth data collection tool collected data from 33 urban areas (UA) from 11 participating countries. The main question is whether it is possible to obtain high quality and comparable data on the urban level from a postal survey.

Methods

A standardised questionnaire (translated and back-translated into the languages of participating urban areas) was developed based on the urban health indicator (UHI) list identified as part of EURO-URHIS 2, relevant young people aged 14–16 years. After detailed literature review, a methodology was employed in order to collect reliable, comparable UHI information relevant to young people living in urban areas across the EU. Training in this methodology was provided to all 11 EU partners at two 3 day workshops. The questionnaire and methods were successfully piloted in two UAs in the UK. A stratified cluster randomised approach was recommended with schools (clusters) being selected to represent the population of 14 to 16 year olds within each UA. The required sample size was calculated to be 400 school children from each UA (to be ideally selected from up to 2 classrooms from 10 randomly chosen participating schools). Questionnaires were completed during the course of one lesson at each school (approximately 45 minutes) with height and weight measurements being taken from consenting pupils (using standardised equipment).

Results

Data for 27 UAs has been collected, entered and cleaned; a total of 13,662 records. Only 729 (5.3%) of the questionnaires had less <75% completion. Measured height and weight (and calculated BMI) was only available for 38% of the total participants (primarily in the UK) with self-reported height and weight being available for 81% of pupils. Data collection is ongoing for a further 6 UAs to meet the required sample size. It was not possible to follow the ideal methodology in many of the UAs due to low willingness to take part by a number of schools. For these UAs a pragmatic approach was adopted with additional classrooms being selected from participating schools.

Conclusions

This phase of EURO-URHIS 2, collection of standardised UHI data at an individual level in the youth across the EU, has been successful. The data will provide valuable information on health and health determinants for young people living in urban areas in Europe and will be presented to policy makers in relation to health related policy decision making.

1.L. Competencies in health

Distinct associations in grandparents' morbidity, mortality and birth-weight of their grandchildren: Lifeways Cross Generation Cohort Study, Republic of Ireland 2001–2010

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Background

The association of infants' birth-weight (BW) with cardiovascular diseases and mortality of their adult relatives supports foetal origins hypothesis. We prospectively examine this relationship with grandparents in a unique three-generation familial cohort.

Methods

In 2001 a cohort of 1082 families was established at antenatal stage. At baseline 1231 grandparents provided their diagnosed status on myocardial infarction (MI), stroke and diabetes; and underwent anthropometric, blood pressure and lipid profile measurements. In 2005, their general practitioners provided an update for 731 grandparents. In 2010, the death registry search at the General Registrar's Office confirmed 85 deaths since baseline. The odds of grandparents having diseases, per 100 gram(g) increment in grandchildren's BW were examined by logistic regression. Difference in adjusted mean BW of grandchildren between diseased and non-diseased grandparents was examined by ANCOVA. Clinically measured predictors were examined by linear regression. Hazard ratios for all-cause mortality were calculated with Cox regression. Models were adjusted for child's characteristics (gestational age, gender), grandparent's characteristics (age, smoking, height, education, waist:hip ratio or body mass index (BMI)) and maternal prenatal characteristics (age, parity, smoking, height, BMI, education).

Results

Infants' BW was inversely associated with all grandparents' MI [OR(95%CI)=0.88(0.79–0.98)]. Mean BW for infants of maternal grandparents with diabetes {−371[(−666)-(−76)]g} and stroke {−244[(−500)-(+13)]g} was lower to those without. Conversely, paternal grandparents' having stroke or diabetes was associated with higher BW. The paternal grandfathers' systolic blood pressure (mmHg) [β(95%CI)=6.6(0.8–12.5)] and paternal grandmothers' serum triglycerides (mmol/L) [β(95%CI)=78.8(7.0–150.7)] were linearly predictive of infant's BW, which was not observed for maternal grandparents. Infants' low BW (<2500 g) was associated to maternal grandparents' mortality [HR(95%CI)=1.7(0.4–8.2)], whilst paternal grandfather's mortality was associated to infants' higher BW (≥4000grms) [HR(95%CI)=4.9(1.2–19.9)].

Conclusions

These findings suggest that inter-generational transmission of risk differs in maternal and paternal lines.

Enhancing resilience and disaster preparedness through community development and the social determinants of health, The EnRiCH Project, Canada, 2009–2013

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Background

Recent disasters such as the tornados in the southern U.S., the earthquake/tsunami in Japan, the earthquake in Haiti, and flooding in Pakistan and Australia are salient reminders of how disasters disproportionately impact marginalized and high-risk populations with functional needs. Community engagement is essential when developing intervention strategies to enhance community resilience to address these needs, and to protect and promote the health of populations which are at higher risk for negative health outcomes. The purpose of this presentation is to highlight findings from needs assessments conducted as part of The EnRiCH Project, which is a community-based participatory research project focused on enhancing resilience and preparedness for high risk populations in several communities in Canada.

Method

Nine focus groups (N = 143) were conducted across 5 communities to determine what strengths / assets the communities could draw on to design interventions to address gaps in preparedness and promote resilience for disasters. The focus groups were facilitated using the Structured Interview Matrix format to enable participation of a wide variety of community stakeholders, including representatives from emergency management and social service organizations, and members of the community who represent high risk populations. Each focus group was 4.5 hours in duration. The field notes and transcripts of the discussions were transcribed verbatim, coded, and analyzed for emergent themes.

Results

The findings suggest that public education, social engagement, inclusive planning, and multi-sectoral collaborative action can be used to address daily vulnerability and promote resilience among high risk populations in disasters. The communities identified communication and lack of awareness as key weaknesses which should be targeted for community resilience and disaster preparedness interventions.

Conclusions

Many of the gaps identified by these communities align with the social determinants of health and can be targeted to promote enhanced quality of life on a daily basis, while enhancing resilience for disasters. The next steps for The EnRiCH Project are to design, implement and evaluate community interventions in these communities.

Sleep duration in European children- Differences and determinants

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Introduction

Recent studies suggest an association between sleep duration and diverse health outcomes already in childhood. Though data on sleep duration in children and recommendations for reference values for a 'normal' sleep duration are available from several countries and different agegroups, comparability of these data is limited due to different study designs and methods and might be biased by regional determinants. In the context of a multi-centre study we analysed the effect of diverse factors on children's sleep duration.

Objectives

Compare sleep duration in European children and identify determinants.

Methods

In the context of the IDEFICS-Study we collected information on sleep duration from 8542 children, aged 2–9 years from eight European countries. Sleep duration was assessed by a uniform parental 24 h-Recall. Information on personal, psycho-social, behavioural and environmental factors was collected with a standardized parental questionnaire. Analysis of variance was conducted for comparison of sleep duration in participating countries, while mean values of sleep duration adjusted for sex, age and lifestyle factors were estimated using linear regression models.

Results

The strongest effect on sleep duration could be seen for country affiliation: adjusted means ranged from 9.7 h (99% CI 9.6; 9.8) in Italy to 11.2 h (99%-CI 11.0; 11.3) in Belgium. Differences between countries resulted significant ($p < 0.001$), showing a clear gradient between northern, eastern and southern Europe, with the longest sleep duration in northern countries. Pre-school children had an about 18 in. (99%-CI 12.0; 24.0) longer sleep duration than school children, while no or only marginal associations with parental education level, migration background, screen time or physical activity could be observed.

Conclusion

Our results support the hypothesis that regional affiliation is one of the main factors that influence sleep duration in children. This should be kept in mind when defining a 'normal' sleep duration, whereas the quantification of sufficient sleep duration should correspond to health related outcomes.

Sex differences in coverage of influenza vaccinations in subjects with diabetes mellitus and ischemic heart disease: trends over two decades

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Background

Vaccination is an important public health strategy to prevent adverse health outcomes in the general population and in subjects with chronic diseases. It was the aim of this study to compare data on coverage of influenza vaccinations in men and women with diabetes mellitus and after myocardial infarction (MI) and to analyse trends over time.

Methods

Analysis of three different population-based interview surveys, representative for the Austrian population, all performed by Statistik Austria: 1991, 1999 and 2006–07. Sample sizes were 46,126, 48,563, and 15,474 subjects, respectively.

Results

The data show a rise in the influenza vaccination coverage rate in the general population from 5.7% to 22.0% in men and from 6.3% to 20.6% in women. There was also a rise in the coverage of influenza vaccination in men and women with diabetes mellitus and after myocardial infarction. However, rates in all analysed groups were strikingly low. Although in earlier surveys women were vaccinated more often than men, there was a reverse trend observed in the most recent survey. The proportion of men with diabetes who were currently protected by influenza vaccination in the three surveys was 14.0%, 21.2%, and 39.0% and the respective proportion in women was 12.0%, 26.7%, and 30.2%. The proportion of men who have had a myocardial infarction and were currently protected by influenza vaccination was 19.0%, 32.0%, and 41.6% and the respective proportion in women was 7.9%, 35.0%, and 21.4%. In the survey of 2006–07, men with diabetes or after MI had a higher chance of being vaccinated against influenza when compared to men without these diseases (age adjusted OR 1.61; 95% CI 1.29–1.99 and 1.61; 95% CI 1.21–2.15, respectively). This was, however, not the case in women (OR 1.10; 95% CI 0.89–1.35 and 0.87; 95% CI 0.58–1.33, respectively).

Conclusions

These sex-specific differences demand more research regarding the underlying causes. It is not clear whether men with chronic diseases are provided with vaccination more often, or if women have an adverse attitude towards vaccination and more often decline recommended vaccinations. Strategies to reach higher vaccination coverage in the general population as well as in men and women with chronic diseases are needed.

Gender differences in health-related quality of life using the EQ-5D instrument - A follow up study in Central Sweden

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Background

An increasingly ageing population in Europe is associated with common public health diseases, which may lead to not all years lived will be with full health. Therefore, it is of concern to address quality of life in relation to chronological age. The aim of the present study is to investigate if health-related quality of life (HRQoL) has changed between 2004 and 2008 by gender and age in central Sweden.

Methods

HRQoL using the EQ-5D instrument was included in year 2004 ($n = 9{,}399$) and 2008 ($n = 9{,}558$) cross-sectional study. Following adjustment for demographic and life-style factors, survey-weighted logistic and linear regression was used to assess HRQoL between the two surveys. The EQ-5D instrument includes information on five dimensions and an overall index (0 = dead, 1 = full health).

Results

In year 2008, 49.1% men and 55.5% women had problems with pain/discomfort, which was significant lower for men compared to 2004 ($p = 0.034$). Following adjustment for demographic and life-style factors, the likelihood of problem with the EQ-5D dimensions was significant lower in year 2008 for all dimensions except mobility in men (OR 1.04; CI 95% 1.01–1.08) and self-care in women (OR 1.72; CI 95% 1.53–1.93). The EQ-5D index increased from 0.835 to 0.846 ($p = 0.375$) and 0.797 to 0.804 ($p = 0.810$) for men and women in 2008, respectively. In multivariate linear regressions, a significant increased EQ-5D index was observed in year 2008 among men ($p < 0.001$), but not in women ($p = 0.820$). In analyses stratified by gender and age, a significant increased HRQoL was observed only for elderly (50–84 years) men ($p < 0.001$).

Conclusions

Our findings indicate an increased health-related quality of life over time, particularly among elderly men. However, health inequalities between elderly men and women increased over time and could not entirely be explained by demographic and life-style factors. The results provide important information for policy makers concerning allocating of the social resources to minimize health inequalities.

Differences in diagnoses between non-western immigrants and native Dutch in GP practices: interaction with deprivation

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Background

Differences in health needs between immigrants and natives are associated with ethnicity as well as with socio-economical characteristics. To what extent do non-Western immigrants (including descendants) and native Dutch in deprived areas and non-deprived urban areas vary in terms of health problems presented to their GP?

Methods

Data collected in 74 GP practices through their electronic patient records are linked with data from Statistics Netherlands. 80% of the records were linked. Western migrants were excluded. ICPC codes were clustered into disease chapters. A disease was prevalent if during a period of one year at least one consult mentioned one of the codes from a cluster. Logistic regression was used to study differences in disease prevalence between non-western immigrants/descendants and native Dutch, controlled for age, gender, socio-economic background and interaction with deprivation.

Results

We analysed data from 61,503 native listed in the practices and 13,628 with a migrant background. 10,169 lived in deprived areas. Significant interaction with deprivation was found in the differences in prevalences of diseases related to blood (OR 1.1 in deprived areas, OR 1.8 in non-deprived), tractus digestivus (OR 1.8 vs 1.5), eye (OR 1.8 vs 1.4), ear (OR 0.9 vs 0.7), psychic problems (OR 0.6 vs 0.96), tractus respiratorius (OR 1.5 vs 1.2) and social problems (OR 0.5 vs 1.4).

Conclusion

Differences in health problems presented to GPs between non-western migrants and native Dutch remain after controlling for socio-economic status and interact for many disease groups with deprivation. Differences in both directions between natives and immigrants are often bigger in deprived areas.

1.M. Women and health 1

Factors affecting the use of prenatal and postnatal care by women of non-western immigrant origin in industrialized western countries

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Background

In many industrialized western countries immigrants constitute a substantial part of the population, which is also seen in the prenatal and postnatal care client population. Research in several industrialized western countries has shown that women of non-western immigrant origin make inadequate use of prenatal and postnatal care. They do not enter timely and/or do not attend all appointments. Several quantitative and qualitative studies in western industrialized countries have investigated factors affecting the use of prenatal and postnatal care by women of non-western immigrant origin. The quantitative studies focused among others on socioeconomic and cultural factors, and the qualitative studies focused among others on experiences and expectations. By taking both quantitative and qualitative studies into account, this systematic review aims to provide a more in depth understanding of the factors affecting the use of prenatal and postnatal care by women of non-western immigrant origin in industrialized countries.

Methods

A systematic review of literature published between 1995 and August 2010 was performed in 11 databases and resulted in 6295 titles. A three stage screening process consisting of title, abstract and full text screening was conducted. Each selected abstract and article was screened independently by two reviewers. Data were synthesized by use of narrative and tabular methods.

Results

Preliminary results show that cultural factors such as language, accessibility to services such as making appointments and health beliefs such as considering pregnancy not needing special attention, affected the use of prenatal and postnatal care by women of non-western immigrant origin in industrialized western countries.

Conclusion

These preliminary results indicate that different specific types of factors need to be taken into account when developing measures to reduce inadequate use of prenatal and postnatal care by women of non-western immigrant origin in industrialized western countries.

Maternity outcomes amongst Polish migrants in Scotland – compared to Scottish and Polish data

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Background

Migrant groups in Europe can experience excess maternal morbidity. Migration from Central/Eastern Europe to other EU countries has increased a lot since 2004. Few studies have assessed the maternity experience of migrants. In Scotland, Poles are the largest migrant group and qualitative research suggests they have different expectations of healthcare from Scottish women which may result in treatment differences. Poland has more medicalised maternity care than Scotland. We have compared access to care, treatment and maternity outcomes in Polish and Scottish born women.

Methods

NHS Scotland holds detailed information about maternity care and maternal country of birth is collected by National Records of Scotland. We matched these two datasets to identify mothers born in Poland and Scotland and extracted mode of delivery, analgesia use, gestation, birth weight and proportion of live births for singleton deliveries and adjusted for age, BMI and smoking for 2004–2009.

Results

We examined 4512 births to Polish mothers. Polish migrants were younger, lighter, smoked less but booked later (11.2% after 20 weeks vs 5.3%) than Scots. Caesarean section was less likely (19.4% vs 25.3%) for primiparous singleton deliveries and forceps/ventouse more likely (21.3% vs 16.7%). Pregnancy outcomes were better in Poles with fewer antenatal admissions of ≥ 3 days (2.1% vs 3.6%), fewer low or very low birth weight babies (4.7% vs 6.5%) and fewer neonatal admissions. Access to analgesia choices in labour was similar for the two groups.

Conclusion

Polish migrants do not experience an overall increase in invasive medical procedures. Reduced Caesarean section rate and favourable birth and maternal outcomes in the Polish population, may be due to the 'healthy migrant' effect, Poles generally being healthier than Scots or residual confounding. Later booking may reflect women's arrival in UK while pregnant and/or not understanding its importance. While the rate of spontaneous deliveries is similar between Scots and Polish migrants the reasons for excess instrumental deliveries in Poles are unclear and interesting. The high rate of Caesarean section in Poland may reflect prevailing maternity care culture there.

Induced abortions in the European Union

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Background

The induced abortion rate is an important reproductive health indicator reflecting cross-country differences in legislation, health services, contraceptive coverage and social conditions, as well as in religious and other beliefs and attitudes. We studied the current legislation and trends in induced abortion rates in the European Union (EU).

Methods

Detailed information on the legislation was collected for all 27 EU member states. Statistical information on abortion rates was compiled from national (n = 17) and international sources (n = 24) until 2008. No data were available for Austria, Cyprus and Luxembourg.

Results

Abortion legislation varies widely in the EU. Ireland, Malta and Poland have very restrictive laws. Luxembourg allows pregnancy terminations for physical and mental health indications. Access to abortion is also allowed for socioeconomic reasons in Cyprus, Finland, and United Kingdom. In the other EU countries (including Spain from July 2010) induced abortion can be performed in early pregnancy on women's request. In general, induced abortion rates have declined in recent years. In 2008, the 24 EU countries with available data reported 1.2 million induced abortions equalling 10.3 abortions per 1 000 women aged 15–49 years. The rate was 12.3/1000 for countries requiring a legal indication and 11.0/1000 for countries allowing induced abortion on request, but the country variation was large in the latter group. By region, Northern Europe (10.9/1000) and Central and Eastern Europe (10.8/1000) had somewhat higher officially reported induced abortion rate than Southern Europe (8.9/1 000). Northern Europe also reported substantially higher rate of teenage abortions. These comparisons, however, need to be discussed with caution given the variation in abortion reporting systems across the EU.

Conclusions

Our results show no clear link between legislative restrictions and abortion rates. The rather large country variations in rates suggest that induced abortion rates can be lowered in most countries without resorting to legal restrictions. More consistent and coherent reporting of induced abortions is needed, both at national and European level.

Deciding treatment for miscarriage in first trimester - experiences of woman and health care professionals

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Background

Estimated 20% of all pregnancies end as miscarriage. These women are often given the choice between medical treatment at home or surgical treatment during hospitalization. The rationale for treatment preference for miscarriage is not well understood, and no studies have assessed the experiences of the woman and her health care providers during the decision-making process. Knowledge about choice of treatment has public health relevance, because it is important to know how patients experience autonomy to support their involvement in decision-making.

Methods

Qualitative designed study including observation and 11 semistructured interviews with women, who had chosen and completed treatment for miscarriage and health professionals involved in the decision-making process at Dept. of Gynaecology, Rigshospitalet, Copenhagen. Data collection and analyses were based in Grounded Theory.

Results

Women choosing surgical treatment typically feared seeing the foetus, while those choosing medical treatment feared anaesthesia. The women had difficulties using the carefully given information and counselling, which complicated the decision-making process. Time pressure and emotional distress may have contributed to this. The decision-making process consisted of a spoken layer and unspoken layer. For the women the unspoken layer comprised feelings of guilt and shame, irrational considerations and meaning-based coping. For health professionals, the unspoken layer consisted of different priorities for providing information. During the decision-making process the women used different coping strategies to find meaning in the experience. The women's acceptance of treatment was high, in so far as they did not regret their choice two weeks after treatment.

Conclusion

For women experiencing miscarriage, choice of treatment was grounded in irrational beliefs. This may be the result of coping in the specific decision-making context. Because of unspoken thoughts and needs, information meant to guide did not target to the women's needs. These findings can inform health professionals in clinical practice, and suggest that a proactive dialog is established with the woman about her considerations in choice of treatment and its expected course.

Relative risk of stillbirth among women of different regions of origin compared to German women: an analysis of the German perinatal database, 2004–2007

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Background

Stillbirth is a sensitive indicator for access to, and quality of health care and social services in a society. Higher rates of stillbirth might be an indication for social deprivation or barriers to health care. We examined risk of stillbirth among women of different regions of origin compared to German women in order to identify high risk groups/target groups for prevention strategies.

Methods

We used data from the nationwide perinatal database covering more than 90% of all births in Germany. Data on all live and stillbirths were obtained for 2004 to 2007 (N = 2,670,048). We calculated crude and stratified mortality rates as well as corresponding relative mortality risks.

Results

A significantly elevated risk of stillbirth was found for women from the Middle East/North Africa (incl. Turkey), especially amongst those with a low social status (RR 1.29, 95 % CI 1.17–1.42). A slightly elevated risk was found for women from Asia (RR 1.18, CI 1.02–1.65) and from Mediterranean countries (RR 1.14, CI 0.93–1.28).

After stratification women with a preterm birth with low birthweight originating from Eastern Europe or the Middle East/North Africa experienced a 26 % (43 %) higher risk of stillbirth compared to German women. Light-for-date births seem to contribute to a higher risk of stillbirth especially for women from the Middle East/North Africa (RR 1.63, CI 1.25–2.13). Considerable differences in use and timing of antenatal care were not observed.

Conclusion

We found differences in risk of stillbirth among migrant groups in Germany, with a higher risk among women from the Middle East/North Africa and especially among those with a low social status and light-for-date births. These findings lend support to planned efforts to develop and evaluate culturally sensitive health promotion and prevention programmes for pregnant women with low education and originating from North Africa, the Middle East and Turkey. Further studies should investigate differences in quality of antenatal care, especially regarding the screening and treatment of small- or light for dates.

Knowledge and attitudes of medical students and students of social work about violence against women in partnership

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Background

In WHO World report on violence and health (2002), violence is a global public health problem, particularly violence against women in partnership. Report illustrated the severity of health consequences for victims, perpetrators or witnesses and huge economic cost for society. In 2005, Croatia developed National Strategy aiming to raise public health awareness, with emphasis on education and changing attitudes of future professionals in different sectors. Unfortunately, this topic is not included in regular curriculum for medical school and modestly in school for social work. The aim of this study was to assess the knowledge and attitudes towards partnership violence against women of those students at the end of their studies and to find out the differences between them, if any.

Methods

The surway was conducted on last-year students at Zagreb University (medical students - total number 130, and students of social work - total number 75). The students were asked to complete an anonymous questionnaire with 10 statements about the term ''abused women'', 3 questions on prevalence of domestic violence against women and 11 statements on attitude towards violence adapted to a 1–5 Likert scale.

Results

There is no significant differences between medical and social work students in knowledge and attitudes towards abused women (p = 0.654). However, social work students were more accurate in defining the partnership violence. They were also more aware about the prevalence of this public health problem and majority of them assumed that physician come in touch with abused women every day (60%). Medical students presumed that those visits take place only few times a year. About 40% of all students felt helpless in contact with abused women because they didn't know how to help her and even 50% knew to get angry if women undertakes nothing against further abuse. Social work students had shown more confidence in solving the problem.

Conclusions

Awareness on this problem still depends mostly on student's personal attitude and motivation. There is still a lack of adequate training program for both students. Comprehensive, integrated and intersectoral education is prerequisit for their collaborative interventions in everyday practice.

1.N. Tobacco use: a never-ending story?

Conceiving of the end of tobacco use

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Issue

While ideas on how to end the tobacco epidemic have been proposed (with various 'tobacco endgame' strategies), there has been little analysis of definitions, commonalities and necessary context for such strategies.

Description

Examples of government endgame thinking include the Finnish objective of ending 'the use of tobacco products in Finland', the US 'vision of a society free from tobacco-related death and disease', and the New Zealand smokefree goal for 2025.

Results and lessons

These and other scenarios suggest that an endgame for the tobacco epidemic might have one or more of the following as critical components: defined targets (eg, zero or close to zero prevalence of tobacco use), ending of commercial sale of tobacco (after a phase-out period), and tobacco use being substantially denormalised in society, with virtually nil exposure of children to observable tobacco use.

In addition, we suggest that effective endgame strategies will have the elements of: (i) Having an explicit government intention and comprehensive planning to achieve the target goal; (ii) A clearly stated government 'end' target date for commercial sales within a maximum of two decades; and (iii) Mechanisms to ensure the continued availability of non-tobacco nicotine.

Tobacco endgame plans are most likely to be implemented in jurisdictions with relatively 'low' smoking prevalence (under 15% adult smoking), strong political leadership for public health, and/or relatively rapid reductions in prevalence. Some jurisdictions have or are likely to soon achieve a prevalence of under 15% (eg, California, Canada, Sweden), and thus may be particularly well placed for detailed endgame planning by governments. Other supportive factors for an endgame may include wide public understanding and support of the need for an end to tobacco use. Survey data on public attitudes, and good communication of this evidence to policy-makers, will be important. International cooperation and WHO leadership would be likely to help substantially.

Additional practical issues which may need to be addressed include: how to deal with tobacco grown for personal use; tobacco smuggling in jurisdictions where this is a major concern; and how non-tobacco nicotine product supply is organised and regulated.

Looking at the smoking epidemic through the lens of population pyramids: Italy, 1983–2005

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Background

Surveillance systems usually present data using both age-standardized and age-specific rates, without displaying the absolute number of diseased or at-risk subjects, or its decomposition according to socio-demographic characteristics. We aimed at comparing information deriving from commonly used surveillance methods with that presented in modified Population Pyramids (PPs), using the example of the diffusion of smoking in Italy over the past 2 decades.

Methods

Data were derived from 4 National Health Interview Surveys carried out in 1983, 1990–1991, 1999–2000, and 2004–2005. First, we computed age-standardized and age-specific rates of current, former and never smoking. Second, after estimating the absolute number of adult subjects in each age, sex and smoking category, we constructed modified PPs by stratifying each bar of the two histograms which compose the PP according to smoking status.

Results

Modified PPs showed several features of the smoking epidemic in Italy which were not apparent from conventional surveillance techniques. First, they showed that the population of smokers is aging, with most current smokers in 2005 being males aged 30–39 and females aged 40–49, whereas in 1983 most smokers belonged to the youngest age groups. Second, they showed that in 2005 most smokers were found among subjects with middle and higher education, whereas 2 decades earlier most smokers were (male) subjects with the lowest education. This latter finding did not emerge from the traditional analysis of age-specific rates of smoking, which instead revealed an increasing concentration of smoking over time among the lowest educated.

Conclusions

Modified PPs are able to show how absolute numbers are distributed by age and sex, how they vary between population subgroups, and how they change over time. They may help provide information on future trends in the absolute number of smokers, as well as their socio-demographic characteristics, which may be missed by traditional surveillance methods.

Cannabis, schizophrenia and other psychoses: 37 years follow-up of a population-based cohort

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Background

There is now strong evidence that cannabis use increases the risk of psychoses including schizophrenia but mechanisms and pathways are poorly known. Aims:To assess types of psychotic outcomes after use of cannabis in adolescence and variation in risk over time.

Methods

Cohort study of 50087 military conscripts with data on cannabis use in late adolescence were followed up during 37 years with regard to inpatient care for psychotic diagnoses.

Results

Odds ratios for schizophrenia among frequent cannabis users were 3.7 (2.3–5.8), for Brief Psychosis 2.2 (1.0–4.7), and for other psychoses 2.0 (0.8–4.7). Risk of schizophrenia declined over the decades in moderate users but much less so in frequent users. The presence of brief psychosis did not increase risk of later schizophrenia in cannabis users.

Conclusion

We confirmed increased risk of schizophrenia also in long term perspective, although the risk declined over time in moderate users.

Children's exposure to environmental tobacco smoke in the Capital Region of Denmark, from 2007 to 2010

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Background

There is evidence that children exposed to environmental tobacco smoke (ETS) have higher incidence of asthma, ear- and throat disease, lung symptoms as cough, wheezing and pneumonia, decreased lung function and increased risk of admittance to hospital. A child exposed to ETS has about 30% higher risk of absence from school due to illness. The aim was to look at temporal changes in indoor smoking in homes with children. Furthermore we wanted to investigate trends in ETS according to educational level of the smoking parent.

Methods

Two cross-sectional population-based surveys of 25 to 79-year-old inhabitants were conducted in The Capital Region of Denmark in 2007 (N = 69.800, response rate 52.3%) and 2010 (N = 95.150, response rate 52.3 %). Information on exposure to ETS was collected from self-report questionnaire. Information on socio demographic characteristics was obtained from central registers. Data was analysed by multiple regression analyses. ETS was defined as self-reported indoor smoking in homes with children, aged 15 or less.

Results

Sixteen percent of the smokers living with children reported to smoke indoor in 2007. This decreased to 12% in 2010. At both times we saw a significant socio economic trend. The lower education of the smoking parent the higher was the exposure to ETS. Thirty three, 18% and 8% of smoking parents with short, medium and long education, respectively, were exposing their children to ETS. There was a large difference in temporal changes within municipalities. In most municipalities exposure to ETS had decreased over three years, mean change was -5.3%. The highest increase over three years in exposure to ETS was 2% and the highest decrease was -14.3%.

Conclusion

There has been a small decrease in children's exposure to ETS in the Capital Region of Denmark from 2007 to 2010, but a large social gradient persists. One out of three children in families with parents with low education is still exposed to ETS. There is a great challenge in identifying and educating high-risk families in order to protect children from exposure to ETS. General praxis, nurses and doctors in hospitals, nurseries etc. should increase their focus on children's exposure to ETS, as ETS is a very important risk factor for bad health in childhood.

Is the workplace an effective platform for recruiting to smoking cessation classes

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Background

The majority of Danish smokers express interest in receiving support in their efforts to quit cigarette smoking however the enrollment in smokingcessation courses has been falling. The aim of this study was to address this paradox.

Objective

The purpose of the study was to examine whether a brief introduction to smoking cessation at work is an effective method to recruit smokers to cessation classes.

Material and methods

A cluster randomized design was used with each company being a cluster. 66 private and public companies in the town of Herlev agreed to participate out of 218 companies contacted. Inclusion criteria: Company size of min. 10 employees of whom at least 2 were smokers. Copenhagen Trial Unit, conducted the randomization of companies after stratification by company size and smoking prevalence. 33 companies were randomized to the intervention group and 33 to the controlgroup. Both groups were offered smoking cessation classes free of charge. The intervention group were in addition offered a 45 minute motivational presentation as an introduction to smoking cessation. This presentation constituted the intervention.

Results

Presentations were held at 23 of the 33 intervention companies. In the intervention group 12 smoking cessation classes were established. All 12 were among the 23 companies where introductional presentation had been held. In the controlgroup 1 smoking cessation class was held among the 33 companies. The difference in numbers of smoking cessation classes among the intervention and controlgroups was significant (P value < 0.001). The rate of continued 6 month abstinence from cigarette smoking among the participants in the smoking cessation classes was similar to that of the regular smoking cessation classes offered in the same town during the same period, 24 % and 23 % cessation rates respectively.

Conclusion

This study supports the theory that the workplace is an effective arena to help smokers quit. A motivational presentation on smoking cessation was followed by a significant increase in smoking cessation classes compared to a control group of companies.

Easy access to smoking cessation classes seems to increase attendance. The method is in the process of being implemented in other parts of Denmark.

The changing contribution of smoking to educational differences in life expectancy: estimates for Finnish men and women from 1971 to 2005

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Background

Major socioeconomic differences in mortality are observed in high income countries. While smoking remains one of the major single causes of mortality, its contribution to levels and trends in socioeconomic differences in mortality remains unclear. We present estimates of the contribution of smoking to educational differences in mortality and life-expectancy between 1971 and 2005.

Methods

Census records linked with death records for 1971–2005 for all Finnish men and women aged 50+ years were studied. Our estimates of smoking-attributable mortality are based on an indirect method developed by Preston et al in 2010 that uses lung cancer mortality as a proxy for the impact of smoking on mortality from all other causes.

Results

In the early 1970s smoking attributable deaths constituted about 27% of all male deaths above age 50 and 17% in the early 2000s; 1% and 4% among women respectively. At age 50 life-expectancy differentials between men with basic versus high education increased from 3.4 to 4.4 years. In the absence of smoking these differences would have been 1.5 and 3.1 years, 60% and 25% less than those observed. About half of the increase in life-expectancy at age 50 among men with basic education was attributable to a decline in smoking-attributable mortality. Among women the contribution of smoking to educational differentials in mortality was negligible in the 1970s but increased to about 10% in the early 2000s.

Conclusion

Smoking continues to have a major influence on educational differences in mortality among men and its contribution is increasing among women. Active and successful anti-smoking efforts can achieve further gains in longevity among men and reverse the trend of increasing smoking-attributable mortality among women.

PARALLEL SESSION 2: MODERATED POSTER PRESENTATIONS

Thursday, 10 November, 16:00–17:00

2.A. Urban health

Associations between availability of public transport and commuting physical activity

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Background

Few studies have described public transit as connectivity parameter in studies of physical activity. Distance to and connectivity of public transport are determinants of walking and biking to stops/stations and thus important parameters when studying commuting physical activity. This study investigates the associations between public transport availability and self-reported commuting physical activity in the Capital Region of Denmark.

Methods

Cross-sectional data on self-reported distance to work and daily commuting duration using bike or walking is obtained from The Health Survey questionnaire "How are you 2010" in the Capital Region of Denmark. A stratified random sample of 95,150 inhabitants aged 16+ were asked about physical activity and 52.3% responded. Socio-demographic variables are obtained from national registers. Public transport data containing geocoded stops and timetables are obtained from the register Rejseplanen.dk. Geographical Information System (GIS) will be used to calculate distances to public transits and create network neighbourhoods to exam association to patterns of commuting physical activity. Principal Component Analysis will be performed on public transport variables to identify main components of variance. Data will be analysed by multivariate regression analysis with duration of commuting physical activity as outcome and public transportation availability as exposure variable. Control for potential confounders as socioeconomic factors, age and gender will be conducted.

Results

Preliminary results show that 90% of the population either walk or bike when commuting in Copenhagen City Centre. In some rural areas the proportion of inhabitants who walk or bike when commuting is as low as 55%. 33% neither walk nor bike to work when the distance to work is more than 10 km as opposed to 15% for distances less than 10 km. Further results on the effects of public transportation will be presented.

Conclusions

Commuting physical activity seems more prevalent in areas of high availability of public transport. Proximity of public transport may be important for commuting to/from stations/stops. Whether higher connectivity and availability of public transportation increases commuting physical activity needs to be further investigated.

Are area-level and individual-level socioeconomic factors associated with self-perceived health in adult urban citizens?

Martina Behanova

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Background

Residents living in deprived neighbourhoods have been shown to report poorer health. This may be due to both the socioeconomic (SE) characteristics of these residents and of the areas where they live. Evidence on Central European countries is lacking, however. This study aims to assess the association of area-level and individual-level SE factors with poor self-perceived health (SPH) among urban citizens in Slovakia.

Methods

Data on SPH, annual household income and educational attainment was collected using a self-administered postal questionnaire within the project co-funded by the European Union (EURO-URHIS 2) in the two largest cities in Slovakia, Bratislava and Kosice. Potential respondents were randomly selected from the files of the Population Registry Office and stratified by age (19–64, ≥ 65) and gender. The results of this study are based on the EURO-URHIS 2 preliminary data. The overall response rate was 39% ($n = 1155$). Respondents lived in 31 neighbourhoods. SE data on the neighbourhood level (unemployment rate, % of primary educated and university educated citizens) was obtained from the 2001 census. Multilevel logistic regression analyses were used to explore the association of individual-level and area-level SE factors with poor SPH.

Results

Residents with primary and secondary education ($p < 0.01$, OR = 2.03–1.9, 95% CI 1.15–3.59; respectively) and with lower household income ($p < 0.01$, OR = 2.64–2.53, 95% CI 1.61–4.16) reported poor SPH more often when compared with respondents having a university education and a higher household income. Respondents from areas with low SE characteristics did not report poor SPH more often than those from the better off areas (MOR = 1.28, var = 0.069, CI = −0.02–0.16). Furthermore, differences in poor SPH between neighbourhoods did not vary significantly (0.093; CI = −0.01–0.2).

Conclusions

In these two Central European cities, area-level SE characteristics were not associated with the SPH of residents, whereas individual SE factors such as education and household income were. This lack of area-level effects deserves additional study.

Degree of urbanization and substance use among Slovak adolescent boys and girls in 2010

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Background

The degree of urbanization is an important factor regarding adolescent substance use due to differences in accessibility of substances and in gender patterns. However, these relationships may change over years. The aim of this study is to compare different types of adolescent substance use according to the degree of urbanization in boys and girls separately.

Methods

Data were collected as a part of the cross-sectional Health Behaviour in School-Aged Children project in 2010. The sample consisted of 3674 adolescents from 8th and 9th grades of Slovak elementary schools (47.7% boys, age 14.98, SD 0.7). Simple odds ratios for smoking, binge drinking and lifetime cannabis use according to four degrees of urbanization were calculated for both genders separately. The joint effect of degree of urbanization and gender was also assessed.

Results

Lower smoking prevalence rates were found among girls from villages compared with their counterparts from cities (OR0.59;CI 0.37–0.94). In binge drinking, no differences were found in any gender. In lifetime cannabis use, prevalence rates in the villages were lower among both boys (OR 0.52;CI 0.30–0.91) and girls (OR 0.37;CI 0.19–0.71). The joint effect of degree of urbanization and gender was only significant in smoking. Almost no differences regarding substance use were found between cities compared to towns and smaller towns.

Conclusions

Among girls the degree of urbanization was related to substance use in smoking and cannabis only while differences were found only between the highest and the lowest degree of urbanization. Villages seem to remain a less risky environment compared with cites and towns regarding cannabis initiation.

Urban-rural differences in parental knowledge of factors influencing oral health of Russian preschool children

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Background

Earlier studies in Northwest Russia have reported that about 90% of children at the age of 12 have dental caries.

Aim:

To compare parents' views on the oral health of preschool children in a regional capital and in a rural setting in Northwest Russia.

Methods

A cross-sectional study was conducted in two randomly selected kindergartens in the city of Arkhangelsk (population 350 thousand) and the only kindergarten in the village of Emetsk. Self-administered 22-item questionnaire was distributed among 150 and 70 parents in Arkhangelsk and Emetsk, respectively. The questionnaire covered issues on parental knowledge and attitudes towards oral health of children as well as self-reported status of own health. Urban-rural differences were assessed using chi-squared tests.

Results

Altogether, 101 (67%) and 48 (69%) parents in Arkhangelsk and Emetsk participated, respectively. Most respondents were females (92% vs. 83%, $p = 0,260$) aged between 25–34 years (65% vs. 55%, $p = 0,260$). Higher than secondary education was registered among 58% of parents in the city and in 15% of parents in the village ($p < 0.001$). Nearly all parents (90% vs. 83%, $p = 0,236$) reported that teeth of young children should be brushed twice a day. Both urban and rural parents (45% vs. 62%, $p = 0,053$) were wrong in choosing the appropriate position for effective supervision of tooth brushing of their children. Rural parents were more often unsure (29% vs. 49%, $p = 0,021$) if their child's toothpaste contained fluoride. Altogether 79% and 91%, $p = 0,063$ of parents did not know how much fluoride it should contain. Parents answered (19% vs. 43%, $p = 0,002$) that their child had been given a sweetened baby bottle of comforter at night. Respondents (60% vs. 30%, $p = 0,001$) supposed that a child's first dental visit should take place when the first baby tooth had appeared, while (36% vs. 60%, $p = 0,006$) thought it should take place after all teeth were present. Conclusions: The low level of parental knowledge on oral health, especially in the rural area, indicates a need for distributing accurate information about factors influencing oral health of children in Arkhangelsk region. Poor knowledge may be partly responsible for the very high prevalence of caries among children in Northwest Russia.

Comparison of cardiovascular drugs consumption between City of Zagreb and Lika-Senj County

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Background

To determine the differences in outpatient consumption of cardiovascular medicines between the smallest and the poorest Croatian region, Lika-Senj County, and the largest and the wealthiest region, the City of Zagreb, and what causes them.

Methods

The data on the number of packages and the purchase price for each medicine have been obtained from all pharmacies in Lika-Senj County and in the City of Zagreb. The DDD/TID was calculated for every medicine in accordance with its code name, ATC/DDD index of the World Health Organization (WHO) for 2010. The quality of drug prescribing within the group of cardiovascular medicines was assessed using the Drug Utilization (DU90%) method and the adherence of the DU90% segment to the guidelines for prescribing individual medicine groups. The statistical significance of differences in results between the City of Zagreb and Lika-Senj County was tested using the chi-square test at the level of statistical significance $p < 0.05$.

Results

The utilization comparison of the five most often prescribed drug groups in Lika-Senj County has shown statistically significant differences when compared to the City of Zagreb ($\chi2 = 28.93$, $df = 4$, $p < 0.001$).). Utilization of cardiovascular drugs is three times more in Zagreb than in Lika-senj County.The largest differences in the consumption are in the C09 group, which shows the largest consumption in both analyzed regions, and the smallest in the group with the lowest consumption, C02. Within the DU90% segment in the City of Zagreb there are 22 drugs, and in Lika-Senj County 20 drugs. The larger number of drugs within the DU90% segment shows evidence of greater diversity and, to a larger extent, individualized approach to therapy choice in the City of Zagreb.

Conclusions

The total outpatient consumption of cardiovascular medicines in the City of Zagreb and Lika-Senj County differs significantly. The consumption, quality of prescribing medicines and cost/DDD in the City of Zagreb is higher than the consumption in Lika-Senj County. In the City of Zagreb, newer and more expensive medicines are prescribed to a higher extent.

Small geographical areas to use in contextual related health research – does the size matter?

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Background

In research on how neighbourhoods affect health, the neighbourhoods are often defined as large areas fixed within administrative boundaries. The lowest geographical level at which most health planning data in Denmark are analysed is the municipality level. However when analysing the effect on neighbourhood and health smaller geographical units may be more relevant and appropriate. An important problem related to the definition of a particular neighbourhood is that statistical analysis on ex. socioeconomic status in different sizes of geographical units may differ, due to the way the individual level data is aggregated. This is known as the modifiable areal unit problem (MAUP). The aim of this study is to define smaller areas homogeneous along SES factors to use in examining the relationship between neighbourhoods SES, physical environment and individual health behaviour. Furthermore the MAUP will be addressed in this paper as a useful knowledge in the process of choosing a proper neighbourhood size and level of further analysis.

Method

With use of geospatial statistic in GIS we have examined the homogeneity of SES within different neighbourhoods in the Capital Region of Denmark. The aggregation effect (MAUP) was summarized by calculating the mean and variance of individual SES, taken from the Central Population Register, at three levels of spatial aggregations: municipalities, parishes and clusters defined by large infrastructure and housing types. In order to examine the sensitivity of an interdependency analysis at the various levels, data from the Health Profile in the Capital Region of Denmark 2010 was used to calculate the correlation coefficient r between individual education level (determinant variable) and health behaviour (outcome variable) aggregated within the three spatial units.

Preliminary results: We expect to reveal that the use of aggregated individual level data at different geospatial units will vary due to the MAUP. This knowledge is useful when deciding a proper size of neighbourhood for further analysis. The unit must be as homogeneous as possible and show the smallest variance and the strongest correlation between the socioeconomic and health variables.

Socioeconomic and environmental factors are the main determinants of regional differences in cardiovascular mortality in Poland - ecological analysis

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Background

Cardiovascular disease (CVD) are the leading cause of death in all 16 administrative provinces in Poland. CVD mortality rates and prevalence of CVD risk factors vary considerably by province however data from National Survey showed that the mortality rates are not clearly corresponded with the prevalence of CVD risk factors in particular provinces. It suggests that other factors can play important role in the differences in CVD mortality within country.

Aim

To assess the extent to which classical CVD risk factors and wide range of socioeconomic, medical service and environmental factors are related to within country differences in CVD mortality.

Methods

The main outcome measures were age-standardized CVD mortality rates (ICD-10: codes I.00-I.99) in each of 16 administrative region in Poland for men and women aged 20–74. Also for each region 90 indicators, were collected in 9 categories from several sources: prevalence of risk factors, medical care, economy, education, welfare state, environmental pollution, demography, living conditions, health status.

The analysis was based on univariate correlation and discrimination model and multivariate stepwise regression models. Partial and multivariate coefficient of determination was calculated with determinants significant in univariate models.

Results

In men about 73% of the within country variance in CVD mortality were significantly explained by the differences between provinces in the level of air pollution, urbanization, employment rate, monthly income and expenditure on environmental protection. For women: 42% of those differences were explained by differences in expenditure on environmental protection. Differences in the prevalence of classical CVD risk factors explained only 5–15% between province differences in CVD mortality.

Conclusion

The results promote a deeper understanding and awareness of socioeconomic health determinants including living and environmental conditions, which should contribute to the development of a multisectoral health policy to improve population health.

2.B. Poster workshop: Policy and Organisational Innovation for Cross-Border Care in Europe

Chair: Matt Commers, The Netherlands
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Cross-border care is an area of critical concern for the further development of health systems in Europe. As cross-border care develops on the ground in border regions, new policies and organizational forms have emerged to accommodate this phenomenon. Because these innovations are most often governed by — or challenge the bounds of — European and Member State law, they are one of the primary embodiments of European Public Health.

This workshop explores important aspects of practice of cross-border care in three European regions: the Ems-Dollart Region (EDR), the Münster-Twente Euregio (Euregio) and the Euregio Maas-Rhein (EMR). It also includes an overview of legal barriers to cross-border care resulting from the Euregio II Project. By utilizing case studies from these sources, the workshop highlights how developments in cross-border care drive policy and organisational innovation for cross-border partnership.

The three case studies focus around very different themes, but all are critically related to the same core issue:

Theme 1: Cross-border prevention as cost-effective strategy. The EurSafety Health-net Project seeks to prevent MRSA and ESBL infections in hospital patients in the Euregio

Münsterland-Twente and contiguous regions. The Project reveals both the added value of cross-border work to control infections and the emergence and cost-effectiveness of new strategies for partnership to motivate and engage hospitals in such prevention.

Theme 2: Legal challenges in cross-border collaboration. The Euregio II Project analyzes legal barriers to successful cross-border collaboration in Austria/Czech Republic, Northern Ireland/Republic of Ireland, and the Euregio Maas-Rhein. The project reveals how practice on the ground has at times gone beyond the boundaries of existing law and policy and hence shaped how law and policy is evolving regarding cross-border and care issues.

Theme 3: Evaluation technologies of cross-border hospital programs. The Euregio II and ECOMA projects both seek to evaluate various aspects of joint programs between the University hospitals in Maastricht and Aachen. Through their detailed evaluation of cross-border program partnerships between the two hospitals the projects contribute to our understanding of the cutting-edge in new organisational forms for cross-border hospital collaboration.

EurSafety Health-net: Euregional Dutch-German Quality Network for Patient Safety and Infection Protection

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This abstract covers the issue of cross-border prevention as cost-effective strategy in the workshop Policy and Organisational Innovation for Cross-Border Care in Europe.

Key obstacles to crossborder healthcare include items such as divergent social funding and insurance systems. However, as these barriers have begun to be surmounted, differences in quality of healthcare have emerged as one of the most important factors limiting regular crossborder health care.

The principle goal of the EurSafety Health-net is assuring the highest good in medical healthcare, the patient safety (primum non nocere). Therefore, crossborder research is performed and structural changes are initiated in order to understand infectious disease spread across the border and to establish prevention measures to protect patients and the population from infection. The project operates along the Dutch-German border. In this context especially the protection from infections by antibiotic-resistant microorganisms (AMR, e.g. MRSA, ESBL) are the focus, because in Germany and Belgium such infections are up to 20 times more frequent than in the Netherlands. On this basis 3 activity lines have been set up, i.) euregional quality network, ii.) research workpackages and iii.) communication and training.

The euregional quality network (EurQHealth) building has the task to make the quality of healthcare on both sides of the border transparent and foster prevention of healthcare-associated infections and therefore patient safety. This is done by synchronizing quality criteria for hospitals and nursing homes on both sides of the border.

The euregional research work packages focus on the (molecular) epidemiology, antibiotic consumption, molecular risk assessment of AMR by analysing virulence factors, intervention studies of prevention programs. This leads to applied and basic research lines in order to understand better the crossborder transmission of infectious diseases and the effectiveness of prevention programs.

Lastly, communication and training activities assure the training of health care providers in infection prevention and inform regularly the public. Two academies in Oldenburg and Duesseldorf assure the training and continuous education of staff. Furthermore, a network between the project participants has been created based on a telematic platform which makes possible the coordinated collection and transfer of data necessary for patient safety and infection prevention in the Euregios.

Legal challenges in cross-border cooperation - Experiences from the Euregio II Project

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Issue

This abstract covers the issue of legal challenges in the workshop Policy and Organisational Innovation for Cross-Border Care in Europe.

In an Impact Assessment done by the European Commission in (2007) it was concluded that further investigation into the impact of the European Court of Justice (ECJ) rulings pertaining to the provision of the Treaty on the free movements of patients, health care professionals and free movement of health services was necessary. Specifically, attention should be paid to cross-border health care provisions. Therefore, one work package of the Euregio II project targets these cross-border legal challenges. The emphasis is upon the legal landscape within cooperation across the border – in projects carried out by Euregio II project partners. Liability and data exchange (protection) will form a major part of this analysis, where the focus will be on the border regions and three cross-border projects.

Description of the problem

Euregio II ('Solutions for improving health care cooperation in border regions' aims to stimulate and promote cooperation in border regions by fostering the usability of various existing instruments and methods. Within the legal Work Package, three cases were analyzed for their legal approach to barriers within their regions on the topics of liability and data protection. This revealed how border regions face legal challenges and will likely use these methods/tools for future cross-border health care cooperation.

Results

Selected results will be presented from the analysis. These include:

- legal problems within this type of cross-border cooperation often cannot be defined in traditional legal terms;
- legal problems can be entangled with other challenges demanding iterative solutions;
- a major problem is the transfer/translation of laws into the practice of cooperation (i.e. how to use the legal possibilities at hand is not always clear to local cooperating parties).

Lessons

Border regions are faced with the reality of sometimes having to work around laws and regulations to actually make cross-border health care happen. This means that sometimes practice is going beyond the scope of law, revealing the need for legal innovation. Besides this, the focus of laws is not so much on border regions but on making sure that principles of the free market are respected by Member States, which does not reinforce the cross-border agenda as such.

Toward a European University Hospital Aachen-Maastricht: Implications of Cross-Border Joint Hospital Programs

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Issue

This abstract covers the issue of evaluation technologies of cross-border hospital programs in the workshop Policy and Organisational Innovation for Cross-Border Care in Europe.

The University Hospitals Aachen and Maastricht intend to intensify their long-standing cooperation and aim to found a European University Hospital Aachen-Maastricht. As this will be the first cross-border University Hospital in Europe there is a strong interest from the involved regions, the states of Germany and The Netherlands, health care institutions like sickness funds, academia and the European Union to accompany this and analyze the possible effects. The interest is in administrative, management, economic, legal and research issues.

Description

The Euregio II and ECOMA projects both seek to evaluate various aspects of joint programs between the University hospitals in Maastricht and Aachen. Euregio II has established two pilot cross-border HTAs with the Departments of Nuclear Medicine (NM) and Neurosurgery (NS) at both hospitals. The NM and NS departments are actually cross-border hospital programs in the sense that the Departments of NM and NS at both hospitals are under the leadership of a single departmental chief. The focus of ECOMA is more broad: to evaluate the entire breadth of collaboration between the two hospitals with an eye toward the future ambitions respecting organisation integration and/or fusion.

Results

The Euregio II project has developed a mini-HTA technology suitable for cross-border program analysis.

The ECOMA project has developed a methodology that incorporates:

- the multidimensional process of a cooperation itself in the both University Hospitals
- the different levels of structure, process and outcome evaluation in these settings
- the intended and unintended effects on the different dimensions like healthcare and economic effects in the region, research cooperation etc.
- administrative and legal issues in the European setting.

Lessons

Crossborder hospital collaboration is a key component of crossborder care and patient mobility in Europe. The further integration of the academic hospitals in Maastricht and Aachen reveals new organisational forms and is generating technologies for program analysis that transcend previous models of hospital program analysis.

2.C. Primary care

The development of GP and patient questionnaires for QUALICOPC, a European study on primary care

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Background

The QUALICOPC (Quality and costs of primary care in Europe) project is funded under the 7th Framework Programme of the European Commission and aims to evaluate primary care systems in Europe against criteria of quality, equity and costs. The project makes use of existing data sources on primary care at the national level. Furthermore new data will be collected by means of surveys among GPs and their patients in 31 European countries

Methods

To come to a set of well founded questionnaires a search was performed on existing questionnaires for GPs and patients in primary care. Several steps were taken for both a literature and Google based search. Based on the findings of the search questions were formulated for the GP and patient questionnaires by the QUALICOPC consortium, a group of experts from 6 institutes through Europe. In this presentation we will elaborate on the findings of the search, explaining themes in existing primary care studies and the development of the QUALICOPC questionnaires.

Results

The survey covers a variety of themes such as the GP task profiles, collaboration and coordination within primary care and between primary and secondary care and accessibility of primary care. The outcomes of the patients' survey will be linked to the GP practices. The data will be analysed using multilevel analyses, taking into account three levels of primary care: the national level, the level of the GP practice and the level of the patient. The analyses will focus on several themes, including avoidable hospitalization, process quality of primary care, patients' perceived outcomes, costs, access and equity and good practices of primary care.

Conclusions

For the QUALICOPC project well founded questionnaires were developed for patients and their GPs in 31 countries in Europe. The QUALICOPC project will contribute to the knowledge on primary care systems by comparing many countries

Data automatically extracted from the electronic health record in general practice in Belgium: usable for quality of care research?

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Background

Although accuracy and completeness of data automatically extracted from the electronic health record in general practice are known to be low, the question remains if the data still can be used for quality of care research.

Hence we examined accuracy, completeness, reliability of the data, but we also compared quality of care among subgroups both on the basis of automatically extracted data (AED) and of answers to an electronic questionnaire (EQ) (acting as reference standard).

Methods

Data from AED and EQ from 15400 encounters (10888 patients) were collected in a 6-week period in 2007 by 46 voluntarily participating general practitioners (GPs), using 4 different software packages.

Study outcomes were: 1) use of statins, 2) of low dose aspirin, 3) high blood pressure and 4) overweight status.

For each outcome, sensitivity, positive predictive value (PPV) and Cohen's kappa were calculated as measure for respectively completeness, accuracy and reliability of the AED. Sensitivity and PPV were modelled through a multilevel model taking into account variation by software. Each outcome was next modelled in function of cardiovascular risk group (diabetes type 2 patients (DM2) versus patients with a personal cardiovascular antecedent (PCA)) taking into account variation by GP and software.

Results

At patient level sensitivity of the 4 outcomes varied between 55% and 92%; PPV varied between 50% and 91% and κ varied between 0.41 and 0.66.

At group level, the conclusions based on AED regarding medication use and risk factor follow-up among PCA patients versus DM2 patients corroborated the results based on EQ: higher odds of use of statins (OR: 1.89 in EQ vs 1.65 in AED) and low dose aspirin (OR: 3.38 in EQ vs 3.28 in AED); and lower odds for high blood pressure (OR: 0.66 in EQ vs 0.68 in AED) and overweight (OR: 0.22 in EQ vs 0.43 in AED).

Conclusions

At patient level, AED were neither complete nor accurate nor reliable, but at group level findings on better aspects of cardiovascular follow-up of PCA versus DM2 patients based on AED consistently corroborated findings based on EQ.

Improving Primary Health Care Services and Organizational Culture through human resources development

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The creation of groups of Primary Health Centers (ACES) is part of a reform intended to improve the integration of management and clinical governance in the National Health System, under the responsibility of an Executive Director (ED). This organizational innovation represents a major change in the culture of primary-care services. Recognizing that the availability of adequate leadership skills is a key ingredient for the success of this type of change, the Ministry of Health planned a capacity development intervention for ED.

The objective of this study is to explore changes in the ED's leadership and management skills after the intervention (year-long leadership training). We applied descriptive statistical tests to two questionnaires (using SPSS), applied at the beginning and at the end of the intervention and conducted a focus group analysis. ED's main management challenge was to transform vertical structures into a horizontal and integrated network of services.

Skills needed to achieve this include the capacity to develop a strategic vision consistent with the objectives of the reform, as well as negotiation and teamwork skills. Focus group findings confirmed the need for skills to manage in a participative and transparent manner, in an environment traditionally characterized by top-down management. The organizational culture assessment showed that the dominant culture passed from Hierarchical at the beginning to Adhocratic one year after: this is illustrated the significant increase in the number of regular meetings and use of email for sharing data. The first two years of ED's activity have been characterized by many outside pressures (budget cuts, more costs due to demographic changes, and the use of new technologies). This context creates a demand for quality management based on leadership skills to facilitate change and move forward to health services integration and efficiency; it is needed to focus on human resources (HR) management and on the objectives of integration. In some ACES, clinical and managerial integration have improved; in others are still managed in a traditional manner, with little attention to HR development.

Training the ED, while necessary, may not be sufficient to ensure the implementation of an organizational innovation.

Considerations made by the general practitioner when dealing with sick-listing of patients suffering from subjective and composite health complaints

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Background

Although we have some knowledge concerning general practitioners (GPs) practices on sick-listing in general, less is known about how GPs make their assessments regarding sick-listing in the more complex cases of subjective health complaints (SHC). We wanted therefore to identify and explore GPs considerations in decision-making regarding sick-listing of patients suffering from SHC.

Methods

Qualitative study based on 9 focus group interviews with 48 GPs (31 men, 17 women; aged 32–65). The GPs were recruited as they participated in a course dealing with diagnostic practice and assessment of sickness certificates related to patients with composite SHC.

Results

Decisions on sick-listing patients with SHC were regarded as a very challenging task. Trust in the patient's own story and self-judgement was deemed crucial, but many GPs missed hard evidence of illness and loss of function. Several factors which might influence the decision-making were identified: The patients' ability to present their story to evoke sympathy, the GP's prior knowledge about the patient, and the GPs' own experience as a patient and their tendency to avoid conflicts. The approach to the task of sick-listing differed from patient-led co-operation to resistant confrontation.

Conclusions

Issuing sickness certification in patients with SHC are considered as a demanding task and to a large degree patient driven, and the decisions vary according to GPs' attitudes, believes and personalities.

Multidisciplinary collaboration: a successful factor for Primary Health Care. The case of the Italian Health Districts

Gianfranco Damiani

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Background

The current development of Primary Health Care (PHC) as a complex, comprehensive and integrated health care approach on which modern health care systems should be based on requires high level of multidisciplinary collaboration.

In the Italian National Health Service (INHS), the role of public governance and the responsibility for the integration of care provision within the PHC system is under the Health Districts (HDs), which are operative structures of the Regional Local Health Authorities. The aim of this study was to identify the organizational and relational dimensions influencing the HDs' directors self-perceived degree of multidisciplinary collaboration among professionals, institutions and sectors within PHC.

Methods

A cross-sectional study was conducted referring the period between March and September 2010 by using a structured questionnaire addressed to all Italian HD's directors. The data were summarized using descriptive statistics, while logistic regression models were estimated to investigate the causal association between some determinants of collaboration and the degree of multidisciplinary collaboration.

Results

From 711 Italian HDs, a response rate of 96% was achieved. 25% of the HDs have a geographical area of 600 Km2 and over, while in the majority of the HDs (33%) live more than 100.000 inhabitants.

The main factors influencing the level of multidisciplinary collaboration resulted to be those related to the degree of formalization of professional's behaviour, such as the implementation and monitoring of procedures (OR 4,21; 95% CI = 2.40–7.37), the frequency of carrying out formal audit (OR 2,56; 95% CI = 1.35–4.88), and the use of database as a tool of exchanging information among professionals (OR 2,32; 95% CI = 1.46–3.71). Also sharing the knowledge and the values through informal meetings between professionals positively influenced the high degree of collaboration perceived by the HDs' directors (OR 1,40; 95% CI = 1.49–3.87).

Conclusions

The study suggests that HDs has a central role in enhancing multidisciplinary collaboration which is a key factor of public governance and an opportunity of dealing coherently health care challenges connected with the Regional devolution process of the INHS.

The impact of implementing the Family Health Units in the practices of professionals in Portugal

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The importance of Primary Health Care (PHC) has been the subject of numerous debates within the World Health Organization. In Portugal in 2005, has begun a new phase of the PHC, and it has witnessed a reorganization Health Centres, with the creation of Family Health Units (FHU). This reform is a factor of change, both for PHC, both for professionals who embarked on this new philosophy of care. A view to evaluation and quality improvement, it is important a deeper knowledge about the potential for change and innovation representing the FHU. Thus, this study seeks to examine the impact of the implementation of FHU in the practices of professionals.

This is an exploratory, descriptive, qualitative approach. The convenience sample consisted of one professional in each sector, a total of 10 doctors, 10 nurses and 10 clinical secretaries, ten FHU of North Regional Health Administration, having been adopted as inclusion criteria, the geographic representation, be Coordinator, be responsible for the area of nursing and clinical secretary at FHU, with more than one year of operation. Collecting data were a semi-structured interviews, which were submitted to the technique of content analysis.

The interviewees stressed that with this organizational model, increased its degree of autonomy and work better as a team. Consider that the citizens' accessibility to health care improved, approaching decision-making and people management. In his opinion the model requires them to work better to achieve their objectives. However they point out some difficulties as the inability of information systems provide accurate, timely, and inexperience in contracting process.

We conclude that the implementation of this new organizational model had a positive impact on the practices of these professionals, and consequently the quality of performance, job satisfaction, responsiviness and improving citizens' access to care. The difficulties reported lead us to make suggestions as to create structures that meet the route of FHU contracting and the restructuring of information systems.

The integration of family services: The viewpoint of managers of the municipal sphere of authorities

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Background

Child and family services (= family services) are fragmented, and do not picture an integrated entirety from families viewpoint, in Finland. Many service providers have little or no reciprocal co-operation and shared objectives.

Aim

This study focus on horizontal integration of family services (maternity / child welfare clinics; school health care; day care; preschool education; schools), from the viewpoint of managers of the municipal sphere of authorities (health care, social care and education). The research questions are 1) do there exist structures that integrate services and 2) how integrated are practices within and between the municipal sphere of authorities, municipalities, private and third sector services. The data were collected (in 2009) by a survey sent to managers in the sphere of health care, social care and education; 490 managers participated. The structures that integrate services (reorganisation of services, allocation of resources, agreements that harmonize practices) were studied by instrument with 19 items. The level of integration (shared/consistent practices; commitment to objectives; client-centeredness; added value of integration) was studied by the instrument with seven items. Both instruments were developed for the study. Descriptive statistics, ANOVA and t-test were used in the data analysis.

Results

Most restructuring of services, allocation of resources and agreements that support integration were within the sphere of authorities, least between municipalities. Services were most integrated in the sphere of authorities, then between the sectors and municipalities, least between private and third sector services. It was most typical for integration in every sector to have reciprocal collaboration between the spheres of authorities but to set own aims. The more restructuring of services, allocation of resources and agreements on practices the more integrated were practices in and between the sphere of authorities, and between municipalities. In this case, also family services pictured the solid multiprofessional entity including own budget and data system.

Conclusion

The integration of practices requires certain support structures, recourses and agreement.

Institutional elderly patient intake: a sistematic review of community-based models of integrated care

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Background

The feasibility and benefit of integrated models of Long Term Care for older patients with complex health and social needs is documented.

This systematic review aims to provide an overview of the community-based models of integrated care that characterize the Institutional Elderly Patient Intake (IEPI), secondarily aims to investigate whether the presence of a Single Point of Entry (SEP) as unique gate of access to IEPI affects the quality of life, healthcare and the use or cost of health services.

Methods

We searched scientific electronic databases for studies published between 1984 and 2010. We excluded articles with low quality (weak study design, inadequate numbers of participants, inappropriate statistical analyses, invalid measures). Studies which focused on specific diseases or palliative care were also excluded.

All the outcomes were categorized as positive, negative or indifferent if IEPI was more, less or equally effective compared to less integrated or usual care.

Healthcare outcomes were grouped in the following macro-categories: Service Delivery Appropriateness (medical services, length of stay, institutionalization, emergency department access, hospitalization, care giver burden); Health Conditions (mortality, functional and cognitive status).These macrocategories were subsequently classified as positive, negative or indifferent on the basis of prevailing outcomes.

Descriptive and inferential analyses were performed (chi-square test at significant level $\alpha \leq 0.05$).

Results

IEPI processes were characterized by SEP (28%), multi-dimensional evaluation and care planning (100%), case management (100%), monitoring and reassessment (90%).

IEPI impacted positively on patient satisfaction 0.92 (95% CI 0.64–0.98), costs 0.66 (95% CI 0.39–0.86), Health Conditions 0.54 (95% CI 0.35–0.72), Service Delivery Appropriateness 0.52 (95% CI 0.33–0.71). SEP presence was not significantly associated with the assessed outcomes.

Conclusions

IEPI models for the elderly resulted to be effective in improving health status, satisfaction and utilization of resources. Further in depth analyses are needed in order to define SEP role.

Public authority over home care

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Background

The ageing society, decreasing resources and financial constraints are putting governments under pressure. Across Europe, division of responsibilities for long-term care are being reconsidered. Under these pressures, the role of governments in home care could be changing. This paper will provide an insight into the current role of governments in home care and its position within the welfare mix.

Methods

A systematic literature review & consultations with experts across Europe resulted in a set of consensus-based indicators for home care systems. In 2008–2010, data was collected in 31 countries. To enhance comparability, several key informants in each country additionally answered standard questions related to hypothetical case descriptions about people in need of home care.

Results

Large cross-country differences in governmental control exist. Home care can be divided in home health care and home social care. In most countries both types of care governed differently. The predominant governance model is characterised by a central government being involved only in setting out visions and some minimum and general requirements for, for instance, home care provision and eligibility. Municipalities in that case further define regulations. Four different models of governmental interference in home care could be distinguished. Each model brings its own problems.

Conclusions

The influence of local governments on publicly financed home care is generally strong. Local governments are often involved in ‘rowing’ the boat, rather than just steering it. National governments mainly steer. Whereas governance in the public sector is relatively clear, there is a lack of insight in the completely privately financed sector.

2.D. Poster workshop: European experiences with the Patient Activation Measure (PAM)

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The Patient Activation Measure (PAM) is an instrument to assess patient (or consumer) self-reported knowledge, skill and confidence for self-management of one’s health or chronic condition. The PAM divides consumers and patients into one of four progressively higher activation levels, which are associated with distinct self-care behaviours. Research in the USA has repeatedly shown that a higher score on the PAM positively influences various health related behaviours, such as preventive care and lifestyle behaviours, information seeking and use of health information, health outcomes and healthcare use, monitoring and medication adherence, conduct in the patient-provider encounter and self-management. These effects have been demonstrated both in a clinical setting with chronically ill patients but also in other populations (e.g. company employees, senior citizens in community centres). The PAM has recently been translated, validated and used in research in Denmark, Norway and the Netherlands. Interventions have been developed to improve PAM-scores in individuals and groups and their subsequent health outcomes. In this workshop experts from three European countries will discuss their studies with the PAM.

Measurement of activation across self management programs

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Background

To promote a healthy lifestyle through self management is important for public health. One approach is through group based self management programs. To further improve the quality of such programs, it is important to have outcome measures that are sensitive across different settings and diagnostic groups.

Aim

To investigate how the outcome of different group based self management programs (GSMP) using the Norwegian version of Patient Activation Measure (PAM) as the outcome measure.

Methods

A prospective observational study of participants in a range of hospital based GSMPs in Central Norway. The participants answered the PAM questionnaire at the start of the GSMP and four months later.

Results

A total of 1004 participants attending more than 40 different GSMPs completed PAM at baseline and 723 (72%) after four months. The overall change in PAM score was 4.3, and 29% of the participants had an improvement larger than an effect size of 0.5.The results for different types of GSMP will be presented and discussed.

Conclusion

PAM seems to be sensitive to measure changes across a wide variety of group based self management programs.

Effects on patient activation and health behaviour after the "Ready to Act" intervention targeted people with screen-detected prediabetes and T2-diabetes in primary care.

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Background

The "Ready to Act" study investigated whether a multi-disciplinary health-promoting intervention could enhance the action competence among people with screen-detected (IFG, IGT) and T2-diabetes.

Objectives of this study are to evaluate 1) if patient activation is a predictor for health behavior, and 2) if it is possible to improve patient activation through an intervention

Methods

We enrolled 509 adults with prediabetes and T2-diabetes detected in a GP screening program by the Danish part of the ADDITION study [Anglo-Danish-Dutch-Study of Intensive Treatment in People with Screen-Detected Diabetes in Primary Care]. Participants were pre-randomly assigned to the "Ready to Act"-intervention (n = 322) or to a control group (n = 187), as a supplement to a multi factorial GP intensive treatment according to the ADDITION study.

The "Ready to Act" programme aimed to empower people to take an active role in health management after diagnoses, and had four learning objectives: motivation, informed decision-making, action experience and social involvement. It was offered in primary care (health centers and GP clinics) by multi-disciplinary teams over 3 month. Two individual counseling sessions and 8 group meetings were offered. Outcomes were: Patient Activation (PAM) and health behavior (BMI, smoking and physical activity (IPAQ)).

Results

The participants at baseline were average 62 years and 47% were women. A total of 142 (44%) accepted the intervention and of these 123 (38%) completed. Analyses after one year demonstrated that the programme is a promising health-promoting component in prevention and care for people with screen-detected dysglycaemia, as it attracted four of 10 people and had effects on motivation and perceived competence. Data of the analysis of the 3 years outcomes for this study is ongoing and will be presented during the workshop.

Perspective

Screen-detected populations represents an important public health target group where activation may be an interesting intermediate outcome for effects of intervention and also a possible component in the early identification of patients before chronic disease develops.

PAM in the Netherlands: activation level of diabetic patients and the relation with quality of health care

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Background

The PAM has been proven to be a reliable and valid instrument to measure patient activation in the US and other countries and is used as a first step towards fully informed and involved patients. Given these promising results, the PAM has recently been introduced in the Netherlands. In other countries the focus has been on measuring patient activation in patient groups in which self-management is an important factor, such as diabetic patients. It is interesting to know whether activation levels of diabetic patients are comparable across countries. In addition, it has been suggested that the PAM score is related to the quality of care. So far, this hypothesis has not yet been tested.

Methods

Over 8500 diabetes patients were asked to fill out the PAM and the CQI Diabetes. CQI Diabetes is a validated questionnaire on patient experiences with diabetic care.

Results

Data are available in May. The activation level of diabetic patients and differences between patient subgroups will be determined. The Dutch PAM scores will be compared with PAM scores found in other countries in similar patient groups. Using regression analyses, we will investigate the relationship between activation level and patient experiences with diabetic care after controlling for relevant background variables.

Conclusions

Based on the results we can conclude whether the PAM is also a valid instrument for measuring patient activation in the Netherlands. If so, the next step will be to evaluate interventions aimed at increasing the activation level of patients and the possible use of the instrument in the relationship between patient and healthcare providers. This should ultimately lead to a more efficient and better quality of care.

2.E. Ethics and values in public health

Values in public health: what a sample of Italians think about solidarity, individual responsibility and health care funding

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Background

There is an ongoing debate concerning the concept of solidarity and universality in the European health systems, which involves the values on which public health is based on. The question is, to what extent should the general population pay for the health consequences of risky behaviours undertaken intentionally?

Methods

We performed a transversal study in 2010 by administering an anonymous, self-compiled, paper-and-pencil questionnaire to a sample of people living in Brescia, North Italy. We asked a sample of 720 Italian people if they agreed to pay for other people's diseases caused by risky behaviour.

Results

37% of the sample declared that the community should not pay for health care for people who intentionally engaged in risky behaviour, thereby contributing to their own disease. 22% said they would exclude from free medical care only people whose diseases were caused by illegal activities (e.g. drug abuse as opposed to tobacco smoking). About a third of the sample declared that free health care should always be offered, regardless of behaviour. 8% of the sample did not have a precise opinion on the matter. We found no difference in the results when stratifying by smoking or alcohol consumption, age or education.

Conclusions

Although the results reported here should be considered as preliminary findings since we did not perform a systematic sample selection, this result concerning willingness to pay was so unexpected that it led us to make some reflections in connection with the ongoing debate about the universality of health care systems. Unexpectedly, in a country like Italy, where safeguarding health is a constitutional right, only one third of the sample declared that health care should always be provided free of charge. Although we measured only an intention, we found this an important indicator about the fact that the general population as well as the experts may currently be debating the solidarity concept applied at all levels, and that the idea of individual responsibility linked to health service access is spreading. Indeed, this result seems to suggest that the idea of health care weighted according behaviour profile would be acceptable to the majority of the Italian population.

Rethinking ‘culture’ in cultural competence

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Background

The structure and substance of the way biomedical healthcare is provided varies significantly across the globe. Consequently, for migrant populations, expectations of health services can differ from and conflict with those in host countries. Increasing mobility and enhanced telecommunications also mean that migrants can actively continue to participate in healthcare in their countries of origin post-migration. While sensitivity to cultural, religious and linguistic issues is stressed in European initiatives on cultural competence, the implications for health workers and patients of conflicting medical expectations and ‘transnational’ use of healthcare has received relatively little attention. These will be examined from the perspectives of both staff and women drawing on qualitative research findings on maternity care and migration to Lothian, Scotland.

Methods

Data is drawn from three qualitative studies with convergent findings: two investigations of maternity experiences of migrant women and a study of maternity staff’s everyday experiences of providing culturally competent care. The studies involved 42, 10 and 41 participants respectively.

Results

Conflicts between the Scottish ‘normal’ paradigm and expected medicalised models for managing pregnancy caused significant anxiety amongst migrant women for whom care was insufficiently detailed; and who drew on advice from countries of origin in negotiating care in Scotland. Staff were regularly torn between the imperative of sensitivity to women’s expectations and that of their own local evidence-based practice, and felt ill-prepared to negotiate across different medical systems. Women’s evaluations of Scottish care changed over the course of their pregnancies, with some aspects of pregnancy care causing re-evaluation of practices in their countries of origin.

Conclusions

New waves of migration and increasing medicalisation of healthcare worldwide call for new types of skill and knowledge to support cultural competence, which are as much about brokerage and negotiation between different medical systems as knowledge of ‘lay’ practices

Culturally sensitive translations of patient information leaflets: lessons from a study of pregnancy screening information with Chinese, Urdu and Polish speakers

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Background

Pregnancy screening is an important but sensitive part of antenatal care across Europe. Public Health specialists coordinate screening in the United Kingdom, ensuring a focus on equality of access. Awareness and uptake of screening varies with ethnicity, and is low among some groups of non-English-speaking migrants at disproportionate risk of conditions included in the screening programme. In Scotland minority language patient information leaflets are produced by directly translating English language leaflets. Such materials do not address specific cultural/faith issues or the variation in healthcare between countries. This may compromise informed choice for migrant populations.

Methods

We collaborated closely with Polish, Urdu and Chinese speaking migrant communities in Lothian, Scotland to develop culturally sensitive patient information leaflets (2010–11). Bilingual researchers assessed information needs and concerns through focus groups and interviews, the findings of which were used to draft new versions of leaflets which were translated and tested with target users before final publication.

Results

There was low awareness of the significance of pregnancy screening among Mandarin and Urdu speakers and concerns about the organisation of antenatal care among Polish speakers. In redrafting the leaflet to take account of these points details about conditions affecting specific communities were elaborated, and misapprehensions about pressure to terminate affected pregnancies addressed. Images in the original leaflets proved offensive to some groups, and inhibited the leaflet’s accessibility. There were conflicting views as well as commonalities between the different migrant groups.

Conclusions

Patient information leaflets developed for majority populations do not necessarily address concerns of migrant and minority ethnic populations, and direct translation of such materials fails to address cultural differences between communities that impact on decisions around screening and clinical care. The findings of this study have relevance beyond antenatal care and will inform future development of translated health materials in Scotland. Ethnic and linguistic diversity should be built into all aspects of the development of such materials.

Equity to Health Care Resources Access. A Longitudinal Analysis of Strokes in Spain: Multilevel Approach

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Background

A stroke is a neurological episode with repercussions on the central nervous system’s functions. A stroke is a condition with high record numbers. It was the third leading cause of mortality, the second of dementia after Alzheimer’s disease and the first cause of severe disability in Spain in 2003. Meanwhile, in western countries, strokes were the neurological disease with the highest mortality rate, the third leading cause of death after cardiovascular diseases and neoplasm with roughly a

10%–12% of deaths, and the first cause of disability in people over 65 years in 2005. A specialized and multidisciplinary early assistance, improves the prognosis of patients who suffer from stroke. A stroke is a first-rate medical emergency, as neurologists say: 'time is brain'.

Methods

This paper aims at estimate the contextual determinants of survival probability for inpatients diagnosed with strokes admitted to Spanish hospitals from 1980 to 2007, the time-trend of mortality rates after adjusting for explanatory factors and, provide empirical evidence on the regional differences. Beta and Sigma convergences have also been analyzed. Multivariate logistic models of inpatients survival were further estimated. Then, a multilevel approach with inpatient's province of residence as level 2 was considered. We wondered if territoriality played a role as a risk factor on the stroke dying probability and if there were any hospital mortality contextual effects.

Conclusions

The evolution of hospital mortality rates for stroke has decreased over time in the 50 provinces (35% to 16%). Out of hospital death rate have also reduced (93% to 5%). Beta and Sigma convergences show how mortality rates are more uniform across provinces in 2007 than in 1980 ($\hat{I}^2 = 0.0348$), however, health care resources are not. Regional income, hospital beds and Computerized Tomography (CT) rooms are significant mortality predictors. Provinces with the highest income levels, hospital bed and CT room rates achieved better survival rates (Odd-ratioGDPpc = 0.8311, Odd-ratioBedRate = 0.8571, Odd-ratioCTRoom = 0.9927). Moreover, multilevel approach shows a small significant provincial effect (Median Odd Ratio = 1.27). This methodology may be applied across countries on further researches.

Dependence of health care accessibility and quality on informal payments by patients

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Background

The issue of informal out-of-pocket payments in Bulgaria attains particular importance in 2011 as a result of a couple of changes: 1) new restrictive delegated hospital budgets, decrease in pathway prices and limitation of the amount of the activities; 2) new regulation of out-of-pocket payments for patients' choice of medical team/physician and medical consumables.

Aim

To find out the relationships between: informal payments and clinical pathway prices; informal payments and patients' health insurance status and informal payments and patients' satisfaction.

Methods

In 01.–03.2011 we conducted sociological survey of 2 284 patients' attitude to informal payments through structured in-dept interviews in two focus groups. The questionnaires consist of questions about the reasons for hospitalization, diagnoses, existence and scale of formal and informal payments, timing and patients' attitude. Data for the year 2008 are derived from the Open Society survey of informal payments for health in Bulgaria.

Results

Most of the cases of informal payments refer to major surgery, tumour treatment, delivery and implantations (valves, stents, joints). The scale of the informal payment is inversely proportional to the level of reimbursement. The amount of the informal payments varies between â, ¬1000–2000 at average that exceeds the national average work salary between 2–5 times. Huge proportion (82.13%) of compulsory insured patients is affected by informal financial pressure. There are no informal payments reported by patients with additional voluntary health insurance. There is an actual raise in informal payments from 71.74% in 2008 to 88.76% in 2011. We witness prevailing lack of satisfaction with the quality of health services in spite of the informal payments made 74% (1132).

Conclusions

The financial crisis and the normative restrictions directly reflect in raise of informal payments which are totally unacceptable for the patients as this is an actual barrier for the accessibility to timely and quality health care.

Hence political actions are needed in course of specifying the legislation concerning voluntary health insurance which guarantees additional funding of medical services along with substantial decrease of patients' informal payments.

Economic hardship and depression in Europe: the role of attitudes towards state responsibility in different welfare state regimes

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Introduction

Recent cross-national research by Levecque et al (Journal of Health and Social Behavior, 2011) has shown that the health effects of social experiences are attenuated, boosted or even reversed by the sociopolitical context. More specifically, it was found that the link between economic hardship and depression varies between different welfare state regimes in Europe.

Objectives

Currently, we assess whether this variation in depressing effect is totally attributable to differences in welfare state arrangements or whether welfare state attitudes play a significant role as well. Is economic hardship more depressing when the individual considers the state as the main provider for an adequate standard of living, or is the risk of depression higher when emphasis is put on self-provision and individual responsibility?

Methods

Analyses are based on data for 23 countries in the European Social Survey 2006–2007 (N = 41686). Multilevel linear regressions are performed. Depression is measured using the Center for Epidemiologic Studies Depression Scale (CES-D 8).

Results

We find that experiencing economic hardship is significantly more depressing for individuals who consider the state as the main responsible for providing an adequate standard of living. This pattern is observed in all welfare state regimes and remains significant when controlling for gender, age, having a partner, educational level, social support and locus of control.

Conclusion

The link between economic hardship and depression is dependent on both structural welfare state arrangements and welfare state attitudes.

Health-conscious behaviour of health care college students in Hungary

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Background

The future health care experts are expected to have health-conscious behaviour already during the college years. The aim of this cross-sectional study was to evaluate the prioritization of factors that may affect the students' everyday life.

Methods

288 students (S) completed an anonym self-administered questionnaire in 2010. M:F ratio was 0.14. Mean age was 20.3 (SD = 2.91). Data were collected regarding the alcohol consumption (AC), tobacco use (TU), drugs, nutrition (N), sex (S), study (St), physical activity (PA), computer use (CU), relaxation (R) and sleeping (Sl). Data were analysed using hierarchical clustering (HC) and calculations with means and percentages (SPSS 19.0).

Results

27% of S did sport regularly, 55% of S was drunk in the last month at least one time, 32% of S was smoker. Using HC we got three groups. 40% of S belonged to the 'Maslow' group, who designated the importance of activities according to the fundamental needs. We got significant differences in Sl and N comparing with two other groups ($p = 0.000$). Prioritization was Sl (1.83), N (2.35), S (3.49), R (3.53), St, PA (5.3), CU (6.37), AC (8.07) and TU (9.09). 33% of S belonged to the 'purposeful' group; they deemed PA and St more important than two other groups. Prioritization was: PA (2.58), R (2.69), Sl (2.92), St (4.81), S (4.83), N (4.85), CU (6.1), AC (8.31) and TU (8.75). The third group was the ''lecherous'' (27%) who preferred sex to any other activities. They put TU ($p = 0.003$; $p = 0.059$), CU ($p = 0.01$; $p = 0.019$) and AC ($p = 0.000$) significantly forward in the prioritization comparing with two other groups. This group did not consider important St ($p = 0.000$). Prioritization was S (2.85), R (3.21), Sl (3.26), N (4.33), CU (5.13), PA (6.13), AC (6.41), St (7.18), and TU (7.72). Drugs were refused by most students in all groups as an influencing factor on their life.

Conclusions

S' values in the 'lecherous' group are objectionable; however it is remarkable, that TU and drugs are in order of importance in the last place in all groups. The CU, AC, TU and the drugs are at the end of the list both in 'Maslow' and 'purposeful' groups. AC was frightening among the S, but they did not consider important in their life. Form the values of S remains an important task in higher institutes.

Nature-Culture-Health Activities (NaCuHeal): Better Public Health by volunteers' work in Norway

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Introduction

Cultural activities produce good experiences of many different kinds. Meaningful cultural activities and encounters increasing persons social capital are important for individuals experiencing stress or anxiety. There is a positive link between nature and cultural activities and health. Previous research shows that attendance at cultural events, reading books or periodicals, and making music or singing in choir are determents for survival. Aims. (1); To explore the role of cultural participation. (2) To describe the experiences of volunteers. (3); To increase knowledge about starting a NaCuHeal centre and look for what is needed in order to be successful. Method. Focus group interviews were used in order to ascertain the perception and expectations for respondents in the NaCuHeal project. A semi-structured interview guide was used. The focus groups were intended to provide the opportunity to obtain a nuanced understanding of respondents' views on cultural activities as a way to increased well-being. In order to underpin the validity of the findings, qualitative semi-structured interviews with open questions were used. Results. The results are based on verbatim expressions from respondents representing each NaCuHeal centre and volunteer centre. Two important factors seem to be needed to start and further develop a NaCuHeal centre. The first to be mentioned is about resources and economy, to have an economic ground to secure money for running the centre. The second is volunteer's role in a social context. They regarded volunteering as an important and productive activity that gives an altruistic reward. Conclusions. This study has contributed to increase consciousness of what is needed to successfully start a NaCuHeal centre. It is a valuable branch in public health work and volunteer work.

Public health research in the medical ethics committees in Finland

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Background

In Finland the law requires that all medical research has to be reviewed by official research ethics committees (RECs). The law, rules and guidance focus on medical research, particularly interventions and drug trials. The general aim of this study was to examine all medical research handled by the RECs. Specifically, we will study how the special characteristics of public health research have been taken into account in the review.

Methods

Descriptive data of all research applications reviewed by the Finnish RECs in 2002 and 2007 were collected. Representative data from 19 out of 21 RECs were available for this study. The applications ($n = 2031$) were categorized according to research field, researcher, and sponsor. Chi-square test served for statistical analyses.

Results

The overall number of reviews decreased slightly during the study period. Most research was academic (60% of the applications), while for 25% drug industry and for 10% health care institutes, mainly hospitals, were responsible. Almost half (45%) of the research was financed by applicant's employer, 29% by industry and 26% by non-commercial organisations. About 41% of research dealt with treating patients. The proportion of public health research was: epidemiology (9%), preventive medicine (7%), health services and related topics (3%). The number of public health research applications declined from 2002 to 2007. A clear majority of the public health research was financed by the employer ($p < 0.01$). In addition, there was a considerable number of non-medical research (18% of the applications).

Conclusions

The research reviewed by the Finnish RECs is diverse and slightly decreasing. Public health research still constitutes a major part of the medical research reviewed in the RECs.

2.F. Social inequalities in children and adolescents

Social inequality in child and youth health, well-being and behavior

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To obtain greater knowledge of the health and well-being of children and young adolescents in Copenhagen Municipality in 2009, questionnaires were sent to all parents of 3- and 6-years-old children, and to all 11- and 15-year-olds. 8677 (45%) valid responses were obtained. Questions regard height and weight, health behavior, health, diseases, well-being (self reported as well as parent-/self-rated Strengths and Difficulties Questionnaire).

Responses from each of ten city districts are weighted according to register data on parent income, level of education, work status and sex as well as child family status, sex and ethnicity. Regardless of the weighting, a response bias may be expected based on the individual respondents' interest in health related topics. This is supported by comparison of body mass index (BMI) based on questionnaire results with BMI from health professionals. These comparisons show a higher drop-out rate among children with high BMI.

Preliminary results show that the vast majority of 3 and 6 year old boys and girls are happy and healthy (>97%), and that most have healthy habits. Most of the 11- and 15-years-olds are also happy and healthy, although there is a decrease in both well-being and self-reported health from 11- to 15-year-old. For both groups there is a highly significant relationship between self-reported health and both self-reported and SDQ-scored well-being.

SDQ-results for ages 3, 6 and 11 show that approx. 50% more boys than girls are categorized outside the 'normal'-category. For the 15-year-olds this is reversed with 12% girls and 8% boys outside the category 'normal'. Together with results on self-reported health, well-being and symptoms, the SDQ-results indicate that there is a group of vulnerable teenage girls, whom it may be advisable to focus on professionally.

Responses shows that the 11-year-olds generally still behave as children, where as the 15-year-olds are adopting the habits of the youth culture with irregular and unhealthy meals, smoking, drinking alcohol . . . Significant differences between the city districts indicate clear socioeconomic and/or ethnic differences in habits. These differences will be clarified further through commencing analyzes of questionnaire data together with socioeconomic register data.

The impact of shared family factors on the educational gradient in cause specific mortality among adults

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Objective

To estimate the impact similarities (shared family factors) within siblings have on the association between length of education and cause specific mortality in late adulthood.

Methods

A linkage between the Census and population data from the Statistics Norway, Cause of death registry and the educational register. The population was defined as all Norwegians born in the period 1940–1959 (n = 1,238,650). 890,990 individuals were included for analysis. 228,181 were excluded because they had no siblings and 119,479 were excluded because they lacked information on mothers. Length of education was the highest recorded by 1990. Follow up of deaths was from 1990 - 2008. Sibling status was defined as sharing the same mother in the registers. Cox proportional hazards regression was used and adjustment for similarities within siblings was done by including strata for each group of siblings in a fixed effect model.

Results

Among the included there were 47,045 deaths. A graded HR was seen between each level of education for all causes of death. After adjusting for similarities within siblings, the effect effect of education was moderately attenuated. Similar was seen for cardiovascular causes of death, alcohol related causes of death, violent and pulmonary cancer. Little attenuation was seen for suicide and causes of death related to mental diseases.

Conclusions

This study examined with more robust methods than previously the impact of early environment on the educational gradient on mortality. It documents the potential benefit of early intervention to reduce inequalities in adulthood.

Infant Mortality Disparities: Peer Education Strategies for Infant Mortality Awareness and Prevention

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Disparities in infant mortality rates persist with African American infants most significantly impacted. Their rates are more than twice the rates of non-Hispanic whites. In May 2007, the Office of Minority Health (OMH) of the Department of Health and Human Services launched a national program, A Healthy Baby Begins with You, as part of its initiatives to eliminate health disparities among racial and ethnic minorities in the U.S. Preconception health and care promotion aims to optimize an individual's health prior to conception and thus has the potential to improve birth outcomes. In line with the Center for Disease Control goals and recommendations to improve preconception health and care the Preconception Peer Educators (PPE) program targets college-aged African American men and women with preconception health and care messages.

The objective of this program is to raise awareness about infant mortality disparities, and to underscore the importance/ encourage the adoption of preconception and inter-conception health behaviors as a key measure to help prevent infant mortality. It integrates different strategic communication areas, activities and channels, including: faith based community outreach, high school outreach, community canvassing and health fairs, preconception peer education training, mass media communications, partnerships with local and state health organizations and education for health care professionals. The evaluation study was designed to: 1) Identify key behavioral indicators for program evaluation; 2) monitor and evaluate results in the ''innovator'' group (existing group of peer educators); 3) continue to monitor and analyze other process, media or progress indicators; 4) inform future evaluation studies of the campaign's impact among intended audiences. The study used several methods, including pre- and post- questionnaires, cognitive interviews, an online survey, focus groups, and a review and analysis of other results within the interpersonal, mass media, and community-based settings. This session will provide an overview of the PPE model and successful strategies for implementation, as well as key findings, including obstacles and social norms that may prevent the adoption of recommended behaviors at the individual or community levels.

Social determinants of mortality after leaving parental home - effects of childhood and current sociodemographic factors

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Longitudinal studies have shown that social position at birth and further accumulation of exposures to risk and protective factors during the life-course are strong determinants of health inequalities. From a life-course perspective, early adulthood is a critical period as the taken paths in education, employment, and family formation seem to affect health differentials over and above the effects of preceding childhood living conditions. Previous research on life-course effects on health has mostly concerned adult and older populations and due to data limitations life course trajectories have often been operationalized on only few measurement points. This study examines mortality differentials in late adolescence and early adulthood by both parental background (parental education, occupational class, family type) and level of own education, current main economic activity, and current living arrangements. The study is based on annually updated longitudinal register data that include a representative 11% sample of the whole Finnish population in 1987–2007 with an 80% over-sample on the population that died during the period. We calculated mortality rates and estimated multivariate Cox proportional hazards models to study deaths between ages 17–29 from 1990 to 2007. Mortality was followed from the point of leaving parental home, an important threshold in the transition to adulthood that generally occurs early in the Nordic countries. Lower parental socioeconomic position was associated with higher mortality in young adulthood. Compared to young people who had lived their childhood in married two-parent families, those who had lived in one-parent or cohabiting-parent families, or experienced changes in the family structure, also had higher mortality. Furthermore, those from less advantaged parental background were more likely to leave the parental home at an early age, which was further associated to higher accidental and violent mortality rates. Although parental background factors remained influential, the strongest excess mortalities among the currently non-employed, the less educated, and those living in non-family living arrangements in young adulthood highlight the importance of early adulthood as a critical period for emerging health inequalities.

Early childhood care in community health promotion and prevention - evaluation of approaches, methods and projects in a disadvantaged urban quarter

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Background

The local health authority Hamburg-Eimsbüttel has developed a prevention programme for the disadvantaged quarter "Lenzsiedlung". This programme is implemented together with the "Round Table for Health" and focuses on the support of networks concerning early childhood care. Within the funded main focus on "Prevention research" of the German Federal Ministry of Education and Research (BMBF), the department of Medical Sociology of the University Medical Centre has taken on the accompanying analysis.

Objectives

The research project has two objectives: firstly, the development of local health reporting for development of the local prevention programme. Secondly, the programme is to be evaluated regarding its effectiveness. Here, the instrument "Capacity Building in the Quarter" is applied. Within the realization of this objectives approaches, methods and projects of early childhood care and their local networks are evaluated for further implementation and transferability.

Results

The research project has evaluated different approaches, methods and projects for early childhood care and their networks for the development of the prevention programme and concerning the special perspectives of the single measures and their relevance for a networking strategy. Subjects of evaluation were: "Baby Licence", "Familiy Midwives", "Childrens Crawling Group" and other approaches. The research project shows with the results, that the access to single measures and the participation of the target groups as well depend on the quality of the network structures. Linked elements of the network and interlocked activities and procedures improve early childhood care for disadvantaged people.

Conclusions

Evaluating single measures within a complex approach concerning the whole prevention programme provides helpful findings for the stakeholders and their cooperation partners regarding the situation in early childhood care.The results of the project were made available to the "Round Table for Health". Currently, stakeholders are discussing the findings with regard to a continued implementation of the programme and concerning to the adoption of this successful single projects into the usual health care which is paid by all health insurance companies or by health authorities.

Infants and toddlers preventive health services utilization among Jews and Arab children in Israel

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Background

The mother and child health-centers (MCHC) in Israel serve about 800,000 children up to age 6. The services offered include vaccines, growth and development surveillance, nutrition guidance, screening tests and health promotion activities. One major purpose of the MCHC services is to reduce disparities between population groups. Therefore the public health services in Israel promote preventive health services utilization among minorities such as in the Arab sector.

Objectives

To examine the differences between Jews and Arabs children related to Infants and Toddlers Preventive Health Services.

Methods

Retrospective data analysis of computerized records of about 84,000 children born in 2005–2006, registered in the Israeli Ministry of Health MCHC. Data included vaccination rates, growth and development surveillance and health outcomes.

Main Results

High vaccination rates (over 90%) were found in both the Jewish and Arab populations. Rates for receiving the full vaccination program (up to 3y) were significantly higher among Arabs than Jewish children (86% vs. 74% respectively, $p < 0.001$). Higher growth and development measurements performance rates were found in the Arab population in all age group (6, 12, 24, 36 months), differences ranging between 7-25%. Growth measurements results were similar in both the Jewish and Arab sector (~3% below 5th percentile, ~11% above 95th percentile at 3y).

Conclusions

This study shows the success in promoting preventive health services utilization among the Arab sector in Israel. This case study can serve in order to learn effective measures for reducing barriers (structural and cultural) for public health services utilization among minorities. Nevertheless, among both groups there is a need to find specific high risk groups according to other SES related sub-categories in order to increase vaccination rates and to develop intervention programs to reduce growth and development problems.

Uptake of child health services among low income and immigrant families in a Swedish county 1998–2008

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Background

During recent decades, Sweden has developed into a multicultural society. Most immigrants tend to have low incomes and to live in disadvantaged neighbourhoods. Mental health problems, common among refugees, add to the special needs of refugee families. Studies on Swedish populations show associations between material resources of the family and many aspects of child health. Consequently, immigrant and low income families can be expected to have greater needs of support from the Child Health Services (CHS). In this study we investigated consumption of CHS of immigrant vs. Swedish and low vs. high income families to study whether immigrant and low income families had access to, or utilised, care in accordance with their greater needs.

Methods

A register based survey combining data from regional and national registers. The sampling frame was the total population of 27 838 children, born 1998 through 2006 in the county of Uppsala, Sweden. 2 318 children were excluded because of medical reasons. Children of mothers who immigrated before 6 years of age were regarded as adoptees raised by Swedish-born parents, (n = 496) and hence excluded. The study population thus consisted of 25 024 children. Outcome measures were number of visits at the nurse's office, any home visitation, immunization status, participation in parental group and examinations by general practitioner (GP). Analysis was conducted by Cox regression and linear regression models.

Results

Very similar patterns of uptake of most child health services were found in Swedish vs. immigrant and high vs. low income families. Low income mothers (RR 0.78, 95 % CI = 0.71–0.86) as well as mothers born in South and East Europe and non-European regions with an immigrant partner (RR 0.28–0.44, 95 % CI = 0.21–0.61) had lower rates of participation in parental groups.

Conclusion

Our results show that the CHS provided almost all infants with basic child health care, including home visit, health checkups and a high coverage of immunizations. The core programme was equally distributed in different immigrant and socio-economic populations. However, the results did not indicate that the CHS provided enhanced care for groups in particular need.

2.G. Sickness absence 1

A comparative study on sickness absence rates and patterns in Norway and Denmark

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Background

Sickness absence is a topic of considerable concern in Norway and Denmark because the absence level seems to increase in both countries. Labour Force Surveys indicate a level of sickness absence in Norway about twice that of Denmark and mean OECD (OECD 2009).

The aim of this study is to compare sickness absence level, number of spells and short and long term sickness absence in health and care sectors in Norway and Denmark.

Methods

Data from personnel registers for Kristiansand Municipality, Norway and Aarhus Municipality, Denmark were analyzed including 2299 and 4256 employees, respectively. The registries contain complete information about all incidences of absence in Kristiansand and Aarhus in 2004. Core variables were age, gender, education, calendar days of sickness absence and employment, length and number of sickness spells. Comparative descriptive statistics and negative binominal regression analysis were performed. Level of sickness absence is calculated as percent of possible workdays and proportion of employed with absence of different length categories.

Results

Sickness absence rate in Norway (N) was 10.1 % compared to Denmark (D) 8.1 %. The absence rate for all age groups is higher in Norway, except for employees < 30 years. The proportion not having sick leave was higher in Norway (31 %) than in Denmark (18.6 %). The proportion of short term absence, 1–14 days, was higher in Denmark. The proportion of long term absence, 2 months +, was higher in Norway. Mean number of sick leave spells per employee is higher in Denmark (D:2.1, N:1.8), whereas mean number of sick leave days per employee is higher in Norway (N = 30.7, D = 16.6). The multivariate adjusted regression analysis of sickness absence time shows 23 % reduced absence in Denmark compared to Norway. The analysis shows that age, gender and land have significant effect on absence.

Conclusions

In our study we observed elevated sickness absence rates in Norway compared to Denmark. There is a higher proportion of short term sickness absence in Denmark. Although proportion without sickness spells are increased in Norway, increasing length and proportion of long-term absence explain higher number of sick leave days in Norway despite higher number of spells in Denmark.

The role of lifestyle, health, and work in educational inequalities in sick leave and productivity loss at work

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Background

This study investigated the influence of lifestyle, health, and work conditions in the association between education and productivity loss at work and sick leave.

Methods

Employees of six companies filled in a questionnaire at baseline (n = 915) and after one-year (n = 647). Productivity loss at work was measured on a 10-point scale indicating how much work was performed on the previous workday, and sick leave by the number of days off work due to health problems in the 12 months. GEE was used to estimate the association between educational level, productivity loss at work and sick leave. The role of lifestyle factors, perceived health, physical and psychosocial workload as possible mediating factors in the associations was studied, adjusted for demographic confounders.

Results

At baseline, 33% of the participants reported productivity loss at work, and 59% sick leave. After 1 year, 30% reported productivity loss, and 52% sick leave. Participants with a low education were more likely to report productivity loss (OR = 1.56, 95%CI: 1.03–2.36) and sick leave (OR = 1.90, 95%CI:1.21–2.99). After adjustment for lifestyle, health, and work conditions, the association between education and productivity loss at work remained unchanged. Work conditions attenuated the association between education and sick leave to OR = 1.75 (95%CI: 1.09–2.81).

Conclusions

Educational differences were found for productivity loss at work and sick leave. Work conditions and lifestyle factors had a modest impact on the association between education and sick leave. Interventions aimed at improving work conditions and a healthy lifestyle among lower educated employees might partly reduce educational differences in sick leave.

Incidence of disability pension and associations with sociodemographic factors in a Swedish twin cohort

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Background

the incidence of disability pension (DP) with a mental diagnosis has increased in many welfare states, causing substantial costs to the society. Some sociodemographic factors have been shown to be associated with DP in general, however, whether these associations are present for DP due to mental diagnoses are unclear. Moreover, the influence of genetics and/or early life factors (familial confounding) for these associations remains to be studied. The latter can be investigated using twin data. The aims were to study incidence of DP (due to all or mental diagnoses) and associations with sociodemographic factors, and if familial factors influence such associations.

Methods

A prospective cohort study was conducted of all twins born 1928 -1958 in Sweden (N = 52 609). The twins were followed for 16 years (1993–2008) regarding DP. Analyses were undertaken both at individual level (Cox regressions) and in terms of matched pairs (conditional Cox regressions), including only those pairs that were discordant for socio-demographic factors at baseline.

Results

The cumulative incidence of DP was 16.8 %. Out of all DP diagnoses, 20 % were due to mental diagnoses. Middle age (45 - 54 years) (HR 2.22; CI 95 % 2.10 - 2.33), being a women (1.31; 1.26 - 1.37), unmarried (1.28; 1.23 - 1.34), unskilled blue-collar worker (1.96; 1.83 - 2.10) and/or living in Gothenburg & Malmö region (1.17; 1.08 - 1.27) were risk factors for DP, irrespective of diagnoses. Higher age (55 - 64 years), intermediate or lower education, and being self-employed were associated with a higher risk for DP due to all diagnoses. Living in rural areas or being self-employed were protective factors against DP due to mental diagnoses. Some of the associations with DP attenuated after accounting for influence of familial factors.

Conclusions

Factors shared by family members (i.e. genetics and early life experiences) seem to influence some of the associations. Moreover, the associations differed depending on diagnostic group of DP. Hence, it is important that future studies of risk factor for DP account for familial confounding, and also to study risk factors for different DP diagnoses separately.

Potential years of working life lost due to permanent disability in a cohort of Social Security affiliated workers in Spain, 2004–2009

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Objective

To describe the potential years of working life lost (PYWLL) due to non work-related permanent disability (PD) in relation to demographic and labor variables.

Methods

The study includes 11,812 workers covered by the Spanish Social Security General Schedule that began a non work-related PD between 2004 and 2009. PYWLL is defined as the years between the age at which a worker initiates a PD and 65 (retirement age) or in case of return to work, the age of reinstatement. 1,524 workers returned to another work after the disability within the period. We calculated the quartiles of the PYWLL and the ratio of average number of PYWLL and confidence interval 95% by a Poisson regression using a robust estimate of standard errors.

Results

The 11,812 workers with PD lost a total of 140.474 years. Fifty percent of the workers started a non work-related PD before 56 years old. The PYWLL overall median was 9.5 years: 11.3 years in women and 8.8 in men. The average number of PYWLL in women was 1.1 times higher than in men (95% CI = 1.1, 1.2). By occupation, median PYWLL in unskilled manual workers was 10.4 compared to 8.5 in skilled non-manual. Regarding the number of contracts during the period, those workers who have had 3 or more contracts have a PYWLL median of 12.4 years compared with 8.7 of those who have had a single contract. The average number of PYWLL was 1.3 times higher (95% CI = 1.3, 1.4). These results, for each of the three variables, do not change after adjusting by Spanish region and economic activity.

Conclusions

PD is a relevant problem in terms of social security systems and in terms of lost productivity. This study found that non work related PD is associated with occupation and number of contracts during the period. It is necessary to continue investigating this issue in order to prevent years of working life lost.

The work ability index and single-item question: associations with sick leave, symptoms, and health - a prospective study of women on long-term sick leave

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Background

The main challenge among persons on long-term sick leave is in assessing work ability and how it influences the return to work process. The concept of work ability is broad, comprising the physical, psychological, and social capability of a worker to perform and interact within their work, and the individual's specific work demands, health conditions, and mental resources. The work ability index (WAI) is an instrument designed for occupational health services and is used today in clinical practice as well as for research purposes worldwide to assess work ability. This study investigated the association between WAI and the single-item question on work ability among women working in human service organizations currently on long-term sick leave. It also examined the association between WAI and the single-item question in relation to sick leave, symptoms, and health. Predictive values of the WAI, the changed WAI, the single-item question, and the changed single-item question were investigated for degree of sick leave, symptoms, and health.

Method

This cohort study comprised 324 female workers on long-term (>60 days) sick leave, with follow-ups at 6 and 12 months. Participants responded to questionnaires. Data on work ability, sick leave, health, and symptoms were analyzed with regard to associations and predictability. Spearman correlation and mixed-model analysis were performed for repeated measurements over time.

Results

The study showed a very strong association between the WAI and the single-item question among all participants. Both the WAI and the single-item question showed similar patterns of associations with sick leave, health, and symptoms. The predictive value for the degree of sick leave and health-related quality of life (HRQoL) was strong for both the WAI and the single-item question, and slightly less strong for vitality, neck pain, both self-rated general and mental health, and behavioral and current stress.

Conclusion

This study suggests that the single-item question on work ability could be used as a simple indicator for assessing the status and progress of work ability among women on long-term sick leave.

Published article: Scand J Work Environ Health 2010;36(5): 404–412.

Does sickness absence necessitate certification by a medical physician?

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Most Western countries require a medical certificate for payment of sickness benefit. This article discusses whether a mandatory medical certificate is necessary to legitimate sickness absence or if self-certification can suffice.

In Norway, two municipalities have, on a trial basis, implemented extended self-certification of employees' sickness absence. Employees in the municipality of Kristiansand have since 2002 had the opportunity to self-certify sickness absence up to 50 days, while employees in the municipality of Mandal have since May 2008 been able to self-certify their sickness absence up to 365 days. On the basis of absence registries and questionnaire data, we discuss the impact of extended self-certification on sickness absence behaviour.

Results

In Kristiansand, employees prefer medical certificates when absent in excess of one week. In Mandal, employees quickly adopted self-certification as the general rule, for both short and long-term sick leave, the latter defined as sick-leave in excess of 16 days. Self-certification of short-term sick leave reduced absence length and return to work became more equally distributed along the week-days. For sick leave in excess of 16 days, the proportion of graded sick leave significantly increased in self-certified episodes, 28.1% (95% CI = 21.6–35.3) compared to 16.4% (95% CI = 8.8–27.0) in medical certified sick leaves. Although an increasing majority of employees were satisfied with the opportunity to self-certify for an expanded period of time, feedback suggests that there are a number of managerial challenges associated with extended self-certification.

Conclusion

The results indicate no abuse of extended self-certification. Short-term absence is shortened, while increased use of graded leave for long-term absence suggests improved dialogue at the workplace. The experiments indicate that mandatory certification by a medical physician to legitimate sick leave is unnecessary. Professional medical advice, may, however, be conducive for the work place dialogue and be of support in the follow-up of sick listed.

Why are general practitioners reluctant to enrol patients into a randomized controlled trail on sick leave? A qualitative study

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Background

The rate of sick leave in the Western countries is a burden for the individual, for the work place, and society. Sick leave assessments are often challenging and complex, and trust in the patients knowledge of self is crucial. It is commonly accepted that being out of work can be detrimental for health and well-being. Low levels of medically certified sick leave among employees reporting poor health, predict subsequent improvement in health status, but the directions of associations may be debated. There is still scarce knowledge regarding the health effects of sick leave, indicating that this is an intervention, which deserves scientific exploration. Randomized controlled trails (RCTs) are used to assess the effects of interventions in health care and are considered to be the gold standard for effect studies. To assess the effects of sick leave in patients with common, subjective health complaints, a RCT was planned. Patients for whom the GP was uncertain if sick leave was the right treatment for recovery, would be randomized to sick leave (2–4 weeks) or not (0–5 days). Patients could only be included if the responsible GP was sufficiently uncertain if granting sick leave or not granting sick leave, would be appropriate for the particular patient. In spite of serious efforts, we failed to recruit enough GPs to participate in such a study. This paper does not report the intended RCT but want to explore why recruitment of GPs into such a study is difficult.

The aim were to explore the reluctance, and examine the arguments given by Norwegian GPs, on their unwillingness to recruit their patients for a study where sick leave would be based on randomization.

Methods

A qualitative study presenting individual arguments from 50 Norwegian GPs, as written responses to a web-based, open-ended questionnaire.

Results

The GPs did not want to participate in a study where sick leave was decided by randomization (unpublished results will be presented).

Conclusions

Randomization of sick leave in general practice in Norway was not viewed as feasible by the GPs.

Return to work - is job change the option for some groups?

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Background

Interventions to promote return to work (RTW) commonly aim for return to the original job. About 20% of sick listed are not able, not willing, or not welcome to return to the previous job. For some groups, mobility to another job may be necessary for sustainable work ability.The study aims to identify characteristics associated with long-term health-related expectations of professional stability or mobility among recently sick-listed workers, and to study how expectations of professional mobility and turnover intentions are associated with duration of sick leave.

Methods

Cross-sectional study on baseline measures in a prospective cohort study of patients granted sick leave due to musculoskeletal (MSD) or mental (MD) disorders, 1375 individuals fulfilled the inclusion criteria. A baseline questionnaire was sent within 3 weeks of first day of certified medical sickness; 962 individuals responded (70%). Main diagnoses: MSD in 595 (62%) individuals and MD in 367 (38%).

Results

412 participants (59%) expected to remain in their present profession in 2 years. They were younger ($p < .001$), had higher education ($p < .001$), often white-collar occupations ($p = .006$), less economic strain ($p < .001$), a better Effort Reward I (ERI) index ($p < .001$), and lower overcommittment (OC) ($p < .001$), compared with those who did not expect to remain in their present profession. Cross tabulation of expectations and turnover intentions revealed two vulnerable groups; not expecting to remain in the profession in 2 years with (a) and without (b) turnover intentions. In group (a) was MSD prevalent, pink- and blue collar occupations were most common, the average age was higher, and they had low scores in health measures. Time until RTW was significantly longer ([HR] 0.69, 95% CI 0.50–0.96). This group is not competitive on the labor market, RTW to the previous job should be supported. Group (b) were younger and had worse work conditions in terms of high ERI scores and a high prevalence of OC, they had high burnout scores. This group should be supported to find another job.

Conclusions

This explorative study underline the importance of knowledge about the sick-listed person's own expectations of future employment and health resources, when implementing interventions for RTW.

Strong support for work place transfer - a cross sectional study of attitudes to sickness insurance regulations in Sweden, 2008

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Background

Attitudes to the welfare system vary with social class, political ideology and gender. The Swedish welfare policy is supported mainly by workers, low income earners and low educated. However, little is known about the association between attitudes to welfare systems with respect to individual health status. The starting point of the present study is the recent changes in the Swedish sickness insurance scheme. The aim was to study attitudes in the general population to strictness of sick-leave rules, the rule of work place transfer after 3 months of sick-leave as well as application for new job after 6 months sick-leave, focusing on political ideology and health status.

Methods

1,140 people aged 19 to 64 years were eligible for this cross-sectional questionnaire study. Attitudes were analysed in relation to age, gender, political ideology and health status. Health status was measured as sick-leave experiences, self-reported health and level of symptoms.

Results

Forty-two per cent considered the sick-leave rules to be too strict, 60 % found work place transfer as good, and 35 % found that application for new work was good. In logistic regression analyses, high sick-leave experience was associated with increased odds of finding the sick-leave rules too strict with an adjusted OR 3.5 [1.9 - 6.3], and work place transfer (2.3 [1.5–3.6]) and application for new job as not good (2.0 [1.3–3.3]). Correspondingly, high level of self-reported symptoms had increased odds with an adjusted OR of 1.94 [1.33–2.84], 1.82 [1.31–2.53] and 1.53 [1.09–2.15] respectively for the three questions on attitudes to the new Swedish sickness insurance legislation.

Conclusion

Strong support was found for work place transfer. Earlier research on return to work has found workplace interventions to be efficient. From a policy perspective it seems relevant to promote such interventions given the strong public opinion in favour of such interventions. However, we found that individuals with own experience of health problems were more negative to the new sickness insurance regulations than those without such problems.

2.H. Chronic disease management

An assessment model for regional disease management programs in Denmark

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Issue

Disease management programs are used widely to improve effectiveness, efficiency, and equity of care. The impact of disease management programs is discussed.

Two disease management programs were developed in 2008–2009 for COPD and type 2 diabetes, respectively. The main focus of the programs is to improve quality and integration of care in hospitals, general practitioners, and municipalities . For this purpose an assessment model was developed with the purpose to monitor changes at two levels namely at the population level and at the patient level over time. The model assesses the following aspects of the disease management programs; quality of care, patients' perspective, utilization patterns, and costs.

Description

The model is being developed in the period 2010–2012. The evidence-based indicators have been developed in two disease specific working groups including relevant health professionals from all three sectors. Important principles of the model are that indicators are clinical relevant and evidence-based and uses existing data where possible, and support effective feedback, audit and benchmarking.

Results

The model has been through a hearing-phase in relevant user-forums. At the population level, data from central registers will be used to identify the two populations, including data on population specific variables of socio-demography, co-morbidity and utilization of the health care system. Time-series analysis of a few central utilization indicators of health care will be used to monitor change over time. Data at the patient level will be obtained from the National Indicator Database Project's (NIP) databases, and from a new clinical rehabilitation database accumulating data from the three sectors. Each sector will be able to access their own data at individual level, but will also get access to results from the other sectors at an aggregated level.

Lessons

Evaluation and monitoring is an important aspect of implementing new programs in health care organisations. Health professionals, as well as statisticians, specialists in epidemiology and data-managers need to be involved in the process, to make sure that relevant data are collected and handled right.

Multivariate analysis of rehabilitation effects in COPD patients

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Background

The effects of rehabilitation for COPD patients' physical fitness, dyspnoea and health-related quality of life (QOL) are well documented. We wanted to explain the effects of rehabilitation by baseline patients' characteristics and by the level of their compliance to rehabilitation programme.

Methods

The rehabilitation programme took place in the Lung Medicine Ambulatory in 2005–2008. The programme lasted three months and included physical training, education, smoking cessation, and diet consultation sessions. The data were collected at the baseline and at the end of the programme. Physical fitness was assessed with the Senior Fitness Tests (SFT) and the endurance Shuttle-Walk Test (SWT). Dyspnoea was assessed with the Medical Research Council dyspnoea scale (MRC) and the Borg scale. Health-related disease-specific QOL was assessed with the Avlund scale and the clinical COPD questionnaire (CCQ). General QOL was assessed with the Short Form 36 (SF 36).

Results

Data from 156 COPD patients were available; age varied from 42 to 91 years old with a mean (SD) of 69.0 (9.61) years; 62.2% were women, 89.1% were Danes. The main results of multivariate analyses of rehabilitation effects were: 1) the effect on physical fitness measured with one of the SFT was significantly explained by age (older age - smaller effect) and compliance with physical training programme (more training sessions attended - larger effect); 2) ''regression to the mean'' phenomenon (i.e. the worse the results of certain measures at baseline - the larger the effects measured by these measures) was significant for all the rehabilitation effects; 3) the effect for disease-specific QOL measured with the Avlund was correlated with the effect for dyspnoea measured with the MRC; the effect for dyspnoea measured with the Borg scale was correlated with the effect for physical fitness measured with the SWT.

Conclusions

''Regression to the mean'' explained the largest amount of variance in all the rehabilitation effects. Clinically, this means that outcomes of rehabilitation are better for those COPD patients who are physically weaker, have worse dyspnoea and lower QOL. Methodologically, it makes obvious one of the critic points for pre-post designs to evaluate health interventions.

How an active implementation of a chronic disease management program influences patients assessment of the care they receive. Ringkoebing-Skjern Municipality in Denmark

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Background

Health systems will manage more people with chronic diseases as life-expectancy increases and treatment options improve. It will be vital that a targeted strategy for healthcare to this growing group is developed so all are offered professional, efficient treatment and resources are used equitable. The design and effects of an active implementationstrategy for a programme for patients with chronic obstructive pulmonary disease (COPD) - based on literature and methods proven effective in implementing new ways of working with different stakeholders - are focus for this study.

We aim to evaluate change in performance of the health system in care for patients with COPD measured with the Patient Assessment of Chronic Illness Care (PACIC) instrument.

Methods

A cluster-randomized controlled trial with three arms. One intervention arm with patients from half of the general practices in Ringkoebing-Skjern, which received the active implementation. The other half of the practices continued as usual and their patients formed the second arm. To control for Hawthorne effect a comparable municipality's patients were an external control-group. At baseline questionnaires were sent to patients in the two municipalities found by a COPD algorithm based on administrative data. One year after the intervention start, follow-up questionnaires were sent to patients who had responded that they had COPD at baseline.

Results

A total of 2917 patients were sent a baseline questionnaire and 1998 (68.4%) answered. Of these 1456 (73%) verified their diagnosis of COPD. Follow-up questionnaires were sent to 1395 patients (59 had died or sought research protection) and 83% answered. On-going analyzes of the received 1153 questionnaires investigate the change from baseline data in the assessment of received care for chronic illness both in the randomized intervention and control groups and in the extern control group.

Conclusion

The preliminary results suggest that implementing a structured health care management program for COPD in general practice improves the patients' assessment of their care. We will present the final results and discuss the implications regarding optimizing the patient-centered, proactive, planned and collaborative care for patients with chronic disease.

What chronic ill patients want from the GPs: A stated-preference approach of the Chronic Care Model

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Context

In France as in other developed countries, there is an increasing demand for chronic care. General practitioners (GPs) are usually at the frontline but there is still a debate on how to adapt GPs' response to specific patients' needs. The chronic care model (CCM) was promoted as an efficient way to reorganize medical activity. However, this model remains difficult to implement and little is known about patient perspective. We analyzed the chronic ill patients' views on the CCM.

Methods

We consecutively recruited 140 patients over 18 years of age, with multiple chronic conditions and having a referring GP consulted in the last 3 months when attending a consultation for sleep disorders in Saint Antoine hospital (Paris, France). A self-completed questionnaire was administered to these patients. The questionnaire comprised 9 Discrete Choice Experiment (DCE) tasks, 7 Best Worst Scaling tasks (BWS), and questions about the individual characteristics (age; medical situation). The design of the DCE and BWS tasks was elaborated on the basis of 10 CCM attributes identified in the literature and through pilot studies. The data were analyzed according to econometric method (Binary logit regression).

Results

To date, 92/140 eligible patients were recruited and interviewed (mean age = 62.8 years, SD = 8.9; 70% of males). The results obtained from the BWS data highlighted the "Informational continuity between health professionals" as an important feature of the CCM with a mean importance score of 1.72. By order of priorities, the other CCM features were: Physician as a coordinator (0.68), Socio-psychological support (0.58), Healthy lifestyle (0.34), Follow-up (0.21), Self-care (0.07), Accessibility (−0.1), Shared decision making (−0.3), Follow-up schedule (−0.7), and Working with a nurse (−2.49). These results were confirmed by the DCE data with an odds ratio for "informational continuity between health professionals" at 5.3 [3.16–8.94]. Additionally, the number of chronic diseases was found to be significantly influent on the patients' views (OR = 2.974 [1.39–6.36]).

Conclusions

In a public health perspective, taking into account patients' preferences for CCM could be fruitful for GPs and policy makers to make their services more responsive to patients and the public.

Value of octocog alfa (Advate) in the management of Haemophilia A patients

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Background

Hemophilia A requires a multidisciplinary approach, high complexity care and resource consumption. This study aimed at assessing the global value of octocog alfa (Advate), antihaemophilic recombinant factor for bleeding prevention and control, through a full HTA evaluation, based on a multidisciplinary approach.

Methods

Epidemiological, clinical, organizational, social and ethical aspects related to available Haemophilia treatments were considered.

A scientific literature review was conducted through PubMed electronic database.

An economic evaluation was applied to the main therapeutic strategies available: primary prophylaxis vs. treating on-demand. Cost-effectiveness analysis was performed from National Health Service (NHS) perspective, to calculate the Incremental Cost Effectiveness Ratio (ICER) in terms of Euro per Quality Adjusted Life Years (QALY) gained, assuming the utilization of Advate in both alternatives. A Markov lifetime model already published was adapted to the Italian setting.

Results

Worldwide around 110.000 subjects are affected by Haemophilia A. Prophylaxis, compared to on-demand treatment, is proven to be effective for prevention of bleedings and related complications. The introduction of totally protein-free full length recombinant FVIII concentrates (Advate), eliminated risks of blood-borne pathogens transmission. This induced a broader adoption of prophylaxis improving efficacy of treatment and patients' Quality of Life (QoL). Concerning economic evaluation, the treatment with Advate on prophylaxis resulted more effective than the treatment on-demand, with an additional cost of €32,016 per QALY gained. Furthermore, Baxter, the manufacturer and distributor of Advate, offers collateral free of charge services to patients (home delivery, home rehabilitation assistance, home nursing, telemedicine), which could generate savings for the healthcare authorities while increasing the level of assistance.

Conclusions

Although the economic impact of prophylaxis with recombinant FVIII is relevant, improvements of product safety, treatment compliance, efficacy and patient's QoL should be taken into consideration in order to better allocate resource and rationalize choices in health care delivery.

Clinical Routine Rehabilitation of patients with Chronic Obstructive Pulmonary Disease

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The effect of pulmonary rehabilitation in patients with chronic obstructive pulmonary disease (COPD) is documented in many randomized clinical trials (RCTs). Current evidence is the bedrock of Danish rehabilitation programs and clinical guidelines. The implementation of these programs is closely monitored by The Danish National Board of Health and the Danish regions. The Regional Hospital of Horsens has introduced a rehabilitation program based on international guidelines and this present study evaluates the program implemented in clinical routine.

Aim

To characterize COPD with a view to identifying predictors of rehabilitation completion.

To examine changes in 6-minute walk-distance (6MWD), quality-of-life and dyspnea during the course of a clinical routine rehabilitation program.

The study was designed as a prospective follow-up study COPD patients treated at the Hospital of Horsens. The follow-up consisted of a test at baseline and after 3, 6, and 12 months.

Results

The follow-up study included 148 of 521 patients who had been treated during the study period. Forty-six completed the rehabilitation, 35 dropped out, 34 had previously participated in the program, and 33 were not offered rehabilitation. In spite of reporting a significantly lower subjective physical functioning level, completers performed better in the 6MWD test at baseline than any of the other groups. Patient characteristics did not predict rehabilitation completion: thus, completers did not perform better than non-completers at the 12-month examination of 6MWD, quality-of-life, or dyspnea. Still, all completers' evaluation of the rehabilitation program came out as excellent, very good or good, and 85% reported subjective physical improvement.

The results of the follow-up highlight the inherent problem in extrapolating the results of interventions performed in an RCT setting to a clinical routine setting. The importance of this observation should be considered in light of the nationwide spree of COPD rehabilitation programs and the scarcity of attention devoted to the evaluation and quality assurance of such programs. Research addressing quality assurance of inclusion and effect monitoring in clinical routine rehabilitation is needed.

Programme for treatment of patients with heart failure at home - evaluation of the therapeutic outcomes and effectiveness: a randomized controlled trial

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Background

Heart failure (HF) is a serious health problem because of the enormous costs of treatment, home care and the worsened quality of life. The home-based programmes for monitoring of HF patients reduce hospitalization and mortality rates, and improve the treatment effectiveness.

Aim

The aim was to compare the effectiveness and therapeutic results of a home-treatment programme for HF patients regarding quality of life, hospitalization and mortality rates, and costs as compared to the standard care for a 1 year period.

Methods

We performed a 12-month randomized controlled comparative study between December 2008 - March 2010. A total of 300 study HF subjects, aged $50 > 80$ years, were included and distributed in two groups of 150 upon discharge from four cardiac hospitals in Bulgaria.

The intervention group obtained home treatment and follow-up, monthly interviews and telephone consultancy, home visits and cardiologist examinations. The quality of life was determined though the Minnesota questionnaire; body weight, pulse, body temperature, diuresis, arterial pressure, breathing, six-minute walking distance test were measured.

A telephone interview was held with the control group at the end of the 1-year period to specify the current condition and quality of life. The primary comparator indicators were quality of life, hospitalization and mortality rates.

Results

The intervention group showed improvement in the quality of life and patients' satisfaction, positive and consistent heart rate and body temperature control. There was no improvement in the diuresis control; rate of breathing was unaffected either. There was a significant improvement in the control of body weight (decreased from 25,33% to 9,33%) and arterial pressure (decreased from 12,0 % to 2,67%). The group registered 165 hospitalization episodes (1,1 per patient) and 7 deaths (4,67%).

The control group had 248 hospitalization episodes (1,65 per patient) and 9 deaths (6 %).

Conclusions

The comparative analysis of the two groups showed improvement in the quality of life, hospitalization episodes, mortality rates and effectiveness of treatment in the intervention group. The cost-effectiveness ratio showed twice greater effectiveness of home-based programme as compared to the standard treatment.

Evaluation of The Chronic Disease Self-Management Program in Denmark

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Title: Evaluation of The Chronic Disease Self-Management Program (CDSMP) in Denmark.

Background

Quantitative short-term effects of CDSMP on participants self-management behaviours, self-efficacy and health status is well documented in a number of international studies. However, knowledge of qualitative patient experienced effects of the program as well as dropout-analysis and identification of potential barriers and factors conducive to recruitment to the program, which in Denmark has shown to be a great municipal challenge, has not yet been investigated. In a project evaluating CDSMP, these qualitative issues have been investigated, together with quantitative effects of the program on a range of outcome measures. This paper will present some of these new findings within the field of qualitative patient experienced effects and reasons for dropping out of the program.

Methods

Quantitative data on outcome effect measures such as self-management behaviors, self-efficacy, social relations and health status were collected via pre- and post-program surveys among participants from 54 municipalities ($N = 402$). Qualitative patient experienced effects of the program and reasons for dropping out were examined through altogether four focus group interviews with completing participants and dropouts.

Results

Preliminary results indicate qualitative patient experienced effects in terms of greater acceptance of suffering from one or more chronic diseases and the consequences derived from this. Other preliminary qualitative results are use of action plans, improved cognitive symptom management and, what was highly valuated among participants, social benefits of participating in the program such as meeting other chronically ill persons and interchanging views and experiences on consequences of suffering from one or more chronic diseases. In terms of reasons for dropping out preliminary qualitative results indicate worsening of illness and practical obstacles such as working hours as main reasons for not completing the program.

Conclusions

Preliminary results suggests qualitative patient experienced effects of CDSMP on a broad range of areas and particularly on social aspects and benefits of participating in the program.

2.I. Health services 1

The effect of healthcare reforms on patients mobility in Italy

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Background

The Italian National Health System, established in 1978, is inspired by the Beveridge model. Since the 90's several reforms are taking place introducing, beyond the principle of equity, new elements such as efficacy, efficiency and competitiveness. The devolution to Regional Authority developed a quasi-market system and the emerging empowerment of the citizens, who choose where to be treated, influences financial flows and, indirectly, measures the perceived hospital quality. These aspects are cornerstones for health planning purposes and retrospective studies on cross boundaries patients flows should help health managers in maintaining the dynamic equilibrium among citizen demands and the quasi market rules. Therefore, the aim of this study was to describe the trends of patients cross boundaries flows among the 20 Italian Regions.

Methods

Hospital discharges, 1998–2008, were obtained from the Italian Institute of Statistic. Regional cross boundary flows were studied using the Gandy Nomogram (GN). This tool describes how every Region is able to satisfy its own health care demand and the capacity of attracting patients. Attraction/Escapes rate ratios were calculated (A/E RR). Cuzic's Test was used to identify significant trends in time.

Results

All the Italian Regions are located in the balanced quadrant of the GN. 11 regions, mainly southern, over 20 had in all the period attractions rate lower than escapes one ($RR < 1$). Lombardy has the lowest escape rate and the higher rate ratio (>2 in all the studied period). Significant ($p < 0.05$) RR reductions were found in 5 regions: 3 with RR>1 (Veneto, Emilia Romagna and Umbria) and 2 (Apulia and Calabria) with a $RR < 1$; 3 regions showed RR increase: 2 with $RR < 1$ (Sicily and Piedmont) and 1 with $RR > 1$ (Lazio).

Conclusion

The Gandy Nomogram showed that the Italian Regions were generally able to satisfy local healthcare demand. However, differences exist. Southern regions seem less able to hold and attract patients and some of them are getting worse. After healthcare reforms few Regions seems to gain benefit, both for the citizens and financially, some are suffering, and other are still looking for the right directions.

GP-income development in relation to recent health care reforms: an international comparison

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Background

Health care reforms have been introduced in several European countries in the past decade. In most countries, these reforms had (intended and unintended) consequences for the remuneration and incomes of GPs. The reforms can be grouped into two types: incremental reforms and reforms that intend to change the GP remuneration system fundamentally. The research question addressed in this paper is the question whether fundamental changes have different effects on GP income development compared to incremental changes.

Methods

We collected for each country in our study (Belgium, France, Germany, The Netherlands, Sweden and the UK) data on GP-incomes in the period 2000–2009. The income of a GP is considered being the income for a full-time GP after deduction of practice expenses and before taxes and, if possible, excluding income from out-of-hours care and special activities. The data came from national institutes, most of them collecting data on GPs routinely. National data were converted into Purchasing Power Parities US$ (pppUS$) and corrected for inflation. Fundamental changes alter the way GPs are remunerated totally, incremental changes keep the existing method in place, changing or adding only minor items.

Results

In two of countries in our study (UK,NL), fundamental reforms took place. From the year of introduction of these changes, the income of GPs increased substantially. In the other countries, where incremental changes took place in the 10-year period, in most years the income corrected for inflation increased slightly, with a few exceptions where income slightly reduced or did not change.

Conclusions

Whereas in countries where incremental changes were introduced, the income of GPs increased gradually, the income of GPs in countries with fundamental changes (UK NL) increased substantially. We think this is the result of 1) incentives provided by the new system and 2) more precise billing by GPs at insurers or national health funds because of uncertainties regarding their future income. Since fundamental remuneration changes often require new administrative systems, GPs cannot estimate their new income based on their former administration and therefore charge all possible events that the new remuneration rules allow to be charged.

Improving the reimbursement of health care provided by Spain to European citizens

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Issue: Free citizens' circulation rights within the EU and the provision of their health care by the Member States is a complex issue with implications in the management, provision and financing of health services. EU regulations guarantee that application of national legislations does not negatively affect social security benefits of citizens who move to a country different from the affiliation one. Health care provision to EU citizens not insured in Spain poses an extra burden to our national health system NHS. They demand, during their visit or residence primary care or hospital treatments. Our NHS answers effectively but is not getting back all incurred expenses. Description of the problem: On 2010 a qualitative research was undertaken in Málaga, Spain to analyze NHS professionals' practice related to health care to EU citizens and to reimbursement of its costs. Aimed to show barriers and facilitators of the process which could be overcome or potentiate as needed to improve the situation. Results: Health professionals prioritise health care over the administrative tasks and on top of the resource scarcity and lack of deep knowledge on EU regulations, interpret wrongly the rules that allow care benefits. Many European citizens move to Spain but keep their residence in the country of affiliation not to lose social benefits, acting as if staying temporally but receiving care as residents. Spain recovers only part of what other countries should pay because of several reasons: lack of a complete data, lack of correct fulfilment of invoicing requirements; sanitary tourism; false residents. We need to provide care tailored to patients' entitlements, invoice the care fees and provide centres with enough resources to tackle administrative burden. Lessons: The consequences of inadequate health care reimbursement are not attributable to the EU regulations but to poor national management and patients behaviour. The reimbursement of costs for the health care provided to EU citizens not affiliated in Spain must be a priority for our health system. Political sensitivity and promotion of good professional practice are needed to balance the right to benefit from health care with the economic viability of our NHS and to secure a long term Europe's health system.

Prevalence, awareness, treatment and control of hypertension among Ghanaian population in Amsterdam, the Netherlands - the GHAIA study

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Background

Migration from sub-Sahara Africa to industrialised counties has increased tremendously over the last few decades, yet very little is known about the health status of sub-Saharan African populations living in industrialised communities. The aim of this study was to assess prevalence, levels of awareness, treatment and control of hypertension among the largest sub-Saharan African group (Ghanaians) in the Netherlands.

Methods

Cross-sectional study of healthy Ghanaian adults aged 18–60 years in Amsterdam, the Netherlands. Hypertension was defined as systolic blood pressure ≤ 140 mmHg, or diastolic blood pressure ≤ 90 mmHg, or being on anti-hypertensive medication. Prevalence ratios and their 95% confidence intervals were estimated by means of Poisson regression with robust variance to examine sex differences in prevalence, awareness, treatment, and control of hypertension.

Results

The overall prevalence of hypertension was 55%. Of these, about half were aware of their condition, 45% were receiving antihypertensive medication and 15% were controlled (<140/90 mmHg). The prevalence of hypertension, awareness and treatment were similar among males and females. However, Ghanaian migrant males were less likely than females to be controlled for their blood pressure. Among all hypertensive, 22% of females had their blood pressure controlled compared with 5.8% in males (age-adjusted prevalence ratio (PR) = 4.81 (95% CI, 1.53–15.17). Among those receiving treatment for their hypertension, 48% of females were controlled compared with only 13% of males (PR = 4.12, 95% CI, 1.38–12.33).

Conclusions

Hypertension is a major problem among this recently migrated sub-Saharan African population. Besides, hypertension control is very low particularly in men. Urgent measures are needed to halt the increasing prevalence of hypertension and to improve hypertension control among these populations.

Impact of the family's functionality and information on therapeutic adherence after ischemic heart disease

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Background

The adherence plays an important role in patients with chronic diseases, especially in ischemic heart disease. The non-adherence is a serious public health problem with enormous impact on the incidence and prevalence.

Beyond the family's involvement, it is very important the partnership that should exist between the health professional and the patient. This is an active element in the whole therapeutic process.

The health professionals do not take into account the patients' real needs. They do not understand patients' desire for participation and information about the disease and its treatment. Sometimes that information is insufficient, subjective and is given with resources and technical language.

Our goal was to relate therapeutic adherence after ischemic heart disease with the family's functionality and information.

Methods

It is a quantitative and transversal study. We used a self-administered questionnaire for sociodemographic characterization, Apgar Family (AF), Satisfaction with the information about the medication (SIMS) and its subscales: Action and Use of Medication (AUM) and Potential Problems Medication (PPM), and Measure Adherence to Treatment (MAT).

The sample was not probabilistic, with 196 subjects with ischemic heart disease in follow-up consultation at Health Centers in Viseu, Portugal. 61.2% are men with aged between 37 and 90 years (62.4 ± 12.7). The majority (66.3%) is "Married", 57.1% live in "rural" and 75.5% had "highly functional family." We used the Student t test and linear regression in SPSS.

Results

Most patients (52.0%) show a "Good Adherence" to the treatment, 20.4% "Reasonable Adherence" and 27.6% have "Low Adherence". Men are more adherent than women (5.4 ± 0.7 vs 5.2 ± 0.7, p = 0.09).

As for the SIMS, 53.1% of patients are very satisfied (51.7% in men and 55.3% in women), 8.2% are fairly satisfied and 38.8% are unsatisfied. About 82.87% of the variation MAT is explained by SIMS ($\beta = 0.189$ t = 1.762, p = 0.08), AF ($\beta = 0.252$, t = 3.38, p = 0.001), age ($\beta = 0.092$, t = 1.276, p = 0.204) and AUM subscale ($\beta = -0.176$, t = 1.704, p = 0.09).

Conclusions

The information and family's functionality are a key factor for the patients to participate in decisions about their treatment. They influence positively the level of adherence to therapy.

The Project "One Year Together" to Evaluative Units of Alzheimer (EUA) "Dottore Angelico" Aquino (FR)_Lazio Regione- Italy

Elisabetta de Vito

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Background

The project, promoted from the Alzheimer Association of Rome and financed by the Lazio Region, is a trial to accompany the patient and his family throughout the period of illness, with concrete help so as to make it easier for them.

Methods

Through Multidimensional Geriatric Assessment have been prepared Individualized Care Plans prepared for the activities (nursing, psychologist, physioterapy) together at volunteers at home. Patients and caregivers were monitored through the administration at time 0, 3 months and end of project, testing to assess the level of disease severity patients (MMSE, NPI), and the burden of care and psychological well-being of the caregiver (CBI). After the training of volunteers was launched the aid to the 100 families.

Results

The mean age of patients was 70.5 ± 9.4 ds, with cognitive decline moderate 72%. The evaluation at 3 months and end of project shows how the change in clinical function of patients was small, since the average values of the NPI (28.2 T3/T10 29.1) and IB (T3 53.3/54.4 T10) remained modest over time. Also, have follows up at 3 and 10 months suggests that patients with mild cognitive impairment MMSE 18.6/ T0, which received more than 10 accesses the psychologist have maintained stable MMSE 18.9/T10. Regarding to NPI, there is a reduction in the index T10 from 41.8 to 22. The average age of caregivers was 51.2 ± 8.4 ds, women 79.2% and daughters 48%. The presence of the volunteer, has improved both the physical burden from 7.0 to 12.2 (p = 0.05 that social from 4.8 to 8.5 (p = 0.03), while the periodic visit to the psychologist has positively influenced the psychological burden from 9.8 to 12.2 (p = 0.05) and social from 4.8 to 8.6 (p = 0.001).

Conclusions

Preliminary data on 25 patients followed by EUA Aquino has confirmed the importance of promoting synergies between formal and informal networks present in the target areas while supporting the creation of structured interventions that guide and support it. The data, in fact, demonstrate that patients cared contained the functional deterioration over time. The level of stress and anxiety of the caregiver appears to have significantly reduced, thereby reducing the emotional burden in the patient-caregiver and a greater ability to manage care.

Access to healthcare system of patients with acute coronary syndrome according to gender

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Background

The prompt attention to patients with acute coronary syndrome (ACS) is a determining factor in the prognosis. Daily practice is based on clinical practice guidelines and clinical trials in which there is an important gender bias. Because access to healthcare systems and invasive procedures is different for women than for men, women have a higher mortality rate. The aim of this study is to measure and analyse how much time elapses from ACS symptom onset to access of healthcare and treatment for men and women in different Andalusian public hospitals.

Methods

To achieve the proposed objectives, a descriptive study based on data collected in the 'Analysis of Delays in the Treatment of Acute Myocardial Infarction' (Registration ARIAM-Andalusia) was carried out. The study population included patients with ACS during the period January 1, 2005 to June 30, 2010 treated in various Intensive Care Units in Spain. The study variables were sex, age, type of ACS, form of access to healthcare, type of reperfusion therapy, time from onset of symptoms to contact with healthcare system, time from symptom onset to hospital arrival, and time from hospital admission to start of reperfusion procedure.

Results

We studied 20,080 cases of ACS in ARIAM-Andalusia, of which 5,192 (25.86%) were women. The average age for men was 62 years and 69 for women. The most common type of ACS was the acute coronary syndrome with ST elevation, with 53.89% males and 61.60% females. The form of access to healthcare was similar for both sexes, without ambulance in 34% of cases. 37% of women received no reperfusion procedure, compared with 28% of men. Time between symptom onset and contact with the health system was 75 minutes for women vs. 60 minutes for men, with differences more pronounced for those over 60. The delay for fibrinolytic therapy was 30 minutes from hospital access for men and 40 minutes for women.

Conclusions

There are differences in the profile of access and treatment of ACS patients according to sex. Andalusia ARIAM recorded data confirm that women, with ACS, access healthcare much later, which has a strong impact on morbidity and mortality. Moreover, once within the health system, regardless of age, fewer women were treated with fibrinolytic or reperfusion therapy.

2.K. Poster workshop: Human biomarkers in support of environmental health research and policy

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Background

The principal objective of this symposium is to give insight in the development of the use of biomarkers in the environment and health domain and its impact on the science policy interface.

Methods and means

Identification of the different implementation of the use of biomarkers across Europe.

Experts in the domain of environment and health such as public health environment physicians, toxicologists and others are using human biomarkers for different purposes at different scales. We assess uses in research and in surveillance and the possibility to learn from and coordinate different efforts in an open and accessible way to support and evaluate policy in the field.

Expected outcomes

The implementation of biomonitoring identified different potential issues in EU countries. Cooperation is growing across countries and disciplines. The symposium will show how some environmental health practices need support from biomonitoring. However, there are also constraints in the application of biomarkers. Besides some descriptive part of the underlying application of biomarkers a link will be made towards the specific international policy development related to the use of human biomonitoring.

Trends in biomarkers research and their potential for biomonitoring strategies

Lisbeth Knudsen

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Background and objective

The use of biomarkers in research is a growing field. The levelm of implementation and the urgency of its use in human biomonitoring is still under discussion.

Methods

Overview of the trends in biomarker use. Several EU and nationally funded projects are applying biomarkers in the field of environment and health, but also in food toxicology.

Results

The results of these EU-based projects are highlighted in order to show there potential for biomonitoring strategies.

Conclusion

Biomonitoring is one of the ways to move forward in exploring the relation between health and environment. There is great potential in the use of biomarkers. The scope of implementation of biomarkers needs to be defined and linked to the policy domain.

Human Biomonitoring in WHO and EU

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Background and Objective

There is an increased support for HBM by Governments and by stakeholders (Industries, NGO's and trade union's).

We highlight the extended scope of HBM uses with regard to chemicals of concerns and chemicals under development. Furthermore, there are agreed opportunities for investment in HBM by development of international instruments and indication of the need for early warning and prevention instruments.

HBM is supported by and and can be supportive to Member States policies though exchange of best practices or coherence of communication towards stakeholders. We will show HBM as an instrument for better governance by 1) Science to policy transfer; 2) Cross cutting issues dealt by a horizontal approach; 3) Integration of policies; 4) Efficiency of the use of resources. Finally HBM acts as a driver for concerted action between MS and Commission regarding subsidiarity, and sharing of responsibilities, accountability towards citizens

Methods and Results

HBM has been highlighted in the Parma declaration and its following up has been taken up.

After the first EU Action Plan: next steps and tools to be developed. What is done?

- A decision making structure with mandated MS representatives and EU authorities.
- An advisory group of EU experts providing recommendations
- A transparent process to define EU HBM reference and health based values
- A dedicated funding for long-lasting programmes
- **Legal instruments or policies that integrate capacities, competences skills, and infrastructure**

The ongoing pilot study will lead to at short-term: to design the outline of a more global EU programme; At mid-term: to collaborate with other existing/in development surveys (EHES, INSPIRE) and at long-term:

- To assure the continuity of a EU HBM programme as a policy tool.

Conclusion

– Further development of environment and health process
  - Framework for collaboration
  - Mechanism and adequate resources (human + €)

The EU HBML pilot study: measuring exposure in EU mothers and their children

Cophes project

Cophes
COPHES project

Background and objective

HBM is increasingly obtaining a legal embedding at national level, permitting repeated cycles of measurement. A coherent approach would allow improving the use of HBM data as a tool for the control of chemical regulations (REACH), for the quantification of exposure of the general population to existing and emerging pollutants, for the determination of reference values for exposure, to support policy making by e.g. evaluation of policy actions.

Methods

Scientists are developing a framework to define, organize and manage a coherent approach towards HBM in Europe. Aggregating experiences from existing and planned HBM activities they developed a common protocol that supports better comparability of HBM data and is to be tested in a pilot study.

Results

Protocols have been elaborated in each participating country. The study protocol contains detailed provisions and procedures for selection of study participants, recruitment and fieldwork; selection of biomarkers; biological sample handling, analysis, and quality assurance; data management and evaluation, coding, data transfer to a European central database and data interpretation; communication comprising strategic; ethics and data protection consisting of general approaches to use and specific recommendations; and training material for participating countries. The target population: children 6–11 years and mothers (up to 45 years).120 mother-child pairs (i.e. 240 samples) will be recruited balanced by living, surrounding, socio-economic factors, age and gender. Urinary cadmium, methyl mercury in hair, urinary cotinine, and urinary levels of phthalate metabolites will be analysed. some countires will also investigate BPA and triclosan. For biological sample analysis a central Quality Assessment Units and ICI's are established to assure comparability.

Conclusion

Incorporation of HBM as a scientific and policy tool requires the availability of structures for gathering, storing and analyzing biomarker and other data. Key elements for success relate to decision-making structures, strong scientific support, a transparent determination of EU HBM reference and health based values, funding for long-lasting programmes foreseen at a very early stage, legal instruments or policies that integrate capacities, competences, skills, and infrastructures (labs, biobanks), and finally, a clear definition of the responsibilities and tasks at national and EU level.

The WHO POPS in breast milk survey

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Background and objective

Breast milk monitoring studies have for a long time been used to follow temporal and spatial trends in the body burden of persistent organic pollutants (POPs) in lactating women as an indicator of the environmental pollution and for assessing possible effects on health of infants. It is assumed that the levels in breast milk reflect the total maternal body burden during pregnancy and thereby also provide a dosimeter of prenatal exposure to POPs.

Methods

Since 1986, the World Health Organization (WHO) has coordinated four international breast milk monitoring studies on POPs using a common standardized study protocol. Breast milk samples are collected in primiparous mothers and analyzed individually or in pools for dioxins/furans (PCDD/F), polychlorinated biphenyls (PCBs), polybrominated diphenylethers (PBDEs), hexachlorobenzene (HCB), hexachlorocyclohexanes (HCH) and dichlorodiphenyltrichloroethanes (DDTs). All these compounds are presently regulated by the Stockholm Convention on POPs eliminating or restricting production and use in most countries.

Results

Overall in European countries breast milk concentrations of PCDD/Fs, dioxinlike PCBs, non-dioxinlike PCBs, pesticides HCB, HCH and DDT decreased in time. On the contrary, the breast milk content of PBDEs, a group of brominated flame retardants, increases until year 2000 but concentrations seem to have stabilized now.

Conclusions

The results of the breast milk monitoring program indicate that measures taken by governments and industry have reduced the population's exposure to POPs. However, changes in food production and the people's dietary habits may also have contributed to the reduction.

2.L. Health Education

What's in it for me? Lessons learnt on how to collect data on patient education programmes in diverse settings

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Background

Patient education (PE) is gaining ground in Denmark. The purpose of PE programs is for patients to acquire knowledge and competencies which enable them to manage their chronic disease. However, the evidence of PE is deficient and the quality and effect of different approaches need to be monitored through standardized evaluation tools applicable for multiple types of PE programs.

Purpose

Centre for Public Health in Central Denmark Region has developed a generic and voluntary statistical tool for monitoring and evaluating PE programs. The long term purpose is to assess the evidence of PE. The short term challenge is to implement the tool in a local setting.

Method

To collect data on PE programs it is necessary to motivate very diverse municipalities and hospital wards to use the same tool. In Central Denmark Region data collection is assured through a method of 1) flexibility 2) local data access and 3) pedagogic instruction. Flexibility is achieved by combining a mandatory module (self-rated health/SF-12 and socioeconomic background) with a range of optional modules (diet, smoking, alcohol, physical activity, weight, self-management and coping). This allows for a degree of local variation. All modules consist of survey data. Local data access implies that a municipality or hospital ward can automatically access its own results through the Internet. Pedagogic instruction ensures a unified understanding of the tool's purpose and potentials as well as its methodological principles.

Conclusions

Through the use of standardized evaluation tools it is possible to collect sufficient amounts of data to assess the evidence of PE programs. However, data access requires that municipalities and hospitals have a clear understanding of the benefits and implications of using a joint system for evaluation. Making data and results applicable in local contexts is crucial, and important lessons have been learnt:

1. Pedagogic instruction can counter cultural and educational differences
2. Easy access to local data makes the tool interesting to front line staff
3. Flexibility in combining mandatory and optional modules lowers the barrier for participating
4. Successes have a contagious effect and can stimulate others to join in.

Health education programme Safe World in City of Novi Sad, Serbia, 2009/2010

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Background

Injuries are the important public health problem in children under 18 years world wide. Primary health care service in City of Novi Sad, covering almost 70.000 children aged 0–19 years, registered 10.392 cases of injuries and poisoning in year 2010, 803 were hospitalized and three died. Health promotion team from the Institute of Public health Novi Sad, created educational programme "Safe World" for children aged 6 to 10. It included creating health educational tools (coloring books, picture books, educational posters for children, brochures for parents, workshops and trainning curriculas for educators), organizing seminars, parent - teacher conferences, with consequent education of children. Preschool teachers, health care professionals from kindergartens, and school teachers were included in the programme.

Objectives

"Safe world" programme was aimed to create educational materials, training and curricula together with workshops for educators of children aged 6–10 and their parents. Programme was implemented 2009–2010 in 67 kindergartens and 36 primary schools in City of Novi Sad, Serbia. Evaluation of the programme included answers to the following questions: are the educational matherials for children and parents appropriate, how educators assess seminars, curriculas and workshops as well as their impressions and experiences in working with children.

Results

"Safe world" educational programme attended 256 educators in four seminars, 6590 children in 322 workshops were encompassed and 3942 parents in teacher - parents conferences. Educators appraised seminars on scale from one to five (five is the best grade) with average grade 4.8 and appropriateness of educational materials 4.7. Educators assessed children's understanding of workshops with 4.8, involment and motivation with 4.9, and their adaption of knowledge with 4.8 average grade.

Conclusions

"Safe world" educational programme was appraised by educators as very usefull, with excelent average grades for contents, materials and impressions in working with children. Over 90% of children aged 6–10, who attend kindergartens and primary schools, were encompassed. Programme showed succefull interlinking of health care and education sector together with health authorities and medias.

The evaluation of leadership skills among chief executive officers of Lithuanian public health institutions

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Background

The Association of Schools of Public health in the European Region (ASPHER) emphasizes the leadership skills as a core competence of new public health specialists. The importance of leadership in public health has been underline by the Lithuanian health policy makers. The aim of this study - to evaluate the leadership skills among chief executive officers (CEO's) of Lithuanian public health institutions.

Methods

The data was collected in a cross-sectional study, in 2010. Questionnaire were distributed to all CEO's (directors, vice-directors and heads of regional offices) of Lithuanian public health institutions (N = 94). The total number of returned questionnaires was 55 (response rate of 58.5%). Respondents were asked about their skills in leadership, teamwork, communication and conflict management. The evaluation was carried out providing answers according to a five-point scale from "disagree entirely" to "agree entirely". The continuous variables were each presented as a mean along with a standard deviation.

Results

The results of this study showed that respondents evaluated their leadership reservedly. The mean score was 3.47 ± 0.71 (max 5). Meanwhile, the skills in communication, team work and conflict management had higher scores (3.73 ± 0.67, 3.73 ± 0.62, and 3.53 ± 0.63 respectively). Respondents were asked to identify their activities as leaders. Most of CEO's responded, that they know weaknesses and strengths of their team members (85.8%), try to show good personal example (74.5%), and tries to direct team's actions for achieving common goals (65.5%). Results showed, that CEO's are willing to improve their skills: 89.1% - wanted to improve teamwork, 83.6% - leadership skills, 81.8% - communication, and 80.0% conflict's management. The most desired way for improvement of skills is the participation in capacity building courses (67.3%), seminars (20.0%), and distance learning courses (7.3%).

Conclusions

The study results suggested that, CEO's of Lithuanian public health institutions evaluate their leadership skills positively.

However, more training in this area is very welcome. Thusly it is recommended to include leadership training in public health schools and to ensure post-graduate training in leadership for public health specialists.

Improving the public health capacity to reduce health inequalities through graduate training in multidisciplinary intervention research

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Multidisciplinary research is needed to sustain public health (PH) efforts to reduce health inequalities. We developed a novel training program to increase the research capacity of PH organizations in Quebec, Canada. The objective of Quebec Strategic Training Program in Transdisciplinary Research is to train future researchers who will work in, or in close collaboration with, formal PH organizations to study Promotion, Prevention and Public Policy (4P) interventions. To achieve this goal we offer PhD and post-doctoral bursaries to students from any University Department in Quebec, if the proposed research is relevant to and planned jointly with a PH organization. Fellows are embedded in PH practice settings for the duration of their studies. These settings include formal PH organizations, health system planning agencies and the Ministry of Health where they are integrated into multidisciplinary PH teams under the supervision of a PH mentor. Students participate in monthly seminars and three short (4–5 days) intensive seminars during each academic year in addition to the usual academic requirements of their specific University Department. These seminars promote the adoption of a broad and interdisciplinary vision in formulating hypotheses, designing studies, data analysis and knowledge translation; train to the ethical dimensions of applied PH research; and help build a community of interest among researchers. We aim specifically for fellows to acquire cross-cutting competencies, including: 1) basic principles of population health intervention approaches and the functioning of the PH system; 2) principles and application of transdisciplinary research in PH interventions; 3) ethics of PH and health system policy research; 4) development of research networks and partnerships; 5) knowledge sharing and uptake; and 6) career management for researchers. To date 30 fellows were trained, 87 % of which now work as researchers in a formal PH agency or in an academic environment with strong links to the formal PH system. By shifting the centre of gravity of the research training from the University to the applied setting we are contributing to the renewal of the PH system and increasing the capacity for research on reducing health inequalities.

Career in Public health for the medical students: for a better visibility of this speciality. A study in Batna (Algeria) and Rouen (France)

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Background

A medical speciality is entirely dedicated to the Public health (PH) in the 3rd cycle of the medical curriculum following a competitive examination (ECN in France, résidanat in Algeria).The aim of this study was to investigate medical students' interest in a career in a public health speciality.

Methods

Between 2009 and 2011, a cross-sectional study was conducted in two cohorts in Batna and in three cohorts of medical students of 6th yearsin Rouen. An anonymous auto-questionnaire collected the interest of the students in a public health career and the specialities in PH which are likely to influence the choice towards the career.

Results

A total of 846 students (410 in Batna, 436 in Rouen) were included in the study. The median age was 23.6 years (Standard Deviation = 2.3) with a sex-ratio M:F = 0.55. Exhaustiveness rate was of 79.6%. The refusal to integrate the PH speciality was categorical for 41.4% of the students in Batna and 53.1% in Rouen (p = 0.01). An interest to integrate this speciality was declared respectively by 9.8% and 6.5% of the students in Batna and Rouen (p = 0.15). In Batna and Rouen, 2.2% and 3.2% of the students declared to have a well-knowledge of the skills and competencies of PH practitioner (p = 0.12). The prevention, research and the international PH were the activities most frequently found like being able to encourage the students to choose this career.

Conclusions

Public health is not a very popular career option for medical students as well in Rouen as in Batna. An urgent reflection for a strategy to improve the visibility of the career a lead in Algeria and France. A significant exposure to PH during medical school in captivating, fascinating ways may lead to greater interest among students to choose a career in PH. Targeted measures may yield more primary career preference in this direction.

Global Health in Medical Education in Italy: the results of a national survey of current opportunities in the period 2007–2010 in the perspective of Global Health as "essential" issue of medical learning

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Background

Widespread interest in Global Health (GH) issues is a common feature of Medical and Public Health Schools over the last decade, nevertheless surveys suggest that in-depth teaching of GH issues in medical faculties are rare.

Objectives

Assessment of the availability of educational opportunities in Italian Health Faculties from 2007 to 2010. For each of the three academic years, experienced staff and members of the Italian Medical Students Secretariat (SISM) carried out one survey and administrated a questionnaire to professors. The total number, the average (number of courses/number of faculties) and standard deviation (SD) of GH elective courses were calculated and grouped by three national geographical areas (North, Centre, South and Islands), for each academic year. Qualitative assessment was carried out by identifying three levels (low, medium, high) based on scores related to programme availability, innovative didactic methodologies, course duration, number of university credits, multisciplinarity.

Results

From 2007 onwards, in chronological order, the surveyed faculties were 40, 36, 36 (coverage percentage: 100%, 90%, 86%). The courses listed were 26, 22 and 40, respectively. The averages of the courses number highlighted an increasing trend: national mean rose from 0.65 (SD ± 1.53) in 2007 to 1.11 (SD ± 1.18) in 2010. In 2010 the means were 1.81 (SD ± 1.38), 0.87 (SD ± 0.35), 0.33 (SD ± 0.65) for the North, the Centre, the South and Islands, respectively. With regard to the quality assessment, a national improvement was shown: in 2007 high and medium quality courses were 6 (23.08%) and 15 (57.69%) respectively, in 2010 they were 12 (30.00%) and 21 (52.50%). In 2010, considering geographical areas, high and medium quality courses were 6 (20.68%) and 18 (62.6%) in the North, 4 (57.14%) and 2 (28.57%) in the Centre, 2 (50.00%) and 1 (25.00%) in the South, showing - although only 7 courses were held- the highest quality in the Centre.

Conclusions

The assessment revealed a limited educational offer and the need for further quali-quantitative investigations of existing gaps in order to increase and improve GH training and empower future leaders in health; GH issues should be an ‘‘essential’’ part of their training, rather than limited to ‘‘elective’’ courses.

Community-Academic Partnership through A Community-Based Participatory Research Process as Knowledge Production and Action for a Healthy and Sustainable Neighborhood

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Background

Health is not equally distributed and numerous efforts are undertaken by local and national governments and NGOs to develop healthier and more sustainable neighbourhoods. A key concern is citizen participation. One challenge in research and action for healthy and sustainable neighbourhoods is the generally low response rate in various surveys of poor neighbourhoods and the difficulty of conducting research in such contexts. Addressing these challenges requires complementary research approaches with a more practice-based and democratic knowledge development in order to gain insight into people’s living environments. Community-based participatory research (CBPR) is a partnership approach that aims both to conduct collaborative knowledge production and to use the research findings for public health interventions. CBPR is widespread, but the approach is only used modestly for reducing health inequalities in geographically bounded areas in Sweden. This paper sets out to explore a community-academic partnership and a CBPR process within a poor neighbourhood in Sweden.

Methods

Two years of fieldwork were conducted at 26 meetings comprising 84 hours from April 2007 to April 2009 in a CBPR group including a researcher, and lay and professional stakeholders, in a poor neighbourhood in Sweden. By using participatory observation and detailed meeting process-notes, a comprehensive set of data was gathered. A qualitative thematic analysis was used when analysing the data material.

Result

Eight different developmental phases have been included when implementing a CBPR process and four key lessons were found to be important. These were that a community-academic partnership should (1) accept different levels of participation; (2) openly discuss individual situations, personal commitments, and mutual expectations; (3) unmask power and authority; and (4) allow the work to take the time it needs with consensus as a watchword.

Conclusion

The design, process, and result of the CBPR project are relevant for local community-academic partnerships using a CBPR approach with the goal of increasing participation as a means of improving people’s health and well-being in poor neighbourhoods.

Stimulating municipal government inter-sectoral collaboration: local support for the development of integrated health policy

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Problem

In the Netherlands local governments are by national law responsible for local public health policy. In the South-Limburg region, municipal governments have prioritised integrated health policy in their regional policy statement. The development of such a policy requires inter-sectoral collaboration at the strategic, tactical (managerial) and operational levels. Operating in an advisory role, the RPHS South have supported nine municipalities, both administratively and professionally, in setting up inter-sectoral collaboration within their organization.

Methods

Within the advisory process the following activities are performed: advocacy and agenda setting, administrative agreement and requirements on time investment of civil servant, information and training, active learning and working together. A participatory action research design was chosen during 30 months, in which intermediary results were given back to the civil servants and the RPHS-professionals for direct use. The measurements consisted of observation and registrations of all activities by means of a log-book and a pre- and post-test internet questionnaire. Important element in the log-book were invested time, number of contact outside the public health sector and with the RPHS, agreements with other municipal departments and factors that have influenced the inter-sectoral collaboration.

Results

Evaluation of the advisory process demonstrates that municipalities are positive about the concept of integrated health policy. However, the development of such a policy by means of inter-sectoral collaboration appears difficult to realize. Important barriers are a lack of knowledge, competencies and administrative and professional continuity. A further problem is the absence of managerial focus and guidance in the relationship between the RPHS and the municipality. A long-term perspective and a focused approach with clear goals are needed.

Lessons

A more active municipal involvement of department managers in the development of integrated health policy is recommended. Besides consultation between the various municipal policy departments is needed. Improvement in competencies and clear collaborative agreements between the municipality and the RPHS are essential.

2.M. Women and health 2

Are Gender Egalitarian and Gender Traditional attitudes related to smoking in men and women in Britain?

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Background

Tobacco use continues to be a major threat to public health, and makes a substantial contribution to gender differences in mortality in Europe. The tobacco industry's long history of using subtle, changing and often contradictory, images of masculinity and femininity to promote smoking has been demonstrated by analyses of tobacco archive documents. Better understanding of how smoking relates to gender role attitudes among men and women born in different historical periods may help in developing gender-sensitised tobacco control measures. The objective of this study is to examine the association between gender role attitudes and smoking among three generations of adults in Great Britain.

Methods

Participants (5207 men, 6180 women) in the British Household Panel Survey indicated level of agreement (1–5) with 6 statements on gender roles from which a gender 'egalitarianism' and 'traditionalism' scale (scores 1 to 5) were constructed. Multivariate logistic regression models examined the relationship between smoking (ever vs never; current vs never) and gender role attitudes, with adjustment for age (20–39, 40–59, 60+) and occupational class, for males and females. Interactions between age group (generation) and gender roles were tested.

Results

A quarter of participants (26.3% men, 26.2% women) were current smokers. More women (49.9%) than men (41.3%) had never smoked. The odds of current smoking (adjusted for age and occupational class, AOR) increased by 20–30% with each unit increase in gender egalitarianism score (AOR women 1.28, 95%cI 1.16–1.41; AOR men 1.20, 95%cI 1.07–1.35,). Among women (but not men), ex-smokers (AOR 0.89, 95%cI 0.82–0.96) and current smokers (AOR 0.93, 95%cI 0.86–1.01) had less traditional gender views than never smokers. There was no evidence of clear age group differences in associations between gender role attitudes and smoking.

Conclusions

Men and women with more gender egalitarian attitudes were more likely to smoke, even after adjusting for important predictors of smoking while women with more traditional gender attitudes were less likely to smoke. The analysis demonstrates the complexity of the links between smoking and social constructions of gender and gender-appropriate roles.

French women living in the Rhône-Alpes region and cervical cancer: awareness, screening practices and HPV vaccine acceptability according to educational level

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Background

HPV vaccination is recommended in France since 2007 for girls aged 14–23 years, before or within the first year of sexual activity. HPV immunization could have the highest benefit among underprivileged populations, since their CC incidence is higher and they are less covered with Pap-test. The aim of this study was to assess, according to socioeconomic status, measured by educational level, women's knowledge on CC and its prevention, and acceptability of the HPV vaccine among mothers of a 14–18 years old daughter.

Methods

From June to September 2008, 1229 women aged 18–65, and living in Rhône-Alpes, were recruited by 39 general practitioners. They filled a self administered questionnaire on CC prevention. To assess impact of socioeconomic status, three groups have been defined according to educational level (EL): high (first or second stage of tertiary education), medium (upper secondary, post secondary non tertiary) and low (pre-primary, primary, lower secondary).

Results

Compared to women from high EL ($N = 278$) and medium EL ($N = 411$), low EL women ($N = 540$) were older (respectively 39.1, 39.0 and 44.2 years old; $p < 0.001$), were less often in a relationship (79% vs 79% vs 72%; $p < 0.001$) and less often practiced a professional activity (85% vs 81% vs 63%; $p < 0.001$). Their gynaecological follow-up and CC screening with Pap-test were less regular (Annual gynaecological follow-up: 72% vs 68% vs 59%, $p = 0.004$, last pap test within the past 3 years: 90% vs 88% vs 80%; $p < 0.001$). They knew significantly less the cause of CC (48% vs 33% vs 16%; $p < 0.001$), the role of pap test (75% vs 70% vs 63%; $p < 0.001$) and existence of HPV vaccine (85% vs 83% vs 70%; $p < 0.001$). Compared to the 35 mothers of a 14–18 daughter from high EL, the 99 mothers from low EL were more often favourable to vaccinate their daughter against CC (47% vs 60%; $p = 0.143$).

Discussion

in this medicalized population, women from low EL had a lower knowledge level on CC and its prevention, and did less comply with Pap-test screening than women from higher educational levels. Nevertheless, they were mainly favourable to HPV vaccination of their daughter, and more than mothers from high educational level.

Gender inequalities in occupational health across Europe by welfare state regime

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Background

The increase of women's participation in the labour market has been one of the most important social phenomena of the last decades. However, the sexual division of the labour market leads to unequal distribution of occupational health hazards among women and men.

Recent studies have shown how the different role played by the countries in the protection and promotion of the economic and social well-being of its citizens have an important grade of influence on health inequalities. However, little is known about how they operate on the distribution of occupational health hazards among women and men. Answer to this question is vital for policy makers and researchers.

The aim of this study was to analyze selected gender inequalities related to employment and working conditions across Europe and how they are influenced by the welfare state regimes.

Methods

The study population consists of 29,680 workers from 31 European countries interviewed following the same questionnaire at the IV edition of the European Working Conditions Survey. The sample followed a multi-stage, stratified and clustered design with a ‘‘random walk’’. Eight gender inequalities aspects in employment and working conditions were analyzed by comparing differences between men and women. The countries were grouped into Scandinavian, Bismarckian, Anglo-Saxon, Southern and Eastern welfare state regimes. Multivariate logistic regression models were used to calculate adjusted odds ratio by age and education.

Results

More women than men worked with a part-time contract while living with a partner and having children (OR = 8.92; CI95%:7.90–10.08), without a contract (1.13:1.04–1.24), with a temporary contract (1.49:1.38–1.61), with shift work (1.07:1.01–1.14), under high strain (1.11:1.05–1.06) and high strain - low support (1.11:1.04–1.18). More men than women were working under high noise level (0.42:0.39–0.44) and with a high effort - low reward conditions (0.89:0.85–0.94). Some of these associations remained stable for all welfare state regimes, but not all.

Conclusions

Gender inequalities in employment and working conditions exist in Europe, but are not similar in all welfare state regimes. These factors should be considered in the elaboration of public policies in occupational health

Maternal educational level and growth of head circumference in early childhood; the Generation R study

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Background

Children from families with a low socioeconomic position are generally smaller compared to children from families with a high socioeconomic position. We studied the level of maternal education as indicator of socioeconomic position and its association with head circumference (HC) in the first year of life, because studies in this area are lacking.

Methods

3383 Dutch children participating in The Generation R Study, a population-based prospective cohort study in Rotterdam, the Netherlands, were selected. All children were born between April 2002 and January 2006. We classified four levels of maternal education according to The Dutch Standard Classification of Education: high, mid-high, mid-low and low. HC was measured at 1 month (mid-90% range 0.9–1.4 months), 3 months (mid-90% range 3.0–3.8), 6 months (mid-90% range 5.8–6.9) and 11 months (mid-90% range 10.4–11.9).

Results

At 1 resp. 3 months, children from mothers with low education had a smaller HC compared to those with high education (difference -0.42 standard-deviations (SD); 95% CI: -0.54,-0.30 resp. -0.27 SD; 95% CI -0.40,-0.15). Adjustment for other determinants of postnatal growth could only partially explain the smaller HC. At 1 resp. 3 months, children of mothers with a mid-low educational level had also a relatively smaller HC (−0.17 SD; 95% CI: -0.27,-0.07 resp. -0.15 SD; 95% CI: -0.25, -0.05). Here, birth weight, gestational age, paternal and maternal height explained these differences. At 6 months, children still had smaller HCs in the mid-low and low subgroup than in the highest subgroup (−0.11 SD; 95% CI: -0.19, -0.02 vs. -0.13 SD: -0.24,-0.02). Complete elimination of the effect of low and mid-low education was observed after adjustment for the determinants mentioned before. At 11 months, no significant difference of HC was observed after adjusting for confounders.

Conclusion

Compared with children of families with a high socioeconomic position, those of families with a mid-low and low socioeconomic position showed a smaller head circumference at the age of 1, 3 and 6 months. These differences can only be partially explained by smaller birth weight, shorter gestational age and shorter height of their parents. These differences, however, became smaller with increasing age.

Social inequalities in pregnancy outcomes in the Murmansk County, Northwest Russia: a registry-based study on 22912 births

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Background

Social inequalities in pregnancy outcomes are monitored in many European counties. Earlier studies have reported that social variations in birthweight and preterm birth (PTB) in Russia were among the largest in Europe during late 1990s while the evidence from the 2000s is almost non-existent.

Aims: To investigate social variations in birthweight and PTB by maternal education, occupation, marital status and ethnicity in Northwest Russia using the data from the Murmansk County Birth Registry (MCBR).

Methods

All 22912 live singleton births in the Murmansk County from 22nd gestational week with available data on maternal education, occupation, ethnicity and marital status as well as gestational age and birthweight comprised the sample. Multiple linear regression was used to study associations between abovementioned socio-demographic characteristics and birthweight with adjustment for maternal age, parity, smoking, alcohol consumption, and pregnancy complications. Additional adjustment for gestational age was performed to separate the effect on fetal growth from the effect on preterm birth. Multiple logistic regression was applied to the analysis of PTB.

Results

Babies born to women with basic, secondary and vocational education were respectively 134 (95%CI: 97–172), 63 (95%CI: 45–82) and 23 (95% CI: 12–44) gram lighter than babies of women with university education. Women with basic (OR = 1.48, 95%CI: 1.09–1.99), secondary OR = 1.23, 95%CI: 1.01–1.48) were more likely to deliver preterm. Babies of single and cohabiting mothers were 38 (95% CI: 22–54) and 32 (95%CI: 13–53) gram lighter than babies born to married women. Single (OR = 2.04, 95%CI: 1.74–2.38) and cohabiting (OR = 1.42, 95%CI: 1.23–1.64) mothers were more likely to deliver preterm. Azerbaijani women had lighter infants by 81 (95%CI: 25–137) gram while Ukrainian women had heavier babies by 47 g (95%CI: 6–88) gram than Russian women. Unemployed women had lighter babies by 41 (95% CI: 23–59) gram and were more likely to deliver preterm (OR = 1.53, 95CI: 1.28–1.85) than white-collar women.

Conclusions

Social inequalities by maternal education, marital status, ethnicity and occupation are still present in Russia, although the observed differences are less pronounced than in earlier Russian studies.

Lone mothers talking money and health. A discourse analysis of focus groups with Swedish lone mothers with financial difficulties

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Background

Lone mothers have worse health than cohabiting mothers in most societies. In Sweden, the prevalence of financial problems have increased among lone mothers. This has bearing on equity in health, since quantitative studies have shown that financial difficulties are an important explanatory factor in the excess risk of poor health of lone mothers. However, there has been less qualitative research on lone mothers own perceptions of their financial situation and especially how their financial situation influences their health, which is the aim of this study.

Methods

For data collection, focus group sessions were chosen. Participants for the focus groups were recruited mainly through organizations gathering lone mothers. The call was for lone mothers having difficulties making ends meet. Following a test focus group with two mothers participating, four focus groups were conducted, with all in all 15 mothers. During the focus group sessions, participants were asked questions about whether personal financial circumstances affect health, and if so how they would describe this relation. They were also asked about their views on their personal ability to influence their health status, and more generally what can be done to improve health among lone mothers. The focus group interviews were recorded, transcribed verbatim and systematically analyzed employing thematic analysis. We searched for dominating themes; i.e. themes that reoccur and could be said to define central parts of conversation sequences. The categorization was mainly theory-driven, based on for example Lister's work on Otherness, and positioning theory as developed by Laclau & Moffe.

Preliminary results

The thematic analysis resulted in the following themes; Otherness, related to social and financial exclusion, and notions of the nuclear family discourse; Lone motherhood and work, related to the importance of work and the difficulties in combining work and lone motherhood; The ability to influence health drawing on health behavior and social determinants of health, mainly socio economic position.

Conclusions

Lone mothers find themselves in a pressing discourse. The study contributes to the understanding of how financial difficulties are generated and may affect the health among lone mothers.

Mother, single and divorced: a huge burden for a woman in Romania

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In Europe, familial patterns are changing. We often encounter single parent families formed by divorced women and children. In this type of family, financial hardship and work-family conflict are frequent, especially in states were welfare systems are not supportive. Romania is a East-European economy confronted with huge financial problems, were the welfare system is based on ''implicit familiarism'', with poor rates of formal childcare, were state support for children is absent, with the exception of a symbolic allowance and were divorced parents often lack financial support from their former partner, due to permissive law regulations in this filed. As an overlapped stressor, divorced mothers are also confronted with a cultural bias, the tradition of the place always blaming women for the divorce, considered as a shameful event.

In this cross sectional study carried out in 2010, we evaluated the quality of life, the presence of financial stress and the stress managing resources of single divorced mothers, compared with women from other types of families (formed of single, widowed, in a relationship or married mothers), in a representative sample of urban Romanians with at least one child in the household. We used several standardized questionnaires, women answering privately, in order to avoid any presumed influence from the investigator.

The results don' t connect the ''divorced mother" status with financial hardships, but link it with perceived poor financial perspectives The physical, social and environmental domain' s scores of the quality of life are significant lower for divorced mothers ($p < .01$), mobility, efficiency in accomplishing family tasks, sex life and satisfaction towards access to health services being the ''sore spots''. The most striking contrast was noticed with married women. Divorce predicts a lower quality of life ($R2 = 0.16$), a lower satisfaction for child's performances ($R2 = 0.19$), but has no consequences on the sense of coherence, as indicator of stress managing capacities.

The number of divorced women is rising and a low quality of life of mother takes its tall over the child's well being and development. It is clear that measures of support are needed to ensure at least an equitable access to health care.

Gender gap in disability pension across educational levels. The Hordaland Health study Cohort, 1997–99, Norway

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Background

The gender gap in disability pension is found in countries with high female work participation and generous welfare schemes. Lower education is a strong predictor for disability pension, however, little is known about the gender differences in various educational levels. The current study examines gender difference in disability pension by educational levels.

Methods

The population based Hordaland Health Study (HUSK) was conducted in 1997–99 and included inhabitants born in 1953–57 in Hordaland County, Norway. The survey provided self-reported information on several health indicators. The subsample used in the current study included 6488 men and 7245 women with income producing work and valid information on educational level. Follow-up data on disability pension, for a period of 5–7 years, was obtained by linking the health survey to national registries of disability pension. Control variables were civil status, family situation, educational level, occupational class, working hours per week and health.

Results

In the follow-up period 187 (2.9%) men and 429 (5.9%) women were awarded disability pension. Both men and women displayed an educational gradient in the distribution of disability pension. The higher risk of disability pension among women with university/college education compared with men (crude hazard ratio = 1.97, 95% CI = 1.36–2.84), was fully explained by occupational class and working hours per week (adjusted hazard ratio = 1.10, 95% CI = 0.60–2.03). The substantial gender gap among men and women with vocational and primary/secondary school remained unexplained after adjustments.

Conclusions

Results indicate that mechanisms behind the gender gap in disability pension differ by educational levels. Examining gender as separate homogenous groups may contribute to conceal explanations of permanent work disability.

2.N. Poster workshop: Towards an integration between human and animal health: the One Health experience

Chair: Giuseppe La Torre
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The risk of infection has been always a major concern in public health. However, the 20th century has been characterized by a fantastic advance in life expectancy and by a shift from infectious to chronic degenerative diseases as prevailing causes of death. But now new infectious diseases are appearing. Seventy-five percent of these so-called emerging diseases originate from animals and designated zoonoses. The ones described below, which resulted in significant health crises, have all been transmitted to humans from animals:

- AIDS in the early 80s, even if the simian origin of the virus was established much later;
- then came bovine spongiform encephalopathy (BSE), commonly known as mad-cow disease, and its impact on the appearance of new forms of the Creutzfeld-Jakob disease (2);
- it was followed by SARS (Severe Acute Respiratory Syndrome), which originated in China and, due to its high mortality rate, became a source of great concern in many countries;
- this was also the case for the H5N1 avian influenza virus which triggered a psychosis as a result of the expected pandemic, which has not materialized. The swine influenza outbreak, caused by the influenza A H1N1 virus, took over.

Many other recurrent animal diseases have a significant effect on humans, and include tuberculosis, brucellosis, rabies, hydatic disease, for instance, which are just a few among 180 animal diseases that can be transmitted to humans.

Human medicine and animal medicine have developed as ‘‘one medicine’’ starting from the times in which their bases were laid until the mid 18th century when specialisation proved necessary. The separation has been the logical consequence of the construction of different fields of action, made necessary by the evolution of the disciplines and of the social and economic context, but common areas have remained relevant and now are strongly required by modern developments.

The aim of this workshop is to discuss at the European level the critical points and the existing barriers to an optimal integration of human and veterinary medical activities, using the One Medicine - One Health approach.

Increasing the collaboration between human and animal medicine: the perspective of public health physicians

Paolo Villari

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The medical and veterinary professions have different roles, but they have a common interest in many diseases and share many challenges. Diseases such as BSE, SARS, H5N1 avian influenza and, most recently, the pandemic influenza caused by the A H1N1 Virus, have highlighted the need for interprofessional collaboration not just locally and nationally, but on a global scale. Time is definitively ripe to consider the wider connections between animal and human health and to think about how the medical and veterinary professions might work more closely together for the benefit of patients of all species. This presentation will be particularly focused on those areas in which the improvement of the integration between human and animal medicine is strategically important, in order to pursue the following purposes: i) reducing exposures to hazards for humans from animals (emerging and re-emerging zoonosis, antibiotic resistance, foodborne zoonosis); ii) reducing hazards for animals from humans; iii) developing a robust and responsive infrastructure for animal and public health surveillance; iv) improving medical and veterinary education in terms of human and veterinary public health (undergraduate level, postgraduate level, continuing professional education); v) developing an evidence-based knowledge on other issues, such as comparative medicine, ecotherapy (restoring health through contact with nature), pet ownership and human health.

A descriptive analysis of the current status of collaboration between human and veterinary medicine in the different EU States is strongly needed, and the presentation will try to stimulate discussion about the design of a specific survey to be implemented with the aid of the EUPHA members of the Section of Public Health Epidemiology. The following areas should be covered: i) organization and management of public health and veterinary services; ii) research; iii) surveillance; iv) other areas (including training and education). Particular attention should be given to the detailed analysis of case studies and best practices, outlining strengths and weaknesses of the used approaches (including costs). The identification of the main critical points and the existing barriers to an optimal integration of human and veterinary medical activities is essential to formulate recommendations and suggestions to overcome these.

One Health, the need for an holistic approach to human, veterinary and environmental medicine

Bente Pedersen

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Calvin Schwabe in the 70s was the first to explore the interconnections between human and veterinary medicine. His original concept of ‘‘one medicine’’ was subsequently extended to ‘‘one health’’ and from the traditional field of zoonoses it has been widened to the new pattern of environmental health. Today the strong interrelations between human beings, animals and the environment they share have become clearer, although modern societies have evolved to a lifestyle where mankind is more protected from external natural factors than in the past. Global changes played a role in such an evolution. Moreover, we have to consider that 60 % of infection-diseases in humans originate from animals, it’s of vital importance the cooperation and exchange of knowledge in these fields.

The role of humans and animals that are mutual sentinels or early signs for shared health risks in both ways and in the field of foodborne or not foodborne transmissible diseases, or concerning chemical contaminants of environmental or pharmaceutical origin as such, are increasingly investigated and considered.

Examples like vectorborne zoonoses increasing their spread due to climate changes or chemical contaminations of animal products to give the early warning for environmental risks to humans, the presence of shared antimicrobial strains both in human and animal populations or hormonal disorders in target patient categories as sign of illegal drug use in livestock or increasing cases of foodborne disease outbreaks caused by traditional or emerging pathogens are consequently of common knowledge.

In that respect in 2008 WHO, FAO and OIE produced the Consultation Document ''Contributing to One World, One Health, A Strategic Framework for Reducing Risks of Infectious Diseases at the Animal ''Human ''Ecosystems Interface'', to address the increasing need of interdisciplinary tools and they put the principles into action for instance, in developing the Global Early Warning System (GLEWS) to rapidly share diseases information on animal and human cases of avian influenza and allow for timely interventions.

In the frame of risk assessment one of the most critical information is data about exposure assessment to specific hazards. In the above referred examples this can be achieved properly only if shared data from human, animal and environmental integrate surveillance systems. In the future the ''one health'' approach will be useful for facing with professional segregation, data separation and evidence gaps.

2.O. Poster workshop: Empowering vulnerable groups to act on social determinants that impose inequalities in health

Chairs: Monika Kosinska, Secretary General of the European Public Health Alliance (EPHA), Brussels, Belgium and Tamsin Rose, Public health expert, Brussels, Belgium

Organiser: OSI

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The European Annual Public Health 2011 conference will be organised under the theme of health and welfare. Until quite recently, health was believed to be a main driver for economic growth, and growth would automatically level good health and well-being. The truth is that in our contemporary societies income, wealth and power are unequally distributed. These social inequalities are fundamental underlying factors for subsequent inequalities in vulnerabilities, health and access and appropriateness of services, including health care.

One of the main goals of the European Annual Public Health 2011 conference is to discuss progress achieved in policies to reduce health inequalities in Europe. Experience shows that such efforts are futile without effective and meaningful engagement of vulnerable groups most affected by inequalities in health and health care. The workshop intends to move forward the debate by bringing in the perspective of marginalized groups who are targeted by the policies under review but are nonetheless, rarely included in any dialogue. On the background of the complex relationship between social determinants of health, poverty, social exclusion and health inequalities the workshop will discuss the importance and benefits of empowering marginalized groups to act on multiple underlying causes which impose and widen inequities in health and access to health care.

The workshop is intended for health policy makers, practitioners, civil society representatives, researchers and others interested in tackling health inequalities and vulnerable groups in Europe from a multi-sectoral perspective. The format is short presentations followed by discussion with the audience.

Building the capacity of Roma civil society organizations to advocate for their health and rights in health care

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Poverty, social exclusion, and persistent discrimination have led to poor health conditions for Roma populations throughout Central and Eastern Europe. The Roma Health Project of the Open Society Institute works to advance the health and health-related rights of Roma persons, who as a rule experience discrimination and human rights violations and have unequal and inequitable access to health and health care as a result of their ethnicity and consequent social exclusion.

The Roma Health Project strives to empower Roma civil society organizations and leaders to advocate for the rights of Roma in health care. Efforts towards this end include providing technical and financial support to Roma NGOs working on health and health-related rights with the aim to promote the development of their strategic communication and advocacy potential. The presentation will illustrate through a concrete case the successes and challenges of this capacity building work. It will feature a co-operation initiated between a Roma NGO and a capacity building expert consultant with the aim to empower the NGO to act on the underlying causes of inequalities faced by the Roma community in health and health care.

EU health and social policies made for and with vulnerable groups? How can civil society speed up collaborative actions?

Dorota Sienkiewicz

D Sienkiewicz

EPHA Policy and Advocacy Officer for Health Inequalities and Policy Coherence, Brussels, Belgium

The presentation aims to explore the complex relations between social determinants of health, in particular poverty, and health inequalities for the vulnerable groups in modern European societies to identify, which policies have the best impact on reducing such inequalities, as well as under which circumstances a EU-wide strategy will prove useful. The empowerment principle is to guide the presentation and discussion.

There are dramatic differences in the health status of people living in Europe, between and within countries - differences so closely correlated with socioeconomic status as not to go unnoticed: in general, the lower the socioeconomic position, the worse the health status. Poverty, social exclusion and discrimination are key factors in explaining poorer levels of health between groups and countries in Europe. What people eat, whether they drink or smoke is determined by their social conditions. In other words, being healthy (or not) is not an individual choice but primarily a result of the conditions in which people are born, grow up, live, work and age. It is not exaggerated to state that the epidemic of non-communicable diseases we see now emerging will primarily affect people with a more deprived socio-economic background.

The issue of health inequalities is currently on the agenda of the European Commission, the European Parliament and the World Health Organization, but increasing economic and political pressures put even more burden on socially deprived, most vulnerable and under-served population groups. All health gains achieved in the recent decade are thus at risk. To speed up and strengthen cross-sectoral and cross-institutional dialogue and to commit all relevant actors to transforming their shared values into actions for health equity, EPHA has recently launched the European Charter for Health Equity. Its objective is to show that health inequalities are everybody's business - and to support the work of the European Parliament and the WHO European Region.

The objective of the presentation is to identify the main health challenges faced by vulnerable groups, to determine the best way forward for adequate European approach, and with meaningful and concerted engagement of policy-makers, public health community, researchers, civil society and children themselves, in order to prevent and mitigate the impact of health inequalities on children living in Europe.

Integration of Harm Reduction and General Practice in Outreach Settings lessons learned after 6 years

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Based on the findings from a health- and social out-reach project 2000–2005, Copenhagen Community Health Team, and lately a new clinic based in relation to the open drug-scene of the city, has delivered healthcare to people who for different reasons, are not able to receive systematic treatment for chronic diseases in mainstream health service. The teams are aimed at patients with complex problems covering more than one domain (e.g. somatic and psychiatric health, substance use and social problems) based in a general practice model. Close cooperation between dedicated out-reach team and a clinic with out-reach in the immediate environment has several synergistic effects in the continuity of treatment by following the patient, provide and coordinate health- and social care for the individual everywhere in the community. A city-wide health system has been applied in close cooperation and partnerships with official- and NGO institutions to serve the most marginalized substance using citizens. Using a GP model it has been possible to integrate medical end social research into the daily work by cooperation with scientific researchers in medicine, addiction and social sciences.

A detailed overview of the general health- and social status of homeless in connection with biomedical data as well as data on housing, access to health service and substance use makes it possible to provide authorities with detailed data on the overall health-situation. Harm-reduction strategies has been developed and applied towards chronic alcohol-users, injecting drug users and double diagnosed. User involvement has led to development of overdose prevention and to production of new varieties of harm-reduction ''kits'' aimed at crack-cocaine smokers.

This presentation will describe out-reach methods, data from more than 900 patients and preliminary data from two harm-reduction projects based in the framework of a Danish General Practice. The scope for a presentation will be both focusing on FEANTSA-policy and possibilities and barriers for this policy to be implemented. An article in press – authored by the speaker - for the coming Homeless in Europe magazine discusses some of the solutions, which will be outlined.

2.P. Child and adolescent public health

Physical development of 7 and 8 years old children of Lithuania (implementation of Childhood Obesity Surveillance Initiative in 2008 and 2010)

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Background

The objective of the study was to obtain data about the prevalence of insufficient, normal weight, overweight (OW) and obesity (OB) among first grade school children in Lithuania.

Methods

This study is a part of WHO European Childhood Obesity Surveillance Initiative (COSI). Cross-sectional epidemiological study of a national representative sample of first-formers was performed in 2008 and 2010. Cluster sampling of classes was used. Object of the study - first grade school children (7 and 8 years old) whose parents signed the informed consent. Anthropometrical measurements of children ($n = 4876$ in 2008; $n = 4925$ in 2010) were conducted by trained students. The standard equipment in all schools was used. Parents of first - formers completed the questionnaires ($n = 8890$). Physical development of children was evaluated by BMI using the international cut - off points recommended by International Obesity Task Force (IOTF).

Results

There was no significant difference among the data on physical development of first - formers in 2008 and 2010 year, so the final sample of 9801 first grade child was used for the analysis. The prevalence of insufficient, normal weight, OW and OB among seven and eight years old children was 9.1 %/10.5 %, 73.5 %/73.0 %, 11.5 %/11.8 %, 5.9 %/4.7 % accordingly. Significant differences among the prevalence of OW, OB and thinness in districts of Lithuania were observed ($p = 0.001$). Analyzing by gender no differences were found in physical development of seven and eight years old boys. But the percentage of obese girls in the age group of seven was significantly higher if compared with the age group of eight ($p = 0.01$). Differences also appeared in the group of insufficient weight children: the percentage of thin girls was significantly higher than of boys in both age groups ($p < 0.05$). Children of parents who were overweight or obese had elevated values of BMI significantly more often ($p < 0.001$).

Conclusions

The prevalence of OW (including OB) is higher than thinness among first grade Lithuanian children: every sixth 7 and 8 years old child is overweight or obese. At the age group of 7 every ten girl and every thirteen boy is thin. Every eight girl and every eleven boy at the age group of 8 is thin.

Links among physical development of 7 - 8 years old children and socio-demographic inequalities of families in Lithuania (2008 and 2010 survey)

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Background

Rising rates of overweight and obesity is an increasing public health problem all over the world. We aim to analyze socio-demographic factors such as family structure, parent's education level, age, income and occupation as important determinants for child growth and development.

Methods

The study is a part of WHO European Childhood Obesity Surveillance Initiative (COSI). Cross-sectional epidemiological study of a national representative sample of first grade children was performed in 156 schools in Lithuania. Cluster sampling of classes was used. Object of the study - 7 and 8 years old school children. Anthropometrical measurements of children (n = 9801) were conducted by trained students of Public Health. The same equipment in all schools was used. Parents of first - formers who agreed to participate in the study completed the questionnaires (n = 8890). Physical development of children was evaluated by BMI using the international cut - off points recommended by International Obesity Task Force (IOTF).

Results

The prevalence of insufficient, normal weight, overweight (OW) and obesity (OB) among 7 and 8 years old children was 9.1 %/10.5 %, 73.5 %/73.0 %, 11.5 %/11.8 %, 5.9 %/4.7 % accordingly. Significant differences were established among parents' age, mothers' education level and physical development of children. The younger age of mother and father correlated with thinness of children ($p = 0.002$ and $p = 0.04$ accordingly). There were more OW or OB children whose mothers' education level was more than secondary school. Children who lived in a single parent family significantly rare were OW or OB ($p = 0.02$), but there was no differences among thin children and family structure. Having job of both parents was significantly associated with OW or OB of their children ($p < 0.05$), but mothers unemployment correlated with thinness of children ($p = 0.003$). Significantly less OW or OB children were in the group of families with the lowest income ($p = 0.003$).

Conclusions

Statistically significant differences were established among physical development of 7 - 8 years old children and family structure, parent's education level, age, income and current occupation.

Early triage among infants in preventive child health care and risk process monitoring in The Netherlands

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Background

Objective of this study is to assess whether early triage of infants based on risk factor and other professional considerations related to the potential risks for developing (psychosocial) problems increases the quality of care provided. Increased attention for psychosocial problems and the specialization of nurse practitioners requires a new organization of preventive child health care (PCH). Based on triage, triage-meetings and accordingly the assignment of PCH professionals we have evaluated the recording of the course of the risk process (the process between risk factor and problem diagnoses) of infants (0–14 months). Methods: Interviews with 25 PCH professionals (well-baby clinic assistants, nurses, nurse practitioners, physicians and managers) and analysis of risk factors, professional considerations and signals, diagnosed problems and referrals registered in the electronic child record (EKD). The PCH-professionals categorized the infants in three groups based on the type of risk factors and other professional considerations registered in the EKD (triage). Each group was assigned different guidance; low risk group: a nurse and a nurse practitioner, medium risk group: a nurse and a doctor, and high risk group: a nurse practitioner and a doctor. The interviews combined with data extracted from the EKD offer insight in the risk process monitoring and quality of care provided. Results: Early triage offered a structured introduction of the nurse practitioner in the PCH system. Moreover, the triage (-meetings) forced PCH professionals to register and reflect upon the development in risk factors and other signals. The triage meetings also allowed for peer review as well as continuous reflection upon appropriate guidance of child and parents. Conclusion: Early triage and accordingly assigning PCH professionals to child and parents has led to a more efficient deployment of the PCH professionals' competencies and the improvement of the quality of care provided. In addition, the enhancement in registration of risk factors and other professional considerations related to the potential risk for developing (psychosocial) problems has improved the monitoring of the risk process from birth on.

Work experience and style partially explain inter-physician differences in the identification of children with problems

Sijmen Reijneveld

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Introduction

Preventive child healthcare provides a unique opportunity for the early identification of children with psychosocial problems. Child Healthcare Physicians (CHPs) working in this setting indeed identify a lot of these children but despite they miss about half of the children with serious problems, and they vary widely in the proportion children identified as having psychosocial problems. This variation between individual CHPs is much larger than can be explained by differences in child characteristics.

The aim of this study is to assess whether differences in the proportion of children identified as having psychosocial problems by CHPs can be explained by physician characteristics, over and above variations in the mix of children.

Method

We used data on 3070 children aged 5–6 years, who were assessed during a routine well-child visit by a CHP (response 85.2%). Twenty-five services (and 58 CHPs) across the Netherlands participated. We obtained data on parent-reported problems of the child, using the Child Behavior Checklist (CBCL), on sociodemographic background of the family, and on characteristics of the CHP. After each assessment CHPs registered whether they had identified any psychosocial problem in the child.

Results

CHPs varied widely in the proportion of children identified as having psychosocial problems, child characteristics being adjusted for [median odds ratio, 1.84]. CHP characteristics such as work experience and additional use of behavior questionnaires explained about a quarter of these inter-CHP differences.

Conclusion

CHPs seem to be able to identify psychosocial problems in children in a standardized way, though important inter-physician differences remain. Our findings show that the use of high-quality behavior questionnaires reduces inter-physician variation, and is likely to improve overall quality. Their use should thus be enhanced. Second, our findings show that work experience explains some inter-physician variation. The acquisition of the underlying physician skills may be accelerated in several ways, for instance by on-the-job coaching for physicians. These implications will be discussed during the presentation.

Do we need health education in school as a separate subject or integrated content?

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Background

There is no doubt that children and young people should be taught of health and illness, develop attitudes and habits and skills for a healthy life. The question is, however, how it should be done. In Croatia, there was never a separate profile «health educator» in school, and the activities and tasks were entrusted to school doctors and teachers in content of subjects in school curriculum. This research was carried out among those who implement the health education today and among those to whom the health education is aimed, with the aim to exam their expectations and suggestions.

Methods

1454 examinees participated in the research: (a) all school medicine doctors in Croatia (N = 98, response rate 70%), (b) teachers working in 15 primary and secondary schools in fourth Croatian counties (N = 311, response rate 47%), (c) pupils in 7th grade of primary and 3th grade of secondary school (N = 555, 77%), the same schools mentioned earlier, and (d) their parents (490, response rate 51%). Validated anonymous questionnaire was used.

Results

The results show that every second examinee thinks that the health education should be introduced into schools as a separate subject, mostly in senior grades of elementary school and secondary schools, 17% of examinees did not agree with this proposal. Supposing that the health education is introduced into schools as a separate subject, examinees suggest a health educator as the carrier (35%), then a doctor, regardless of their specialisation (19%), but with an additional education in work methodology, school doctor (13%), and a teacher/class teacher with an additional education (12%). Examinees also think that the health education contents should be integrated into all or a part of the contents of the present subjects in school (28% of examinees).

Conclusion and take home message

The study indicated the need for research on the expectations of those working in or of those to whom the health educational contents is intended for, the analysis of the efficiency of the pilot programmes in Croatian schools, and the consideration of a programme of comprehensive approach to the health and health promotion in schools which has been successfully implemented in the world in the last several years.

A prospective study on dental attendance in a cohort of Flemish preschool children

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Background

At present our understanding of the use of dental care services in Flanders (Northern part of Belgium) is incomplete, certainly where preschool children are concerned. The objectives were to investigate what proportion of Flemish children visited the dentist by the age of three and five years, to describe how parents experienced their child's dental visit and to explore socio-demographic, parental and oral health related factors with possible impact on children's dental visits. Material & Methods: Data were collected from 1057 children who served as controls in an oral health promotion study ('Smile for Life') and who were followed since birth. At age three (2007) and five (2009) they were examined by trained dentists and parents completed a validated questionnaire. Logistic regression analyses were performed to explain dental attendance up to the age of three and five years. Results: Data on dental attendance were available for 56% and 66% of originally selected children (age three/ five respectively). At the age of three years, 62% and by five years, 21% had never visited the dentist. Of three year-olds who had already visited the dentist, 67% did so for a check-up, 1% because of a toothache and 14% because of dental trauma. The first dental visit was considered a pleasant experience for 71% and 65% of the three and five-year-olds, respectively. According to 6% (age three) and 7% (age five) of parents, the dentist they consulted did not want to treat caries on deciduous teeth. Multivariable regression analyses revealed that children who were not first-born, whose mothers had a higher educational level and whose parents had recently visited the dentist had significantly higher odds for having visited the dentist at young age. Conclusions: More than 60% of Flemish children had not seen a dentist by the age of 3 years; more than 20% even not by the age of 5 years. The majority of parents confirm that a dental visit was not traumatic for their preschool child. Parents of young children need to be informed about and motivated for an early dental visit. Promotion campaigns should focus on first born children, children from less educated parents and parents who do not regularly see a dentist.

Study supported by GABA International.

Birth weight and its association with teeth eruption in Russian infants

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Background

Many international studies investigated associations between birthweight and health status in children and adults. Development of deciduous dentition is important for the quality of life of a child. Previous Russian studies have shown that at the age of 48 weeks infants have eight erupted teeth. However, the factors that could influence this process have never been studied in Russia.

Aim: to study the influence of birth weight on the eruption of deciduous teeth in a city of Arkhangelsk, Northwest Russia.

Methods

A random sample of 717 infants (51.5% boys) aged 11–13 months were examined by a dentist according to the Edict of the Ministry of Health of the Russian Federation No. â‘‘–307 ‘‘Standards of regular medical check-up of a child of the first year of life’’. Data on birthweight were obtained from infants' medical records. Mann-Whitney tests were used for numerical data. Independent associations between having eight or more teeth at the age of 48 weeks and birthweight were assessed by logistic regression with adjustment for gender, exact age of an infant, breastfeeding, chronic diseases of mothers, maternal gynecological diseases during pregnancy. Informed consent from the infants' mothers and ethical approval was obtained prior to the investigation.

Results

The mean age of examined infants was 47.8 weeks. The mean number of erupted teeth was 6.69 (95%CI = 6.51–6.87) and was higher in boys than in girls (7.08 vs. 6.27, $p < 0.001$). Altogether, 43.8% (51.1% of boys and 36.0% of girls) of all examined children had 8 teeth or more by the age of 48 weeks. Infants with higher birthweight had higher odds of having eight or more teeth by 48 weeks OR = 1.93 (95% CI = 1.36–2.73). Lower odds of having eight or more teeth by 48 weeks were observed for infants whose mothers had different chronic gynaecological diseases during pregnancy OR = 0.31 (95% CI = 0.18–0.55). Girls were less likely to have eight or more teeth than boys by 48 weeks OR = 0.59 (95% CI = 0.43–0.81).

Conclusions

The mean number of erupted teeth in infants in Arkhangelsk is lower than it is in Russia on average and potential reasons should be studied. Lower birthweight as well as infant gender and maternal chronic gynecological diseases were associated with delayed teeth eruption.

Adolescents with diabetes have healthier eating patterns than a general population of adolescents from 18 countries

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Objective

Comparison between eating habits of 11–15 years adolescents from general populations and adolescents with type 1 diabetes in 18 countries worldwide.

The Health Behaviour in School-age children (HBSC) study, a WHO collaborative cross-national study, has started to evaluate different aspects of health of adolescents world wide since 1983. As the diet is one of the corner stones of the treatment of diabetes, the Hvidoere Study Group (HSG) has investigated whether eating habits in adolescents with type 1 diabetes (T1DM) differ from their healthy peers, in using the same questions as developed by the HBSC study.

Methods

Questionnaires were obtained in 18 countries by both HBSC and HSG. Details on data collection for both groups have been reported previously (1, 2).

Results are given in age standardized prevalences (percentages) by study and by sex as well as age adjusted odds ratios between the two populations.

Results

In absolute numbers, 1483 adolescents with T1DM and 94387 adolescents from the general populations provided answers to the HBSC questions. Significant differences were observed between the countries and in all countries the population with T1DM showed healthier habits than the general population with respect to the frequency of breakfast, fruit intake, sweets and soft drinks. Vegetables intake was not significantly different between adolescents with and without diabetes; however between countries important differences were reported.

Conclusion

Within countries, adolescents with T1DM report a healthier food intake compared with their non diabetic peers. Between countries very important differences exist. These may play a role in diabetes outcome.

1 www.HBSC.org
2 Continuing Stability of Center Differences in Pediatric Diabetes Care: Do Advances in Diabetes Treatment Improve Outcome? The Hvidoere Study Group on Childhood Diabetes.Diabetes Care 2007 30: 245–50.

Racism and ethnic differences in blood pressure in a longitudinal study of British adolescents, 2003–2006

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Background

Racism is hypothesised to be a psychosocial stressor affecting blood pressure (BP), either directly or via factors that influence BP. We recently reported that ethnic minority boys and girls generally had lower BP than their White peers at age 12 years (y) but had greater age related increases in BP during adolescence. By age 16y, African boys had higher BP than White boys. Here we examine the impact of racism on ethnic differences in BP between early and late adolescence.

Methods

Longitudinal measures of BP, anthropometry, racism and potential factors that could influence BP (socioeconomic circumstances, alcohol intake, tobacco smoking, physical activity, diet) were obtained from secondary school pupils in London of White British (693), Black Caribbean (672), Black African (776), Indian (386), and Pakistani and Bangladeshi (403) origin at 11–13y (taken in 2003/4) and again at 14–16y (2005/06). Linear mixed and logistic GEE models were used to examine the impact of racism on mean and high BP.

Results

Reports of racism increased during adolescence and were more common among ethnic minority groups (22–32% at 11–13y, 26–35% 14–16y) than Whites (15%, 19%), similar across genders. Racism did not affect ethnic differences in mean systolic or diastolic BP at any age. Within groups, however, the effect of racism differed. Among White boys, racism was associated with an increase in systolic BP (+2.15 mmHg 95% CI = 0.50, 3.79). In contrast racism was associated with a decrease in systolic BP among Black Caribbean (−1.95 mmHg 95% CI = −3.50, −0.41) and Pakistani/Bangladeshi (−1.85 mmHg 95% CI = −3.51, −0.19) boys. Among boys, racism was associated with reduced likelihood of high diastolic BP (OR = 0.54 95%CI = 0.34, 0.86), with no difference by ethnicity. These relationships were not modified by the considered factors thought to influence BP.

Conclusions

Reports of racism were more common among ethnic minorities than Whites but did not affect ethnic differences in BP. Within ethnic groups racism had an inconsistent effect on BP. These findings raise questions about potential ethnic and gender differences in coping strategies that might buffer the impact of racism on BP in adolescence.

Assessment of multilingual web survey for collecting health data from linguistically diverse adolescent population: a pilot study from Finland

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Background

Despite several European countries collect migrant health data, it has been largely uncoordinated and several methodological limitations exist. Only few attempts have been made to adapt national public health surveys into a multilingual, and none of them has been conducted via online and among youth. Multilingual surveys could improve participation and representativeness of those from linguistically diverse populations and thus, raise the quality of population-based surveys. We aimed to assess the feasibility of an online multilingual survey for collecting health data from adolescents with immigrant background. The study corresponds to the established national Adolescent Health and Lifestyle Survey (AHLS) conducted every other year in Finland since 1977.

Methods

We drew a sample of 16–17-year-olds (n = 400) from the Population Register Centre in spring 2010. The sample included those whose mother tongue was other than the official languages of Finland. We translated the AHLS questionnaire into the 12 of the sample's most spoken languages and adapted the survey into a multilingual web survey. We sent an invitation to participate for 323 adolescents by mail. The invitation letters were translated into the each respective language and a website address along with unique user ID and password were also provided along with the invitation.

Results

Altogether, 148 responded and response rate was 46.4%. There were notable differences in response rates between different language groups; the highest response rates were obtained from Chinese (80%), Turkish (62%) and Persian (59%) whereas the lowest were seen among Arabic (35%) and Vietnamese (33%). Nearly 60% chose to complete the questionnaire in Finnish.

Conclusions

Multilingual web survey is feasible for collecting health data from linguistically diverse adolescent populations. The major challenges are related to low response rates in certain language groups.

This two-year pilot-project is funded by the Ministry of Social Affairs and Health, Finland.

2.Q. Lifestyle 1

Peer risk behavior, peer support, and adolescent risk behavior

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Background

Different hypotheses have been proposed to explain how social relationships affect individual risk behavior. Social Bonding Theory proposes a control hypothesis stating that emotionally supportive social ties directly prevent or contain risk behavior. However, Social Learning Theory proposes a facilitation hypothesis stating that emotionally supportive ties do not affect risk behavior directly, but only in combination with other's risk behavior. Thus, intimate others who engage in risk behavior should have more negative influence on the individual than non-intimate others who engage in such behavior. In contrast, some researchers have also proposed a buffering hypothesis according to which supportive ties increase the individual's defenses against the negative effects that other's risk behavior may have on him or her. The study assesses the above hypotheses with regard to the effects of friend emotional support and friend smoking and drinking behavior on adolescent smoking and drinking behavior.

Methods

The study uses data from a school-based national survey of 15–16 year old students in the Icelandic school system (N = 3.850, response rate = 87%) that was conducted between November 2009 and February 2010.

Results

The results support the buffering hypothesis of supportive social relationships with regard to adolescent drinking and smoking. Adolescents who had close emotional ties to peers were less likely to comply with peers that engaged in drinking or smoking. The results were robust across different measures of intimate ties and various statistical controls.

Conclusions

Efforts at preventing adolescent smoking and drinking should focus on the interaction of peer relationships and peer risk behaviors. Close emotional ties to peers appear to increase an individual's resistance to the negative effects of peer smoking and drinking. Adolescents with poor peer relations who interact with drinking and smoking peers are at the greatest risk of smoking and drinking.

Journey through the music-listening habits with MP3 player in a group of adolescents: risk behaviors for health and consequent disorders

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Background

Literature shows the use of MP3 player and listening to high-volume music is an important risk factor for aural damage. We wanted to investigate the behaviors engaged in listening to music with MP3 player and the attendance at clubs where music is played at high volume.

Methods

we collected and analyzed 1276 questionnaires administered to adolescents aged 14–19 through SPSS 17. It was performed descriptive analysis and univariate and multivariate logistic regression to calculate the degree of association (OR) among the sociodemographic characteristics, listening habits and factors identified as risky or protective as regards the possibility of developing health disorders.

Results

Listening to music for 1–3 hours per day showed a positive association with the use of maximum/medium-high volume (OR = 3.6), as well as not to take breaks (OR = 2.4). The attendance at clubs for 1 or less than 1 time per week decreases the likelihood of using the volume at a maximum/medium-high level (respectively OR 0.3 and 0.4) compared to non-attendance.

Females have a likelihood of 0.6 times compared to males to increase the volume.

By increasing the listening time the risk of increasing the volume significantly increases (1–3 hours per day OR = 1.7, > 3 hours per day OR = 2.7), as well as to attend clubs where music is played at high volume once (OR = 1.8) or more than once per week (OR = 1.5). Females are more likely to lower the volume (OR = 1.7), as well as those who have more than 17 years (17–18 years OR = 1.4; > 18 years OR = 1.5), those who take breaks (OR = 1.7), those who have had disorders after prolonged and/or high-volume use of MP3 (OR = 1.3) or after having been in clubs (OR = 1.5). Those who listen to it for more than 3 hours per day (OR = 0.5) lower the volume with less probability than those who listen up to 1 hour, those who listen to a maximum/medium-high volume (OR = 0.8) and those who attend clubs at least once per week (once OR = 0.6; > once OR = 0.5).

Those who take breaks are more likely to use a noise-limiter (OR = 1.9), those who listen to maximum/medium-high volume have a less likelihood (OR = 0.3).

Conclusion

The study points out the importance of prevention of aural and extra-aural disorders and potentially damages resulting from listening to high-volume music.

IQ in childhood and later risk of alcohol-related disease and death

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Background
While much research has been performed on associations between intelligence and several different health outcomes, there is as yet no conclusive evidence regarding the association between intelligence and alcohol-related disease and death. Furthermore, most studies have been performed on men. The aim of this study is to further investigate the association between IQ and alcohol-related morbidity and mortality and to explore if there are any differences between men and women in this regard. Method: 43 980 Swedish subjects (men and women) born 1948, 1953, 1967, 1972 and 1977 who completed an IQ test at age 13 were followed until 2005. Information on alcohol-related disease and death (ICD-diagnoses) has been collected from the National Patient register and the National Cause of Death register, respectively. Adjustments are made for parental socio-economic position, age, income, education and occupation, obtained from national censuses. Odds ratios for alcohol related disease and death will be estimated using Cox regression models. Results: So far, unadjusted results have shown, in general, a graded reduction in rates of alcohol-related death and disease by increasing IQ. This was found both for men and as for women. Results from the Cox regression will be presented, crude and adjusted for both men and women. Conclusion: This study will contribute to the research investigating the association between IQ and alcohol-related disease and death. It is of particular interest to analyse this association also in women.

Family structure, parenting behavior and alcohol use in adolescence
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Background
Studies repeatedly show an association between family structure and adolescent drinking. Thus, adolescents who live in non-intact families are more likely to drink alcohol and drink more frequently than those who live with both biological parents. There are some indications that the family structure-adolescent drinking relationship may be largely explained by differences in parenting behaviors across family structures. The purpose of the study was to assess the family structure-adolescent drinking relationship and the extent to which it can be explained by variations in parenting behaviors as measured by parental support and parental control.

Methods
The study uses data from a school-based national survey of 15–16 year old students in the Icelandic school system (N = 3.850, response rate = 87%) that was conducted between November 2009 and February 2010.

Results
Family structure was significantly related to adolescent drinking. Adolescents who lived with a single parent or in other non-intact arrangements drank more frequently than those who lived with both biological parents. However, this relationship was largely explained by parental control and parental support (both of which were inversely related to adolescent drinking). Thus, the differences in drinking between adolescents living with a single parent and those living with both biological parents become non-significant when parental support and control are controlled.

Conclusions
Parenting behaviors largely account for variations in adolescent drinking across family structures. The results indicate that informing and assisting parents concerning their supporting and monitoring role may be an effective way to prevent or contain adolesent drinking. Other adolescent risk behaviors may also be at stake.

The associations between personality factors, marijuana availability and marihuana experiences among young adolescents
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Research background
Monitoring marijuana experiences in this period is important task of public health policy. A better understanding of the association between personality factors, marijuana availability and marihuana experiences can be helpful for devising more effective prevention and health promotion programs. The aim of this study was to explore common effect of intraindividual and social predictors of marijuana experiences among adolescents.

Methods
The research sample (data colection in 2007) consisted of 3599 young Slovak adolescents (mean age 14.35 ± 0.73, 49.6% girls). Binary logistic regression was performed to assess the impact of five Big personality factors (extraversion, agreeableness, emotional stability, conscientiousness, openness to experience) and marihuana availability (1 = very easy to 7 = very difficult) towards marihuana experiences. Analyse of the model was carried out separately for both genders.

Results
Higher agreeableness for both genders decreased probability of marijuana consumption and higher openness to experience and lower conscientiousness increased marijuana consumption only among girls. The main risk predictor of marihuana experiences for both genders was marijuana availability.

Conclusions
The results supported the meaningfulness of marijuna availability as prevention policy health strategy in marijuana consumption for young people.

Protective factors of substance use in youth subcultures
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Background
Almost 50% of Slovak adolescents is involved in youth subcultures (Hip-hop, Punk, Skinheads, Techno-scene, Metal). There is a strong association between youth subculture membership and substance use. The aim of this study was to explore whether protective factors such as parental monitoring, parental support and substance abstinence of parents are effective in youth subcultures.

Methods
We used data on 15-year-old elementary school pupils (N = 1605; mean age = 15.47) who participated in the Health Behaviour in School aged Children 2009/2010 study. The association between youth subculture membership and substance use (smoking, drinking alcohol, drunkenness, and cannabis use) was adjusted for parental monitoring, parental support and substance abstinence of parents for boys and girls separately using logistic regression.

Results
Members of youth subcultures had significantly higher chances than the mainstream members, ranging from 1.80 to 3.14, for use of all substances except for cannabis use in girls. Adjustment for parental monitoring reduced the association between youth subculture membership and substance use by

31–64% in girls and by 10–23% in boys. Adjustment for parental substance abstinence reduced the association with youth subculture membership by 7–15%, except for drinking in both genders. Adjustment for parental support reduced all associations, by 2–10%. After all adjustments for protective factors youth subculture membership remained strongly and significantly associated with substance use.

Conclusions

Protective factors regarding substance use in youth subcultures work differently in boys and girls. Parental monitoring protects girls noticeably more than boys. Abstinence of parents seems to be protective too but not that remarkably as parental monitoring. Our findings imply that preventing strategies should be targeted to adolescents that identify themselves with youth subcultures seeing that the role of protective factors seems to be rather limited among them.

Sexual education in schools: the impact of participatory and reflective methodologies

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Background

The approach of sexuality, in schools, must differentiate itself from that of the family which is unsystematic, transmitted according to family values. At school lies discussing the diversity of values in society and broaden the knowledge

Method

The purpose of this study is to test the effectiveness of a program of training intervention. Accordingly, we developed an experimental field research, where the training variable was manipulated by the investigator. We used a non-probability sample consisting of 90 adolescents (42 in the experimental group and 48 in the control group). The experimental group underwent training intervention, structured in three thematic areas: adolescent development, attitudes towards sexuality, family planning and sexually transmitted infections.

Results

Adolescents have a minimum age of 13 years and a maximum of 17 being the average age for the total sample of 14.09 years. About 75% of control group and 83% in the experimental group have siblings. Most parents in both groups exercise a professional activity related to industrial production. Both parents in both groups have academic qualifications placed at the 6th year. About 95% of participants in both groups profess the Catholic religion. 64% of adolescents in the experimental group and 79% in the control group choose a friend to address issues related to sexuality.

The source of privileged information for the control group is television (60.4%) and for the experimental group is the Internet (71.4%).

A percentage of 4.2% in the control group already had sexual intercourse, which occurred on average at 13 years of age. In the experimental group there was no existence of sexual practice.

The training intervention was effective for the variables attitudes towards sexuality ($p = 0.000$), knowledge about family planning ($p = 0.000$), sexually transmitted infections ($p = 0000$) and reproduction ($p = 0.000$).

Conclusion

Sex education should integrate harmoniously the various facets of human sexuality, promoting the acquisition of a responsible, flexible and rewarding behaviour in adolescents. Should be thought of as an enabling instrument through which adolescents can acquire skills to improve care and knowing of their sexual health.

2.R. Behavioural change

Population-wide participation in health behaviour change programmes in Germany in 2009

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Background

To prevent the most widespread non-communicable diseases in the population, such as cardiovascular diseases or diabetes, health behaviour change programmes are carried out. Most of the programmes concentrate on promoting healthy nutrition, physical activity, or relaxation. In Germany, these prevention programmes are mainly offered as courses by statutory health insurance funds, commercial gyms or adult educations centres. But to what extent are these programmes utilised by the general population? And could they reach population groups with low socioeconomic status (SES), as they generally have higher health risks?

Data and Methods

The study is based on the population-wide, representative telephone health survey ‘German Health Update’ (GEDA09). The survey was conducted from July 2008 to June 2009 by the Robert Koch Institute, a governmental public health institution in Germany. People from 18 to 79 years were asked about their participation in health behaviour change programmes in the last twelve months in the fields of nutrition, physical activity, and relaxation ($N = 20670$). The analysis was stratified by sex, age and SES.

Results

In Germany, 16.0% (95% CI = 15.4–16.7) of the population between 18 to 79 years participated on at least one health behaviour change programme in the last twelve months. Women used the measures almost twice (20.8%, 95% CI = 19.9–21.8) as likely as men (11.1%, 95% CI = 10.3–11.9). Persons with low SES took part almost a third less (12.0%, 95% CI = 10.5–13.7) compared with those with middle (16.8%, 95% CI = 16.0–17.7) or high SES (17.5%, 95% CI = 16.5–18.6). The population until 39 years participated to a third less (11.8%, 95% CI = 11.0–12.7) than the persons between 40 and 59 years (17.7%, 95% CI = 16.7–18.7) or persons aged 60 to 79 years (19.0% 95% CI = 17.6–20.5).

Conclusion

Health behaviour change programmes need further target group specific efforts to reach population groups with low SES, but also men and younger people. One way to address these target groups could be to further expand the financial support for participation in prevention measures or to set up rewarding incentive schemes. To increase the probability of participation these measures should be completed by approaches targeting environmental and social conditions.

The development in inequalities in smoking and binge drinking in the Capital Region of Denmark from 2007 to 2010

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Background

Social inequality in the distribution of behavioral risk factors contributes to the social inequality in many chronic diseases. The prevalence of daily smoking and binge drinking has decreased recently. The aim is to examine the socioeconomic gradient in smoking and drinking habits and to determine if the overall development has caused increasing or diminishing inequalities.

Methods

The analysis is based on data on health behavior from two cross-sectional questionnaire surveys in the Capital Region of Denmark ("How are you?" 2007 & 2010) and data on sex, age, education and employment status from central registers. The study population was restricted to citizens aged 25–79 years (2007/2010: N = 69.800/77.517, response rate = 52.3%/54.8%). Smoking is defined as current daily smoking. Binge drinking is defined as drinking five or more drinks on one occasion at least once a week. Logistic regression models were used to analyze the social gradient in daily smoking and binge drinking in 2007 and 2010, adjusted for sex and age.

Results

The prevalence of daily smoking is higher among persons with no vocational training vs. persons with at least a Master's degree (OR = 6.35; 95% CI = 5.58–7.22, p < .0001) and among unemployed vs. employed (OR = 2.73; 95% CI = 2.47–3.02, p < .0001), adjusted for sex and age. There is also a slight social gradient in binge drinking. However, among elderly aged 65 years and older, the gradient in binge drinking is reversed. Binge drinking is more prevalent among elderly with a Master's degree vs. elderly with no vocational training. Social inequality in daily smoking between employed and unemployed increased significantly from 2007 to 2010 (from OR = 2.45 to OR = 2.72, p < .05) while no change in inequalities is observed in daily smoking or binge drinking between different educational groups.

Conclusions

The inequality in smoking between employed and unemployed has increased from 2007 to 2010. The gradient in binge drinking is reversed among elderly compared to the population in general which might reveal some changing trends in alcohol consumption norms. It is recommended to monitor the development in inequalities in health behavior continuously in order to evaluate the differential effects of health promotion initiatives and to inform future strategies.

A cluster randomized controlled trial of an adolescent smoking cessation intervention: Short and long term effects

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Background

There is a lack of effective smoking cessation interventions which have a high reach among adolescent smokers.

Method

We conducted a randomized controlled trial of an adolescent smoking cessation intervention for students age 15–21 at 22 continuation schools in Denmark. Our one-month follow-up consisted of 514 baseline daily smokers and the 14 month follow-up of 369 daily smokers.

Results

We found positive short term effects regarding smoking cessation (Adjusted analysis OR: 4.50; 95% CI: 1.20–16.86), self-efficacy (P = 0.01.) and intentions to quit (P = 0.004). However, none of these effects were maintained at one-year follow up. The intervention was successful in reaching more than half of all daily smokers in the target group with more than 30% receiving counseling at least once in the intervention period.

Conclusion

We found modest short term effects on smoking cessation, self-efficacy and intentions to quit smoking, but none of these effects were sustained at one-year follow-up. Additional research is needed to develop interventions that can maintain effects.

Practice implications: This trial showed that large group of daily smoking adolescents are interested in participating in a smoking cessation intervention as long as participation is made available in the youth environment and do not require to much difficulty.

Daily physical education at primary school. Potentials and barriers of a school-related prevention programme

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Background

The intervention 'fit for pisa' supplements the mandatory two hours of physical education per week for the entire school term (classes 1 to 4) with another three hours of physical education per week at five primary schools in Goettingen. The scientific evaluation will provide insight into health and education-related effects and sustainability of four years of daily physical education in primary schools. The aim of the qualitative survey conducted with children, parents, teachers and external trainers is to determine potentials and barriers regarding contents and organisation of daily physical education. The study is funded by the Federal Ministry of Education and Research.

Methods

Semi-structured interviews with parents (n = 7), teachers (n = 5) and external trainers (n = 6) of the intervention schools to assess the potentials of and barriers to implementing daily physical education. Furthermore, they should find solutions to overcome the mentioned barriers. In focus groups a sample of the students (n = 44) who carried out five hours sport per week were interviewed about their experiences with daily school sport. In addition, they were asked what they liked and what they disliked about the daily sports lessons.

Results

Parents think that daily physical education is an important compensation for everyday school life that not only increases the enjoyment of children in sports but also in school generally. Beside an improvement of the lessons quality the teachers reported an improved social behaviour of the students. 86% of the students enjoyed the daily physical education, 84% would implement it in everyday school life. The children perceived themselves as more balanced and movable. They criticized predominantly structural framework conditions such as teacher's unpunctuality, space/facilities and lack of time.

Conclusions

The qualitative data collection shows the potentials of daily physical education. Moreover, the mentioned barriers offer ways to address these problems during a possible permanent implementation of daily physical education. First reservations of parents and teachers about the intervention were compensated by the positive experiences and effects of daily school sport. Daily school sport would be implemented by all stakeholders.

A physician's view of the social role of a drug represenrtative influences the effect of drug promotion

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Social and economic changes that followed the dissolution of the Soviet Union strongly influenced Russian health care system including drug supply. Drug representatives known in Russia as medical representatives (MRs) were recruited for the emerging marketing activities among the medical schools graduates and physicians that were put into extremely poor social and economic conditions at that time. We assumed that the cognitive dissonance between common medical background and different social and professional function of the MR could have significant influence on physician's attitude towards MR activities and promotional information.

710 primary care physicians were surveyed in Moscow and nearest suburbs between January 2009 and September 2010. Our responders were then divided into 2 groups according to their MR perception. The 1st group (52%) regarded MR as a professional colleague just busy in other field of health care. The rest (48%) viewed MR as a pure salesman looking for his own profit. The chi-square test was used to determine whether the difference between the 2 groups was statistically significant ($p < 0,05$).

Physicians regarding MR as a colleague significantly more often consider higher medical education compulsory for the MR (chi-square = 47.30, $p < 0.001$) and are tolerant to the unscheduled MR visit, more often stating that the latter does not interfere with their routine work (chi-square = 41.62, $p < 0.001$) and does not cause conflicts with waiting patients (chi-square = 7.77, $p < 0.005$). The 1st group respondents more often use promotional information for prescribing (chi-square = 12.51, $p < 0.005$) and contact the manufacturer to report drug side effects (chi-square = 40.14, $p < 0.005$). Physicians viewing MR as a colleague significantly more often consider for themselves appropriate to move to a MR position in pharmaceutical business (chi-square = 18.11, $p < 0.001$) and are more likely to violate ethical regulations (chi-square = 6.73, $p < 0.005$).

Thus our findings confirm that physician's perception of the MR social role significantly influences on his/her attitude to the MR and collaboration with the latter independently of social and demographic characteristics of the responder. Aimed educational interventions could be helpful to deal with this problem.

Risk health behaviour patterns - characteristics and regional differences in Germany

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Background

Lifestyle related risks are known to have a strong impact on health. Health outcomes depend on many factors, like environmental pollution, use of public health services, living conditions, but a very important factor is also the lifestyle.

In our study we are going to investigate the health risk behaviour of people and try to outline any patterns in the German population. We also investigate if differences in the health risk behaviour also exist on regional level in Germany.

Methods

The empirical analysis is based on data from the German Health Update 2009. The field work was carried out from July 2008 to June 2009. The sample size consists of 21 262 respondents aged above 18. For defining the health risk behaviour we use information on smoking, alcohol consumption, fruit and vegetable intake and sport activity of the respondents.

We use cluster analysis in order to define the number of different groups of risk behaviour. We describe the characteristics of each group and then look at the distributions according to regions. To identify the regional differences in the behaviour patterns we use logistic regression models.

Results

With the help of the cluster analysis we identify five main groups of health risks behaviour.

The first cluster (28,0% of the sample) comprises people who have healthy behaviour. The second cluster (14,6%) has also healthy lifestyle, but does not do regularly sport. The third cluster (12,3%) consists of people who are smokers and do not do sport. The people in the forth cluster (17,6%) have low intake of fruits and vegetables, mostly not do sport and a higher percent are also smokers. The last cluster (27,5%) comprises all the risk health behaviours.

For some of the clusters we also found significant differences on regional level. For instance, there is a clear East-West difference with regard to the fourth cluster – bad nutrition.

Conclusions

Our results suggest that public health policy aiming at improving the health lifestyle behaviour of the population should recognise the different lifestyle behaviours of the different gender and age groups in the population. The regional health aims should also take into account the peculiarities of the individual behaviour of the inhabitants in the different regions in Germany.

Oral health-promoting habits among dentate adults in Finland

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Background

Oral diseases are, in great extend, depend on human behavior. It is known that healthy habits co-occur together, and so do unhealthy ones. Studies concerning co-occurrence of oral health-related habits are scarce. Our aim was to assess co-occurrence of nine oral health-promoting habits and its association with adults' background characteristics.

Methods

The present study is part of the nationwide comprehensive Health 2000 Survey in Finland using a representative sample of 8028 citizens aged 30+ yr. We targeted to age group of 30 to 64 yr: sample $n = 5871$; 83% ($n = 4875$) participated. The final sample ($n = 4417$) included dentate subjects reporting their oral health-related habits. Data were collected by structured health interviews and self-administered questionnaires. The selected oral health-promoting habits were: toothbrushing twice daily, use of fluoridated toothpaste, electric toothbrush, or dental floss/interdental brush daily, no sugar in coffee or tea, other sugary drinks less frequently than daily, use of xylitol chewing gum three or more times daily, regular dental check-ups, and no daily smoking. The theoretical range of subjects' oral health-promoting habits was zero to nine. Statistical evaluation was by ANOVA.

Results

On average, adults reported as having 4.4 (SD = 1.5) oral health-promoting habits out of the nine, 3.9 (SD = 1.5) for men and 5.0 (SD = 1.3) for women ($p < 0.001$); no age difference existed ($p = 0.122$). Means differed ($p < 0.001$) by educational level: 4.0 (SD = 1.6) for basic, 4.3 (SD = 1.5) for intermediate and 5.0 (SD = 1.4) for higher level. Means were significantly greater for cohabiting than single subjects (4.5 vs. 4.2; ($p < 0.001$)) and for those employed than not engaged in employment (4.5 vs. 4.1; $p < 0.001$).

Conclusions

Oral health-promoting habits co-occur and the co-occurrence varies by subjects' background characteristics. Oral health promotion activities should be tailored and targeted considering subjects' background characteristics, especially concerning men, low educated, living single and being not engaged in employment.

Adoption as a precondition for implementation - Results from a project disseminating workplace health promotion in Switzerland

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Problem/Issue:

Workplace health promotion (WHP) practitioners do not only need to know how to implement WHP measures but also how to disseminate them. Dissemination includes awareness raising of target groups, spreading tailored information, and adoption of WHP measures by companies.

A research-practice partnership developed and evaluated a data-based dissemination strategy for a workplace tobacco prevention project in Switzerland. Dissemination included a combination of an information brochure and an assessment via questionnaire mailed to 3749 companies, followed by information events, and telephone marketing. The assessment was designed as an intervention to encourage companies‘s key representatives to reflect on their needs and to stimulate interest in WHP. In addition, it provided information for tailored WHP meaures.

Results

The survey-based assessement provided company specific information (current practice, interest, needs). It was also used to develop target group specific dissemination strategies. Some dissemination activities, such as information events met with little response (participation in 26 out of 947 interested companies). Therefore, telephone marketing was intensified to personal and telephone consultations (32 personal and 63 telephone consulations in 87 companies).

Lessons Learned

Data-based intervention planning via assessment fosters tailored WHP insofar it takes company interests and needs into account. Nonetheless, demand-oriented dissemination of WHP targeted to specific sub-groups does not result directly in adoption by companies. Therefore, an individual tailoring of the dissemination strategy and proactively approaching single companies was required. Knowledge about such systematic dissemination procedures is an underestimated but nonetheless important issue for intervention planning in the WHP context. It also permits adaptation of dissemination strategies according to limited ressources of workplace health promotion practitioners.

2.S. Food, physical activity and obesity

The impact of old-age retirement on leisure-time physical activity

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Background

Lack of physical activity is a major public health problem worldwide. Retirement from work increases free time thus potentially affecting leisure-time physical activity. The aim of the study was to examine whether transition to old-age retirement impacts on leisure-time physical activity.

Methods

The baseline data were collected in 2000–2002 among 40–60-year-old employees of the City of Helsinki. A follow-up survey was conducted among the baseline respondents in 2007 ($n = 7332$, response rate 83%). Employment status was asked at the follow-up and those who were on disability retirement were excluded ($n = 231$). This study included 5453 female and 1253 male employees of whom 1057 retired due to old-age. Leisure-time physical activity was asked using similar questions in both surveys.

Results

Old-age retirees increased their time used in moderately intensive physical activity: women 31 minutes per week and men 42 minutes per week on average. Such changes were not found among those remaining employed. Changes in vigorous activity were not found. Physical inactivity during leisure-time declined among old-age retirees compared with employees of nearly the same age.

Conclusions

The mean increase found among the old-age retirees was relatively small considering that about 40 hours per week can be used in leisure pursuits after retirement. From public health perspective it is encouraging that inactive employees increased their physical activity after transition to retirement. Nonetheless, physical activity among those about to retire should be encouraged.

Obesity and quality of life: Mediating effects of comorbidities

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Obesity has a negative impact on a person's functional capacity and health related quality of life (HRQL). It is interesting to what extent, the association is mediated by obesity-related comorbidities such as diabetes type II, coronary heart disease (CHD), hypertension (HT), hyperlipidemia, stroke.

Aim

To estimate the association between body mass index (BMI) and HRQL determined by depressive symptoms (DS) and self reported general health status (GHS) and examine whether obesity-related comorbidities mediate the BMI-HRQL association.

Methods

147969 men and women aged 20–74 yrs participated in National Polish Survey were classified according to BMI [kg/m2] as underweight (<18,5), desirable weight (18,5–24,9), overweight (25–29,9), obese class I (30–34,9), severe obese (â‰¥35). Quality of life was estimated by self reporting general health status (very good, good, fair, poor) and presence of depressive symptoms (DS) assessed by Beck depression inventory form. Data on obesity related comorbidities were collected by questionnaire,physical examination or laboratory tests

Multiple logistic regressions of BMI class on each of the HRQL variables: GHS and DS were done.

Results

After adjusting for age, gender, smoking education, marital status and income we observed J-shape association between BMI and HRQL indicators. Compared to subjects with desirable weight (reference group: $OR = 1$) individuals with underweight, overweight, and obesity all classes were significantly ($p < 0,002$) more likely to report fair/poor GHS [odds ratio $(OR) = 1.60$, 1.15, 1.58 and 2.42 respectively]. For DS ($score \geq 10$) the associations were weaker and significant only for obese class I and severe obese ($p < 0,004$) and the corresponding ORs were 1.1, 0.92, 1.29 and 1.30.

Adding obesity-related comorbidities into models attenuated those associations Corresponding ORs for GHS were: 1.64, 1.03, 1.32, 1.92 and except overweight, the ORs remained significant.,($p < 0{,}001$) For DS the ORs, were respectively 1.10, 0.88, 1.20 and 1.11 and were significant only for obesity class I.

Conclusions

Significant association between BMI and HRQL indices (GHS and DS.) were J-shaped. The association was stronger for GHS than for DS Comorbidities may mediate BMI-HRQL associations.

Dietetic care attributes to the public health of overweight patients in the Netherlands, 2006–2011

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Background

Overweight is an important risk factor for several diseases such as diabetes and heart diseases, though the factors that cause overweight are complex. Worldwide dietitians are challenged to treat overweight; however the results of treatment by a dietitian have not been studied in a large setting.

Methods

Data were used from the National Information Service for Allied Health Care (LiPZ). LiPZ is a Dutch registration network of allied health care professionals, including extramurally working dietitians. Data were selected from 30 registered dietitians working in solo practices located throughout the Netherlands, and from 6,196 patients with overweight (70% of the total population) who underwent dietetic treatment between 2006 and 2011. Data collection was based on computerized registration of patients' healthcare-related information, e.g., comorbidity, using a specific software program for reimbursement. The outcomes in this study included the percentage of achieved aims, Body Mass Index (BMI) and the percentage of patient who met the Dutch Norm for Health-enhancing Physical Activity (DNHPA). The DNHPA recommends that adults need to be physical active with a moderate-intensity for 30 minutes on at least five days each week. Descriptive statistics and two sample t-tests were performed to test whether there was a significant difference in outcome measures.

Results

Comorbidity existed in 61% of overweight patients. Common comorbidities of overweight were diabetes, hypertension, hypercholesterolemia or a combination of these diagnoses. At the end of the treatment 39% of the patients achieved at least 75% of the treatment aims and 12% failed to achieve the treatment aims. Patients' mean BMI decreased from 32.0Â ± 5.0 at the start of the treatment to 30.7Â ± 5.0 at the end of the treatment ($p < 0{,}001$). The percentage of patients who met the DNHPA improved from 42% at the start to 63% at the end of the treatment ($p < 0{,}001$).

Conclusions

Treatment of overweight by a registered dietitian can result in positive health outcomes in terms of improved BMI and physical activity levels. Improvement of these health outcomes are important factors in the prevention of several chronic diseases. Therefore treatment by a registered dietitian can help benefit public health.

Dietitians in Germany: A survey on dietitians' professional profile and their work fields

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Background

Dietitians in Germany are considered health professionals and their profession is protected by law. Their education aims at the ability to provide diet therapy and nutritional and dietetic counseling. In Germany, no current research data are available in this field. The goal of the conducted study was to gain insight into to dietitians' professional profile and their work fields as well as in their engagement in multi-professional teams.

Methods

A cross-sectional study was conducted in 2009. A self-administered questionnaire was developed and consisted of 33 questions covering demographics, employment situation, job characteristics, trainings and expectations for professional development. As there is no registry, the questionnaire was distributed as part of the December 2009 issue of 'Diät und Information', the journal of the German Dietitian Association (VDD). In total 3,489 questionnaires were sent out; 1,047 questionnaire were the final sample resulting in a response rate of 27.2%.

Results

98.1% of the participants were female. Among the participants 76.8% were dietitians and 23.2% were student dietitians. More than half of the respondents were employed in hospitals and nursing homes. The majority (85.4%) of the dietitians reported performing diet therapy and nutritional counseling, whereas 54.0% were involved in food service management. The most reported medical disciplines in which dietitians are active were diabetology, gastroenterology and internal medicine. 75.3% of all dietitians have completed at least one further education cycle. Our results show a high professional satisfaction among dietitians, as 80.2% of all interviewees would still become a dietitian, if they could choose again.

Conclusion

The present data deliver insight into the professional profile of dietitians in Germany and their multifaceted work fields. The data showed not only a quite high job satisfaction in Germans dietitians but also a high variety of job characteristics and multiprofessional cooperation. Additionally, the data showed the important contribution of dietitians to the German health care system.

Application of Sapere method in food education in Danish Kindergarten foodscapes

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Background

Studies suggest that variety and knowledge in food is a determinant for later integrating those in the diet. There is an increasing interest in developing tools for food education that can integrate health promotion initiatives in kindergarten.

Aim

The aim of the project was to: Increase children's knowledge about their foodscapes and ability to trace food to nature and thereby giving them a basic understanding of food; Develop sensory and practical food skills and preferences for food in order to develop children's food education; Develop and integrate food education tools for the kindergarten teachers to be integrated in the mandatory curricular.

Methods

The intervention was carried out as a single case study in a Danish kindergarten, consisting of pre picture questionnaires with the children, focus group interviews among staff, video observation of food and meal situations in the kindergarten. The results of the first data collection showed a need for practical tools in relations to food education, following from this, four interventions were carried out: a vegetable garden project, a forest project, a harvest project and taste workshops for kindergarten teachers and children. Pro picture questionnaires and follow up interviews with kindergarten staff were conducted.

Findings

Follow up studies indicated that the participants acquired increased;

- knowledge and ability to connect food to origins
- understanding of food, food production in particular in relation to fruit and vegetable products
- courage to try new foods
- sensorial and practical food skills

Conclusions

Results shows that the interventions had an impact on children's sense of food, the general foodscape in the kindergarten and that food can be a part of the kindergarten curriculum. Conducting longitudinal research on food education studies in relation to teachers' education, nutritional interventions, the interrelationship between food language development, preferences and parents feeding style is of relevance. The study underlines a need to strengthen competencies in relation to sensory and taste skills, e.g. by developing a common and coherent language around food, nutrition and health among kindergarten teachers and children in the kindergarten.

Assessment and validation of fast food outlets using register in Denmark

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Background

Studies have shown associations between availability of fast food outlet and unhealthy eating behaviour and obesity, however almost all of these studies are performed in USA or Australia with a different context compared to Europe and Denmark. Instead of collecting data on fast food outlets through ground-thruthing, registries may be a possible way to collect information on fast food locations. The aim of this study is to validate whether existing businessregisters can identify fast food outlets in Denmark.

Method

In Denmark fast food outlets are registered in several registries as Smiley Register from the Danish National Food Agency. The Smiley Register categorizes the outlets in a modified version of NACE-codes. The register includes businesses that are not fast food. In this study fast food outlets were identified in the Smiley register using specific keywords in the company name of the restaurants. However, there is a risk that some fast food outlets are excluded because the company name doesn't contain a keyword which is associated with fast food. A ground-truthing for validation of this process was performed. In the study area of the Capital Region of Denmark 125 grid cells were randomly selected. The cells were visited and the fast food restaurants were recorded and measured using GPS. These findings were compared to the register identification.

Results

A total number of 186 fast food restaurants were identified by ground-truthing and 99% of these were registered in the same grid cell by the Smiley Register. However, only 152 restaurants of these were categorized as fast food by both methods. The sensitivity was 82% and the positive predictive value was 92%.

Conclusions

The Smiley register can be used to identify fastfood outlets in Denmark. Ground-truthing is considered as the gold standard to find fastfood outlets but very time consuming. The identification of fast food outlets using registers is less time consuming and effective to identify fast food outlets in a wide area.

Seaweed consumption and thyroid cancer risk in Japanese middle-aged women

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Background

Iodine is a suspected risk factor for thyroid cancer. The main source of iodine in Japan is seaweed, which accounts for approximately 80% of intake. In Japan, therefore, seaweed consumption may increase the risk of thyroid cancer. To date, 2 case-control studies have examined seaweed consumption in relation to thyroid cancer risk, but neither study showed an association. However, seaweed consumption was lower in the 2 study populations than it is in the Japanese population. With this background, we examined the association between seaweed consumption and thyroid cancer risk in Japanese women that were iodine-sufficient population with a high mean value of seaweed consumption.

Methods

Women participating in the Japan Public Health Center-based Prospective Study (n = 52,679; age: 40 to 69 years) were followed up for a mean of 14.5 years, and 134 new thyroid cancer cases, including 113 papillary carcinoma cases, were identified. Seaweed consumption was assessed via a food-frequency questionnaire and divided into 3 categories: ≤ 2 days/week (reference); 3–4 days/week; almost daily. Hazard ratios (HRs) and 95% confidence intervals (CIs) for thyroid cancer risk were calculated with the Cox proportional hazards model.

Results

We found that high seaweed consumption tended to increase risk of thyroid cancer. The association was statistically significant for papillary carcinoma (multivariable HR for the almost daily consumption category vs. the ≤ 2 days/week category = 1.71, 95% CI = 1.01–2.89, p for trend = 0.04). Our results did not materially change when cases of thyroid cancer diagnosed in the first 2 years of follow-up were excluded. When the women were stratified according to menopausal status, an increased risk was observed in postmenopausal women (multivariable HR of papillary carcinoma in the almost daily consumption = 3.77, 95% CI = 1.65–8.60, p for trend < 0.01), but not in premenopausal women (multivariable HR = 0.90; 95% CI = 0.43–1.89, p for trend = 0.74).

Conclusion

This study identified a positive association between seaweed consumption and thyroid cancer risk (especially for papillary carcinoma) in postmenopausal women.

2.T. Mental health

The Mental Healthcare System Reform in Belgium: Assessing Network Outcomes and Inter-Organisational Effectiveness

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Background

Despite a partial deinstitutionalisation within a federal state with health competences at each level of authority, the mental healthcare system in Belgium has remained much fragmented, uncoordinated, and rather hospital-centred. In 2010, a new phase of reform, named 'Title 107' was initiated. It aims at implementing inter-organisational networks of a broad spectrum of mental health and other social care services coordinated from the psychiatric hospital units. However, the policy blueprint of the reform lists up to 18 goals which, as the theory suggests, cannot be all met at the same time. Moreover, there is no consensus in the literature and among stakeholders on how to assess the effectiveness of such inter-organisational networks.

Aim

Our study maps the effective goals of the reform process and identifies the most relevant indicators in stakeholders' views to assess the network outcomes and inter-organisational effectiveness in mental health.

Method

We combined a quantitative stakeholders web survey (n = 110), completed by policymakers, professional groups, users and family groups, and qualitative focus groups (n = 4). The indicators were selected according to the Rosenblatt's model while the reform goals were extracted from the policy blueprint and classified on structure, process and outcome goals.

Results

Globally, the most supported goals aim at improving the quality of life of the users and their inclusion. A clash was identified between two groups of goals, the first aiming at increasing the network density of links between services, the second aiming at increasing the network centralisation and service coordination. Goals and indicators related to clinical status and hospitalisation were somewhat considered as less important, although different stakeholders may have different priorities.

Conclusion

This study indicate how nation-wide mental healthcare reforms may be challenging to assess and why their effectiveness is patchy. However, it gives major indications on which network outcomes should be taken into account and how inter-organisational effectiveness in mental health can be assessed. Moreover, it gives policymakers indications on how the reform process can be properly implemented in the following years.

Lower rates of psychiatric disorders in Italy comparing with other European Countries

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Background

The School Children's Mental Health in Europe project (SCMHE project) is founded by the European Commission and aims at monitoring the mental health and its determinants of 6 to 11 years old school children from a multi informant perspective (children, teachers, parents). 7 European countries are taking part. In this analysis we are focusing on differences in mental health between Italy and other European countries.

Methods

Data were collected from a randomized sample of 221 primary schools of Sardinia, an Italian Region (recruited N = 3150 children). The view of parents and teachers on internalizing and externalizing problems was collected with the Strength and Difficulties Questionnaires (Goodman, 1997; Woerner, Becker, Friedrich, Klasen, Goodman & Rothenberger, 2002). Children were interviewed with the computerized and pictorial Dominic Interactive (Valla, Bergeron, Berube, & Gaudet, 1994; Ederer, 2004), a reliable self report screening that produces risk classifications for 4 internalizing and 3 externalizing DSM-IV diagnoses.

Results

The preliminary results confirms lower rates of both Externalized (8.9 detected by children, 11.4 by teachers; 6.1by parents)and Internalized (18 detected by children teachers; 14.8; 9.6 parents)disorders in the Italian sample comparing with other european surveys and the whole european results of the SCMHE study.

Conclusions

The lower rate of psychiatric disorders in children in Italy are coherent with the lower trend of psychiatric disorders in adults found by adults surveys. The results are discussed in relationship with other well being indicators as suicide rate and alcohol consumption.

The prevalence of psychological distress among Icelandic university women students compared to women in the general public

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Psychological distress is an unpleasant subjective state which takes two major forms –depression and anxiety. The prevalence of psychological distress among university students ranges from 20% to 30% and most studies show that the prevalence is significantly higher among women.

The main purpose of this research was threefold: 1) To assess the prevalence of psychological distress among university women students in Iceland, 2) To compare the level and prevalence of psychological distress to women in the general population. 3) To assess university women students' needs for mental health services. The research is based on a cross-sectional internet survey among women students attending the University of Iceland in spring 2007. Psychological distress was measured with the SCL-90 Depression and Anxiety subscales and a randomized stratified sample was drawn to accurately reflect the proportion of graduate and undergraduate students in the sample.

Results showed that the prevalence of above-threshold depression and anxiety among the women students was 22.5% and 21.2%, respectively, which is similar to rates among general population women. However, the mean level of depressive symptoms was significantly lower among the students compared to Icelandic women in the same age range. Results also showed that less than one third of the women students with elevated distress levels received professional help. The main barriers to help-seeking among the women students were lack of time (32.4%), not knowing where to seek help (22.2%) and cost (21.6%). Based on this Icelandic prevalence study, a cognitive behavioral program was formulated to prevent psychological distress among women students at the University of Iceland. The program will be offered in six educational sessions on-campus.

Why do young people experience high stress levels?

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Background

In line with other studies of young people's wellbeing, studies based on the health survey ''How are you?'', conducted in Central Denmark Region, show that young people experience high stress levels. The question is why? The purpose of this study is to explain why young people experience high stress levels.

Methods

Centre for Public Health in Central Denmark Region conducted a health survey in 2010 based on the questionnaire ''How are you?''. The design was a random sample. 34,584 people answered the questionnaire leading to a response rate of 65 pct.

Two questionnaires were developed; one for people aged above 25 years and one for people between 16 and 24 years of age.

The focus in the questionnaire for young people was on life conditions associated with the development and transformation processes that young people go through.

To comprehend why young people experience high stress levels, the quantitative data was supplemented with both individual and group interviews with respondents in different life situations. The interviews were open structured with the aim of letting young people describe with how they feel and, in relation to that, why they experience stress.

Results

The conclusion, that young people experience high stress levels, is based on different age groups' rating on Cohen's Perceived Stress Scale. To support the conclusion it is also demonstrated that young people in general score lower on the mental dimensions based on the questions from The Short Form 12 Health Survey version 2 (SF-12).

Using the quantitative data it is shown that women between 16 and 20 years of age are experiencing the highest stress levels in comparison with older women and men.

From the qualitative data it is shown that external pressure and high ambitions can lead to high stress levels. In relation to that it is shown that there are great variations in what young people consider stressful. This must be seen in relation to the fact that young people are living very different lives.

Conclusions

Young people between age 16 years and 24 experience a more stressful life than older people. The stress that young people feel is associated with their personal ambitions and external pressure.

Covariates of perceived stress among residents in a deprived neighbourhood in Denmark

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Background

The present study aimed to identify the covariates of stress among the demographic and socio-economic characteristics of the residents in a deprived neighbourhood in Esbjerg, Denmark.

Methods

The data used in this paper were selected from a broader public health survey conducted in spring 2009. A sample of 1160 persons aged 18–70 residing in a geographically bounded and socially deprived neighbourhood (Kvaglund in Esbjerg municipality) participated. The survey was conducted through telephone interviews (1004 respondents) and face-to-face interviews (156 respondents). Logistic regression was used to examine the association between socio-demographic characteristics and stress levels, adjusting for gender, age, education, marital status and ethnicity.

Results

The results suggested that perceived stress was significantly associated with all covariates under study. Respondents aged 30 to 39, single, lonely, with lower education, unemployed, economically deprived, and with a history of sick leave were more likely than their counterparts to experience high levels of stress.

Conclusions

The results from this study show that stress is unequally distributed among people in disadvantaged conditions and therefore public health intervention should be tailored to the population diversity. Future research should focus on mechanisms of risk between socio-economic conditions and health with special attention to deprived neighbourhood. Also, specific effects of neighbourhood on people's life should be more explored.

Imprisonment among male psychiatric inpatients

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Introduction

Men with severe mental illness (SMI) or substance use disorder (SUD) are at an increased risk of imprisonment and poor treatment outcome. The aim of the study was to evaluate the co-occurrence of psychiatric hospitalisation and imprisonment, and mortality of men who have both been imprisoned and admitted to a psychiatric hospital.

Material and methods

A database of all men admitted to psychiatric wards in Iceland from 1983 to 2008 was created. Data was cross-linked to find those that had served a sentence in prison and those who had died during the study period. A nested case-control (1:3) design was employed. The study population were all men with a discharge diagnosis of an SUD at a psychiatric hospital. Cases were those imprisoned during the study period. Controls were matched for admission year (±5), age (±5 years) and survival until case had served a sentence. Survival was calculated using Cox-proportional hazard ratio adjusting for age, year of admission and SMI diagnosis.

Results

A total 7.670 males were admitted during the study period. A total of 815 (10.6%) served a sentence in prison of which 749 had a diagnosis of SUD. Hazard ratio for all-cause mortality among those serving a sentence was 2.0 (95%-CI = 1.6–2.6). However, for accident or suicide-related mortality the hazard ratio was 2.4 (95%-CI = 1.6–3.5).

Conclusions

Imprisonment is overrepresented among male psychiatric inpatients and is associated with significantly increased mortality, especially when the cause of death is accidents or suicide. This group of individuals is particularly vulnerable and it is necessary to develop comprehensive treatment system targeting these individuals to ensure right treatment.

Main subject is psychiatric epidemiology and presenter is doing a master's project.

Identification and management of maternal depression by paediatricians' in Greece
A pilot study

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Background

The negative impact on both maternal and child physical, mental health and wellbeing, highlight the importance of managing (detection & referral/treatment) maternal depression in primary care. Pediatricians' role in identification and management of maternal depression is well established. Despite the heightened emphasis, in Greece there is lack of evidence about the factors associated with pediatricians' management practices toward maternal depression.

Objectives

To address this gap, the present observational study aimed to examine the relationship between paediatricians' attitudes, beliefs, knowledge, self efficacy, perceived barriers and management practices of maternal depression. A total of 43 primary care paediatricians residing in Athens, completed a 61-item survey by mail in 2011. The 61-item survey contained questions about demographics, knowledge, beliefs, attitudes, self efficacy, current practices and perceived barriers concerning management of maternal depression. Descriptive statistics, t-test and one-way Anova were used for the statistical analysis.

Results

Over 90% of paediatricians reported that it was not their responsibility to recognize maternal depression. A large percentage of paediatricians (85%) rarely/never assess for maternal depression or provide a referral. A large percentage (65%) of paediatricians reported sufficient knowledge about symptoms of maternal depression; however paediatricians' self assessment regarding training in identification and management of maternal depression was particularly poor. Significance differences were found between beliefs, attitudes, self efficacy and perceived barriers associated with management practices of maternal depression.

Conclusions

Paediatricians' knowledge, attitudes, beliefs and self efficacy are associated with the identification and management of maternal depression. Studies using large, representative population bases are needed to provide evidence about factors associated with identification and management of maternal depression by paediatricians in Greece.

Pros and cons regarding the use of Selective Serotonin Reuptake Inhibitors in treating patients with depressive disorders

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Introduction

Depressive disorders are commonly met in primary care and are often associated with high costs. Selective Serotonin Reuptake Inhibitors (SSRIs) are antidepressants with minimal anticholinergic effects. Regardless of the use of SSRIs for depressive disorders, the deficiency of information is a major problem which limits physicians to choose the best clinical solution. This study intends to establish the cost-effectiveness analysis of SSRIs compared with usual care for patients aged 60 to 75, based on data available at two general practitioners (GPs) offices operating in Bucharest.

Methods

Evaluation of the depression severity was assessed using the Montgomery Asberg Depression Rating Scale (MADRS) and quality adjusted life years scale (QALY). The social perspective was used including both the direct and indirect costs associated with both procedures.

Results

Based on the analysis of the MADRS cost-effectiveness curve (CEA-curve) we concluded that with small investments, substantial improvements can be achieved in patients' psychological status (the chance of being cost effective is 0.95). Meanwhile, QALY is not sensitive to any additional investments. However, there is a 27 percent of chance for the intervention being cost-effective for $\lambda < 9{,}700$ Euros.

Conclusion

Based on these results, the policy makers are advised to invest in SSRIs for current care in patients with mild to moderate depressive disorders. The estimated investment could be around 2,200 Euros per patient for an improvement in MADRS score.

2.U. Sexual health

Social and economic determinants in family planning in Romania

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Background

The international priorities for the research studies in the field of sexual-reproductive health are to put into evidence the mesological factors of influence and the issues regarding the quality and safety of fertility regulation methods and to assure that the whole population has and maintains a solid state of health. In this respect, we are running a Grant (financially supported by CNCSIS - UEFISCSU, project PN II - IDEI code 72/2008) aimed to evaluate the reproductive health quality in south-western Romania.

Methods

We interviewed 1200 people, equally distributed by sex, age groups, residence area (urban or rural) and instruction level, about their opinion and issues in family planning. They were asked to answer a questionnaire that included 111 items (for both sexes) plus other eight specific items for women. Their participation in the research was made in full awareness, in permanent compliance with the principles of anonymity and confidentiality. Study results were statistically processed using the SPSS program.

Results

Subjects were born in families with two (42.6%), three (17.8%) or one child (16.6%); people over the age of 60, coming from rural environments were born in families with four children or more ($p < 0.001$). Respondents consider the ideal number of children in a Romanian family at present is two (70.3%), three (16.6%) or one (9.3%). The model of a three children family has the highest transmissibility from a generation to the next one (72.5%). Most often (48.2%) people declare they decided to have maximum two children by financial reasons. More than 65% of the subjects having a child do not desire/cannot having a second one. The most important reasons to procreate are the need of support at the old age (64%, especially in rural environments, $p < 0.001$) and the couple strengthening (young people from urban families, $p < 0.001$). In the Romanian families, grandparents (31.8%) help in growing up grandchildren who, in their turn, as adults, will provide (48%) financial support and care to their grandparents.

Conclusions

The results suggest health and social workers, psychologists and educators should consider those variables already tested when designing intervention programs for modifying couples attitudes towards family planning.

Investigating inequalities in cervical cancer prevention: Will uptake of Human Papillomavirus (HPV) vaccination follow the same pattern as cervical screening?

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Background

Mortality from cervical cancer has steadily declined since the introduction of the National Health Service (NHS) Cervical Screening Programme. However, screening uptake is falling.

The introduction of the HPV vaccination programme has the potential to reverse the downward trend in cervical cancer prevention in the following ways: a) The HPV vaccine may reach girls who in future may not attend for cervical screening b) Information reaching non or under-screened mothers through the HPV vaccine programme may go on to stimulate their attendance for screening.

Methods

A joint Northwest service evaluation of the HPV vaccination and cervical screening programmes is being completed amongst mothers and daughters through the linking of cervical screening and HPV vaccination records. Two PCTs have also been selected to send a short questionnaire on screening intentions and vaccination consent to mothers of 12–13 year old girls eligible for vaccination. Thirty respondents were selected to participate in an in-depth interview to investigate further the factors associated with a mother's change in intention to attend for cervical screening.

Results

Analysis of initial data downloads received from 15/24 PCTs suggests a significant relationship between mothers screening attendance and uptake of daughters HPV vaccination. An association was also seen between area deprivation and both screening and vaccination uptake.

The overall response rate from the questionnaires was 25.40% (n = 610). Self reported screening attendance in the last 5 years and receiving an abnormal smear result were found to have a significant association with consent to the vaccination.

Conclusions

Mother's behaviour towards cervical screening may be indicative of HPV uptake in daughters. Initial results suggest that the HPV vaccination programme is subject to the same inequalities in coverage as the cervical screening programme.

Contraceptive practices in a Romanian population

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Background

Improving the reproductive health requires access to safe and effective methods of fertility control, but most rely rather on modern contraceptives (such as condoms or oral/injectable hormonal methods) than on traditional methods. Our research (part of the project 72/2008 financially supported by CNCSIS - UEFISCSU; scientific collaboration of the Institute of Anthropology) aimed at investigating the pattern of traditional and modern contraceptive methods usage in a Romania population.

Methods

We applied a questionnaire with 111 items on 1200 subjects, men and women, living in both rural and urban areas, equally distributed by age group and instruction level. Depending on the age, education level and subjects' availability, questionnaires were filled in by the interview operators having the same sex as the participants in the study (old people and/or with an elementary training level) or by self-filling-in (young people, with secondary or higher studies). Study results were statistically processed using the SPSS program.

Results

Less than half of the subjects (43.9%) were using contraception at the moment of the interview. The reasons for not using it were menopause (27.3%), sexual inactivity 20.4% (subjects from rural communities $p = 0.001$, women $p < 0.001$, subjects in 15–24 and over 60 age groups $p < 0.001$), infertility (3.9%). The best known contraceptive methods for the age group under 35 were condoms 95.5%, pills 90.1% and the calendar method 83.2%. For the same age group the most used methods were condoms 63.8%, pills 34.1% and coitus interruptus 41.2%. People over the age of 35 had knowledge about calendar 83%, withdrawal 82.6% and condoms 79.6%. They used more the traditional methods (coitus interruptus 64.1%, calendar 57.2%) and condom 33%. Condom was the best known method in both urban and rural areas. The most used method was condom for urban, and respectively withdrawal for rural population. Diaphragm, sponge, cervical cap, vasectomy and basal temperature were less known or used by the entire sample.

Conclusions

The low efficiency traditional methods are dominant in rural areas and among older people. Such data highlighting differences in contraceptive use by age and residence should be the starting point for new public health strategies.

Prevalence of illicit drug use among female sex workers in Europe: an overview

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Background

Illicit drug use (DU) has been described as being both a determinant and a facilitator of sex work. Moreover, DU can have a negative impact on the physical and mental health of female sex workers (SW). Clinical evidence suggests that SW are a high risk group with increased prevalence, but a review was missing. The study presents an overview of the prevalence of specific DU among SW in European countries and investigates whether there is evidence for an increased use in this population compared to the general population (GP).

Methods

Literature was reviewed with PubMed to find peer-reviewed articles in English that were published in the years 2000 to 2009 about DU among SW in Europe. Additionally, all yearly National Reports (N = 222) provided to the European Monitoring Centre on Drugs and Drug Addiction covering the years 2000 to 2008, were searched to include also reports from health care services that were not published in scientific journals. All illicit substances were included.

Results

Prevalence estimates of DU among SW were available regarding 16 European countries. Last year and last month prevalence (LMP) of DU among SW and in the GP of 15–34 years old were compared. Prevalence of use of each substance was found to be substantially higher among SW: cocaine (LMP-SW: 4% - 91%; LMP-GP: 0.1% - 4.1%), heroine (LMP-SW: 6% - 90%; LMP-GP: <1%), amphetamines (LMP-SW: 5% - 26%; LMP-GP: 0.1% - 1.5%) and cannabis (LMP-SW: 14% - 51%; LMP-GP: 0.3% - 13.4%). Among SW DU differed by age and working environment, being higher in younger cohorts and in street workers. Available data suggest a steep increase in the use of illicit drugs among SW in certain European cities.

Conclusions

Prevalence of illicit drug use, including cannabis, cocaine, amphetamine and heroine, is considerable higher in SW compared to the general population. Especially younger women and street workers are vulnerable with endangered physical and mental health. Surveys and surveillance systems that provide solid estimates of drug use in this population were found to be scarce. Feasibility of monitoring drug use by population-specific health services could be studied as this approach would facilitate timely preventive and curative health interventions.

The characteristics and believes of men buying sex in Finland

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Background

Open borders with Estonia and closeness to Russia have made commercial sex easily accessible to Finnish men, but information on men buying sex is limited. As a part of a project studying public health aspects of prostitution, we studied characteristics and believes of Finnish men buying sex using an existing population survey.

Methods

A population-based survey made in1999 was re-analyzed. It was a postal survey with a response rate 46%. Descriptive analysis and logistic regression to adjust for age and marital status were conducted.

Results

Of the 624 respondents, 14% had ever bought sex. Of those who had bought sex (n = 87) 15% had done it from a foreigner abroad and 4% from a foreigner in Finland. Compared to men younger than 30 years, men buying sex were more likely to be in the age group 30–39 years (4.35, 95%CI 1.90–9.94) and 50 years and older (2.73, 1.15–6.50). Men buying sex were more likely to be entrepreneurs (2.70, 1.05–6.93) than white colour employee in a leading position, were more likely to have education 13–15 years (2.53, 1.25–5.12) than 10 or less years, to have high income (2.55, 1.14–5.68) than low and were more likely to have two and more sexual partners in the last year (3.38, 1.71–6.69) than one partner. Men who were married (0.53, 0.29−0.97) were less likely than single and those who had their first intercourse in the age of 17–18 years (0.43, 0.26−0.73) were less likely than men who had had first intercourse before 18 years to buy sex. Men who had bought sex had more liberal sexual attitudes than other men: they less often disagreed with a statement that sexual intercourse without love is wrong (17% vs 51%), more often believed that they could maintain a sexual relationships with many women at the same time (60% vs 23%), had nothing against people selling sex (85% vs 60%) and approved of state-controlled brothels (87% vs 55%).

Conclusions

A large proportion of men report having bought sex and there is a need to strengthen public health actions. More current research is needed on the motives and health consciousness of men buying sex to prevent prostitution and/ or its negative consequences.

Investigating HIV-risk behaviors of female sex workers in Armenia: Inconsistent refusal of unprotected sex and its correlates

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Background

The relatively low (0.1%) prevalence of human immunodeficiency virus (HIV) in Armenia provides a unique opportunity to intercede with prevention programming before a larger scale epidemic ensues by targeting prevention efforts to high-risk groups. Due to high frequency of sex and large numbers of male clients, female sex workers (FSWs) are one high-risk population of particular concern. For this population, condom use is widely accepted as the best form of protection from HIV; however, this protective behavior is often not directly under FSWs' volitional control. To make future HIV prevention programs as effective as possible, it is important to investigate other protective and high-risk behaviors, as well as factors that influence them. The purpose of this study was to examine the prevalence and correlates of inconsistent refusal of unprotected sex among FSWs in Yerevan, Armenia.

Methods

In this cross-sectional study, 118 street-based FSWs ages 20–52 were recruited between August and December 2007 and completed an interviewer-administered questionnaire assessing sociodemographics as well as hypothesized correlates of inconsistent refusal of unprotected sex.

Results

A total of 52.5% (n = 62) of FSWs reported inconsistent refusal of unprotected sex in the past three months. A total of 57.6% (n = 68) participants reported a history of physical, emotional and/or sexual abuse. Logistic and linear regression models controlling for participants' age and education revealed that a higher number of different types of abuse experienced by FSWs (Adjusted odds ratio (AOR) = 2.13; p = .001), perceived barriers toward condom use (AOR = 1.09; p = .005), and a smaller amount of money charged per client or service (AOR = .91; p = .020) significantly predicted inconsistent refusal of unprotected sex.

Conclusions

This study underscores the importance of an HIV-risk behavior, inconsistent refusal of unprotected sex, and suggests an association between this behavior and several psychosocial factors including perceived barriers toward condom use, a history of abuse experienced by FSWs and inability to charge adequate fees for their services. Future interventions should address these modifiable factors to encourage FSWs to consistently refuse unprotected sex.

Use of and trust in information sources on HIV: a cross-sectional population based survey in two Russian cities

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Background

Very little is known about the general population's use of and trust in information sources on HIV in Russia. We aimed to study how Russians trust different sources providing information on HIV.

Methods

A cross-sectional population-based survey included 2033 respondents, aged 18+ in Arkhangelsk and St. Petersburg. Respondents' use of information source was asked using an open-ended questionnaire. Respondents' trust in information sources on HIV was asked using a battery of questions on a variety of information sources using the same list according to a pre-defined four-point scale. A trust index (range 1–4, no trust in any sources to full trust in all 12) was computed. Multiple linear regressions for each city with the trust index as dependent variable was performed.

Results

The mean number of information sources used were 2.20 in St. Pb, and 2.04 in Arkhangelsk, most frequent were TV/radio (used by 68–74% / 66–72% of respondents), newspapers/journals (52–59% / 51–58%). All health and educational institutions are mentioned by fewer than 20% in both cities. The mean score on the trust level index in St. Petersburg: 3.05

(3.02–3.07), Arkhangelsk: 3.21 (3.18–3.24). Besides parents/family respondents in both cities tend to express highest trust in medical institutions (3.58–3.66 / 3.50–3.58), health institutions (3.39–3.49 / 3.34–3.44), and general practitioners (3.33–3.43 / 3.22–3.32). Internet (2.70–2.80) / (2.45–2.55) and non-governmental organizations (2.92–3.04) / (2.69–2.80) were trusted least. The only variable with positive significant effect ($p < 0.01$) on trust levels in both cities was subjective assessment of HIV treatment in own city. Low economic status was negatively associated with trust in St. Petersburg. In Arkhangelsk, old age and low education, knowing someone with HIV were negatively associated with trust while the level of own knowledge was positively associated with trust.

Conclusions

Russians in the two cities report having utilized a rather sparse number of information sources on HIV, but with high trust levels. Mass media sources are most often reported as sources of information. Health institutions enjoy the highest trust levels while internet and NGOs - the lowest.

Human immunodeficiency virus infection in Arkhangelsk region of Russia 1992–2009

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Background

Although Russian Federation has more HIV-positive than in any other country in Europe, there are great variations in the epidemiological patterns of HIV between the regions. While most attention is brought to the settings with high prevalence of HIV infection However, little is known about the situation in the regions with low prevalence of HIV.

Aims

To describe the general situation with HIV-infection in the Arkhangelsk region (population ~1.3 million) during 1992–2009.

Methods

A descriptive study. The data were obtained from the obtained from the annual statistical records at the regional AIDS-centre in Arkhangelsk.

Results

The prevalence of HIV infection increased from 0.06 per 100,000 in 1992 to 26.8 per 100,000 in 2009. The first HIV case in the region was diagnosed in 1992. More than 10 cases per year were registered for the first time in 2000. Altogether, 535 HIV cases have been registered by the end of the 2009. Cases among local population constituted 69.7% of all cases, foreign citizens accounted for 5.4%. The remaining 24.9% are those who are imprisoned in the Arkhangelsk region. The overall male to female ratio was 1.4 to 1, while in the period 1992–2000, it was 4 to1 gradually falling to 1.1 to 1 in 2009. More than 57% of all cases are in the age-group 21–30 years. Heterosexual contacts account for 65.4% of cases while intravenous drug users constituted 32.2% and this proportion is decreasing. Only 3% and 1% of cases represent homosexual and mother-to-child ways of transmission, respectively. About 1% of HIV-positive are children. The first deaths among HIV-infected occurred in 1999. Mortality increased from 0.21 per 100,000 in 1999 to 0.79 per 100 000 in 2009.

Conclusions

The Arkhangelsk region is a region with the lowest prevalence of HIV in Northwest Russia with substantial proportion of inmates as HIC-cases and heterosexual contacts being the main transmission route on the regional level. The reasons behind these data will be discussed.

Attitudes towards HIV prevention in two Russian cities: a cross-sectional population based survey

Tatiana Balaeva

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Background

Russia has one of the world's fastest growing HIV epidemics. Prevention measures tend to be targeted at the general population, substitution treatment programs are illegal, and needle exchange programs for injecting drug users are not given priority by the authorities. We studied Russians' support of a variety of prevention methods.

Methods

A cross-sectional population-based survey included 2033 adult respondents in Arkhangelsk and St. Petersburg. A battery of questions on support of 10 prevention methods was asked. Principle components analysis was performed to identify dimensions of prevention methods. Factor scores were then used as dependent variables in multiple regression analysis with socio-demographic correlates, knowledge on HIV, and trust in HIV information sources as predictors.

Results

Most respondents supported each measure (except criminalization of homosexual practices), including support for needle exchange programs (72%) and drug substitution therapy (63%). Major dimensions of support in prevention methods were identified: liberal targeted prevention with high factor loadings (above 0.4) for free medicines (.78), drug substation (.70), needle exchange (.62), and free distribution of condoms (.57); coercive and control measures: including criminalization of homosexual practice (.75), severe punishment for not revealing HIV status (.65) and compulsory HIV testing (.53); and prevention through information including support of mass media campaigns (−.69), promotion of abstinence/monogamy (−.64), and sex education at schools (−.59). General trust expressed in HIV/AIDS information sources has a positive effect ($p < 0.01$) on support of all three dimensions of HIV prevention. Inverse associations were observed between age and support for coercive and control measures ($p < 0.001$) and support for prevention through information ($p < 0.018$). Education has a positive association ($p < 0.001$) with support for coercive and control measures.

Conclusions

Russians in the two cities are supportive of a variety of measures to combat HIV with higher support for liberal targeted measures and coercive and control measures. Liberal targeted measures that are illegal or presently not given priority by the authorities seems to be supported by a majority.

PARALLEL SESSION 3: ORAL PRESENTATIONS

Friday, 11 November, 10:15–11:45

3.A. Workshop: How Politics matters: Welfare State Regimes and Health Inequalities

Chairs: Katharina Rathmann and Timo Pfoertner, Germany
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Social inequalities in health continue to pose a key problem for public health and medical sociology. While these disparities in mortality and morbidity are substantial in many European countries, the extent to which such inequalities in health are modifiable remains an unanswered question. Cross-national comparative studies can help to reveal systematic variations in health between countries sharing similar welfare policies and to identify determinants of health inequalities at the individual and societal levels.

Generally, welfare states are designed to address issues of social inequality, but they do so in different ways and to varying degrees. In this context, we know that welfare states are important determinants of health, as they mediate the extent and impact of socioeconomic position on health. For example, the egalitarian Scandinavian welfare regime displays good overall health, but it does not show the smallest socioeconomic inequalities in health. This so-called Scandinavian paradox is highly debated among scholars and represents an important challenge for public health policy and practice.

While a great deal of research has focused on the determinants of health inequalities, little is known about how structural characteristics of different welfare state institutions get ''under the skin'' Much attention has been paid to the impact of individual level determinants in the process of explaining and reducing health inequalities within countries. The role of macro-level factors, such as welfare state characteristics, has not been paid sufficient attention, especially in terms of comparing and explaining differences in health inequalities between countries. It can be assumed that not only individual determinants, but also macro-level factors impact objective and subjective health outcomes and inequalities.

The main focus of this workshop is to examine inequalities in health that stem from different welfare state traditions and to explore the pathways from the institutional structure of welfare state regimes to health inequalities. The workshop has three objectives: 1) describing social inequalities in health among welfare states/regimes; 2) unravelling the mechanisms at the micro- and macro-levels in order to explain how these social inequalities find their way into the body; and 3) discussing implications for policymakers and practitioners to additionally develop strategies to reduce social inequalities in health at the macro-level.

Work, Worklessness and the Political Economy of Health Inequalities

Clare Bambra

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Background

Political economy has a long history in the study of health inequalities dating back to Engels. The importance of political and economic systems for population health and health inequalities has been shown in numerous recent comparative empirical studies of welfare state regimes. This paper develops and applies the political economy approach to the study of the contribution of work and worklessness in the development of health inequalities in Europe.

Methods

Theoretical and conceptual overview of the empirical research literature on the contribution of work and worklessness to the comparative political economy of health. A model of the political economy of health inequalities is developed.

Results

Work and the socio-economic class polarities it creates, plays a fundamental role in determining inequalities in the distribution of morbidity and mortality. This is via uneven exposure to physical hazards and psychosocial risks in the workplace, as well as via inequalities in exclusion from the labour market and the absence of paid work. Further, the relationships between work, worklessness and health inequalities are influenced by the broader political and economic context in the form of welfare state regimes. The model of the political economy of health inequalities shows how different types of public policy interventions can mitigate these relationships.

Conclusions

Politics matters in the aetiology of health inequalities.

Social inequalities in health across Europe: Do welfare arrangements make a difference?

Espen Dahl

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Background

A puzzle in comparative health inequality research is the finding that egalitarian policies do not necessarily lead to smaller health inequalities. This paper interrogates further into this puzzle by looking at how welfare regimes as well as more specific welfare institutions affect health inequalities across Europe among disadvantaged groups, as measured by income, education, and employment status. The paper focuses on two different (self-reported) health outcomes, self-rated health and longstanding illness. It sets out to shed light on two competing hypotheses: The social investment hypothesis, which holds that generous and comprehensive welfare provisions give disadvantaged groups access to resources in cash and in kind, and these influences the social determinants of health and hence health in a positive way. In contrast, the disincentive hypothesis asserts that extensive welfare programs tend to foster dependency and irresponsibility, and to undermine people's work motivation. This is particularly harmful for disadvantaged groups as these are likely to suffer further deterioration of their health.

Methods

The research question is addressed by analyzing data from the EU Survey of Income and Living Conditions (EU-SILC). This is a survey data base that includes around 220 000 individuals aged 25–64 years (our sample) from 26 European countries from the mid 2000s. The data were examined by means of multilevel regression analysis and stratified for gender.

Results

Preliminary analysis suggests first that the health inequality patterns between men and women are rather similar across Europe. Second, the regime and the institutional approach do not give the same results. The regime approach finds that the liberal and the social-democratic regime have similar health inequalities. The Eastern and Western regimes are both worse off. Health inequalities seem to narrow, however, the more generous the welfare benefits are. Third, the results also vary by health measure; it seems that self-rated health is more sensitive to institutional variations than to regime variations.

Conclusions

The tentative conclusion is that a welfare regime approach is more supportive of the disincentive hypothesis whereas the specific welfare arrangements approach is more supportive of the social investment hypothesis. Some reasons for this finding is discussed, among others whether the regime approach lumps dissimilar countries together.

Welfare Regimes, Labour Markets and Population Health: A Global Hierarchical Cluster Analysis

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Background

Research on the political and economic determinants of population health has found a consistent association between welfare regimes and population health. However, studies have advanced with a narrow focus on high-income countries while overlooking the political economies of middle- and low-income countries. In this study, we develop and validate a comprehensive global typology of welfare regimes and employment conditions and examine its concomitant effects on population health.

Methods

We categorized 144 countries into three world-system positions (21 core, 42 semi-peripheral, and 71 peripheral) based on GNP per capita. Using principal component and regression methods, factor scores were constructed for core countries using labour market flexicurity variables (employment protection legislation indices) and for semi-peripheral and peripheral countries using labour market inequality (income ratio, labour force participation gaps, employment to population ratio) and poverty indicators (% of child labour, % of poor workers, average income level). Reliability was assessed using Cronbach's alpha. Hierarchical cluster analyses yielded a three by four global typology with nine employment clusters. Zero-order correlations measured strength of association between clusters and health. Data sources included the World Bank (2000), International Labour Organization (1990–97, 2003), and the WHO (2000, 2004).

Results

Core countries with labour market flexibility showed a strong negative association with infant mortality ($coef. = -0.60, p < .10$) and under 5-year mortality ($coef. = -0.48, p < .10$). Semi-peripheral countries with high labour market poverty scores demonstrated negative correlations with most health outcomes, for example, healthy life expectancy at birth for males ($coef. = -0.60, p < .05$) and females ($coef. = -0.57, p < .05$). Labour market inequality and poverty scores were both associated with most health outcomes among peripheral countries.

Conclusions

From the relative protection of Nordic countries and the residual welfare regimes of Eastern Europe to the labour market insecurity of large parts Africa, this study confirms the importance of considering world-system position, welfare regimes, and employment conditions to improve population health.

Social health inequalities between welfare state regimes: evidence, explanations and challenges

Terje Eikemo

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Background

In recent years, we have seen an increased body of literature utilizing welfare state regime theory in relation to population health, in which welfare states are classified into different types (or regimes), depending on the principles underpinning their provision, the relative role of the state as opposed to the market or the family, and the nature of social stratification.

Methods

This research contribution intends to review the existing literature, which has aimed to link features of welfare states to population health.

Results

Furthermore, it will aim at highlighting some of the mechanisms which may contribute to the explanation of the between-regime variations of health inequalities that have been observed in the literature. Finally, although many comparative studies of international variations in health and health inequalities have drawn conclusions about the pros and cons of different welfare state set-ups, the issue has not been properly studied. This could partly be due to the conceptual and methodological challenges involved when one attempts to relate international variations in complex welfare state structures on the one hand with mortality, ill health or health inequalities on the other. And because of the complexity of the task, the analytical choices made when designing a study become even more crucial than in regular individual-level epidemiological studies. Examples of such choices include what kind of welfare state characteristics we believe to be of importance for public health outcomes; how data on these characteristics are handled and what kinds of public health outcomes are likely to be affected. Also, a consistent theoretical framework aiming at linking social inequalities in health to welfare regimes is currently lacking. Thus, the current research contribution not only aims at highlighting the recent evidence and their explanations, but also to list some important challenges within this recently established research area.

Conclusions

After all, the welfare state regime approach is evidently a promising one in describing, explaining and thereby potentially in reducing health inequalities between and within European welfare states.

3.C. Physician practice

Do health behaviours affect initiation of preventive medications?

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Background

In this study we explored the relationship between preventive medications and health behaviours in a general population that received individual life style counselling. We examined 1) whether the level of physical activity and long-term changes in physical activity affected initiation of antihypertensive medications and, 2) whether dietary patterns and long-term changes in dietary patterns affected initiation of lipid-lowering medications.

Methods

This follow-up study combined data from a large randomized intervention study (Inter99) and registry-based data. Participation rate in Inter99 was 52,5% ($n = 6906$) and included individuals aged 30–60 years. At baseline (1999–2001) and at 5-year follow-up, all participants answered a questionnaire and underwent a health examination. Self-administrated questionnaires were applied to measure dietary patterns and physical activity (leisure-time physical activity and physical activity in transportation to and from work). Initiation of preventive medications was defined as at least one redeemed prescription after baseline and no previous use. Analyses were stepwise adjusted for age, sex, educational level and blood pressure/cholesterol level.

Results

A positive trend was observed regarding initiation of antihypertensive medications among participants that reported a moderate and a high/very high level of physical activity at baseline, compared with participants that reported a low/very low level. Participants that reported a long-term increase in physical activity were more likely to initiate treatment with antihypertensive medications ($HR = 1.28$; 95% CI 1.08–1.53), compared with those that maintained the same level. Regarding initiation of lipid-lowering medications, no differences were found in relation to dietary patterns at baseline, but a positive trend was observed for those that reported positive long-term changes in dietary patterns.

Conclusions

The findings of this study suggest that health behaviour is positively associated with initiation of treatment with preventive medications, also after adjustment for blood pressure and cholesterol level. The results indicate that health conscious individuals are more likely to initiate a treatment with lipid-lowering and antihypertensive medications.

Is social distance perceived by the general practitioner between him/herself and his/her patient related to their agreement on patient's health status?

Anne-Cécile Schieber

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Background

Perceived social position (PSP) has been recently described as a good predictor of heath and a ''cognitive averaging'' of socioeconomic characteristics. The objective of the study is to ascertain whether disagreement between patients and general practitioners (GP) on the patient's health status varies according to their respective perceived social distance (PSD).

Methods

INTERMEDE is a cross-sectional multicentre study aiming at specifying the nature of patient-GP interaction and its consequences on health inequalities. Data were collected from both patients and doctors via mirrored questionnaires at the GP's office over a two week period in 2007 in France. The sample consists of 585 patients (61% women) and 27 GPs. PSP was measured with a self-rated scale in the form of a 10-rung ladder. The GPs ranked their own PSP in society, as well as their patients'. Patients also ranked their own PSP and that of their GP. PSD was then calculated as the PSP's subtraction from the patients' and GPs' respective responses. Results-GPs had a higher PSP relative to others in society based on their own ranking (86.2%) than when ranked by their patients (75.6%) ($p < 0.05$). Disagreement between GPs and patients regarding the patient's health status measured by self-rated health was not associated with PSD perceived by the patient whereas it was associated with PSD perceived by the GP: 21.2% of the patients ranked with a lower PSP by their doctor stated that their health was worse relative to their GP's evaluation, versus 7.7% when no distance was perceived ($p < 0.05$). In the multilevel multivariate analysis, the disagreement whereby patients evaluated their health as worse than the GP's perspective increased with the PSD perceived by the GP: OR:3.1 (95%CI = 1.1–9.0, $p < 0.05$) for low PSD, OR:3.6 (95%CI = 1.2–10.6, $p < 0.05$) for moderate PSD and OR:4.7 (95%CI = 1.4–16.0, $p < 0.05$) for a high PSD. Conclusions-These findings highlight the doctor's pivotal role in asymmetrical relationships with patients in general practice. Patients perceived by their GP as having a lower PSP who consider themselves to have poor health are less likely to be identified as such in the primary care system, potentially resulting in health care trajectories differentiated based on patient social position.

A comparison between general practitioner group and single handed practice: a systematic review

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Background

General Practitioner (GP) group practice has found a wide application in many countries since 1970s. This trend is included in a wider process of promoting Primary Health Care (PHC) approach as a base for modern health care systems.

Scientific literature provides contrasting evidence on the effectiveness of group practice compared with ''solo'' practice. A systematic review was performed to assess whether group practice has a more positive impact compared with single handed GPs.

Methods

A systematic review of the literature was carried out by querying electronic databases and hand searching, referred to the period from 1970 to 2010.

We firstly attributed a score (assigning +1 whether group medicine is better than ''solo"practice, 0 whether group and solo practice has the same effect and -1 whether group practice is worse than single handed GP) to each item that was analysed in all studies. Secondly, we computed an overall score for each study, by summing up all the individual item scores. All items were then grouped in four main categories: inputs, patient's outcomes and outputs, patient's opinions, doctor's opinions. The effect of group practice was assessed in each category . Descriptive and inferential analyses were performed (chi-square test at the 0.05 significance level).

Results

A total of 51 studies were selected. The average score for all studies was 1.34 (95% CI = 0.71–1.97).

We found an association between the category of item and the effect of group practice on it (p-value < 0.001). Working in a group practice has a positive impact on inputs, patient's outcome and output and doctor's opinions, while according to patients, ''solo" practice is perceived better than group practice.

Conclusions

These quantitative findings show that group practice might be a successful organizational requirement to approach PHC challenges. Further studies are needed to investigate intrinsic specific factors of group practice, both professional and organizational, and also the relationship between group practice and other pivotal PHC system requirements such as patient's values, regulatory system characteristics, stakeholders alliance and local contest features.

Complementary and alternative medicine: How does medical education affect students’ opinions on its public health effects and their future practice in Turkey?

Nesrin Cilingiroglu

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Background

Practice of complementary and alternative medicine (CAM) has been increasing worldwide. Public health significance of CAM is related to adverse health effects of some therapies, lack of knowledge among public, questionable competencies of some practitioners, legislative problems and its economic dimension. In many countries, integration of CAM in medical education is still debatable.

Objective

This study aimed to assess first (FYS) and last-year medical students‘ (LYS) opinions and perceptions on public health effects of CAM and their future practice.

Description of the Method: This cross-sectional study, was conducted on FYS and LYSs in a medical school with conventional education in 2011, in Ankara/Turkey. Participation rates were 88.9% and 88.1% for the FYS ($n = 145$) and LYSs ($n = 119$), respectively. For these two sociodemographically similar groups, descriptive statistics were used to summarize data, whereas Chi-square and Fisher‘s-Exact-Test were used to compare groups.

Results

On a multiple-choice question, CAM was defined correctly by 28.3% of the FYS and 66.4% of the LYSs ($p < 0.001$); whereas their knowledge was mainly based on media and internet resources. Percentage of the FYS and LYSs who accept CAM as a public health threat were 20.0% and 52.2%, respectively ($p < 0.001$). Students who reported CAM therapies as natural therapies without any adverse effects decreased from 22.1% in the first year to 6.7% in the last year ($p < 0.001$). Of the FYSs, 29.0% stated they would recommend CAM therapies to their patients in the future, whereas this percentage decreased to 16.8% in the LYSs ($p < 0.001$). 40.0% of the FYS and 62.2% of the LYSs stated that CAM therapies should be discouraged ($p < 0.001$). On the other hand, 73.8% of FYS and 58.8% of the LYSs proposed CAM to be included in their medical education curriculum.

Lessons

The findings indicate that although conventional medical education may affect medical students‘ approach to CAM from a public health perspective, this approach does not stem from organized educational efforts. Wide dissemination and increasing public health significance of CAM point out to the need to integrate CAM in medical education curricula within an evidence-based framework.

Substitution of prescribing tasks from doctors to nurses: an international expert survey on forces, conditions and jurisdictional control

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Background

Nurse prescribing is highly relevant in the current climate of cost containment and task substitution in health care, and is being introduced in a growing number of countries. However, international comparisons are scarce. This survey aims to provide a comprehensive and recent overview of the organization of nurse prescribing internationally and the ensuing division of jurisdictional control between the medical and nursing professions. Moreover, this study pays attention to the forces which different stakeholders see as being important for the introduction of nurse prescribing and hypothesizes on their influence on the actual organization of nurse prescribing.

Methods

An email questionnaire was sent to 60 representatives of professional nursing or medical associations or government bodies, at national, state or provincial level across ten Western European and Anglo-Saxon countries, namely Australia, Canada, Finland, Ireland, The Netherlands, New Zealand, Spain, Sweden, the United Kingdom and the United States of America. Data were analyzed descriptively, including calculations of response frequency and percentages.

Results

The response rate was 65% ($N = 39$). It was shown that a diversity of forces led to the introduction of nurse prescribing. However, differences were found between representatives of nurses organizations, medical organizations and government bodies regarding the number and kind of forces they cited as being important for the introduction of nurse prescribing. Moreover, it was shown that the conditions under which nurses prescribe medicines vary considerably, from countries where nurses are allowed to prescribe independently to countries in which prescribing by nurses is only allowed under strict conditions and supervision of physicians.

Conclusions

Stressing certain forces as important for the introduction of nurse prescribing, seems to be a strategy of the different parties involved to influence the actual organization of nurse prescribing in practice. Furthermore, even though we found differences in the organization of nurse prescribing internationally, in most countries nurses prescribe in a subordinate position. Hence, the jurisdiction over prescribing remains predominantly with the medical profession.

Integration and career interests of foreign general practitioners compared to other physicians working in secondary care or private sectors in Finland

Hannamaria Kuusio

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Background

In Finland the increasing shortage of GPs has led to a situation that physicians from abroad are often recruited to work as GPs at health centres having difficulties to recruit native physicians. However, there is little evidence on professional integration, and career plans among foreign physicians. This study investigates foreign physicians’ job satisfaction, intentions to change jobs, and work related psychosocial factors. The focus is on foreign physicians working in primary health care who are compared to other Finnish and foreign physicians.

Methods

The study questionnaire was sent to 8000 randomly selected physicians of Finnish origin (response rate 54%) in Finland. The same questionnaire were sent to all physicians of foreign origin living in Finland ($n = 1300$), of whom 427 returned the questionnaire. The questionnaire included questions on physicians’ well-being, health and job-satisfaction. In addition foreign origins were asked of their integration to the Finnish health care system.

Results

According to our survey 63% of the foreign public sector GPs had planned to changes their job. This proportion was smaller among other physicians (foreign medical specialists and private physicians 31%, Finnish public GPs 51%, and Finnish medical specialists and private physicians 33%). Being younger, on-going specialization, and higher levels of negative work-related psychosocial factors (high demands and low control) were all associated with higher intention to change job. The difference between foreign GPs and physicians working in other sectors was robust to adjustments for all potential confounders.

Conclusions

Foreign physicians working as GPs in the Finnish public sector are more likely to change their job compared to other physicians in secondary care or the private sector. Thus, pulling in physicians from abroad is seemingly not a feasible solution to staffing difficulties in Finnish health centres. However, we (unsurprisingly) found that psychosocial work characteristics are important for job commitment. This suggests that a more sustainable human resources policy option could be to develop psychosocial work environment which would obviously alleviate recruiting and retaining both native and foreign GPs in health centres.

3.D. Workshop: Role of learning and memory in food choice and perception throughout the life span

Chairs: Ep Köster and Hanna Lagström
Organiser: EUPHA section on food and nutrition
Contact: arja.lyytikainen@kolumbus.fi

Food choice and eating habits are predominantly learned behaviours. This learning starts even before birth and takes many different forms (conditioning, imitation, associative learning) in the different phases of life. Most of it is incidental learning (effortless learning that is not based on explicit learning intentions and memorising) and it leads to implicit memory (memory of which we are not aware until we notice that something is not according to our memory based expectations). Explicit learning and memory are seldom relevant in relation to eating and drinking behaviour and this is one of the reasons why interventions based on conscious behaviour are not very successful in changing food habits. Experienced based methods should be preferred above cognitive interventions. Understanding the ways in which learning and memory function in the daily experience of different life periods is therefore of great importance.

The workshop will discuss the different forms of learning and memory that are prominent in the four most senitive periods for food habit formation and change. Five speakers will treat each shortly one of these periods. Since most learning takes place before adulthood, three of them will treat childhood, one will treat adolescence and early adulthood and the last speaker will highlight the adaptations made by learning and memory when the senses start loosing their sensitivity.

Helene Hausner: Peri-natal food learning and memory
Christine Lange: Description of maternal feeding practices and their impact on infant's acceptance of new foods.
Jenni Vaarno: Parental neophobia and children's exposure to novel foods, is there a connection? - the STEPS Study
Arja Lyytikäinen: Habitual diet and changes in consumption of vegetables and milk products from prepuberty till early adulthood: An 8-years follow-up study
Jos Mojet: The role of memory and food learning in the elderly.

Peri-natal food learning and memory

Helene Hausner

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Studies of foetal learning and memory of odours from the pre-natal environment have shown that infants are attracted to and respond preferentially towards odours from the pre-natal environment. As an example both breast-fed and formula-fed infants have been observed to prefer familiar amniotic fluid to unfamiliar amniotic fluid. The unfamiliar amniotic fluid was also preferred above a control stimulus (distilled water). These observations indicate that olfactory memory is well developed in the newborn. Other studies have shown that pregnant women influence their foetuses olfactory preferences through their diet during the third trimester. In one study 24 pregnant women were divided into groups of consumers of anise-flavoured foods and drinks and non-anise consumers. Infants exposed to anise preferred the odour of anise to a control when tested three hours and four days after birth (preferential head-turning and mouthing). Newborns not exposed to anise showed aversion to the odour shortly after birth. The behaviour among anise-exposed infants suggests that infants detect single (dietary) odours in amniotic fluid, and form preferences for these odours. However, which flavours are present and transferred in amniotic fluid is not well documented. It has also been demonstrated that odour preferences change rapidly during the first post-natal days. When an odorant is associated with a reinforcing agent, such as breast milk or massage (tactile stimulation), novel odour learning can take place within a very short time frame. The newborn brain thus seems to be receptive to the post-natal odour environment, in particular when associated with nursing. Indeed the flavour exposure associated with breastfeeding seems to significantly increase the infant's general acceptance of novel flavours, but does not seem to facilitate specific flavour learning by exposure.

Description of maternal feeding practices and their impact on infant's acceptance of new foods

Christine Lange

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Objective

The introduction of solid foods is a major step in the development of infant's eating behaviour. Previous studies showed that higher variety at the weaning period can later influence infant's acceptance of new food. The aim of the present study was (i) to describe precisely the different maternal weaning practices, (ii) to relate them with the individual mothers' and infants' characteristics, (iii) to study if these practices could impact infant's further acceptance of new foods.

Methods

Mothers (n = 138) were requested to record each food proposed to their infant and to score the level of its acceptance for the first 4 presentations. The beginning of the weaning period was defined as the age of a regular introduction of complementary foods and recording was stopped at the age of 15 months. Foods were clustered into food categories (i.e. fruits, vegetables â€¦). The age of introduction of each food and each category, the duration necessary to introduce all foods of each category, the total number of foods over all categories and the infant's acceptance to each food were analysed. The distribution of these variables were drawn and compared according to several mother's characteristics. Finally, the link between feeding practices and infant's acceptance of new foods was studied.

Results

The age at initiation of weaning (5.5 mo) is in accordance with the current French recommendations and is significantly correlated with the duration of the infant's exclusive breastfeeding. The number of new foods introduced differed a lot from one infant to another one but was not linked to any individual characteristic. Most of the reactions to new foods were quite positive and significantly correlated to the number of different foods, suggesting a link between variety and further food acceptance.

Parental neophobia and children's exposure to novel foods, is there a connection? - the STEPS Study

Jenni Vaarno

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In children, food choice and acceptability are primarily based on whether their sensory properties are liked or disliked. Food preferences and food choices are modified by age and further shaped by familiarity. Children like most the foods they know and are reluctant to eat new foods. It has been estimated that ten or more exposures would be needed to encourage acceptance and increase food preference in 2-year old children. STEPS is a longitudinal cohort study involving a systematic follow-up of children and their families from pregnancy to adulthood. It aims to produce comprehensive information about the interplay of health-related, psychological, social, economical and educational factors in childhood development. The study children (n = 1797) have been born between March 2008 to March 2010. The data is collected using a variety of different methods, including questionnaires, health records and biological samples. The outcome measures comprise family socioeconomic status as well as dietary and health habits of the family. At 13 months parental food neophobia was measured and parents were asked how many times children are exposed to novel foods.

We have already find out that at the last trimester of pregnancy higher proportion of women (34%, mean 4.1 portions) than men (14%, mean 3.0 portions) consumed five or more portions of fruits and vegetables a day ($p < 0.001$). With ongoing analysis will be studied how fruit and vegetable consumption of parents during pregnancy will be affected on child feeding patterns and food habits at the age of one year and how parental food neophobia is associated to number of times children are exposed to novel foods. The hypothesis is that parents who are more neophobic offer new and uncommon foods less frequently to their children than in the families where parents were less neophobic. We have already found out that almost half of the parents expose their children to novel foods only 3 to 5 times before concluding children's dislike to the food in question. Only one fifth expose their children ten or more times.

It is possible that food preferences and dietary habits formed in childhood will persist to adulthood and affect also long term health and wellbeing. In order to promote healthy dietary habits, early exposure to variety of foods would be beneficial. This study will provide more information that will help understand development of dietary habits of children and food choice in the families.

Habitual diet and changes in consumption of vegetables and milk products from prepuberty till early adulthood: An 8-years follow-up study

Arja Lyytikainen

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Background

The teenage years are the time when dietary habits will be adopted, while little is known to what extent food preferences, liking or disliking, affect on food choice. We aimed to study if there are changes in food consumption and habitual dietary intakes over time from prepuberty to early adulthood.

Methods

The study is an 8-year longitudinal follow-up study including 202 girls aged 10.9 to 18.3 years from Central Finland area. Information of preferences of vegetables and milk was collected by questionnaire. Food consumption and nutrient intakes were calculated using Micro-Nutrica software from 3-day food diaries at the baseline and at 8-year follow-up.

Results

The consumption of vegetables increased, on average, from 199 g/day to 235 g/day ($p < 0.001$) during follow-up. Girls who informed dislike fresh vegetables ate significantly less vegetables (160 g/day) than those who liked (216 g/day, $p = 0.012$). The difference between dislike and liked eating vegetables mainly came from consumption of leafy vegetables (42 g/day vs. 87 g/day). During the 8-year follow-up girls who liked the vegetables doubled their consumption of leafy vegetables ($p < 0.001$), but no change was found in girls who informed dislike eating vegetables. The consumption of milk products did not change during the follow up (mean 622 g/day at the baseline and 606 g/day at the follow-up). However, those girls who informed to like milk they consumed more than double amount of milk than those who did not like milk (580 g/day vs 217 g/day milk, $p < 0.001$ at the baseline and 571 vs 159 g/day milk, $p < 0.001$ at the follow-up). On the other hand, the consumption of cheese increased from 34 to 49 g/day in all girls ($p < 0.001$). The consumption of other basic foods, cereals, fruits and meat products did not change during 8-year follow-up.

Conclusions

We infer that food preferences have significant impact on food consumption of teenage girls. The eating habits established in early childhood especially for those who dislike to eat certain foods maintained till early adulthood.

The role of memory and food learning in the elderly

Jos Mojet

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The elderly population is growing rapidly. Since they often complain about the "taste" of their food, one might wonder if they still live in the same sensory world of food as younger subjects do. Although the sensory sensitivity of elderly is diminished when judging absolute intensities, they seem to outperform the young when discriminating between different intensities of one taste, but they do discriminate less clearly between different tastes than young people do. Furthermore, elderly differ from young people in texture and flavour perception, but the observed texture-flavour interaction effect is not different for both groups, indicating that a different rate in sensory decline with age will not inevitably lead to a different integrated product concept.

Very limited support has been found for the assumption that compensatory strategies are beneficial in increasing food liking for the elderly in general. Decreased sensory acuity, although causing changes in perception of the elderly, is obviously not the predominant reason for a diminished food enjoyment of the elderly. Since pleasantness judgments are guided by previously acquired product concepts, it seems plausible that the elderly are able to compensate for sensory losses with the help of those acquired concepts, which help the food liking of the elderly to remain remarkably stable.

In food memory studies, elderly and young rated new soups with novel flavours on acceptability and were tested for memory the next day. With incidental learning, elderly and young were equally good, but the young performed better with intentional than with incidental learning, whereas the elderly did not. There were no age-related differences in perceptual discrimination. When comparing perceived flavour with the memory of it, the elderly tend to overrate intensities of remembered flavour attributes, whereas the young tend to underrate them. Memory was not related to flavour pleasantness or neophobia. Like memory for taste and texture, flavour memory seems to be mainly tuned at detecting changes and based on ''feelings of not knowing'' rather than on precise identification and recognition of previously encountered stimuli.

3.E. Round table: How to bring public health to all policies

Chairs: Walter Ricciardi, Italy and Dineke Zeegers Paget, EUPHA
Organiser: EUPHA
Contact: d.zeegers@nivel.nl

Following the efforts of the EUPHA working group on health impact assessment, this workshop aims: - to present different tools (combining old and new ones) that can be used to put health in all policies, - to have a panel discussion on what is needed to bring public health to all policies, so that health and public health is included in all policies as early as possible.

Short reflection on the ministerial meeting in Poznan

Stanislaw Tarkowski

S Tarkowski
Nofer Institute of Occupational health, Lodz, Poland

Prof. Stanislaw Tarkowski will introduce the topic reflecting on the session organised by EUPHA at the ministerial meeting in Poznan, Poland on 8 November 2011.

How can HIA support Health in all Policies - policy brief

Matthias Wismar

M Wismar, J Kemm, J Figueras
European Observatory on Health systems and Policies

This short presentation will present the policy brief that was launched at the Poznan ministerial meeting. The policy brief is a joint effort of the European Observatory and EUPHA.

It's all about the data

Marieke Verschuuren

M Verschuuren[1], G La Torre[2]
[1]Chair of the proposed EUPHA section on public health monitoring and reporting, RIVM, Bilthoven, the Netherlands
[2]President of the EUPHA section on public health epidemiology, La Sapienza University, Rome, Italy

These two short presentations with practical examples will describe how available data can and should be used to convince policymakers on the importance and necessity to include public health in all policies.

Assessing the health impact of policies

Gabriel Gulis

G Gulis[1], R Fehr[2]
[1]Chair of the proposed EUPHA section on health impact assessment, University of Southern Denmark, Esbjerg, Denmark
[2]LIGA.NRW, Bielefeld, Germany

The 'Risk Assessment form Policy to Impact Dimension - RAPID' project developed methodological guidance checklist documents to assess health risks related in policies. The guideline covers the so called 'full chain' approach across policies - wider determinants of health - risk factors and health effects. There are two options to assess health risk within this approach. Starting by a health effect going through risk factors and wider determinants of health a set of policies influencing the health effect can be identified and so, provide support for health in all sectoral policies responsible for described wider determinants of health. This approach is named bottom-up approach. The opposite way, starting by a policy and going through wider determinants of health and risk factors to health effects named as top-down approach, can help to identify and assess extent of health risks related to different policies of different sectors. The presentation will provide description of both approaches and present examples of case studies conducetd within the project.

It's all about the money - using the Burden of disease

Beatriz Gonzalez Lopez-Valcarcel

B Gonzalez Lopez-Valcarcel
EUPHA section on public health Economics AND University of Las Palmas de G.C., Las Palmas, Spain

This short presentation will demonstrate the efficient tool of burden of disease to convince policymakers.

Round Table discussion

In a round table, tips and tricks on how to include public health in all policies will be discussed with the audience.

Panel members include

All the speakers, representative from the European Commission and a representative from WHO/EURO.

3.F. WHO session: Assessing the inequalities in environmental risks in Europe

Chairs: Srdan Matic, WHO/EURO
Organiser: WHO/EURO

The Ministerial Declaration on Environment and Health (Parma 2010) identified social and demographic inequalities in environmental health risk exposure as a key challenge for the future and called for member states to act on ''*socio-economic and gender inequalities in the human environment and health*'' and tackle ''*the health risks to children and other vulnerable groups posed by poor environmental, working and living conditions.*'' It therefore calls for an implementation of the social determinants of health approach in the environmental health field.

WHO has, in response to the Parma Declaration, reviewed the available evidence on environmental health inequalities in 18 countries of the WHO European region and is developing a first-ever WHO report on the status quo of environmental health inequalities in Europe. The report is based on a baseline assessment of 14 environmental health inequality indicators, and will identify the unequal distribution of environmental health risks by age, sex, income and other determinants.

The workshop will present the overall project and highlight selected results on the European inequalities in the exposure to harmful housing conditions, injuries and environmental exposures. Furthermore, the critical gaps in evidence will be identified. Suggested conclusions on adequate mechanisms to tackle the challenge of environmental health inequalities will then be discussed in plenary.

Programme

Opening address:

Zsuzsanna Jakab, WHO/EURO

Environmental health inequality reporting: the Parma commitments and the challenges faced Matthias Braubach, WHO/EURO

Environment-related inequalities (noise, green space access, passive smoke exposure)

Gabriele Bolte

Injury-related inequalities (falls, poisonings, traffic injuries, work injuries)

Ingrid Fast/Lucie Laflamme

Housing-related inequalities (damp, water supply, sanitation facilities, temperature problems, crowding)

Severine Deguen

Podium discussion (all speakers / questions from floor)

3.G. Workshop: Explaining sickness absence rates in men and women: questions emerging from gender theories provide insightful answers

Chair: Gunnel Hensing, Sweden

Organiser: EUPHA section on Social Security and Health, Prof. Gunnel Hensing (PhD), Department of Public Health and Community Medicine, University of Gothenburg, Sweden, Claus D Hansen, Department of Sociology & Social Work, Aalborg University, Denmark, Petra Verdonk, Department of Genetics and Cell Biology, Maastricht University, Maastricht, The Netherlands.
Contact: gunnel.hensing@socmed.gu.se

The consistent findings that women outnumber men in sickness absence rates have challenged researchers. The purpose of this workshop was to move beyond descriptions of sex differences andinvestigate whether gender theories could provide new insights regarding sex differences in sickness absence rates and the causes behind these differences. The workshop is part of the efforts to develop theory and methods in sickness absence research by the EUPHA section of Social Security and HealthThe gender perspective was initiated at the 2009 pre-conference in Lodz. There are four contributions. Mittendorfer Rutz et al applied a investigated the effect of health behavior and socioeconomic background in childhood and pre-university education on future sickness absence in a cohort from Northern Sweden. Different patterns emerged in this unique longitudinal study with early sick-leave experience as a possible contributor to women's adult sick-leave rates.

Putnik et al. studied how sex and, gender (masculinity and femininity) explain burnout among human service workers in Malta and Serbia, two countries with different female employment rates. Although the content of their work should be comparable, the cultural context and characteristics assigned to men and women may differ. In the Danish contribution Dalsgaard Hansen et al estimated the adherence to traditional male norms in male ambulance drivers and fire fighters. The interesting findings show that men with traditional male norms were more often sickness present and less often sickness absent. Authors indicate that men's sickness presence behavior might be a contributing explanation to differences found between women and men in sickness absence. Finally, Hensing and Mastekaasa departed from Moss Kanter's theory on the dynamics of minority situations at the work place to study psychiatric sickness absence in male- and female dominated workplaces in Norway. Analyses of occupations and workplaces combined with individual sickness absence patterns before and after entering a workplace showed that the gender composition could not explain the sickness abasence rates. Gender theories were important both in order to identify new research areas and to provide new insights in the understanding of differences in sickness absence between women and men. Cultural gender norms were important and future studies should try to better identify whether individual or workplace gender norms are the most important.

Gender differences in predictors of adult sickness absence - results from a 27 years follow-up of the Northern Swedish cohort

Elenor Mittendorfer Rutz

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[3]Department of Public Health and Community Medicine, University of Gothenburg, Gothenburg
[4]Department of Public Health and Clinical Medicine, Umeå University, Sweden

Background

Sickness absence represents a considerable public health problem in many countries, particularly among women. To date, the reasons for the observed sex differences in sickness absence rates are still unresolved. Particularly, there is a lack of studies with baseline data prior to entrance into the work force. The aim of this longitudinal study was to examine family, school and health related factors in adolescence as predictors of sickness absence in adulthood. The study was designed from a gender perspective.

Methods

Data were drawn from a prospective, population-based cohort study carried out in the municipality of Luleå, Northern Sweden. All pupils who proceeded to upper-secondary schooling (n = 719;339 women and 380 men) with complete information on all variables (0.05% missing information and 0.07% attrition rate) have been followed up from the last year of compulsory school in 1981 (16 years of age) to 2007 (42 years old). A number of individual school and health related factors, parental health and socio-economic status were retrieved from questionnaires, interviews with school nurses and from local municipalities. Crude and adjusted Risk ratios (RR) with 95% Confidence Interval (CI) have been calculated for the risk of having at least one sick-leave spell per year from 1993 till 2007, using a Generalised linear model. Analyses were carried out seperately for women and men.

Results

For women the following three factors remained significant predictors for sick leave in adulthood in the multivariate adjusted model: at 16 years of age reporting being sometimes sickness absent from school (RR 1.60, CI 1.18–2.17), having parents with low socio-economic status (RR 2.20; CI 1.44–3.38) and participating in an educational program in upper secondary school (18 years) with a high proportion, exceeding 60%, of women (RR 1.41; CI 1.00–1.97). Among men two factors reported at 16 years of age remained significant predictors: low school grades (RR 4.36; CI 2.06–9.22) and reporting the father not to be employed (2.36; CI 1.53–3.66).

Conclusion

Predictors of adult sickness absence measured during adolescence varied between women and men. The findings will be discussed having different gender theories as a point of departure.

Gender, work-home interface and emotional exhaustion among Serbian and Maltese human service professionals

Katarina Putnik

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[2]Department of Genetics and Cell Biology, Maastricht University, Maastricht, The Netherlands

Background

Human service professionals are at risk for burnout. The prevalence of emotional exhaustion, the main component of burnout, as well as determinants may differ between men and women, but previous studies seldom examined gender. According to Bem's gender schema theory, sex refers to the biological difference between men and women, while gender is defined by what it means to be male (masculinity) or female (femininity) in a given culture. Job Demands Resources theory was also used as a theoretical background of this study. It postulates that demands at work are positively related to emotional exhaustion, while resources are protective. This study aims to examine influence of culture, sex, gender, job demands and resources on emotional exhaustion. We compare Malta, an EU country with lowest rates of female employment and Serbia, where high female employment rates since decades.

Methods

Data are derived from surveys performed in 2010 among nurses, physicians and teachers (Malta: $n = 720$; Serbia: $n = 595$). Gender, job demands, work home interface, job resources and emotional exhaustion were all examined with validated scales. Independent samples t-tests and linear regression were used to analyze the data.

Results

In Malta, men experienced more adverse work characteristics whereas in Serbia women were worse off. Maltese men reported higher emotional demands ($p < .001$), lower collegial, familial and friends' support ($p < .01$) than Maltese women. Serbian women showed higher level of emotional demands and emotional exhaustion ($p < .05$) and lower levels of colleague and partner support ($p < .05$) than Serbian men. Physical demands and work-home conflict related positively to emotional exhaustion regardless of culture or sex ($p < .001$). In both countries and for women only, home-work conflict was a risk factor ($p < .05$), and masculinity was protective against exhaustion ($p < .01$).

Conclusion

Work demands and negative work-home interface are risk factors for emotional exhaustion for men and women in both countries. Besides, gender played a role. Variables such as social support and positive work-home interface were sex, gender and culture sensitive. Our findings suggest that research as well as health promoting policies should be gender and culturally sensitive. We call for further examination of the interaction of sex, gender and culture on health outcomes.

Is it masculine to turn up ill at work? A study on the association between traditional male role norms and sickness presenteeism amongst Danish ambulance workers

Claus Hansen

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[1]Department of Sociology & Social Work, Aalborg University
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Background

It is well established that men have less frequent and shorter episodes of sickness absence than women. Could it be that men have less absenteeism because they more often turn up ill at work? And if so, are there differences between men related to their adherence to traditional male norms? Very little is known about the way sickness absence and presence is practised and the influence of gendered norms.

Methods

Data is taken from MARS - Men, accidents, risk and safety, a two wave panel study of ambulance workers and fire fighters in Denmark ($n = 2585$). Information was collected from questionnaires on work environment (COPSOQ) and traditional male role norms (MRNI). The response rate for round 1 was 62%. The primary outcomes in this presentation are self-reported absenteeism and presenteeism analysed using Poisson regression. In addition a measure of the ratio of presenteeism to absenteeism was analysed using ordinary least squares (OLS).

Results

The results indicate that higher scores on MRNI were associated with an increase in the number of sickness presence episodes (from 1.5 for those scoring lowest to 2.0 for those scoring highest) and a decrease in spells of sickness absence (from 1.8 to 1.2) ($p < 0.01$ for both), i.e. the more an individual adheres to traditional norms of masculinity the more likely were they to have more episodes of sickness presence and fewer spells of sickness absence. This was confirmed when regressing MRNI on the measure of the ratio of presenteeism to absenteeism: higher scores on MRNI lead to higher ratios ($\beta = 0.011$, $p < 0.01$). All analyses were adjusted for self-rated health and a range of work environment factors.

Conclusions

Adherence to traditional male role norms was associated with an increase in the number of episodes of sickness presence and a decrease in spells of sickness absence even after adjusting for health and work environment factors. This indicates that the gender difference in absenteeism observed in many studies may - in part - be a consequence of different sickness absence practices between men and women although this study cannot confirm that directly. This emphasizes the caution one should take when analyzing sickness absence alone instead of in combination with sickness presence, and that gendered norms in these practices might be underestimated.

Can minority situation at work explain the differences psychiatric sickness absence between women and men - an application of Rosabeth Moss Kanter's theory

Gunnel Hensing

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Background

Women and men in minority at a workplace are exposed to certain dynamics described by Moss Kanter as performance pressure, visibility and heightened bounds in the majority group. In this study the theory was used as point of departure in a study of sickness absence with psychiatric disorders. The hypotheses were that women and men in minority situations had higher sickness absence with psychiatric disorders than others.

Methods

The analyses were based on individuals aged 18 to 66 years and the Norwegian public sickness absence register data. Participants were followed from 2003 to 2007. The main explanatory variables are the gender composition of the occupation and of the workplace, respectively. In addition to ordinary statistical control, fixed effects (FE) methods are used to control for detailed occupational categories and workplaces.

Results

Very small differences in sickness absence rates between male-dominated and gender balanced workplaces or occupation were found. However, the probability of psychiatric sickness absence increased strongly in female dominated workplaces and was almost twice as high in the most strongly female dominated occupations as in male-dominated occupations. The excess of sickness absence in strongly female dominated occupations was completely removed when individual temporality was controlled for: men who move into such occupations did not increase their sickness absence, and those who left them showed no reduction. With regard to women, the gender balance of the occupation seemed to be of little importance. The proportion of women in the occupation was only very weakly related to women's psychiatric sickness absence. This was upheld irrespective of whether we eliminated heterogeneity between workplaces or even between individuals. Thus, our data suggest that the gender composition of the occupation did not have a noticeable effect on women's sickness absence.

Conclusion

This study showed that the gender composition of workplaces or occupations was not associated with sickness absence with psychiatric disorder in women. An association was found for men in female dominated occupations but there was no evidence that the gender composition of the workplace had any causal effect on sickness absence. Selection into these occupations are likely to be the explanation but could not be tested in this dataset.

3.H. The burden of major chronic diseases

Differences in cardiovascular disease mortality by geographical region and country of birth in six European countries

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Background

Information on CVD mortality differences by country of birth (COB) is lacking for most EU countries. We report results on (i) within-country inequalities in CVD mortality by region of birth for six EU countries, and (ii) cross-country comparisons addressing the question of how particular COB groups fare in different EU countries.

Methods

National death registry data were obtained from six EU countries. Mortality rate ratios (MRRs) were generated to examine region of birth differences in CVD mortality risk in 35–74 year old men and women. For cross-country comparisons, age-standardised mortality rates per 100.000 population were computed by COB group and sex using the direct method.

Results

Within-country comparisons - A higher total CVD mortality risk was observed for most foreign-born groups in Denmark (MRRs ranging from 1.28 to 1.91) and England and Wales (MRRs from 1.11 to 1.44) compared to the local-born populations. About half of the foreign-born groups in France also had a relatively higher mortality risk (MRRs from 1.15 to 1.37). There were few statistically significant differences between the foreign and local-born populations in The Netherlands, Scotland and Sweden. Similar variation was observed for ischaemic heart disease and cerebrovascular disease mortality, and for men and women separately. Between-country comparisons - Total CVD mortality was similar across countries for men born in India (rates ranged from 355.7 per 100.000 in England and Wales, 372.8 in Scotland and 244.5 in Sweden). For other COB groups (China, Pakistan, Poland, Turkey and Yugoslavia), there were substantial between-country differences. For example, Poland-born men had a rate of 630.0 per 100.000 in Denmark, 499.3 in Denmark, and 153.5 in France. A similar pattern was seen in women and for cause-specific CVD mortality.

Conclusions

Relative excess CVD mortality is observed for many migrant groups in different EU countries. Cross-country analyses also seem feasible and show interesting findings which merit public health consideration. Europe needs a concerted, urgent effort to establish reliable pan-EU data sets to serve its multiethnic populations.

Prevention of cardiovascular disease by means of statin therapy. Is the strategy equitable?

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Background

Statins are increasingly prescribed to prevent cardiovascular disease (CVD) in high-risk asymptomatic subjects (i.e. without established CVD or diabetes). Yet, it is unknown whether subjects in lower socio-economic position (SEP), who are at higher CVD risk, are adequately reached by this strategy.

Applying stratum specific incidence of Myocardial Infarction (MI) in the background population as a proxy for need, the aim was to examine whether the high-risk strategy therapy is equitable.

Methods

From three nationwide registers, we retrieved individual-level data on demographics, dispensed prescription drugs and hospital discharges. A cohort corresponding to all Danish citizens aged 20+ (3.3 mill) without previous register markers of CVD, diabetes or statin therapy were followed during 2002–2006 for first occurrence of MI and statin therapy. We applied two SEP indicators: Quintiles of disposable family income and highest attained education (4 levels).

Stratified by sex, 5 year age-groups and SEP, MI incidence rates were calculated (censoring at CVD, diabetes or statin therapy), as a proxy for the need of statin therapy. Stratum specific incidence of statin therapy was calculated analogously. We adjusted for unequal needs across SEP within the same sex and age-group, applying MI Incidence Rate Ratios (IRR) as weights to calculate need-standardized statin incidence rates.

Poisson regression analysis was used to analyze equity in initiation of preventive statin therapy, using need-standardized parameters and the lowest SEP level as reference.

Results

The need for statins increased with decreasing income without a parallel trend in the incidence of statin therapy. Need standardized statin incidence rate increased with each increase in income-quintile by 17% (IRR 1.17 (95% CI: 1.14–1.19)) and 23% (IRR 1.23 (1.16–1.29)) among men and women aged 40–64, respectively. An analogous pattern was seen among subjects aged 65–84 and when applying education as SEP indicator.

Conclusions

This high-risk strategy to prevent CVD seems to be inequitable, reaching mainly high-risk subjects in lower risk

SEP groups. Thus, the strategy may contribute to accentuate the social gradient in CVD, allocating scarce health care resources for better-off asymptomatic subjects.

Cardiovascular disease in primary care: multimorbidity and healthcare utilization patterns

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Background

With improvements in living conditions and the quality of medical care life expectancy has increased considerably giving rise to high rates of multimorbidity among primary care (PC) patients. We analyzed the existence of multimorbidity patterns and their associated healthcare utilization trends among patients with cardiovascular disease (CVD).

Methods

Observational, retrospective, multicentre study using data from patients attended in 19 Spanish PC centres in 2008 ($n = 275{,}682$). ICPC codes for 40 chronic conditions were extracted from electronic health records and grouped into broader disease categories according to the affected anatomic system (cardiovascular, musculoskeletal, endocrine, respiratory, mental and gastrointestinal). For each disease combination, the probability of causing intensive healthcare utilization (assignment to the top 10% risk group in terms of PC visits and pharmacy expenditure) was calculated applying age and sex adjusted logistic regressions.

Results

In one out of two patients aged 15–44, CVD appears simultaneously with other types of conditions. Multimorbidity increases with age affecting 75% of women and 64% of men over 65 with CVD. In both women and men aged 15–44, the ‘CVD/mental disease’ combination is the most frequent one affecting 10.7% of women and 8.5% of men with CVD. In patients over 44, CVD is most frequently associated with musculoskeletal disorders affecting 19.8% of women and 13.1% of men with CVD. The ‘CVD/mental disease/musculoskeletal disorder’ combination is unexpectedly common among women over 65 with CVD (10.6%). In men over 65, endocrine disorders frequently co-occur with CVD (11.3%). The probability of causing intensive healthcare utilization exponentially increases with patients’ degree of multimorbidity both for PC visits (OR[CVD+1]=2.4, OR[CVD+2]=5.4, OR[CVD+3–5]=11.7; $p < 0.001$) and pharmacy expenditure (OR[CVD+1]=1.9, OR[CVD+2]=3.6, OR[CVD+3–5]=7.1; $p < 0.001$) with respect to patients suffering only from CVD.

Conclusions

Multimorbidity is now the norm rather than the exception in PC and constitutes a challenge for health services which are based on a single disease paradigm. New organizational models need to be put forward to adequately address this relevant public health problem.

Population-based screening for colorectal cancer using an immunochemical faecal occult blood test. A comparison of invitation strategies

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Background

To date, there is no screening programme for colorectal cancer (CRC) implemented in Flanders, Belgium. However, The European Code Against Cancer (2003) recommends a population-based approach for CRC screening. This study aimed to develop and implement a population-based screening trial programme for CRC, to obtain information about potential participation rates for such a programme in Flanders, and to compare two invitation strategies.

Methods

A trial programme for CRC screening was set up for all average-risk persons aged 50 to 74 years in three Flemish regions with two invitation strategies. Whether a direct invitation with a letter and faeces sampling set were received by surface mail (mail group), or an invitation with a letter to visit the general practitioner (GP) without a sampling set was received by surface mail (GP group). The latter group was then later provided with the sampling set by the GP. A reminder letter with cross-over invitation design was sent after six weeks. Faecal samples were analysed for precursors of CRC using an immunochemical faecal occult blood test (iFOBT).

Results

In total, 19 542 persons were invited to participate in the trial programme for CRC screening, of which 18 541 were found to be eligible. Participation rates in the mail and GP group were 64.3% and 24.8%, respectively. The overall participation rate was 44.3%. Most participants (62.9%) obtained a sample before the cross-over and thus, participated within six weeks after the invitation. Women participated more (46.8%) than men (41.8%). Participation rate was the highest (48.6%) in 60-to-64-year-olds. The three regions varied in participation rates: with 60.9% in the most rural region to 34.3% in the most urban region. Of the 8219 persons who obtained a faeces sample, 435 (5.3%) had a positive iFOBT and of those, CRC was diagnosed in 18 (4.1%) persons. Compliance for follow-up colonoscopy was 73.1%.

Conclusions

A population-based screening programme for CRC by means of a iFOBT provided by mail proves to be feasible, since adequate participation rates were obtained. A reminder letter after six weeks had a substantial effect on subsequent participation.

An evaluation of the impact of a dedicated welfare rights service for people with cancer and their carers in North East England between June 2008-January 2011

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Background

In the UK, nine out of ten cancer patients’ households experience loss of income as a direct result of cancer. This includes loss of earnings as well as additional costs associated with cancer. UK evidence shows that many people with cancer and their carers do not have easy access to the welfare benefits to which they are entitled and that expert knowledge is needed to negotiate the welfare benefits system. This study is an evaluation of an intervention that increases access to welfare services and obtains financial assistance for people with cancer and their carers.

Methods

Mixed methods evaluation of a community based dedicated welfare rights advice service. Quantitative data was collected on 863 male and 1028 female cancer patients and carers who accessed the welfare rights advice service; qualitative interviews were undertaken with 35 cancer patients, 9 carers and 21 professionals involved in their care. Descriptive analysis of quantitative data and thematic analysis of qualitative data was undertaken.

Results

96% of cases received some additional financial resource which included 34 different types of welfare benefit. Over two thirds of recipients came from areas of high deprivation. The additional resources helped with the costs associated with cancer, treatment and ensuing illness and disability and lessened the impact of lost earnings. Additionally, the extra resources reduced stress and anxiety and increased capacity to engage in daily activities. Benefit related work was reduced for health professionals, allowing them to concentrate on their clinical work.

Conclusions

High levels of unclaimed benefits were found among people affected by cancer and their carers. This intervention successfully targeted those in greatest need and obtained benefits with a very high success rate. Dedicated welfare rights advice services embedded within health care can substantially improve benefit take-up among cancer patients, and have positive impacts on social and psychological well-being. Such services should be a routine element in a holistic approach to the treatment and care of people with cancer. Although welfare benefit systems differ across welfare states, the impact of this intervention has implications for public health policy internationally.

3.I. Workshop: Measuring mental health in population-based studies

Chairs: Jutta Lindert, Department of Public Health, Protestant University of Applied Sciences Ludwigsburg, Ludwigsburg, Germany and Reiner Rugulies, National Research Centre for the Working Environment, Copenhagen, Denmark; Lena Andersson, Unit of Social Medicine, University of Gothenburg, Gothenburg, Sweden
Organiser: EUPHA section on Public Mental Health
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In this workshop, we will give examples of research in Public Mental Health highlighting methods in this area of research. We aim to provide knowledge for conducting studies in the field of Public Mental Health. In the first presentation, a record linkage study using survey data and register data on hospital admission and psychopharmaceutical treatment in Denmark will be presented (Katja Løngaard; Denmark). In the second presentation, a life course approach will be presented, which investigated the relation between social factors in childhood and substance abuse in adulthood (Maria Melchior, France). In the third presentation, a study from seven countries will be presented, investigating methodological issues (e.g. assessment, measurement) in multicultural studies on Public Mental Health in a selected field of determinants of Public Mental Health (Jutta Lindert, Germany). We will discuss advantages and disadvantages of the presented studies to strengthen knowledge in the field of Public Mental Health research.

Using register data to assess depression and functional disorders in the general population

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Background

In several European countries, especially in the Nordic countries, it is possible to link data from population surveys to register data on hospital treatment and prescribed medication. In our research group, we are using this possibility to a) analyze predictors of clinical depression and b) estimate the prevalence of functional disorders (also known as medically unexplained symptoms).

Methods

To analyze predictors of depression, we linked survey data on job group and psychosocial working conditions from two random samples of the Danish population to the Medicinal Product Statistics that includes information on all prescribed medications in Denmark. Onset of depression was defined as the first purchase of an antidepressant during follow-up among participants who had not purchased antidepressants in the past and was analyzed with logistic regression. To estimate the prevalence of functional disorders, we will link survey data on self-reported physical health symptoms from another sample of the Danish population with register data from the Medicinal Product Statistics, the Psychiatric Central Register (hospital treatment of psychiatric disorders) and the Hospital Register (hospital treatment of somatic disorders). Participants will be identified as cases of functional disorders, if they had reported an elevated level of physical health symptoms in the survey and at the same time had not been diagnosed with a psychiatric disorder or a somatic disease.

Results

High emotional demands (OR = 1.5, 95%CI = 1.2–1.9) and job insecurity (OR = 1.4, 95% CI = 1.1–1.9) predicted onset of antidepressant treatment. However, the results also indicated that measuring depression with register data on antidepressant treatment involves misclassification that might be differential with regard to socioeconomic position. With regard to functional disorders we have identified cases based on the survey data and we are currently in the process of linking the survey data to the various registers. At the time of the conference we will be able to present results on the prevalence of functional disorders and to discuss the advantages and disadvantages of combining survey and register data for defining functional disorders.

Conclusions

Linking surveys to registers opens up research possibilities that help to overcome limitations of traditional survey research. However, potential differential misclassifications with regard to socioeconomic position need to be taken into consideration.

Lifecourse socioeconomic factors and mental health

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Background

Common psychiatric disorders such as depression, anxiety and substance-related disorders (abuse and dependence) disproportionally occur among individuals with low socioeconomic position. Yet the mechanisms of these socioeconomic inequalities are not yet fully understood. In this presentation, I will show data suggesting that socioeconomic inequalities in substance-related difficulties observed in adulthood partly reflect early life origins.

Methods

The hypothesis that early life circumstances influence long-term risk of substance-related difficulties was examined using data from the multidisciplinary Dunedin cohort study, a birth cohort study based in New Zealand, and the Tempo study, conducted among young adults based in France. Data were examined using Cox and logistic regression analyses.

Results

Evidence from the Dunedin study suggests that early life socioeconomic circumstances influence adult risk of substance-related disorders in adulthood (sex-adjusted HR of alcohol or drug dependence: 2.11, 95% CI 1.16, 3.84). This association appears to be multifactorial, that is explained by multiple factors such as familial liability to poor health, childhood/ adolescent health risks, low childhood IQ, exposure to childhood maltreatment, and adult socioeconomic position. Additionally, data from the Tempo study show that substance abuse in young adulthood is related to life course socioeconomic trajectories from childhood, accounting for longitudinal family and individual characteristics(adjusted OR of cannabis abuse associated with a downward trajectory: 2.14, 95% CI 1.08–4.25). In particular, youths who experienced persistently low socioeconomic position and downward socioeconomic mobility appear at high risk of regular tobacco smoking and cannabis abuse.

Conclusions

Early life characteristics appear to shape long-term risk of substance-related difficulties, either directly or through their links with established risk factors and influence on adult socioeconomic attainment. Efforts aiming to decrease the burden of substance abuse and dependence and to reduce socioeconomic disparities in this area should focus on early life experiences and exposures. Although both studies used longitudinal follow-up, a limitation is that periods of assessment were conducted several years apart, making it difficult to understand processes that explain specific instances of substance misuse.

Using data from international studies in Public mental health research

Jutta Lindert

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Background

Abuse of older persons (AP) is an increasing public problem which has an impact on Public mental health. Despite growing evidence of the increasing size of the problem, comparable and reliable data on prevalence of AP are still scarce in Europe, and conceptual and methodological differences in design and measurement limit the extent to which comparisons can be made between national studies. We aimed to 1) estimate the prevalence rates of different types of AP among older persons in 7 cities in 7 countries, 2) assess correlates of AP and to 3) contribute to knowledge how to gain data in international studies.

Methods

We developed design and measures nationally and validated these measures in each country adapting design and measures. We calculated the prevalence rates and investigated correlated crude and adjusted Odds Ratios with the respective 95% confidence intervals by logistic regression analyses.

Results

N = 4467 individuals aged 60 – 84 years completed interviews with about N = 650 interviews per participating country. Mean response rate was 48.8%. Mean age of participants was 70 years; 42.7% (N = 1908) of the sample were male. The AP prevalence rate varied from 12.7% (95%CI: 10.2–15.6) in Italy to 30.8% (95% CI: 27.2–34.6) in Sweden. The most common single form of AP was psychological violence with 10.4% (95% CI: 8.1–13.0) in Italy and 29.7% (95%CI: 26.2- 33.5) in Sweden followed by physical violence with 1.0% (95%CI: 0.4–2.1) in Italy and 4.0% (95%CI: 2.6–5.8) in Sweden. The prevalence rate of physical violence with injuries varied from 0.0% in Italy to 1.5% (95%CI: 0.7–2.8) in Lithuania. The prevalence rate of financial violence varied from 1.8% (95%CI: 0.9–3.2) in Sweden to 7.8% (95%CI: 5.8–10.1) in Portugal. The proportion of sexual violence varied from 0.3% in Lithuania and Spain (95%CI: 0.0–1.1) to 1.5% (95%CI: 0.7–2.8) in Greece.

Conclusion

Our findings suggest that psychological violence is reported by almost 30% of older persons in Germany, Lithuania and Sweden. The variation in prevalence rates of PA might be due to true differences between countries, due to differences in disclosure or due to assessment and /or measurement bias. Methods of distinguishing real differences from assessment and /or measurement bias in international studies on Public mental health are validation of measures and cultural adaptation of design and measures. Further methods will be presented and discussed.

3.K. Workshop: European Health Examination Survey - comparability by collaboration

Chairs: Hanna Tolonen, Finland and Simona Giampaoli, Italy
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Representative, comparable and valid health information is needed for planning and evaluation of health policies, prevention programmes and health services, and for research, both nationally and internationally. For some health indicators this information can be obtained through administrative registers and health interview surveys. However, for many health indicators the only reliable data source is a health examination survey (HES).

The two year preparatory and piloting phase of the European Health Examination Survey (EHES) will end in December 2011. During this period, European guidelines and measurement standards for national health examination surveys (HES) and national manuals are prepared for all EU and EFTA/EEA countries. Four countries start a full-size national HES and another nine countries conduct a pilot survey. Furthermore, European level coordination, quality assurance, data management and reporting system are established. The results from the pilot surveys will be presented at the EUPHA Conference.

The Workshop will provide an overview of different dimensions of organizing EHES, and will therefore facilitate discussion on its opportunities and challenges. There will be a brief introduction to EHES and four presentations on its specific aspects: (i) availability of good sampling frames and obtained participation rates, which are key determinants of the representativeness of the results; (ii) success in standardization of EHES core measurements in the ongoing full-size HESs and pilot surveys; (iii) challenges faced by a country without previous experience on national HESs during the pilot survey; and (iv) how a country with an existing national HES can incorporate the European standards to their survey without losing national trends.

Introduction to European Health Examination Survey

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Data on population level health monitoring are essential for identifying existing and emerging health problems, evidence based policy making, and evaluation of policies and preventive actions. A comprehensive national health monitoring system is based on data from both registries and representative population surveys, which cannot replace each other. Some of the survey data can be collected through questionnaires or interview, whereas some require physical or clinical measurements. The latter are called health examination surveys (HES).

The European Commission and Member States have expressed their need for comparable health information. Therefore, a feasibility study of European Health Examination Surveys (EHES) was conducted in 2006–2009. It concluded that EHES is feasible. It also concluded that action for the Europe wide coordination and standardization of national HESs should be taken urgently. This is needed to ensure that standardization of the many HESs which have been planned to be conducted in the near future.

The core HES measurements, which should be included by all countries, relate to the risk and diagnosis of major chronic diseases. These measurements are body weight and height, waist circumference, blood pressure and blood samples for the measurement of cholesterols and fasting glucose (or glycated haemoglobin), as well as a questionnaire on background information and topics related to the measurements. The target population is the working age residents of the country. Subject to local interests, experience on HESs and availability of funding, countries can expand the surveys with additional measurements, such as lung function, functional capacity of the elderly, or a comprehensive health questionnaire.

Following the feasibility study, a Joint Action to standardize and pilot the national HESs in the first 13 countries started in 2010. Four of the countries have already started their full-size national HESs. The others have carried out a pilot survey on about 200 examinees each, and will be ready to start the full-size HES towards the end of this year.

These first steps of EHES are foreseen to lead to a sustainable system of national HESs, which will provide comparable and valid information on health and health risk and their trends in the European countries.

Available sampling frames and participation rates

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The usefulness of the results of a population survey depends on how well the examined people represent the target population. The representativeness is affected by the coverage of the target population in the sampling frame, the sampling procedure and the obtained participation rate. This presentation addresses the sampling frame and participation rate, neither of which can be fully controlled by the survey organizers. The availability of sampling frames listing the people in the target population varies among European countries. Many countries have either regional or national population registers, listing all residents of the country. In some countries, the best available sampling frame is a census or electoral roll. For the countries which do not have reliable individual level sampling frames, for example post code address files can be used.

The largest problems encountered with the sampling frames are under coverage of the target population and incorrect contact information. Sometimes sampling frames include only citizens but not other residents. They may also exclude people living permanently in institutions or cover only some age groups of the population.

Declining participation rate is a general tendency in European surveys. Participation rates which used to be 80–90% in the 1970's are now down to 50–70% and in some countries even lower. In the EHES pilot surveys, one of the biggest problems encountered was the low participation rate and difficulty to obtain contact with selected persons. Measures can be taken to enhance participation in the surveys. Monetary incentives, health consultation, flexible examination hours, public promotion, SMS reminders, reminder phone calls and home visits were used.

Representative HES results require special attention to the selection of the sampling frame and sample design and a plan to recruit the invitees to participate in the survey. Adequate sampling frames are available, without the need to compromise too much about the quality of the survey. Participation rates can be improved with careful planning, but continue to be a major challenge for the future surveys in Europe.

Standardization of the core measurements

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Standardization of measurements of the European Health Examination Survey (EHES) involves detailed survey procedures, training, quality control and external quality assessment, including site visits. These were tested in piloting phase of EHES.

The national EHES pilot studies used different devices for the measurement of weight (digital scales, balanced beam scales and body composition/bioimpedance devices). These differences can be compensated by good quality control. The critical issues of waist circumference measurement were the clothing of the participant and the positioning of the measurement tape. Finding the right measurement place over clothing is difficult, and undressing is not feasible in all cultures.

Correct posture of the participant and use of the device are important factors of blood pressure measurement. Site visits to the pilot survey sites revealed many deviations from the EHES protocol, in particular in the selection and placement of the cuff as well as in the posture of the participant. Most of the pilot countries used automated blood pressure devices, but three countries used mercury sphygmomanometers. Validation studies comparing automatic devices and mercury sphygmomanometers in population surveys are needed.

Generally clinical chemistry laboratories assure the quality of measurements by participating in external quality assessment (EQA) programmes. Population surveys need narrower bias criteria for the measurement of serum total cholesterol, HDL-cholesterol and plasma glucose than those accepted by most EQA programmes. The EHES standardization programme has two assessment rounds to promote standardization and allow correction of the systematic error of the methods, and a final third round for assessment of bias in the actual survey analyses.

The EHES questionnaire is mainly based on the European Health Interview Survey (EHIS). EHES allows comparison of answers to EHIS questions with examination data.

The EHES Pilot Project has shown that the biggest challenges lie in the selection of measurement devices and the field work personnel's adherence to the measurement protocols. Standardization of measurement procedures and devices need to be complemented with adequate training of the fieldwork staff and quality control.

Establishing a new national HES in Slovakia

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Slovakia has a long tradition in implementing the WHO Countrywide Integrated Noncommunicable Disease Intervention (CINDI) programme. This involved four population health examination surveys (HES), but only at the local level. The need for objective data on the health of the population of the whole country led to participation in the European Health Examination Survey (EHES) project.

An EHES pilot survey was carried out in November-December 2010 by the Regional Authority of Public Health (RAPH) in Banská Bystrica. Of the random sample of 250 persons 136 (54,4%) participated. The low participation rate was the main problem of the pilot study. A press conference was organised and the project was presented in the local press before starting the pilot study. Participants were motivated by an invitation letter, a colourful leaflet, a small present and breakfast. Home visits for the recruitment were not perceived very positively by the invitees. Another problem was deviations from the standard measurement procedures, which were observed during the fieldwork. The pilot study confirmed the need for retraining of the personnel even though they had previous experience. It will be necessary to put more emphasis on the staff training and monitoring during the implementation of measurements in the field.

We plan to start a full-size national HES at the end of year 2011. The HES will be coordinated be the RAPH in Banská Bystrica and carried out in cooperation with all 36 RAPHs in the country and the Slovak Society of Cardiology. The national study will be guaranteed by the National Public Health Authority. A sample of 4000 persons will be selected from the central population register. The sampling procedure is under discussion with Statistics Norway. The fieldwork will be carried out by the personnel of the 36 RAPHs. They have experience with working in the field for counseling and health promotion. They will be trained for the HES by the national coordinator. We plan to use a questionnaire with the core questions of EHES and add questions on diet, physical activity and stress. The physical examinations will include the measurements of blood pressure, height, weight and waist circumference. Total cholesterol, HDL cholesterol, glucose and triglycerides will be measured from the blood samples in one laboratory.

How to adapt European Health Examination Survey standards without loosing national trends

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The Robert Koch Institute, Department for Epidemiology and Health Reporting has experience in the administration of examination and interview surveys since the 1980's and has been interested in improving and standardizing survey methods since then. Comparability of data on the European level has become an aspect of increasing importance in our survey concepts. Therefore we have been involved in the Feasibility of the European Health Examination Survey (FEHES) and European Health Interview Survey (EHIS) Projects since several years. Within the EHIS Project we provided and tested a German translation of the EHIS-questionnaire and are currently involved in combined efforts to improve the quality of the survey instruments.

When planning the German Health Examination Survey (DEGS) in 2008 we already considered the recommendations of the FEHES Project for the selection of our examinations. They corresponded well with the assortment of examinations in our baseline examination survey in 1998. Recommendations for sampling and recruitment also complied with our established procedures. Only the EHIS questionnaire reveals substantial differences to our mixed concept of collecting data by personal interview and self administered questionnaire. This is especially true for items of the Background and the Health Status Module.

We started with DEGS in November 2008 and are continuing our survey with our established instruments. In order to meet the requirements of the EHES pilot study, we are translating the EHES core questionnaire and will ask 250 of our participants to answer to the EHES core questionnaire additionally to our established programme. Afterwards we will compare the data collected with the EHES questionnaire versus our established examination programme. The aim of this comparison is to identify for which topics data can be supplied from our programme without any changes and where additional or modified questions have to be implemented in our future surveys in order to meet the requirements of the planned full size EHES survey.

We will report the results of the pilot study. They will help us to find a strategy to continue national trends, minimize additional burden for our participants and optimize our contribution to the EHES survey.

3.L. Workshop: Health promotion and the social determinants of health: Bridging the gap between structure and agency

Chairs: Thomas Abel, University of Bern, Switzerland and Christiane Stock, University of Southern Denmark, Denmark
Organiser: EUPHA section on Health Promotion
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Objectives of the workshop

Health promotion has long struggled with its overemphasis on the role of the individual in producing or maintaining his/her health. On the other hand, the social determinants approach seems to offer little room for the role of individuals' as agents contributing to their own health and that of their communities.

This workshop will present three contributions from leading experts on the interplay between structure and agency as applied specifically to health promotion and the discourse on the social determinants of health. We will start with a paper that reports on the findings from a sound literature review introducing the basic issues related to structure-agency problems in health promotion (Breton). This will be followed by two more specific applications of the structure-agency perspective: one that is focused on issues of unequal resources and capabilities (Frohlich) and one that is focused on structure-agency approaches as they apply to health policy (Ruetten). The three presentations will show the usefulness of social theory in guiding health promotion research and practice. The workshop will allow for advanced discussion and debate through three particular features: a limited number of high level presentations together, the special format of a workshop and a pro-active chairing approach. The major aim of the workshop is to stimulate innovative and theory guided research on health inequalities.

The agency-structure debate and the future of health promotion practice: targeting the individuals or the social determinants of heath?

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Following the Pasteurian revolution, the bio-medicalization of the public health field has brought to the fore a vision of practice that favours actions mobilising the agency of the individuals over those bringing changes to the structural conditions of life settings. While this dominance has been criticised for a number of years on the ground that agency-focused behaviour change programs were often not effective, it is only recently that researchers and practitioners have also started acknowledging their likely contribution in worsening inequalities in health.

In this presentation, and based on a review of the literature and drawing on experiences from France, we reflect on the agency-structure debate and its implications for health promotion practice at a time when public health agencies and governments are called to reorient their strategies upstream to intervene on the social determinants of health.

Our review shows that the health promotion field is still predominantly concerned by behaviour change and risk factors for chronic diseases; a focus that has so far been translated into strategies centred mostly on the individuals as the agents of change. We then argue that, in spite of a growing consensus on the need to act upon the social determinants of health, the strategies centred on the attributes of the individuals are likely to keep monopolizing most resources in public health. We state two reasons to back our claim: 1) the lack of a clear line that could set apart agency- and structure-related factors and, 2) a right wing ideology that is sweeping the European region and which stresses the importance of individual responsibilities over state intervention.

We conclude our presentation by discussing the role theories of social justice could play in guiding program and policy development by clarifying the targets of the efforts and the respective responsibilities of the individuals and governments in promoting population health.

Capitals, capabilities and health promotion : How social inequalities may become health inequalities

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A number of fundamental tensions in health promotion research, practice and discourse continue to thwart its development. Among these issues are how to engender empowerment in individuals and populations, how social inequalities become health inequalities and whether our work should focus on individual behaviour change versus societal, structural change. We critically discuss these fundamental tensions and offer some new theoretical avenues as a basis for health promotion and public health more generally. We argue that health promotion too frequently functions based on the implicit assumptions of utilitarianism (ie. the utility derived from the distribution of goods in society). This particular view of distributive justice has hindered the awareness that individuals have differential capabilities with regard to their ability to convert resources provided by health promotion into health. These differential capabilities are co-determined by individual capitals. Our objective is therefore to introduce and discuss the joint roles that Pierre Bourdieu's capital theory and Amartya Sen's capability approach might play in bringing health promotion beyond utilitarianism and in bringing about a better understanding of how social inequalities in health arise.This presentation is a conceptual, theoretical discussion that brings together literatures from health promotion, sociology and philosophy. We conclude that it is through the individual actor that social inequalities are converted into health inequalities. Heretofore individual actors have too often been delegated passive roles in health promotion. We bring the actor back into the discussion through Amartya Sen's capability approach. We propose that health inequalities come about due to unequal capacities to act and that the space for options to act is co-determined by Bourdieu's capitals. Material and non material capitals interact to make up the space for capabilities. In this sense, then, unequal capabilities are formed through differential capitals.

Bridging structure and agency in health promotion: Adding the policy dimension as the 'missing link'

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Background

Both structuralist and agentic approaches are genuine perspectives of health promotion: Health promotion emphasizes the "structure" of lifestyle (e.g. policy and environmental context), but the five key domains of the Ottawa Charter also refer to agency (e.g. building healthy public policy). Both views have not been adequately linked theoretically so far. Anthony Giddens has developed a seminal concept of structure and agency, but several shortcomings need to be addressed to apply it to health promotion.

Theory/Methods

Adding a concept by Elinor Ostrom to Giddens's approach, we develop a multi-level model of structure and agency in health promotion. It allows us to theorize about interventions at two different levels: the operational level (e.g. health behavior) and the collective choice level (e.g. policy-making).

We connect the model to central claims of the Ottawa Charter, which can be seen as "pairs" of structure and agency reinforcing each other on the different levels. For example, involvement of individuals in community action for health promotion may increase personal health behavior skills, and vice versa.

We use a local-level health promotion project for women in difficult life situations in Germany to illustrate the explanatory power of the model.

Results

The case study shows how the interaction of structure and agency on the two levels leads to both structural and behavior change. For example, women were involved in a cooperative planning process to develop health promotion measures. This new structure on the collective choice level enabled participants' agency and led to the establishment of women-only hours at a municipal swimming pool. This new structure on the operational level, in turn, improved self-efficacy among the women.

Conclusions

Introducing the policy dimension to the interplay of structure and agency in health promotion is useful both theoretically and empirically. A multi-level model may help us to better analyze the complex processes and effects of existing interventions as well as design better interventions in the future. It also allows us to deal with virtually all key domains of health promotion outlined in the Ottawa Charter, connecting them in a theoretically meaningful way.

3.M. Ecological health

Testing for Granger causality between population health and economic output in selected OECD countries (1960–2008)

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Background

The health economics theory assumes the existence of feedback causality between health and wealth. The purpose of this research is to test this causality for selected OECD countries in the period of 1960–2008. The selection of six countries is arbitrary, however the group purposefully contains relatively well and poorly performing countries as well as from a variety of geographical regions.

Methods

The causality in the Granger sense is a circumstance in which one time-series variable consistently and predictably changes before another variable does.

In this research the relationship between population health and welfare is investigated using the Granger causality test. The measure of welfare used is real gross domestic product per capita (GDP). Two alternative measures of health status are infant mortality rate (IMR) and life expectancy at birth (LE0). As the appropriate time lag for the interrelationship between health and income is not known, lag specifications from 1 to 15 years are tested.

Results

The unidirectional Granger-causality from GDP to health, no matter which health measure used, exists in most of the specifications for Australia, Japan, Norway and the United States. The reverse relationship - from health to GDP - holds for Australia, Japan, Turkey and the United States only when LE0 is used as a measure of health. For Turkey there seems to be very weak - if any - causality from wealth to health as only 4 out of 30 specifications tested support the thesis of Granger-causality. For Mexico both relationships are dubious as for most specifications the independence between GDP and population health is found.

Conclusions

The causality tests conducted only partially support the hypothesis about bidirectional relationship between health and welfare. Only for one country (the United States) certain feedback exists between these phenomena, while for other countries in the study the results are ambiguous. Interestingly, countries with dubious causality from wealth to health are those with relatively low performance in both income and population health. The ambiguity of the results suggests broadening the scope of the analysis by including more specific health measures - e.g. premature mortality by cause - and more countries.

Social capital and mortality in Finland 2000–2009

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Background

Social capital can be broadly defined as resources emerging from networks of trust. An increasing amount of literature has linked social capital to various health outcomes and well-being. There are still quite few and partly conflicting results about the associations between individual-level social capital and mortality.

In our longitudinal study we examined whether individual-level social capital predicts mortality. The results might give novel ideas about methods for promoting health and reducing inequalities in it.

Methods

The study was based on a nation-wide representative health examination survey Health 2000 linked with a 9-year register-based mortality follow-up. Participants (N = 7184) were aged 30−79 years at the baseline. We used the data from a personal interview, two questionnaires and a health examination, participation rates varying between 77−88%. Cox regression was applied to assess the significance of three dimensions of social capital (1. social support, 2. social participation and networks, 3. trust and reciprocity), controlling for several covariates: socio-demographic and biological factors, health behavior, health and chronic diseases.

Results

Based on preliminary analyses, social participation and networks predicted mortality when age and gender were adjusted (HR = 2.16, for the lowest tertile compared to the highest one, 95% CI = 1.66–2.83). The contribution of social support was milder (HR = 1.57, 95% CI = 1.21–2.05). Trust and reciprocity did not predict mortality (HR = 1.13, 95% CI = 0.90–1.41). Several well-known risk factors (for example living arrangements, income, chronic diseases, BMI, cholesterol, blood pressure, smoking) were associated to mortality. When all covariates were added in the model simultaneously the associations between social capital and mortality attenuated but low levels of social participation still increased the risk for death (HR = 1.63, 95% CI = 1.11–2.38).

Conclusions

As active social participation and networks seem to protect from early death, a potential strategy for promoting health and reducing health inequalities could be smoothing the way to leisure participation and spurring people to participate socially.

Size at birth and early life social characteristics predict educational outcomes in Swedish cohorts born 1915–1929 and 1973–1980

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Objective

In two Swedish cohorts born more than a half-century apart, we investigated which early-life characteristics independently predict (a) school achievement and (b) education continuation.

Methods

The Uppsala Birth Cohort Multigenerational Study includes manually collected archive data on a representative and well-defined cohort born in Uppsala University Hospital 1915–1929 and information on descendants of the cohort obtained through linkage to routine registers. 9,829 males and females born 1915–1929 (generation 1, G1) and 9,465 of their grandchildren born 1973–1980 (G3) were included in this analysis. School achievement was the mean of school-marks received in the spring term of the third grade (G1) and grade average in the ninth grade of elementary school (G3).

Results

In both cohorts, the independent predictors of better school-marks were: female gender, higher birthweight for gestational age, lower birth order, older mother, married mother and higher family social class. There was no evidence of any independent effect of preterm or twin status. The same characteristics predicted education continuation (secondary school attendance and entrance to tertiary education), with the exception that in the older cohort (the G1s) there was a marked male advantage but no effect of birthweight. In the G3s, the lower probability of education continuation among males and lighter birthweight individuals seemed to be mediated by poorer school achievement. By contrast, even after adjusting for school achievement, continuation to tertiary education was still predicted in both cohorts by lower birth order, older mother, married mother and higher family social class.

Conclusion

This paper demonstrates Sweden's success in increasing the proportion of young people entering tertiary education and equalising participation by gender. Nevertheless, for most early-life characteristics the pattern of relative advantage and disadvantage changed little over the twentieth century, and for birthweight and family composition some disparities seem to have increased. These findings therefore suggest the continued need for policies which seek to equalise opportunities across children.

Estimating the association between Disability Adjusted Life Years and population health determinants – a cross-national ecologic study

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Background

Global Burden of Disease (GBD) estimates are increasingly used in Public Health to assess the impact of diseases on health-related quality of life and are quantified by use of the Disability Adjusted Life Year (DALY) measure. Analyses on the association between health-determinants and the burden of disease as measured by the DALYs are sparse. The main objectives of this study were to investigate such associations by use of aggregated country-level data and to test the feasibility and usefulness of such analyses.

Methods

DALY-rates per 100,000 population for 2004 from the GBD study and 26 publicly available structural and behavioural country-specific indicators for 192 World Health Organisation member states were used in the analyses. A cross-national ecological study design, methods of correlation and bivariate/multivariate regression modelling were applied. Results: Indicators showing strongest (bivariate) correlations (Spearman) with the total DALY burden were satisfaction index (−0.789), urban access to improved sanitation (−0.743) and access to improved water source (−0.701). DALYs due to communicable, maternal, perinatal and nutritional conditions (Group I conditions of GBD study) were correlated with satisfaction index (−0.760), urban access to improved sanitation (−0.742) and access to improved water source (−0.667). DALYs due to non-communicable conditions (Group II conditions) showed correlations with corruption perception index (−0.729), satisfaction index (−0.676) and passenger cars (−0.662). Multivariate analyses identified a model showing significant associations between the total burden and satisfaction index, access to improved water source, calorie supply and literacy rate ($r^2 = 0.72$).

Conclusions

DALYs due to group I conditions were largely associated with indicators mainly informing about basic living conditions. DALYs due to group II conditions showed highest correlations with wealth indicators. Results from regression analysis gave insights on the rates of DALY change. The analysis was limited due to the use of a selected set of aggregated indicators and the estimates do not allow for causal conclusions due to cross-sectional study design. Upcoming investigations of multi-level effects will provide more sophisticated results.

The epidemiologic relation between small ruminant farms and human Q fever

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Background

In May and June 2009, there was a large sudden increase in human Q fever cases in the province of Utrecht in the Netherlands, with more than 120 notifications clustered in time and place. Utrecht had not been affected before in the Q fever epidemic.

Methods

We analyzed patient data of 124 cases of Q fever that were reported to the Municipal Health Services of the province of Utrecht in 2009. Possible veterinary sources were identified by taking animal and environmental samples on small ruminant farms and also by analysis of attack rates of human Q ever around these farms.

Results

One out of three (34%) cases was hospitalized: women were more often hospitalized than men (53% versus 27%). During source tracing four farms tested positive for Coxiella burnetii including one large dairy goat farm and three smaller non-milk producing farms. The large dairy goat farm tested positive in bulk milk monitoring later on. Based on the residential postal codes of the cases, a high attack rate was found near this large bulk milk positive dairy goat farm: the attack rate in the 0–5 km zone surrounding this farm was: 56/100.000, with a relative risk of 6.4 (95%CI: 4.2–9.9) compared to the 5–10 km zone. Attack rates showed a gradual decline with increasing distance from the farm. Several smaller sheep farms (<50 animals) also showed high attack rates within their 5 km zones.

Conclusions

The study confirms the epidemiologic relation between large dairy goat farms and human Q fever in the Netherlands. However, a possible role of smaller, non-milk producing farms cannot be excluded based on the present study.

Injury mortality among refugees and immigrants compared to native Danes

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Background

Injury related mortality in relation to migrants in Denmark and other European countries have so far not been investigated; albeit expectations are that accidents, suicides and homicides may be higher compared to the native population. Our objective was to study injury related mortality in Denmark among refugees and immigrants compared to native Danes.

Method

A register-based historical prospective cohort design. All refugees (n = 29,139) and family reunified immigrants (n = 27,134) who received residence permission in Denmark from 1.1.1993–31.12.1999 were included and matched 1:4 on age and sex with native Danes. To identify fatalities due to injuries (based on ICD-10 diagnosis) civil registration numbers were cross-linked to The Register of Causes of Death from 01.01.1994–31.12.2007. Sex specific mortality ratios were calculated by migrant status and region of origin, and adjusted for age and income; using a Cox regression model, after a mean follow-up of 11years arrival.

Results

Compared to native Danes both female (RR = 0.44; 95%CI: 0.23; 0.83) and male (RR = 0.40; 95%CI: 0.21;0.56) refugees had significantly lower mortality from accidents. This was likewise true of immigrant women (RR = 0.40; 95%CI: 0.21;0.77) and men (RR = 0.22; 95%CI: 0.12;0.42). Suicide rates were significantly lower for male refugees (RR = 0.38; 95%CI: 0.24;0.61) and immigrants (RR = 0.24; 95%CI: 0.10;0.59); whereas their female refugees (RR = 0.81; 95%CI: 0.40;1.62) and immigrants (RR = 0.87; 95%CI: 0.46;1.65) showed no significant differences. Only, immigrant women had a borderline significant higher homicide rate (RR = 3.10; 95%CI: 1.12;8.62) compared to native Danes, all other groups showed no significant differences.

Conclusions

The results were more advantageous to migrant groups than expected. Research efforts should concentrate on further investigation of injury causes among migrants; which may also benefit the majority population.

3.N. Interesting miscellaneous orals

Public disclosure of hospital outcomes data improves quality of care for patients admitted with hip fracture: the experience from two Italian Regions

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Background

There have been few studies that investigated the impact of public disclosure of hospital performance on quality improvement in orthopaedic surgery. From 2006 to 2007 Lazio and Tuscany, two Italian regions, released data about hospital performances and implemented strategic programs aimed at improving quality of hospital care. We evaluated the impact of Lazio and Tuscany programs on quality of healthcare for orthopaedics patients compared with other Italian regions that not released hospital data.

Methods

Proportion of elderly patients with hip fracture operated within 48 hours and median waiting time for surgical treatment of fractures of tibia or fibula were estimated separately for Lazio, Tuscany and other Italian regions for two periods (period 1 from 2006 to 2007 and period 2 from 2008 to 2009). Risk adjusted proportions were obtained by direct standardization method and a multivariate logistic regression was applied taking into account age, gender and comorbidity status.

Results

We included a total of 137.507 patients for period 1 and a total of 135.813 patients for period 2. In Lazio and Tuscany the proportion of intervention performed within 48 hours increased in period 2 respect to the period 1 (respectively +4,1% and +14,0%) while in the other Italian Regions the proportion of intervention within 48 hours decreased in period 2 (−0,8%). The proportion of hip surgery performed within 48 hours increased by 34% for Lazio and 46% for Tuscany and reduced by 3% in other Italian Regions. The median time to surgery for tibia or fibula fracture showed no significant differences between period 1 and period 2.

Conclusions

Lazio and Tuscany programs had a positive impact on quality of care for elderly patients admitted for hip fracture without negative impact on other orthopaedic interventions, such as surgical repairs of tibia or fibula fractures. Our results highlight the need for continuous quality improvement by repeating the evaluation process and by integrating the performance system with a management strategy.

The effect of public-sector health care delivery on avoidable mortality: longitudinal cross-regional results from Italy, 1993–2003

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Background

During the 1990s, Italy underwent significant changes in its National Health System including decentralization of health policy responsibilities to regional administrations, introduction of internal markets and increasing, in some regions, of the private sector role in delivering healthcare. We compared the effectiveness of private- and public-sector healthcare expenditure on avoidable mortality (deaths that should not occur in the presence of effective medical care).

Methods

We calculated the average rate of change in age-standardised avoidable mortality rates in 19 of Italy's regions from 1993 to 2003. Multivariate regression models were used to analyse the relationship between rates of change in avoidable mortality and levels of public versus private healthcare expenditure, controlling for potential demographic and economic confounders.

Results

Greater per capita spending on public delivery of health services corresponded to higher reductions in avoidable mortality rates. Per capita private health expenditure had no effect on avoidable mortality in most regions and was associated with less progress in reducing avoidable mortality in other ones. After correcting for differences in each region's per capita income, we found that 10% additional public spending on National Health Service delivery was associated with a 3.1% reduction in avoidable mortality rate ($p < 0.001$). Private health expenditure, by contrast, had no statistically significant effect on avoidable mortality rates ($p = 0.489$). A higher private health expenditure as percentage of the total health expenditure was associated with higher avoidable mortality ($p < 0.001$). As a control exercise, we found that neither public nor private healthcare spending was significantly associated with non-avoidable mortality, plausibly because non-avoidable mortality is less sensitive to healthcare services.

Conclusions

Public healthcare delivery was significantly associated with greater progress in reducing avoidable mortality rates, whereas private spending related to less progress in reducing avoidable mortality across time in Italy's regions. Public National Health Service delivery may be more likely to achieve better overall population healthcare performance than private sector delivery.

Meta-analysis of the immunogenicity and tolerability of pandemic influenza A 2009 (H1N1) vaccines

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Background

Although the 2009 (H1N1) influenza pandemic officially ended in August 2010, the virus circulated during the 2010 season and will probably circulate in future years. Several types of H1N1 vaccines have been tested including various dosages and adjuvants, and a meta-analysis is needed to identify the best formulation.

Methods

We searched MEDLINE, EMBASE, and nine clinical trial registries to April 2011, in any language for randomized clinical trials (RCTs) comparing different H1N1 vaccines among themselves and/or placebo on healthy children, adults and elderly. Primary outcome was the seroconversion rate according to hemagglutinination-inhibition (HI); secondary outcomes were adverse events. For the primary outcome, we used both traditional meta-analysis and multiple-treatments meta-analysis (MTM).

Results and Conclusions

We retrieved 22 RCTs; 18 of which could be included in all primary analyses, for a total of 76 arms (18444 subjects). After 2 doses, all 2009 H1N1 split/subunit inactivated vaccines were highly immunogenic and overcome CPMP seroconversion criteria. After 1 dose only, all split/subunit vaccines induced a satisfactory immunogenicity (>=70%) in adults and adolescents, while only some formulations showed acceptable results for children and elderly (non-adjuvanted at high-doses and oil-in-water adjuvanted vaccines). Indeed, a second dose of vaccine may be needed for children (especially if a low-dose non-adjuvanted vaccine is administered), and results remain controversial for the elderly. Vaccines with oil-in-water adjuvants were more immunogenic than both non-adjuvanted and aluminum-adjuvanted vaccines at equal doses and their immunogenicity at doses <=6Âµg (even with as little as 1.875Âµg of hemagglutinin antigen) was not significantly lower than that achieved after higher doses. Finally, the rate of serious vaccine-related adverse events was low for all 2009 H1N1 vaccines (3 cases, resolved in 10 days, out of 22826 vaccinated subjects). However, mild to moderate adverse reaction were more (and very) frequent for oil-in-water adjuvanted vaccines. Given that 15 RCTs were sponsored by vaccine manufacturers, future trials sponsored by non-industry agencies and comparing vaccines using different types of adjuvants are needed.

Negative aspects of social relations and risk of development of IHD a longitudinal study of middle-aged Danish men and women

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The association between support from social relations and ischemic heart disease is well described, however the possible hazardous effects of negative aspects of social relations on cardiovascular health is less well described. In a previous study we found a clear dose-response relationship between experience of demands and worries from social relations and later self-reported angina pectoris measured by Rose Angina questionnaire among both men and women (JECH Lund et al. 2011).

The purpose of the present study was to analyze the possible influence of negative aspects of social relations (NASR) at baseline on the risk of development of ischemic heart disease (IHD) defined as incident hospitalized cases of angina pectoris, acute myocardial infarction and chronic IHD during 7 year follow-up. NASR were defined as demands or worries from partner, children, family, friends, colleagues and neighbors measured at baseline in 2000.

Participants were included in a questionnaire based study in 2000 and were a random sample of Danish men and women aged 40 or 50 years by October 1st 1999 N = 6712 from Danish Longitudinal Study on Work, Unemployment and Health. Data for the present study are based on questionnaire data from baseline in 2000 and register linked data from the period 2000–2007 on hospitalization for IHD (ICD10: I20–25). Participants who 4 years prior to the baseline study had any cases of ischemic heart disease (I20–25) were excluded from the analyses. In total 170 new cases of IHD were identified during follow-up.

Men who always or often experience worries or demands from their partner experience an increased risk of incident IHD compared to those who never experience worries and demands, OR(95%CI) = 2.76(1.41–5.40) adjusted for age and smoking habits at baseline (p-trend = 0.007). Further adjustment for depressive symptoms, occupational social class, cohabitation status and physical activity at baseline did not change the estimate. There was no association between demands/worries from partner and risk of development of IHD among women. Combined indices of worries/demands from all social relations (partner, children, family, friends, colleagues and neighbors index range 0–30) and close social relations (partner, children, family and friends, index range 0–20) showed similar results for men. Each step towards higher demands/worries was associated with an increased risk of later IHD: OR-all social relations = 1.05(1.02–1.08), p-trend = 0.0012 and OR-close social relations = 1.08 (1.04–1.13), p-trend = 0.0003 . Analyses were adjusted for age and smoking habits. Again, no significant associations emerged for women.

There seems to be an association between NASR and incident hospitalization for IHD during 7 year follow-up among men which confirms earlier findings of an association between NASR and self-reported angina pectoris. The null finding for women may partly be explained by the substantially smaller number of cases.

Does strong sense of coherence improve survival? A 14-year follow-up study among Finnish respondents

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Background

Some earlier studies have reported that personal coping resource defined by sense of coherence (SOC) is negatively associated with mortality. In this study we investigated whether SOC predicted all-cause mortality in a large representative population sample of 25 202 Finns aged 20–54 at the start of a long follow-up of 14 years in 1997–2011.

Methods

The data comprising 666 deaths were analyzed with Cox's regression model. The association of mortality and SOC was further elaborated using several covariates, such as socio-demographic and psycho-social factors, childhood adversities, and health behavior. Depression (BDI) was added in the last model.

Results

SOC was clearly related to all-cause mortality in the follow-up. According to Cox model the age adjusted hazard ratio (HR) for the increase of one standard deviation (SD = 11.6) in the SOC score was 0.70 ($p < 0.001$). The association between all-cause mortality and SOC also remained after adjustment for childhood adversities, language (Finnish or Swedish), education, smoking, alcohol use, obesity (BMI), Physical Activity Index (PAI), hostility and social support, giving for the one SD increase in SOC an HR of 0.80 ($p < 0.001$). Among respondents with no history of antidepressant use or cancer the corresponding figure was 0.84 ($p < 0.001$).

Among these as well as all respondents the association remained statistically significant also in the final model adjusted for depression (HR: 0.87 among all respondents). There was no interaction between SOC and depression which indicates that the association between SOC and mortality were similar among both mentally healthy and depressed respondents.

Conclusion

Strong association between SOC and mortality remained even after adjustments for several covariates.The results suggest that strong SOC is an independent effective psychological coping resource that protect life by promoting health among both depressed and mentally healthy respondents.

PARALLEL SESSION 4: MODERATED POSTER PRESENTATIONS

Friday, 11 November, 12:30–13:30

4.A. Employment and health

Work-related diseases among migrant workers in Italy and Spain: role of the type of contract

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Background

In the last 20 years the number of immigrants in Spain and Italy has strongly increased, now representing over 10% of the workforce. The segregation of migrants within unskilled jobs brings as negative consequence a more frequent access to unhealthy occupations. The objective of the study is to compare the prevalence of work-related health problems (WRHPs) between immigrants and local workers in Italy and Spain and evaluate the role of the type of contract.

Methods

Italian Labour Force Survey ($n = 65{,}779$) and Spanish Working Conditions Survey ($n = 11{,}019$) 2007 data were used. The issue of work-related diseases in natives and migrant workers (MWs) was analysed, the latter being persons from countries with low values (< 0.85) of the Human Development Index - UNDP. Workers with temporary or other non-standard forms of employment were defined as precarious workers. The following conditions were investigated: musculoskeletal diseases, respiratory problems, skin diseases, hearing loss, stress, visual impairment, headache and cardiovascular diseases (CVDs). The risks to be affected by WRHPs were compared by using a logistic model including gender, age, education and job precariousness as adjusting factors.

Results

The observed percentage of workers suffering from WRHPs was 9.2%, and it was higher among MWs (9.9%). MWs reported musculoskeletal problems more frequently (7.3% vs 5.3%), while natives reported in a higher percentage stress (1.3% vs 0.3%) and CVDs (0.3% vs 0.1%). The pattern was similar in both Countries (Italy and Spain). The type of contract was significantly related to the outcome ($p = 0.02$) and interacted considerably with the migrant condition ($p = 0.009$). Adjusted ORs stratified by type of job contract were then calculated. Among precarious workers, MWs showed a significantly higher risk of WRHPs, expressed in terms of odds (Adjusted-OR:1.53; 95% CI: 1.22–1.92), while among workers with stable job being a MW was not much associated with higher risks of WRHPs.

Conclusions

This collaborative study produced strong evidences about health conditions of MWs in South European Countries. The findings suggest the importance of implementing prevention programs to limit the burden of work-related diseases among migrants, especially those with precarious jobs.

Differences in employment conditions between immigrant and autochthonous workers in Europe

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Background

Occupational injuries and illnesses are an important source of morbidity and mortality in Europe. Immigrant workers exhibit higher rates of work-related health problems than non-migrant ones. These outcomes are to a considerable degree affected by employment arrangements. We compare differences in five employment conditions between immigrants and autochthonous workers in Europe.

Methods

Data used comes from the European Working Condition Survey (EWCS-2005, $n = 29654$ workers, 31 European countries). We examined differences in the prevalence rates among immigrant and autochthonous workers regarding: working > 10hours/day, on Sundays, without a contract, changes in the work schedule and not free to decide when to take holidays or days off. An immigrant was defined as a person without citizenship of the country of residence ($n = 1253$). Prevalence rates were adjusted for age, gender and education level (adjusted-PR).

Results

Three of the employment conditions examined were more prevalent among immigrants: working without a contract (adjusted-RP = 1,4;IC95%1,1–1,6), changes in the work schedule (adjusted-RP = 1,2;IC95%1,1–1,4), and not free to decide when to take holidays or days off (adjusted-RP = 1,2; IC95%1,1–1,3); there were no differences in working >10hours/day or on Sundays.

Conclusions

Our results show that immigrants are exposed to employment conditions that place them at higher risk of work-related health problems compared to autochthonous workers. There are currently 11 million legal immigrants residing in Europe, and it is estimated that several million more reside illegally. Notwithstanding the limitations of the dataset in regards to the low sample size of the migrant group, the findings suggest that special attention must be paid to this group.

Working conditions and subsequent weight gain

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Background

Previous studies suggest that certain working conditions such as work stress, working overtime and shift work are associated with employees' obesity. However, longitudinal studies on the contribution of a wider range of working conditions on obesity are sparse.

This study aimed to examine the associations of a range of working conditions with major weight gain (at least 5 kg over the follow-up). Three different groups of work-related factors were examined: i) work arrangements, ii) physical working conditions, and iii) psychosocial working conditions.

Methods

The data are based on the Helsinki Health Study (HHS) questionnaire surveys. A baseline mail survey was made among 40, 45, 50, 55, and 60-year-old employees of the City of Helsinki in 2000–2002 (n = 8960, response rate 67%). A follow-up survey was made in 2007 among all respondents to the baseline survey (n = 7332, response rate 83%). Men and women were analyzed separately. Logistic regression analyses with odds ratios (OR) and 95% confidence intervals were calculated

Results

Over the follow-up, 26% of women and 23% of men gained weight 5 kg or more. Among women, major weight gain was associated with night time shift-work (OR 1.42, 95% CI 1.11.-1.82), low job demands and low job control (OR 1.32, 95% CI 1.10–1.57), high job demands and low job control (OR 1.34, 95% CI 1.12–1.62) and reporting physical violence at work at least once a year (OR 1.32, 95% CI 1.12–1.54). Physical working conditions, working overtime or being bullied at work had very slight or no association with weight gain. Among men, major weight gain was associated with reporting hazardous exposures at work (OR 1.81, 95% CI 1.22–2.68). No association was detected between work arrangements, physical workload, psychosocial working conditions and weight gain.

Conclusion

Various working condition were associated with major weight gain during the 5–7 years of follow-up. More attention should be devoted to dietary and physical activity patterns among high risk employees to be able to prevent weight gain.

Social differentials in non-employment following hospital admission for musculoskeletal disorders in Sweden during 2001–2006

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Background

A large proportion of working-age people are outside the labour market due to longstanding illness or disability. Social consequences of disease and differentials between social groups are of interest to study over time because of changes in the Swedish labour market and social policy the latest decades. Musculoskeletal disorders account for a large proportion of sickness absence and disability pension. The aim is to analyse social differentials in non-employment among persons with musculoskeletal disorders in Stockholm County during 2001–2006.

Methods

Population registers were individually linked to obtain information on health service use and sociodemographic characteristics for the 1.9 million residents of Stockholm County. Age-standardised employment rates were calculated for patients with musculoskeletal disorders employed at baseline 2001 (n = 1 888) and compared to the employed general population. Multivariate Cox regression analysis was used to calculate the relative risks (RR) with 95% confidence intervals (CI) of non-employment during 2001–2006.

Results

Both female and male patients had lower age-standardised employment rates compared to the general population and were at higher risk of non-employment (women RR 1.52, 95% CI 1.33–1.74: men RR 1.31, 95% CI 1.15–1.50). Analyses within the patient groups showed that the relative risk of non-employment was more than twice as high among female patients with short education (RR 2.36, 95% CI 1.62–3.46) compared to those with long education. There was an elevated risk to be non-employed for male patients with short education (RR 1.70, 95% CI 1.16–2.47) and foreign born (women RR 1.87, 95% CI 1.39–2.53: men RR 2.40, 95% CI 1.74–3.20).

Conclusions

Employment consequences of musculoskeletal disorders seem to be unequally distributed between different social groups and more attention is needed to disentangle the pathways that lead to further social stratification and health inequalities in the population.

The association between mental health status and unemployment among immigrant women in Sweden

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The right to work and access to employment are associated with better mental health for everyone, but especially for refugees, both men and women. Conflicting findings have been presented on refugee women's vulnerability in connection with unemployment. This study, examines the association between mental health and unemployment and how this is linked with duration of stay in Sweden.

Methods

A cross-sectional, population-based register study design was used to compare female non-labour migrants from low-income countries in Sweden in 2006. Outcome: Mental ill health, as measured with the proxy variable psychotropic drugs purchased. Covariates: Reason for migration (refugee/non-refugee), age, origin, marital status, education and employment. Background variables were analysed using chi square tests. The association between outcome and covariates was analysed using logistic regression analyses. Multiple logistic regression analysis was used to adjust for potential confounders.

Results

The study population comprised 20,940 females from Iraq, Afghanistan, Iran, the Middle East (except Iran and Iraq), Somalia and former Yugoslavia, of whom 8562 (40.89%) were refugees. All covariates were associated with the outcome. Duration of stay in Sweden interacted with many covariates. When stratified by duration of stay in Sweden, unemployed women who had been in Sweden for more than five years had a higher likelihood of mental ill health than employed women (OR = 1.32, 95% CI = 1.13 - 1.54).

Conclusions

Unemployment among women from low-income countries is associated with mental ill health, particularly after some years in the host country. Unemployment is important, not just in economic terms, but also for public health. Employment should be included in strategies for promoting mental health among refugee women.

Differences in major cardiovascular risk factors between unemployed and employed individuals in Poland - cross-sectional study

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Background

Increasing health discrepancies observed in last two decades in Poland after economic transition could be attributed in part to social consequences of unemployment. Differences in major cardiovascular risk factors between unemployed and unemployed people have not been investigated in Poland yet.

The aim of this cross-sectional study was to assess the association between unemployment and major cardiovascular risk factors in Poland.

Methods

Data from 5111 participants were included into analysis. Data were collected during prophylactic health examination in the context of occupational medicine service tasks in period 2009–2010. 3052 unemployed participants (60%) were recruited from Employment Office in Gdansk. 2059 participants (40%) were employees of Gdansk Shipyard and clerks of public administration. Blood pressure measures, resting heart rate, smoking habit and body mass index were collected during these assessments. Multiple logistic regression was used in data analysis to perform age and sex adjustment.

Results

There were less hypertensive subjects among unemployed people compared to employed individuals: 16% vs. 32%. However after adjustment for age and sex odds ratio (OR) for hypertension in relation to unemployment was 0,99 95% confidence interval (95% CI) 0,83–1,15. There were more obese (BMI>=25) subjects in employed people compared to unemployed population: 34% vs. 63%. In multiple regression association between obesity and unemployment was statistically significant OR = 0,72 95% CI 0,62−0,82. Smoking habit was equally frequent in unemployed and employed group: 29% vs. 30%. After adjustment for age and sex smoking was independently associated with unemployment: OR = 1,46 95% CI 1,27–1,68.

Conclusion

There are differences in patterns of major cardiovascular risk factors between unemployed and employed individuals in Poland. The observations we made indicate the role of employment status in Poland as an indicator for specific disease risk profiles and should implicate specific preventive measures in unemployed individuals.

Breaking the ‘‘vicious circle’’ of *unemployment and health* in Germany

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Issue/problem: unemployment - a ‘‘public health problem’’

Unemployment is not only regarded as one of the greatest unresolved economic and socio-political problems, but also as a major public health challenge. Compared to the employed population, unemployed people are characterised by a clearly worse health status and less favourable health behaviour. This is proved by international meta-analyses as well as by analyses of surveys and health insurance data.

Description of the problem: selection and causation

The relationship between *unemployment and health* is reciprocal. Health impairments in unemployed people are one of the most important obstacles to being reintegrated in the job market. Unemployed are faced with a vicious circle which is both characterised by selection effects when looking for a new job as well as by causal impacts due to unemployment. Unemployed with health impairments run a higher risk of long-term unemployment. Moreover, unemployed are hardly reached by prevention and health promotion courses.

Results: ‘‘health orientation in the social protection’’

- The interactions between *unemployment and health* create a need for better strategies for addressing specific target groups about prevention and health promotion measures. It needs improved political framework conditions to break the vicious circle. In Germany, the government's policy aims to conduct promotion of *employment and health* promotion in a campaign ‘‘health orientation in the social protection’’ of the Federal Employment Agency. The comprehensive strategies aimed to:
- Integrating health promotion modules into employment and training measures
- Training in health for placing officers and case managers
- Creating health information system
- Cooperation between Employment Agencies and health organisations
- Building local networks.

Lessons

The collaboration of labour market promotion and health promotion is innovative. It offers points of a new approach for health measures in settings of labour markets and helps unemployed to maintain or restore their health and ability to work. But measures can only work on the moderating influence factors and can't abolish the real reasons of mass unemployment.

4.B. Health in South Eastern Europe

Current trends in human resources for health of Ukraine

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Background

The aim of our work was to study the state-of-the-art in the health workforce area, including ongoing problems and possible challenges. Fulfillment of this goal has caused one of the objectives of the study, namely, the need to determine current supply of the doctors.

Methods

State and dynamics of staffing was studed by the Ministry of Health statistical reports. Figures from the State Statistics Committee from 1990 till 2008 were used as supplemental source.

Results

In 2008 the health system employed more than 220 000 doctors or 4.8 doctors per 1000 population. The number of medical human resources per capita has increased gradually since 1990, but this does not reflect a growth in the number of medical personnel so much as a decline in the total population. The absolute number of doctors has also been falling: in 1990 by 0.9% (2000 doctors). In 1995 and 1996 (when the per capita rate was at its highest), it decreased by 2.2% and 4.8% respectively, or by 5000 and 10 000 doctors. At the same time, the medical workforce is ageing rapidly. In 2007, 22.5% of active physicians were of retirement age (16.1% in 1994; 19.5% in 2002) and 20% were approaching retirement age. The supply of public health workers, primarily in the sanitary-epidemiological services, has been stable since 1995, but the number of specialists decreased by 9.3% (more than 900 specialists). Although the number of active physicians has remained stable at 3.0 per 1000 population since 1995, their total number has fallen by almost 9.5% (15 000 physicians) between 1995 and 2008.

Conclusions

The supply of medical specialists in Ukraine is close to the average number in the WHO European region. Nevertheless the human resources situation in the health sector is alarming. Main reasons for such developments are the natural loss of human resources through ageing and migration. Graduates from university-level medical institutions often prefer positions in pharmaceutical companies to medical practice or leave the health sector all together. Moreover, in recent years, Ukraine has become a donor country of medical human resources. The primary factors are low wages, poor social conditions, poor infrastructure in rural areas and the low status of the medical profession.

Advance directives in palliative care units in Bulgaria

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Background

Advance directives were not applied in Bulgarian healthcare system till 2002. The first clinical path for palliative care of terminally ill cancer patients provided them with an opportunity to express their views on care.

The objective of this paper is to study the opinion of palliative care units' personnel on the practical application of advance directives.

Methods

The study employed a combination of sociological and statistical methods. Self-administered questionnaire was distributed among the personnel and patients' relatives in 5 palliative care units in Northern Bulgaria. All in all 61 health professionals and 48 patients' relatives responded to the questionnaire. The achieved response rates for the personnel and the relatives were 95,3% and 68,6% respectively. The statistical data processing was performed by Microsoft Office Excel 2003 and SPSS v.13.

Results

8,2% of the personnel were not familiar with essence of the advance directive and 41% did not know whether it was applied in practice. The majority of the personnel did not find the advance directives useful in their clinical practice. Only 13,1% expressed an approval of the document. According to the relatives, 61,4% of the patients did not prepare the proposed advance directives. Further analysis of the advance directives led to concrete critics of the language used in the document and the regulation for its preparation.

Conclusions

On the background of the ongoing healthcare reform in the country, patients are afraid that the advance directives might rather diminish than improve their care. Both the patients and the personnel look at the document more as an obstacle than as a supportive instrument in physician-patient communication. The introduction of advance directives in Bulgarian clinical practice is generally a positive act of respect to patient's autonomy. The document, though, should be better adapted to the national characteristics.

Distribution of health payments and catastrophic health expenditures in Republic of Macedonia

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Background

Protecting the population against financial poverty from key medical expenses that consume a large share of household income is an important yet neglected policy concern in the health sector. The costs of medical care generate financial risks, in addition to income losses due to impaired labour supply and productivity. Reliance on out-of-pocket (OOP) financing of health care in developing countries leaves households exposed to the risk of unforeseen medical expenditures, while illness can result in a difficult choice between diverting resources towards medical care with the risk of long-term deterioration in health and earnings capacity. Responding to medical needs can absorb a large share of the household budget, which may be considered catastrophic in view of the required sacrifice of current consumption and/or the long-term consequences for household welfare of borrowing or depleting assets to pay for health care.

Methods

Data obtained with the Household (HH) Consumption Survey in RM conducted in years 2003 - 2007 were used for analysis of catastrophic health expenditures; the sample size each year is 5040 households, 1% of the total number of all households around the country.

Results: Average out-of-pocket payment (OOP) for health has increased in the analyzed period, from an average of 10.770 MKD in 2003 to 11.650 MKD in 2007. As for average individual contribution, OOP declines during the analyzed period, from 2.679 MKD in 2003 to 2.117 MKD in 2007; average payment for health has declined in the income deciles 1 to 7 and 9, while is on increase in deciles VIII and X. Most significant change can be observed in the 1st and 2nd income decile.

Conclusions

Over the 5-years period that have been subject of our analysis, the total HH expenditure has been larger than the HH capacity to pay, in all income deciles, with exception of 7th decile in year 2004. On average, out-of-pocket payment as a share of capacity to pay is 0.03; however, it is highest in the 1st decile of income (0.05), decreases by approximately 0.01 in each consequent decile and is lowest in the 10th decile (0.02), indicating that catastrophic health expenditures are more likely to happen among the poorest strata in population.

Socio-economic transition and mortality from drowning in Lithuania: critical points in time and place

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The aim of the study was to analyse trends in mortality from drowning and to detect demographic and urban/rural differences in cut points over two decades of socio-economic transition in Lithuania.

Methods

Information on deaths from drowning for the 1988–2009 period was obtained from Lithuanian Department of Statistics. Mortality rates were analyzed according to urban/rural residence and sex. The Jointpoint analysis was used to identify the best-fitting points, wherever a statistically significant change in mortality occurred.

Results

Throughout the period under investigation, mortality from drowning of Lithuanian population decreased statistically significantly both in males and females, nevertheless, considerable fluctuations have occurred in different periods. The year 1994 was found to be the cut point in mortality both in urban and rural areas, when the increasing trend reversed to the declining one. Drowning mortality rates in rural areas exceeded those of the urban by 1.6–2.5 times. Throughout the period of the study, mortality from drowning in rural areas was declining by 1.8%, and in urban areas - by 1.5% annually ($p < 0.05$). The most positive period in terms of mortality decline in urban areas was the period of 1994–2004 for females and 1994–1997 for males. In rural areas, most positive changes in mortality of females occurred in 1994–2003 (average annual decline was 6.6%, $p < 0.05$), while for rural males there were no significant changes in mortality observed. Mortality from drowning among males was 4.5 - 3.5 times higher than that of females. Decline in mortality was more considerable in females, compare to males, particularly in 1994–2004 both in urban and rural areas.

Conclusion

Drowning is an important but neglected public health issue in Lithuania. Despite the general decline in mortality from drowning, it remains at very high level, particularly for males and rural population. Possible contributing causes for this excess might be lifestyles factors, including high consumption of alcohol and increased exposure to water environment due to geographical conditions. Future progress requires sustained improvements in drowning prevention, as well as strengthening emergency response services.

Regional inequalities in the distribution of premature deaths in Romania, in 2009

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Background

Premature death (age under 65 years) is a public health problem with major socio-economic implications. This study aims to find potential inequalities in the distribution of premature deaths between counties and identify a priority target for health programs and intervention policies.

Methods

This study represents a descriptive analysis of PYLL (potential years of life lost - an indicator of premature death) in Romania using data provided by the National Institute of Statistics for the year 2009. Premature deaths have been assessed using the following indicators: PYLL, average PYLL per death and average PYLL per premature death for each county, subdivided by sex, rural and urban areas, and the dispersion characteristics (coefficient of variation CV) were determined for each subdivision. The data was processed using the quartiles method and graphically represented by maps.

Results

There is a relatively even structure for premature deaths, with slightly higher weights for rural areas (50.41%) than for urban areas (49.59%). Premature death weights for males (69.01%) are more than twice as high as for females (30.99%). There are statistically significant differences in average PYLL/ death between counties, with a coefficient of variation of 10–20% compared to the national average. There are, however, no significant differences in the average PYLL/ premature death values, indicating a homogenous loss throughout the country ($CV < 10\%$).

Problem counties and regions were highlighted using the quartile method and creating maps, with higher death rates found in areas of economical underdevelopment and poor infrastructure.

Conclusions

The weight of PYLL was found higher for male population and for the population in rural areas. Several problem geographical regions with higher premature death rates compared to the national average were also identified. These groups should therefore be a priority target for health programs and prevention policies at a regional as well as national level.

Value of life expectancy in Poland in period 1990–2009 in aspect of main health risks. The bottom-up approach

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Life expectancy at birth in Poland has been changing constantly from '50s until present times. During '50s, '60s, '70s and '80s there were episodes of decrease in the life expectancy value. The transformation of 1989 brought health and socioeconomic threats. Polish value of life expectancy for newborns in 1990 was on low rate comparing to West European countries. Life expectancy value in Poland has started increasing constantly since 1993. One of the main factor influencing life expectancy is cardiovascular disease (CVD) mortality rate. The aim of study was to describe influence of introduced policies on life expactancy factor.

The bottom-up risk assessment model considers low value of life expectancy factor in Poland in first years of political and economical transformation . It describes most important risk factors in aspect of cardiovascular diseases death rate. The bottom up model considers most risk factors in connection with health determinants and describes policy action introduced in purpose to change low value of life expectancy in Poland.

Research findings suggest tremendous impact of the policy on chosen risk factors reduction, like tobacco and alcohol consumption or diet in CVD mortality decrease, what directly provides to the life expectancy prolongation. In 1990 cardiovascular disease mortality in Poland, especially in men, was among the highest in Europe. After about 30 years of increase 1960–90, the risk of cardiovascular disease mortality has been constantly declining from the beginning of '90s. A decrease of about 40% in young and middle-aged adults during ten years period has been also the result of active public health policy and of more effective cardiovascular clinical interventions.

The bottom-up risk assessment approach seems to be a useful tool to identify challenges involved in analyze of risk factors reduction policies and in assessing how the related health indicators have changed over time. Accountability for the health impact of policies and programmes and legitimization of the decisions of policy makers based on research evidence, became one of the key question nowadays also in European countries decision making process as in EU public health strategy.

Medicines consumption in Slovenia in 2010

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Issue:

The data regarding the medicines consumption are very important in health policy planning. Knowing the data regarding the medicines prescriptions to a certain age group of certain gender or to a population it is possible to analyze them and make important conclusions and furthermore take actions.

Description of the problem:

In the last decade the number of prescriptions is rising in Slovenia. In 2010, there were 7.23 prescriptions per capita, worth 231 €. Groups of medicines, which were most frequently prescibed in 2010 were cardiovascular medicines (27.1% of all prescriptions), medicines acting on the neural system (18.3%), gastrointestinal system and drugs acting on the metabolism (11.6%). There is evidence of age and gender inequality regarding drug consumption in Slovenia.

Results

More medicines were prescribed to women than to men (9.22 versus 6.35). There are 12 statistical regions in Slovenia and in all of them women were prescribed more medicines from all ATC (Anathomical Therapeutical Chemical) groups. Due to frequent systemic infections, children under age 4 years were prescibed a lot of recipies, comparable to the number prescibed to the age group 40 years. In adults, medicines use increases with age. The number of prescriptions issued in 2010 was in the population aged 20 to 29 years 287 Rp/100 inhabitants, 30 to 39 years 345 Rp/100 inhabitants, 40 to 49 years 516 Rp/100 inhabitants, 50 to 59 years 914 Rp/100 inhabitants, 60 to 69 years 1462 Rp/100 inhabitants, 70 to 79 years 2093 Rp/100 inhabitants and in the population group aged 80 years or more, 2711 Rp/100 inhabitants.

Lessons

According to the Slovenian data, women use more medicines than men, as do the elderly. Analyzing the data regarding medicines prescription to different age groups and gender, it is possible to educate doctors in order to improve the patients safety and also the population safety. For example, pediatritians in Slovenia were advised to prescibed less medicines to the age group under 4 years. Number of prescriptions was reduced from 151 Rp/100 inhabitants in 2006 to 132 Rp/100 inhabitants in 2010. Drug consumption monitoring is important in health care system planning and for determination of priorities in public health.

Public health impact of the reference pricing system of medicines in Republic of Macedonia in 2009

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Introduction

Medicines prices control mechanism did not exist in Republic of Macedonia until 2007. Supply of medicines on Positive list (PL) reimbursable by Health Insurance Fund (HIF) was done centrally by international tenders until 2004. Main selection criteria for best tender offer was medicines price, which determined their PL price. Reference pricing (RP) rules from 2009 use comparative analysis of prices in referent countries in the region. Reference price is the highest amount that HIF reimburses for particular prescription medicine.

Objectives

Impact of RP methodology on: 1) prices of nationally most consumed medicines, 2) financial affordability of PL medicines for eight selected clinical conditions related to av. monthly wages, 3) number of same INN of medicines on the market.

Methodology

Comparative statistical analysis to estimate differences according to two pricing methodologies: international tender in 2004 and RP in 2009.

Results

Av. prices per pack of 20 most consumed PL medicines reimbursable by HIF decreased from 1,3€ in 2004 to 0,7€ in 2009 (Mann-Whitney U Test: Z = 2,164, p = 0,0304). Out of 20 medicines, 14 (70%) have decreased prices per pack between 2004 and 2009 (Student t-test: p = 0,0157). Absolute cost of treatment for eight selected clinical conditions in 2009 vs 2004 is lower in six and higher in two conditions. Av. cost of all eight treatments is 2,84 € in 2004 and 2,12€ in 2009 (Wilcoxon Matched Pairs Test: Z = 1,120, p = 0,2626). Less working hours are needed to purchase medicines for all clinical conditions in 2009 (94,12 h) vs 2004 (227,87 h) (Wilcoxon Matched Pairs Test: Z = 2,240, p = 0,0250). Patients and prescribers have wider selection of marketed medicines with same INN in 2009 vs 2004 (Mann-Whitney U Test: Z = −2,607, p = 0,0091).

Conclusions

Public health impact of RP system includes lower medicine prices, bigger choice for patients and prescribers, HIF funds savings. RP methodology reduces price of most consumed medicines by increasing market offers of generic equivalents, due to ATC grouping of medicines and prices comparison of same generics in reference countries in the region. Better financial affordability of medicines in 2009 is partly result of lower medicines prices, but predominantly result of higher monthly wages.

4.C. Professional practice

Attitude and knowledge of health services providers

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Background

The medical use of ionizing radiations is growing as a result of technical progress and the continuing expansion of the field of possibilities that it generates, not only in therapeutic effects but also in getting diagnostic information. This fact has led to the increase of medical exposures that give no helpful insight toward the diagnostic purpose.

Methods

To find out the reason behind these useless medical exposures we have started an inquiry using questionnaires on 2000 radiologists, 500 physicians of different specializations and 1500 radiology nurses. Fearing that these questionnaires could be tinted by conscience (the answers reflect the knowledge of the subject not his actions) we have completed our inquiry with a direct investigation into the radiology units.

Results

We have noticed a great gap between the radio-protection knowledge of practitioners and their actions in the field: some do not do anamnestic exams at all, while 60% do the exams even when they find it useless.

Answers received from the physicians of different specializations prove that 80% of them have no knowledge of radiobiology, the physics of radiation or of the doses of radiation received during procedures by their patients. This is why they recommend the procedure without examining the patient, fact proved both by the orders of medical examination and by the medical files found at the radiology centers of which 55% are left blank, neglecting even the examination of the body part for which the radiology exam had been requested.

83% of radiology operators (nurses) do not know either the role of the shutter or of the importance of the coincidence between the light and radiation beam, a counterproductive collaboration being noticed between them and the medical practitioner, fact reflected often in the quality of the x-ray films.

Conclusions

It is imperative that the future basic medical teachings ensure a solid knowledge of what radiology can offer the world of diagnostics and the risks involved in using this method of investigation.

Radiology operators (nurses) must be aware of what is expected of them when it comes to the quality of imaging and together with the radiologists they must help obtain the quality of film that leads to the correct diagnosis.

The hybrid position of nurse practitioners in general practice

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Background

The reorganization of health systems in European countries has led to new forms of collaboration between health professionals. In particular in general practice surgeries new patterns of organization based on work distribution, task delegation and responsibility transfer have been developed between general practitioners (GPs) and nurses, leading to a new category of health professionals: the nurse practitioner (NP). This study aimed to analyze the work and the position of NPs in GP practices: which tasks the GPs accept to delegate to NPs, does NPs have to claim/negotiate their work, what is their legal responsibility? Which consequences does their presence have for the work of other professionals in the practice (non NP-nurses, medical assistants, residents)?

Methods

This qualitative sociological study was conducted in the Netherlands, and based on 25 in-depth interviews and ethnographic observation of their daily work. At the time of the study 45 NPs were working in Dutch GP practices. Teachers of the NP Master training, and health professionals involved in the development of the NP profession in the Netherlands were also interviewed.

Results

NPs had a large variety of tasks and various degrees of medical responsibility. Some of them worked as a physician, and shared the patient population with the GP. Others continued their nurse work as before the NP training, taking care for chronic illness patients (diabetes, COPD) or had administrative responsibilities. Nurses who asked their GPs to follow the NP training had more difficulties to introduce medical tasks in their work than nurses who were asked by GPs to do the training in order to share the medical responsibilities with them.

Conclusion

The underlying motivation of the nurses to become a NP and the organizational model of the GP practice were determinant for their future role and the nature of their responsibilities. We can distinguish three groups of NPs: those who continued their nurse work as before the NP training, those who shared the medical responsibilities with the GP and those who were in between these two groups. Those who had strong medical responsibilities fight for the recognition of NP as a profession separated from the traditional nurse model.

The role of Health Information Systems for the evaluation of appropriateness of therapy after Percutaneous Coronary Intervention in the Lazio region (Italy)

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Background

Patients who undergo Percutaneous Coronary Intervention (PCI) require long term therapy with antiplatelet drugs. According to the American College of Cardiology (ACC) and the American Heart Association (AHA) Guidelines, after PCI patients must be treated with clopidogrel for a minimum of 1 month and ideally up to 12 months after discharge, and with acetylsalicylic acid indefinitely (dual antiplatelet therapy). We evaluated the appropriateness of therapy after PCI for patients in the Lazio region analyzing data from regional Health Information Systems (HIS).

Methods

The source of data were the Hospital Information System for selection of patients who underwent PCI and Drug Claims Information System for antiplatelet drugs prescribed for 6 months after hospital discharge. Data for 2007 were linked with deterministic record linkage. Appropriate therapy was defined as dual antiplatelet therapy with prescribed daily doses for each drug covering at least 75% of patients' individual follow-up period. Results were stratified by age groups (<65, ≥ 65 e <75, ≥ 75) and gender.

Results

A total of 6795 patients with PCI were included, of whom 927 (13.6%) had no prescription of antiplatelet drugs in the follow-up period, 757 (11.1%) were treated with single antiplatelet therapy and 5111 (75.2%) with dual antiplatelet therapy. Appropriate therapy was prescribed to 3007 (44.3%) PCI patients. The proportion of appropriate therapy was higher in younger patients than older ones (<65 yrs old = 51.2%, ≥ 65 and <75yrs old = 41.7%, ≥ 75 yrs old = 34.7%, $p < 0.001$) and women were less likely to be treated with appropriate therapy (39.1% versus 45.9% for male patients, $p < 0.001$).

Conclusions

Our results suggest that the proportion of PCI patients appropriately treated after discharge is suboptimal in the Lazio region, and elderly patients and women are less likely to receive appropriate therapy. The present results could be an important input to improve the management of PCI patients and to assure adherence to clinical guidelines. Despite the fact that HIS do not comprise detailed clinical information, they offer the opportunity to evaluate systematically the appropriateness of post-discharge therapy and represent a support for decision making by stakeholders.

Periodic Health Examination - Call/Recall System, the target oriented promotion system established in 2005 by the Austrian Social Insurance

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Issue

The periodic health examination (PHE), offered as a free service by the Austrian Social Insurance was adapted in 2005 to take new scientific evidence into account. A special emphasis lies in the promotion of a healthy lifestyle. In order to achieve this it was agreed to introduce a specific promotion system which should motivate by the means of lifestyle consulting citizens who have, due to their life circumstances or their lifestyle a serious risk of contracting a disease, to claim a PHE.

Description

The periodic health examination - call/recall system (PHE-CRS) was established to identify citizens, who fulfil the defined risk factors and invite them by a target oriented letter to undergo PHE's. The system was set up as a joint venture between several health insurances, assisted by the Institute for Health Promotion and Disease Prevention under the lead of the Vienna Health Insurance. An interdisciplinary team of experts from the fields of public health, statistics, information technology, marketing, legal and project management is responsible for target group definition, selection, the roll out of two annual promotion campaigns in April and October, and the subsequent evaluation of each campaign.

Results

To date, more than 150,000 citizens, belonging to a risk group, have undergone a PHE due to these promotion campaigns. The current average response rate is seven percent and increasing. Based on previous experiences, new measures and services are continually tested through pilot projects; then evaluated to increase the response rates and the quality of future promotion campaigns.

Lessons

After five years, it is clear that the pre-determined aims are being achieved and the request of PHE's by the defined risk groups has highly increased. Meanwhile the PHE-CRS serves as an example for some related promotion projects. To optimize quality, response and costs of future invitation campaigns, from 2011 on, the existing communication channels are to be enhanced by new communication channels and marketing activities. The emphasis rests upon the implementation of regional and nationwide co-operation with NGO's, NPO's and other project partners, which are directly related to the respective risk groups and thus enable a low-threshold access.

The Dutch experience to introduce Advanced Nurse Practitioners: an example for Germany?

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Background

Extended competences for nurses as Advanced Nurse Practitioners (ANPs) in order to achieve better targeted and more efficient health care became a policy issue in recent years. Dutch health care reforms led to the question, in which regard the Netherlands are a suitable model for Germany to follow. This paper focuses on the question, whether the Dutch experience concerning the introduction of ANPs can serve as a model for Germany.

Method

Against the background of the legal framework of the Dutch health system, the steps which lead to enlarged competences for nurses were assessed and compared with the structural and political conditions in Germany. To this end, research literature on ANPs, position papers, expert body opinions, and parliamentary legislation records were analyzed.

Results

Actors in the Dutch health system felt a pressing need to react to physician workforce shortages by substituting or delegating tasks, which were traditionally performed by physicians, since the 1980s. Government backing and reaching a consensus with the medical profession greatly facilitated the efforts of nurse leaders to obtain extended competencies for nurse specialists and government subsidies for further education to qualify nurses as ANPs. Subsequently, ANP care was positively evaluated by Dutch expert bodies. The Dutch type of ANP emerged to be predominantly hospital-based. In Germany, the debate on the introduction of ANPs started significantly later, because, until 2004, former medical students had to complete an educational period of 18 months consisting of cheap labour after their final examination. Lack of support by the German medical profession as well as lack of financial government support and, in hospital, the competition of other emerging professions played a significant role. Legislation offered no better than an opening clause, which permits trials to transfer competences to nurses.

Conclusions

The Dutch experience offers good arguments for a reallocation of tasks and government subsidies towards ANPs in order to achieve more target-oriented and efficient health care and to convince the German medical profession. For the implementation of ANP care the German health system offers more opportunity in primary care than in hospital care.

Factors inluencing general practitioners in nutrition communication

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Background

In Croatian National Strategy against Cardiovascular Diseases, the role of general practitioners (GPs) is very important in primary and secondary prevention, particularly regarding the problem of healthy nutrition. Effective individual-based communication is influenced by health-care system, working conditions of GPs, their skills in counseling methods, working style and choice of health education approach. Health care financing system and incentives for preventive work could be both supporting factors and obstacles in individual-based nutrition communication. Legislation may have a very strong influence too. The aim of this study was to explore factors influencing GPs in nutrition communication in country were GPs act as independent contractors.

Methods

The study was carried out using a close-end questionnaire mailed to random sample (425 GPs working in Croatia, all with offices on lease) with response rate 74.2%.

Results

The Croatian case study showed that GPs considered smoking and alcohol as more important public health issues than unbalanced nutrition and physical activity. Two-third of them recognized their role in individual work with patients in secondary and tertiary prevention, less sin primary prevention or work with groups and the community. Among the obstacles in individual-based nutrition communication in daily work, GPs selected the lack of time as the most important (29%), followed by lack of incentives (25%), lack of knowledge on nutrition as a content (22%), lack of knowledge on effective counseling (13,4%) and lack of family and community approach (11,2%). They were more likely to advice elderly, those with lower education and those who visited office regularly. Differences in respondents' answers were determinate by education and workplace and financial additional stimulus was not important.

Conclusion

The Croatian study showed that there is no doubt that the contextual framework plays an important role in empowering individual nutrition consultation. Some common factors could be recognized and improved, but there is no unique recipe to be applied anywhere.

Patient - physician communication and its influence on patients' perceptions of medical errors

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Background

The quality of health care in Bulgaria has been a subject of constant debate. Healthcare establishments and medical specialist are prone to medical audits and inspections regarding the equity of access, medical standards compliance and the quality of the health services.

The aim of this study was to perform a sociological survey amongst two groups of randomly selected patients and one group of randomly selected physicians through standardized self administered questionnaires regarding health services quality and medical errors.

Methods

In the first group 2580 patients were interviewed about their experience with medical treatment (out-patient and in-patient), patient - physician communication and medical errors. In the second group 1643 hospital patients were interviewed about their satisfaction with hospital treatment. In the third group 128 physicians were interviewed about patient-physician communication and factors which influence patients' satisfaction with medical services. The study was performed between February 2010 - February 2011.

Results

368 (14,26%) patients from the first group reported that there were medical errors in the course of their treatment, but only 12 (3,26%) submitted official complaints either at the Medical audit agency or the health establishment authorities. The most common medical errors were incorrect diagnosis (51%), inadequate pharmaceutical therapy (32%), surgical errors (8%) and hospital infections' complications (2%). 55% of the patients reported negative health impact, 25% - additional financial health costs and 16% - negative psychological consequences.

In the second group 279 patients (17%) rate adequate patient - physician communication as a key factor which determines their perception of the quality of medical services, discharge recommendations are found to be equally important - 270

(16.8%), information about prescribed therapy (25%) and lack of pain (12%) follow.

In the physician group 43 (34%) interviewed think the communication with the patients is important, while 85 (66%) rate therapeutic results and medical therapy consistency higher.

Conclusions

The different perceptions of patients and physicians lead to miscommunication problems which might impact negatively the quality of medical services.

Patient-doctor relationship in improving drug adherence

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Background

Adherence is one of the important factors of patient behavior during treatment, and talks about the extent to which patient behavior coincides with the recommendations of physicians about taking the prescribed therapy, healthy living, or other acceptable behavior. The purpose is to explore the relationship between general practitioners (doctors) and patients with special emphasis on the comparison of adherent and non-adherent patients.

Methods

Relationship is investigated using a questionnaire where patients respond to a series of questions relating directly to this relation and, indirectly, the persistence of the treatment.

Results

The study included 635 persons, of whom there were 265 (41.7%) adherent, and 370 (58.3%) non-adherent. More than ¾ of respondents (75.3%) was treated for more than five years at their present general practitioner (doctor), there were more adherent patients that were treated for more than five years (83.4%) than non-adherent ones (69.5%). The analysis of respondents claims about their relation with doctor shows that in the first place, with the highest number of positive responses, is the claim of respondents that his/her doctor always explains the results of laboratory tests, X-rays and other specialized findings (n = 489, 77.0%). In the second place is the claim that a patient can consult his/her doctor whenever he/she has some personal or emotional problem (n = 467, 73.5%). In the third place, the claim that a physician monitors the patient's problem solving (either directly or by telephone) with 71.0% (n = 451), whereby the adherent patients did not differ from non-adherent in accepting these claims (72.5%:70.0%).

Conclusions

Adherence is affected by several factors that are common among people with chronic diseases, mostly older, such as physical or mental impairments, the use of more drugs, and an increased risk of drug-drug interactions and side effects. Doctors may be able to simplify the drug regimen by using one drug that serves two purposes or by reducing the number of times a drug must be taken, to improve adherence and to reduce the risk of interactions.

4.D. Patients' experiences and satisfaction

Which are (dis)continuity elements experienced by the Catalonian healthcare users?

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Background

Patients are increasingly seen by several healthcare providers in a wide variety of services that could threaten continuity of care (CC). To obtain more effective strategies for enhancing CC, the identification of (dis)continuity elements is needed. The aim is to analyse elements of relational, informational and managerial (dis)continuity experienced by patients of the Catalonian healthcare system (Spain)

Method

Cross-sectional study by means of a survey to users of the healthcare services who had been attended to in primary (PC) and secondary care (SC) in the previous three months for the same condition. Study settings were three areas of Catalonia healthcare system. A random sample of 1500 patients was selected. Data were collected by face-to-face interviews - January to May 2010- using the CCAENA questionnaire®, that identify experienced elements of (dis)continuity by reconstructing patients' experiences in health services. Elements of CC were analysed by descriptive and multivariate logistic regression models. Independent variables were study area, sociodemographic characteristics and morbidity

Results

Regarding relational CC, 13.7% (95%CI [12.0, 15.4]) of patients identified the PC physician as the professional responsible for the management of their condition. 84.9% of interviewees were seen, in the last year, by the same SC physician (95%CI [83.0, 86.8]) and 79.7% by the same PC physician (95%CI [77.7, 81.7]). Concerning informational CC, 82% of patients reported that the SC physician was aware of the reason for their visit (95%CI [79.2, 84.8]) and 81.5% of tests carried out at PC level (95%CI [78.2, 84.8]). With regard to managerial CC, 42% and 19% of interviewees respectively reported that waiting time for SC and to PC was long or excessive. 71.6% of visits to SC were due to a referral from PC (95%CI [68.8, 74.4]), whilst the referral to the PC physician occurred in 36% of cases (95%CI [32.4, 39.6]). Referrals were more frequent among immigrants. Patients from areas where PC and SC were managed by a single organisation reported better experiences on informational and managerial CC

Conclusion

Informational, managerial and relational (dis)continuities were identified, which appear to be explained by organizational and individual factors

How do patients of the Catalonian healthcare system perceive continuity of care?

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Background

Continuity of care (CC) is the degree to which the patient experiences care over time as coherent and linked. Its achievement poses one of the greatest challenges for all healthcare systems, including the Spanish one. The aim is to determine the level of relational, informational and managerial CC perceived by users of the Catalonian public healthcare system, as well as, to explore associated factors.

Method

Cross-sectional study by means of survey to users of healthcare services attended to in both primary (PC) and secondary care (SC) in the previous three months for the same condition. Study settings were three areas of Catalonia healthcare system. A random sample of 1500 patients was selected. Data were collected by face-to-face interviews - January to May 2010- using the CCAENA questionnaire®, that measures CC by means of a Likert scale. Scores of CC were analysed by descriptive and multivariate logistic regression models. Independent variables were study area, sociodemographic characteristics and morbidity.

Results

Perceived relational CC was higher for PC physicians (94%) than for SC physicians (83%). Foreign born patients were less likely to express a good relationship with PC physician (OR 0.40; 95%CI [0.24, 0.65]). Moreover, males and patients with worse health were less likely to perceive a good relationship with SC professionals (OR 1.41; 95%CI [1.04, 1.90], and OR 0.61; 95%CI [0.45, 0.83], respectively). Concerning informational CC, about 71% of patients perceived a good transfer of information. Users with completed secondary or university level were less likely to perceive a good transfer of information than those with uncompleted primary level (OR 0.63; 95% CI [0.42, 0.95], and OR 0.57; 95% CI [0.35, 0.91], respectively). Consistency of care, which referred to managerial CC, was perceived to be high by 91.6% of users. Finally, older patients and those from areas where both PC and SC were managed by a single organisation, tended to report a higher perception of informational and managerial CC.

Conclusion

Patients perception on relational and managerial CC is good, although a remarkable percentage of patients reported low informational continuity. Patients' perceptions seem to differ according to individual and contextual factors.

How do users of integrated healthcare networks in Catalonia perceive continuity of care? A qualitative multiple-case study

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Background

The increase in healthcare system complexity as a side effect of specialisation impedes a smooth patient care trajectory. New forms of supply, such as integrated healthcare networks (IHN), could contribute to achieving seamless interfaces, and thus enhance continuity of care (CC). CC refers to a coherent and linked care experienced by a patient over time. The aim of the study was to analyse the perspective of users of IHN, diagnosed with chronic obstructive pulmonary disease (COPD), on relational (RC), informational (IC) and managerial (MC) continuity among care levels.

Methods

A qualitative, descriptive multiple-case study was conducted by means of individual, semi-structured interviews with patients. We selected i) four IHN in Catalonia (Spain) and ii) a theoretical sample of COPD patients. Interviews with their healthcare professionals and review of clinical records were used for triangulation of data. All interviews were recorded and transcribed verbatim. A narrative content analysis was conducted with the support of Atlas-ti 5.0, segmenting data by case and adopting a mixed generation of categories.

Results

Regarding RC, patients linked the difficulties in establishing a patient-provider relationship with high rotation of medical staff in primary care. Furthermore, development of a sense of affiliation depended on physician's personal characteristics, technical competence, working style and the patient's individual motivation. Clinical responsibility of COPD care was assigned foremost to pulmonologists due to their technical competence or availability of resources. Concerning IC, patients agree on existence of transference of medical data, but also on lack of cross-boundary communication in some IHN. Partial knowledge of patients' antecedents was related to lack of time or attention paid to explanations, resulting in difficulties to comment on their clinical condition. Regular tests combined with follow-up visits - in some cases hard to obtain at the secondary care level - were considered to be necessary to achieve individualised care (MC).

Conclusion

Distracting elements of all types of CC were identified that could indicate problems in care coordination. Elements of discontinuity and perceived relevance varied according to IHN.

Differences in perception between the immigrant and native population regarding continuity between care levels in Catalonia

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Background

Increase of migrant population in recent years has posed new challenges for the Catalonian healthcare system. Continuity of care (CC), an element of quality of care, is defined as the degree to which one patient experiences care over time as coherent and linked. The objective is to conduct a comparative analysis between immigrant and native population regarding the experienced elements of relational, informational and managerial CC, as well as their perceptions of CC between care levels.

Methods

Cross-sectional study by means of a survey of users of healthcare services who had received primary (PC) and secondary care (SC) in the previous three months for the same condition. The study setting was three areas of the Catalonia healthcare system. A random sample of 1500 patients was selected. Data were collected by face-to-face interviews between January and May 2010, using the CCAENA questionnaire® that measures CC by addressing, 1) patients' experiences on CC for a particular medical condition, and 2) patients' perceptions of CC. Comparative analyses were conducted by means of simple and multivariate logistic regression models. The independent variable was immigrant status. Models were adjusted by study area, sociodemographic characteristics and morbidity.

Results

Regarding relational CC, no differences were observed about the total number of contacted PC or SC physicians. Nevertheless, immigrants perceived a worse relationship with their PC physician than natives (ORadj:0.40 [95% CI:0.24−0.65]). Concerning informational CC, no differences were found neither in experienced elements, nor in their perceptions. Regarding managerial CC, visits due to a referral from the PC or SC physicians to the other care level were more frequent in immigrant than in native population (ORadj:1.56; [95% CI = 1.05–2.30] and ORadj:1.67 [95% CI:1.07–2.62], respectively). Immigrants perceived less often than natives that waiting time for SC was adequate (ORadj: 0.62 [95% CI: 0.44−0.87]).

Conclusions

Immigrant and non-immigrant populations experienced some (dis)continuity elements in different degree. The only observed difference in perceived CC referred to the relationship with the PC physician; therefore, studies to analyse the underlying mechanisms should be conducted.

Experience of the Consumer Emergency Care Satisfaction Scale on an Italian emergency room

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Background

The nursing care is one of the most important predictor of overall patient's satisfaction. In Italy such researches are few, especially regarding emergency unit, and they use not-validated instruments. The aim of this study was to measure and describe the relationship between patient satisfaction and nursing care provided in a Emergency Room.

Methods

The study took place between 2010 - 2011 in a town hospital of Grosseto-Italy. A trained operator administered the italian version of the Consumer Emergency Care Satisfaction Scale questionnaire (CECCS) to patients having white-blue-green code who were admitted at the Emergency Room. CECCS has two scales: Caring (CS), with 12 items, each scoring from 1 to 5 and Teaching Ability (TS), 3 items, each scoring from 1 to 5. When the CS and TS score are respectively from 12 to 32 and from 3 to 7 patients are not satisfied, from 33 to 42 and from 8 to 10 patients are neutral and from 43 to 60 and 11 to 15 patients are satisfied.

Results

A total of 160 CECCS questionnaires were administered. The sample consisted of 54% males and 46% females, 94% Italians and 6% foreigners. Focusing on code of admission, 84% of patients had a green code, 16% a blue/white code. After triage, the 76% of patients lied in waiting for medical examination less than 30 minutes, 14% from 30 to 60 minutes and 10% from 1 to 3 hours. The 54% of discharges occurred after 1 to 3 hours, 33% under 30 minutes, 11% from 3 to 6 hours and 2% after 6 hours. Regarding the ''CS'' 95% of patients were satisfied, while through ''TS'' 58,7% of patients resulted satisfied, 41,3% not satisfied. Finally, the overall satisfaction with Emergency Care saw the 31% of patients very satisfied, 67% satisfied and 2 % not satisfied.

Conclusions

This survey highlighted the efficiency (short time of waiting and discharges) and the efficacy (the emergency nurses matched patient's expectation in both CECCS scales and patient's overall satisfaction obtained one of the higher score) of our Emergency Room. However, to express a complete judgment of Emergency Unit, one of CECCS limits is that it does not report information about the performances of Emergency personnel in case of yellow and red codes.

Women's satisfaction with the waiting times of further investigation in breast screening

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Background

Mammography screening has many benefits in woman's health but also some negative effects, like false positive results (women who need further investigation to diagnosis confirmation but don't have cancer). The satisfaction with the waiting times could influence future participation of women involved in this process so the aim of this study is to determine the factors associated with satisfaction with the waiting times of further investigation in breast cancer screening.

Methods

Cross-sectional study by telephone survey of a representative sample of women ($N = 316$) participating in the breast cancer screening programme of Valencian Community (Spain), requiring further investigation, by additional tests, to confirm the diagnosis. Descriptive analysis by contingency tables ($p < 0,05$) and multivariate association by odds ratio (OR) of logistic regression models (95%).

Results

Satisfaction with the waiting time is 78,6%. Women with higher risk of not being satisfied is ''high'' social class (OR:3,17; CI: 1,10 to 9,14), who perceived that the waiting time was ''more than 2 weeks'' both ''since the notification of the need to further investigation until the completion of the first test" (OR:15,54; CI:5,87–41,12) and ''since the completion of the last test until notification of the final result'' (OR:11,57; CI:2,96–45,19), and receiving attention ''worse than expected'' (OR:15,40; CI:1,41–168,64). The maximum waiting time acceptable with highest percentages was ''up to 1 week'' for each waiting period (n = 47:73,5%, n = 14:45,2%).

Conclusions

To increase the satisfaction of women who require further investigation and to improve adherence to the programme would be advisable to reduce waiting times to no more than 1 week, and in no case exceed 2 weeks for each waiting period. It also would be recommended to inform women of the approximate waiting time of each waiting period.

Satisfaction with primary health care services in urban community of Lithuania

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In the context of rapid development of primary health care sector and establishment of private structures, consumer satisfaction is an increasingly important issue in Lithuania. The objective of the study was to evaluate satisfaction with primary health care services and factors associated with it among the Kaunas city (Lithuania) community members.

Methods

A postal questionnaire survey was conducted during September-December 2010 in Kaunas, Lithuania. A representative random sample of 1600 adults aged 18 and above was composed from the population register. The response rate was 705 (45.5%). Associations of overall satisfaction with primary health care services and different factors were measured using univariate (Chi-squared test) and multivariate (binary logistic regression) analyses.

Results

Majority of the respondents (561 or 81.1%) visited their family physician during last 12 months. In this study, satisfaction with primary health care services was evaluated only for those respondents, who visited their family physician during last 12 months. 362 (72.1%) respondents were generally satisfied with the primary health care services. Univariate analysis showed that reported sufficient level of income, good self-rated health, shorter waiting time and consultation provided in time, better evaluation of various aspects of communication, and possibility to consult a physician any time by the phone were associated with higher satisfaction. Socio-demographic factors (gender, age, marital status, education) and the type of primary health care center (private/public) had no significant associations with the general level of satisfaction. A regression analysis showed that communication aspects, such as attentive listening to the patients (OR = 1.94, 95% CI = 1.01–3.74) and provision of the information on disease and treatment to the patients (OR = 1.75, 95% CI = 1.02–3.01) independently of other factors, were associated with the level of satisfaction.

Conclusions

Satisfaction with primary health care services of urban community members in Lithuania was mainly associated with physician-patient communication aspects. Results of this study demonstrate a need for enhanced attention to communication skills in physician education and quality improvement in primary care practice.

An Evaluation of Patient Satisfaction With Family Practice in Republika Srpska (BIH)

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Background

The introduction of the Family Medicine (FM) model in Republika Srpska (BIH) was aimed at improving performance of primary health care sector in regard with its effectiveness and efficiency and to contribute to cost-containment in the health sector through introduction of "gate keeping" role of family doctors. By introducing the FM model in Primary Health Care, the expansion of scope and the content of the services to be provided by the Family Medicine teams are expected.

Method

Patient Satisfaction Survey in Republika Srpska was conducted as a cross-sectional study, and has included 900 registered patients 18 years and older who in the week of survey have visited their FM practices. The survey instrument was developed on the basis of the EUROPEP questionnaire tested in different countries through similar researches. Twenty six items from questionnaire describing patient satisfaction are used to score six multi-item subscales: relation and communication, medical care, information and support, continuity and coordination, access/availability convenience and premises.

Results

About 70% of interviewed patients stated that quality of health care services has improved with introduction of FM model in primary health care. They are most satisfied with respect of their privacy and confidentiality. The level of patient satisfaction with doctors understanding their problems and concerns, giving them advice regarding health care and disease prevention, and the feeling that doctor is capable of coping with their problems is in positive association with patient satisfaction and with the way how doctor welcomed them (Rho = 0.74; p < 0.01), amount of time he spent with them (Rho = 0.72; p < 0.01), way how they have been treated (Rho = 0.72; p < 0.01). Correlation of the patient satisfaction with continuity of care shows that continuity is in a positive association with: satisfaction with relation and communication with their doctor (Rho = 0.77; p < 0.01), and medical care they receive (Rho = 0.70; p < 0.01).

Conclusions

This study have provided stakeholders and decision makers with the present situation in primary health care sector and that provision of the primary health care, according to FM model improved quality of health care, including continuity and coordination of care.

4.E. The economics of health

Defending the economic value of public health interventions

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Demonstrating positive rates of return for public health interventions would definitely constitute an argument for their funding. Doing this, however, requires exploring new ways of working with economic analysis methods. In fact, economic evaluation is challenged by the scope of the effects of public health interventions. Furthermore, standard economic evaluations give information on the efficiency of interventions, but what public health managers really want to know is whether the benefits are worth the costs. The aim of this research was to develop methodological approaches for demonstrating the economic value of public health interventions. An essential feature of this research was the close collaboration between public health decision-makers and researchers with expertise in economic evaluation.

First, we explored whether all public heath interventions are good candidates for economic evaluation. We built a typology that took into account whether the interventions' effects were (1) diffuse or contained and (2) known/documented or not. With input from public health experts, we classified the major public health interventions in Quebec. This typology proved to be a practical guide in determining whether conducting an economic evaluation would be relevant, depending on the characteristics of the intervention.

Second, we developed a methodology for assessing the economic value of public health interventions. This approach includes several steps: (1) modelling of the intervention; (2) calculating its costs and benefits; and (3) calculating its net benefits. To demonstrate that an intervention is economically beneficial, at least one category of effects must be shown to be superior to costs. Contrary to usual economic evaluation methods, in which it is direct effects that are compiled and valued, in defending the economic value of public health interventions, only effects that are easier to value will be considered–generally indirect consequences such as reduction in healthcare costs.

This research, by bridging the three fields of evaluation, economic evaluation and public health, offers pragmatic tools for developing an argumentation in defense of public health interventions. This innovative approach can be applied worldwide in a variety of public health contexts.

The supply and cost of public health in Alberta, Canada

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Issue

The health of the population is influenced by many interacting risk factors. To address these risk factors, governments utilize interventions through programs in many different ministries, which include many non-health ministries. In order to understand the scope and cost of public health in the province of Alberta, we developed an overview of government public health interventions occurring across the province. We have included any government ministry which includes health as a stated objective.

Description of problem

We categorized public health interventions as: surveillance; standard setting; laws or regulations; enforcement; incentives or grants; direct services (such as immunization or counseling); and education or social marketing. Using internet searches, consultations with ministries, and interviews, we categorized (1) the providing ministry (federal, provincial, municipal); (2) public health services provided; and (3) costs for each area and ministry.

Lessons

We covered 14 areas of public health. Nine different federal and 15 provincial ministries provide public health services and have explicit health goals. Costs were grouped into Capital (construction of safe roads, housing, ext), non-Capital (tobacco control, food safety, ext), and Aboriginal costs. We further divided expenditures by health ministries and non-health ministries.

Expenditures are listed per capita. Capital expenses were $74.85 for federal non-health ministries, and $172.74 for provincial non-health ministries. No health ministries were involved in capital programs. Non-capital expenses were $30.18 for federal health ministries, $30.73 for provincial health ministries, $62.29 for federal non-health ministries, and $198.51 for provincial non-health ministries. Aboriginal expenses were $78.83 for federal health ministries, $1772.05 for non-health federal ministries, and $111.39 for non-health provincial ministries.

Lessons

Public health expenses by non-health ministries were much greater than those for health ministries. Capital expenses were much greater than non-capital expenses. In order to understand the full impact of government activities on health, it is necessary to take a cross- ministerial approach.

Patterns of utilization of health care services in Catalonia, Spain

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Background:

In the last years many important changes related to structure and organization of health services are happened as a consequence of new public health and social scenarios. Health services performance should be evaluated in terms of efficacy, feasibility, efficiency and equity as well as to know if the population uses health services according to health need criteria or on the contrary other factors as socioeconomic level, demographic features or place of residence determine health care services utilization.

Objective

To disclose services utilization patterns among the Catalan population with particular emphasis on primary care, specialised care, hospital care and emergency care.

Methods

A number of logistic regression models were used to explain the utilization of the various types of services. Variables in the analysis included self-perceived need, lifestyles, and sociodemographic variables (age, sex, social class, education attainment, place of residence). Separate analyses were performed for male, female, adults, and children as well as for the general population. The data set used was the Catalan Health Interview Survey (2006) with a sample of 18,126 persons (15,926 > 14 years old and 2,200 children <15 years old).

Results

Women use all types of services more often than men. Children and people over 64 are more frequent user of Primary care. Primary care is also associated to lower socioeconomic conditions. Young adults and migrant population in general are found to be under users of services, except of emergency care services. The use of specialized care is associated to the better-off, to those with university level education attainment, individual private insurance and those living in the city of Barcelona. Hospital care is largely associated to health need variables.

Conclusions

The use of health services is explained not only by self-perceived need but also by demographic, socioeconomic and geographical factors. These findings confirm the need of target-group-policy-making.

Efficiency and Efficacy of scrrening for Type II Diabetes mellitus

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Background

Type II Diabetes Mellitus (DM) is an endocrine disease of multifactorial origin with many disease related complications and is characterized by hyperglycemia and hypoinsulinemia, which are often undetected for a latency period of several years.

Therefore, it is of paramount importance to early diagnose the disease and initiate appropriate therapy. In clinical practice plasma glucose concentration measurements are performed to screen for early stages of DM. In Austria, current DM screening guidelines are based on recommendations of the American Diabetes Association.

The purpose of the present Health Technology Assessment (HTA) was to compare the efficiency and efficacy of population-based screening and screening strategies for high risk target groups, such as patients with a positive family history of DM, and to subsequently identify the most appropriate screening method and setting.

Methods

A total of 3.392 abstracts were identified by systematic literature research. 208 full-text articles meeting the predefied criteria were finally included in the HTA.

Results and Discussion

Current screening recommendations differ between international health organisations and between different national health care systems. Most studies show that screening strategies for high risk target populations are of higher sensitivity than population-based strategies. A screening interval of three years is recommended for people at the age of 45 and older and for younger persons at high risk for developing DM. The primary care setting has been shown to be the best available place for a step-wise screening procedure, i.e. biochemical tests are only performed after patients at risk are identified by questionnaires. An oral glucose tolerance test (OGTT) is the preferred biochemical test to identify not only manifest DM but also “Impaired Glucose Tolerance”, which precedes DM. As a general screening method, however, measurement of fasting plasma glucose is also feasible and has been shown to be highly reproducible, cheap and less time-intensive than OGTT.

Conclusion

Step-wise screening strategies for high risk target populations should be prefered as effective and cost-efficient alternatives over population-based screening strategies to reduce DM associated morbidity and mortality

Costs for osteoporotic fractures in Italy: what is missing?

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Background

Osteoporosis is a clinical condition with a high prevalence in Italy especially among women. A complete cost of illness analysis is difficult to conduct because of the constraints in quantifying the burden. In fact, osteoporosis often remains silent until a fracture occurs. This analysis was carried out to estimate the costs associated to osteoporosis in Italy and, particularly, to osteoporotic fractures as the principal cost driver.

Methods

The analysis was conducted from the Italian National Health Service perspective; indirect costs were not considered. The main cost driver of osteoporosis was considered to be hospitalizations for osteoporotic fractures. Medical records of women aged 45 years or over, discharged from hospital in 2009 for a fracture and with osteoporosis (ICD-9-CM 733.0) in principal or secondary diagnosis record, were taken from National Hospitalizations Database.

In order to quantify costs, only the Diagnosis Related Groups linked to osteoporosis were considered and their conventional unique tariffs were used to quantify the remuneration as a proxy of the real costs (Euros, update 2009).

Data were stratified by fractures type (hip, femur, vertebral fracture and other sites).

Results

During 2009, in Italy, discharge rate for fractures was 35.60 per 100,000 in women aged 45 years or over with osteoporosis reported in principal or secondary diagnosis record; this value increased with age for all types of fractures. Discharge rate for femur fractures reached the highest value (15.36 per 100,000 women aged 45 years or over).

Annual mean cost for the hospitalization was €2,241.96. The main driver of costs was represented by femur fracture (around 13 million €), while the hip fractures were responsible of minor costs (€990,331).

Conclusions

In this study the real economic impact of osteoporosis fractures is underestimated because also costs of ambulatory visits, rehabilitation and pharmaceutical treatment should be considered. Furthermore, in Italy it is not currently available a codification for osteoporotic fractures, so it was necessary to make the assumptions that all fractures could be attributed to osteoporosis. Anyway, the estimation of hospitalization costs could be considered pretty reliable.

Adverse event, incidence and cost reduction after a patient safety program

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Background

An estimated 8 - 12% of patients admitted to hospital in the EU suffer from adverse events while receiving healthcare. In 2009 a special measurement by Eurobarometer revealed that nearly half the respondents feel they could be harmed by healthcare in their country (both by hospital and non-hospital care).

Objective

To assess the impact of action strategies implemented in the University Hospital Virgen de las Nieves (Granada, Spain) to reduce adverse effects.

Methodology

This study has a quasi-experimental design. Firstly we measured the incidence of adverse events in 2006; secondly an intervention based on preventive measures was implemented during three years; and finally clinical and economic impacts in 2009 were evaluated. The field of study covers the population hospitalised at the University Hospital Virgen de las Nieves of Granada. Subjects of the study were the patients admitted in four clinical departments: General Surgery, Internal Medicine, Oncology, and the Intensive Care Unit. These departments have the highest frequency or magnitude of adverse effects and represent 25% of total inpatient stays in that hospital.

Results

Between 2006 and 2009 hospital admissions increased by 13.5%; however, reported adverse events were reduced by 17.1%. In 2006 the adverse events generated 390 additional hospital stays. In 2009 the increase in stays caused by adverse events (250) was reduced by 35.9%. The incidence rate of adverse events was reduced by more than 27% from 0.84% to 0.61%. In economic terms, although the average costs of stays in these four departments experienced an increase of over 14% in the studied period, the cost of adverse events was reduced by 25.9% from 245,613.45 to 182,096.95 Euros.

Conclusions

All results reflect the positive impact of the program implemented. The effectiveness of measures taken, when considered in clinical and economic terms, suggests extending the program to other hospital clinical departments. The implementation of this program in other hospitals would transfer the improvements in patient safety and cost reductions to the entire health system.

Rivoli Hospital (Turin-Italy) intensive care: comparison of closed versus open visiting

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Background

The intensive care units (ICUs) were always closed structures, where access of family members was limited, because it was considered hazardous to patient's health and it seemed interfering with the care and increasing stress. The current state of knowledge controverted these concerns and stressed that the separation from loved ones is a source of suffering for the patient.

This situation stands in contrast to the latest scientific evidence showing that the opening of ICU reduces the cardiovascular complications and anxiety attacks due to stress.

Methods

Based on the evidence of literature, it was possible to define an Open ICU, to be applied at the Rivoli's Hospital.

The first step was to define the rules that will regulate the entry and the relatives staying in the department.

The opening hours has become a free choice during daytime, with the presence of a person for each patient and with a minimal presence of 60 minutes in the department. During night time slot, the staying has to be agreed.

A collaboration with a Psychology Service has also been activated.

To evaluate and measure the effectiveness of the intervention, two questionnaires, in which was asked to assigne a score with increasing satisfaction criteria (range 1–10) about the first impression of the intervention, have been elaborated: the first addressed to the staff and the second to two groups of relatives: those who have had the experience of closed ICU and those who have experienced the open ICU.

Results

The evaluation of the department was positive in both groups, as well as the quality of information performed and the professionalism of the staff.

The family members of the second group expressed a more positive opinion for the timing of the visit (mean score = 9.2), compared to the first one (mean score = 7.1). The staff expressed a high level of satisfaction with the implementation of the project, even if some problems have emerged related to the organization of the entry and the possibility of extending visiting hours.

Conclusions

The study showed the importance of open ICU: binomial patient-family is the core of medical and nursing care.

The resulting data have revealed some critical factors on which it will be possible to take action to implement the level of satisfaction.

Health care utilization and mortality in patients with COPD and diabetes

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Background

Diabetes and Chronic Obstructive Pulmonary Disease (COPD) impose a considerable burden both in terms of premature mortality and morbidity and in terms of health care utilization and costs. Comorbidity and multimorbidity are common in patients with chronic conditions. Our objective is to analyze the influence of comorbidity and specialized health care utilization on the mortality of patients with diabetes and COPD.

Methods

Observational, prospective study using data from patients attended in 4 Spanish urban Primary Care centers. We identified patients with a established diagnosis of diabetes or COPD by January 2006 and recorded from the electronic health records other chronic conditions of the patient. We recorded from January 2006n until November 2009 the episodes of specialized care (ambulatory visits, emergency attendances and hospital admissions). We also identified from the Central Patient Database changes in the situation of the patients (due to transfer to another health care service) and mortality. We used the Adjusted Clinical Groups (ACG®) System. This System identifies the Aggregated Diagnostic Groups (ADG) for each patient and the number of Major ADG based on the probability of health care utilization. We used logistic regression models to identify the influence of number of chronic conditions and health care utilization on mortality.

Results

6279 patients with diabetes and 2536 patients with COPD were included in the study. Cumulated probability of death was 8.2% for diabetes patients and 13.5 % for COPD patients. In the adjusted model, age (OR 1.09; 95% CI = 1.08–1.11), number of MADG (OR 1.29; 95% CI = 1.12–1.50) and number of hospital admissions (OR 1.61; 95 % CI = 1.46–1.76) were independently associated with probability of death. Emergency attendances and ambulatory visits were not predictors of mortality when adjusting by number of hospital admissions.

Conclusions

Comorbidity measured by means of the ACG System is predictive of mortality in patients with diabetes or COPD. Number of hospital admissions predicts mortality better than other variables of health care utilization variables like emergency attendances or ambulatory visits.

4.F. Lifestyle and pregnancy

Major health threats for pregnant women and their children in the 21st century

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Background

Since the ‘mother-child pass’ introduction in Austria in 1974, there has been a gradual increase in the number of examinations. A systematic evaluation was never carried out, and therefore the present programme may not reflect changing needs. Our study aims at providing a decision-support for the ministry of health towards a needs-based re-orientation of the parent-child preventive care programme.

Methods

We searched initially systematic, then selective for published sources for frequencies of health threats in the target groups (pregnancy, birth and early childhood) as well as predisposing factors and consequences. We then divided health threats according to their mean frequency of occurrence across life-periods into four groups ranging from ‘very infrequent’ (< 1 : 1000) to ‘most frequent’ (> = 1 : 10). Additionally we assigned one of three grades of severity of immediate health consequences or sequelae (from ‘potentially life-threatening’ to ‘without severe/ life-threatening sequelae’) to each health threat.

Results

Overall, we identified around 260 publications containing epidemiological data. Given the lack of Austrian data sources, the frequency of occurrence of most of the health threats needed to be discussed on the basis of international data. Very frequent, potentially life-threatening health treats or at least those with severe consequences are drug exposure, violence against women, vaginal infections (during pregnancy), preterm birth, caesarean section and puerperal complications (around birth) and mental disorders or alcohol dependency of parents as well as accidents, developmental disorders and overweight/ obesity of children (in childhood). All most common and severe/ potentially lethal health threats across all life-periods can be assigned to a group of ‘preterm deliveries including causes and consequences’, a group of ‘classical medical diseases’, and a large group of ‘health threats influenced by socio-demographic factors, life-style and the living environment’.

Conclusions

Because of changes in the spectrum of health threats during the last 40 years, a parent-child preventive care programme which is still primarily ‘medically oriented’ falls short of being adequate because it fails to address the ‘social concomitant risk factors’.

The lifestyle health behaviour of women in Poland over the time when conception is possible assessed during 2009–11

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Background

Adverse lifestyle behaviour during pregnancy needs to be more fully recognised by the public and healthcare staff especially when manifest in relatively mild forms such as drinking small amounts of alcohol very occasionally or significantly decreasing physical activity. This large scale study pinpoints the problem areas.

Methods

Several major study-surveys were conducted in 2008–11 on health behaviour in Polish females before and during reproductive age including random sampling ones on ‘teenagers’ aged 12–24 years, (totalling n = 12,000), repeated again in 2011.

Subjects were students from middle & high school and university. Methods were based on the USA equivalent ‘Youth Behavioural Risk Factor Surveillance System’, (YBRFSS), performed by trained SANEPID staff. Health behaviour in pregnant women was also studied yearly since 2009 according to a PRAMS equivalent ‘Mother and Child Health Monitoring’ system representative of Poland, likewise performed by SANEPID on â‰○10,000 post-partum women.

Results

In summary, women’s health behaviour at reproductive ages was unsatisfactory. Smoking increased with age and furthermore 32% of women smoked when entering the reproductive age compared to 23% of the general population. Every tenth women smoked during pregnancy. Similarly, alcohol consumption rose with age and teenage drinking, (ages 13–14), now equals that of boys. Women are also unaware of the harm caused by drinking small amounts when pregnant and to the newborn and often gynaecologists even advise that an occasional drink is permitted. Physical activity/exercise is seen to decline with age and a dramatic decrease occurs when women become pregnant especially in urban areas. In 80% of pregnancies doctors actually recommend limiting physical activity. Furthermore women of reproductive age have insufficient knowledge about appropriate diets, particularly those from the countryside.

Conclusions

An educational campaign will therefore be targeted on women of reproductive age and medical staff providing the healthcare including schools, medical universities & nursing colleges.

Physical exercise in pregnant women and its effect on the health of newborns in Poland (2009–11)

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Background

Physical exercise during pregnancy is often perceived as being risky by both parents and healthcare staff in Poland. This study aims to identify the scale of the problem and present data supporting the benefits of physical activity.

Methods

In Poland an investigation was launched in 2009–11 on the amount of physical exercise/activity undertaken by pregnant women and its influence on newborn health as part of a Mother and Child Health Monitoring system representative of Poland performed by trained SANEPID staff. The design being equivalent to PRAMS. Subjects were (n = 9380), post-partum women recruited from â‰○300 obstetric wards throughout Poland. A single day from each year was chosen for the questionnaire-survey by the Chief Sanitary Inspector, (approximately 3000 subjects/year), usually at least 3 days following birth or later in the case of complications. Clinical data was provided by healthcare staff. Questions on physical activity were added from 2010 and replies compared to those before pregnancy.

Results

A high percentage of women (80%) were found to significantly limit physical activity/exercise during pregnancy due to this being perceived as harmful and from gynaecological advice received. Women living in rural areas however tended not to limit such activity as a result of their daily lives. They also sought family doctor/gynaecological support late and less frequently. Compared to birth in urban dwellers, the newborns from these women also had higher AGPAR ratings, fewer underweight babies, less preterm births and fewer miscarriages.

Conclusions

The data thus support the now recognised benefits of physical activity in pregnancy and on the newborn. In order to remedy this situation, education for women, medical staff and society in general is paramount and will be targeted to schools, medical universities, nursing colleges, media and postgraduates; especially GPs and gynaecologists.

Maternal smoking and the risk of atrial septal defect in infants

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Background

Epidemiological studies suggested increased risk of congenital heart defects among infants born to women who smoked during pregnancy. Atrial septal defects (ASD) are one of the more common types of heart malformations. This study examined the association between maternal smoking during three months before pregnancy to the end of the first trimester and the risk of ASD in infants.

Methods

The case-control study comprised 267 newborns with congenital heart defects, among whom there were 144 cases with ASD (53.9%); and 644 randomly selected newborns without any defects, born in Kaunas city during 1999–2005. Information on sociodemographic characteristics, health behaviors and other factors was collected interviewing parents and according to hospital records.

Multivariate logistic regression analysis was used to compute odds ratios and 95 percent confidence intervals while controlling for possible confounders. The Mantel-Haenszel technique was used to assess the association between maternal smoking and ASD in infants while controlling for educational level.

Results

According to the univariate analysis, maternal smoking was associated with more than two-fold increased risk of ASD in infants (OR 2.38, 95% CI = 1.61–3.53) ($P < 0.05$). In multivariate logistic regression analysis, adjustment for potential confounding factors, including maternal education level, marital status, occupation did not change the relationship, although the odds ratio decreased but remained statistically significant. Our results showed that an adjusted odds ratio for mothers who smoked to deliver newborn with ASD was 1.77 (95% CI = 1.15–2.71) ($P < 0.05$).

Women who smoked during this period and had lower levels of education were more likely to have infants with ASD (Mantel-Haenszel odds ratio 1.92; 95% CI = (1.25–2.96) ($P < 0.05$).

Conclusions

The study results indicated that maternal smoking during three months before pregnancy to the end of the first trimester was statistically significantly associated with ASD in infants.

Reasons for quitting smoking among pregnant women in Northwest Russia: a qualitative study

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Background

Smoking is among the leading causes of adverse pregnancy outcomes. The prevalence of smoking among Russian women has been steadily increasing from less than 5% in early 1990s to more than 25% in late 2000s. Pregnancy is considered to be the most favorable periods to quit smoking, but little is known about the factors associated with quitting smoking in pregnancy from quantitative studies. Qualitative studies may shed some light on reasons for smoking quitting during pregnancy. The aim of the study is to describe reasons for smoking quitting among pregnant women in Northwest Russia using qualitative methodology.

Methods

A qualitative approach was used to analyze tape-recorded and transcribed data collected through semi-structured interviews of five women who quitted smoking during pregnancy and agreed to participate in the study, which was performed in a maternity home in Arkhangelsk, a regional capital in Northwest Russia (population ~350 thousand). The text was analyzed using content analysis as described by Burnard (1991).

Results

All the reasons for quitting could be summarized in three main categories, namely, ‘‘feeling’’, ‘‘support’’ and ‘‘awareness’’. Change in feelings. All of the women mentioned new unpleasant feeling during smoking while pregnant. Phrases like ‘‘I could not continue smoking because of nausea . . .’’ and ‘‘I did not feel the same pleasure from smoking’’ were often mentioned. Awareness. Pregnancy formed awareness of the responsibility for the unborn baby in all the respondents. They reported that could not continue with the same lifestyle as they did before they became pregnant. ‘‘Maturity is coming’’ was the common answer. Support. The respondents said that they felt pressure from their husbands or partners to stop smoking, and, more importantly, the partners supported the women in overcoming the withdrawal syndrome.

Conclusions. Thus, three main categories behind the reasons for quitting smoking were identified in this qualitative study, namely ‘‘change in feelings’’, ‘‘awareness’’ and ‘‘support’’. Generalizability of the findings to all pregnant women in Arkhangelsk and other settings should be done with due caution because of small sample typical for qualitative studies.

The effect of smoking during pregnancy on the health of newborns in Poland (2009–11)

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Background

Smoking is generally well recognised by the public to be damaging to both mother and the newborn child. This large scale study has focused on the occurrence and types of problems seen in the newborns of smoking mothers based on both questionnaires and clinical data.

Methods

The effect of the mother’s health behaviour during pregnancy on newborns was investigated during 2009–11 throughout Poland by trained staff from the SANEPID authorities. The questionnaire study was based on a Mother and Child Health Monitoring system, (PRAMS equivalent), representative of the country. This was completed by a total of n = 9780 subjects on a single day per year, (approximately 3000 subjects/year), at least 3 days following birth in around 300 hospital obstetric wards. The selection of a particular day was made by the Chief Sanitary Inspectorate. Additionally, the healthcare staff directly concerned also filled in the relevant clinical details. Whenever birth complications occurred, (such as pathological or premature births, caesarean section, low birth weight, serious condition of mother/baby etc.), the survey was completed after recovery. The study was performed with full approval of hospital management and bioethical committees.

Results

Women that smoked demonstrated the following compared to non-smokers; lower newborn birth weight irrespective of the trimester when smoking, 2% more premature births, a worse general condition of the newborn according to APGAR rating and a more frequent delivery by caesarean section. Women smokers also more frequently miscarried.

Conclusions

It is thereby vital that both girls and women receive appropriate education before the age of procreation as well as healthcare staff and the media on the harm caused by smoking to the newborn. The creation of a health advice centre network is now planned for women planning children that includes helping and promoting smoking cessation.

Early pregnancy body mass index (BMI) and spontaneous preterm and very preterm birth: a Russian registry-based historical cohort study

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Background

International studies on the association between maternal BMI and preterm birth yield controversial results warranting large studies from other settings. Both overweight and underweight are common among women of reproductive age in Russia, but the evidence on the topic from Russia is scarce.

Aims: To investigate an association between maternal BMI and the risk of preterm (PTB) and very preterm (VPTB) birth in the Murmansk region, Northwest Russia.

Methods

A historical cohort study. All women with singleton pregnancies registered at antenatal clinics before 12 weeks of gestation and delivered in the Murmansk region between 1.1.2006 and 31.12.2008 comprised the study base (n = 14,775). All data were obtained from the regional birth registry. By BMI, all mothers were categorized into four groups: underweight (<18.5 kg/m2), normal (18.5 - 24.9 kg/m2), overweight (25.0 - 29.9 kg/m2), and obese (>30.0 kg/m2). Multivariable logistic regression was used to estimate associations between maternal BMI and PTB (<37 weeks) and VPB (<32 weeks) adjusted for age, parity, education, occupation, marital status, smoking, alcohol consumption, pregnancy complications and history of previous preterm deliveries.

Results

Altogether, 5.9% (95% CI: 5.5–6.3) of all spontaneous births were preterm and 0.9% (95%CI: 0.8–1.1) were very preterm. Both underweight (OR = 1.10, 95%CI: 0.84–1.45), overweight (OR = 1.15, 95%CI: 0.95–1.38) and obese (OR = 1.22, 95%CI: 0.92–1.61) women were more likely to deliver preterm after adjustment for all abovementioned characteristics. VPTB were also more common among underweight (OR = 1.44, 95%CI: 0.76–2.74), overweight (OR = 1.59, 95%CI: 1.03–2.44) and obese (OR = 1.58, 95%CI: 0.82–3.04) women.

Conclusion

Underweight, overweight and obesity seem to be associated with both PTB and VPTB in Northwest Russia. Although most of the results do not reach the level of statistical significance unless overweight and obese women analyzed as one group, the absolute values of the coefficients are comparable with those obtained in larger European studies and can be used in subsequent meta-analyses.

Dietary behaviour and blood morphology in post-partum women and newborns from Poland assessed during 2009–11

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Background

The importance of an adequate diet during pregnancy is known to be paramount to the health of the mother and newborn. This large scale study investigates some of the supporting evidence.

Methods

In Poland an investigation was launched, (2009–11), on health behaviour in pregnant women and its influence on newborn health as part of a PRAMS equivalent 'Mother and Child Health Monitoring' system representative of Poland performed by trained SANEPID staff.

Subjects were, (n = 9380), post-partum women recruited from ≈300 obstetric wards throughout Poland. A single day from each year was chosen for the questionnaire-survey, (approximately 3000 subjects/year), usually at least 3 days following birth, or later in the case of complications. Clinical data was provided by healthcare staff. For 2010 & 2011 the questionnaire was extended in 30% of the subjects to include blood morphology & biochemistry, (ie. blood gas, glucose and electrolytes), sampled from the mother, umbilical cord and newborn blood.

Results

Low levels of haemoglobin and other blood morphologies were found in both mother and newborns with a diet low in vegetables and meat but where various dietary supplements had been taken such as iron tablets, folic acid and vitamins. However during pregnancy those mothers eating diets rich in vegetables and meat whilst taking these supplements more rarely showed any anaemic signs or low levels of haemoglobin, erythrocytes or haematocrit and indeed their newborns likewise followed suit. The levels of these analytes nevertheless bore no relationship on the condition of the newborn, (APGAR rating, birthweight nor delivery term).

Conclusions

It is suggested that healthcare providers, (doctors & nurses), supporting the pregnancies should provide more appropriate dietary advice during the actual pregnancy and that gynaecologists should especially recommend taking the aforementioned dietary supplements.

4.G. Sickness absence 2

Influence of working in nightshift on the health status of health workers in Republic of Macedonia

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Background

Chronic sleeping disorders (SD) such as insomnia, sleep apnea and narcolepsy affect a growing number of populations in all countries. Good sleep is one of the main preconditions for a healthy life, while practicing appropriate activities which are prerequisites for normal and high quality sleep provides an individual with ability to comply with daily duties. Absence of good sleep implies poor quality of life, ranging from consequent fatigue that impairs individuals from fulfilling daily duties to preconditions for development of various diseases. Surveys of health workers in primary health care have shown that SDs are associated with functionality problems, decreased productivity and increased utilization of health services.

Goal: to examine psychiatric and somatic consequences on the health of health workers that work in nightshifts, in order to recommend public health actions.

Methods

Case-control study has been performed in the period Jan-Apr, 2010, on a sample of 120 health workers (60 working in shifts and 60 only in regular working hours). Self-administered Short form - 36 questionnaire was used to assess somatic and mental health of respondents.

Results

Physical functioning of cases shows on average lower result (44.87+3.76), compared to respondents in the control group (87.92+24.57); $t = 3.378$, $p < 0.001$.

Pain has been assessed through questions on the magnitude of the pain and its interference with daily activities of respondents; in cases, the average value is 75.87 + 21.56, while the controls have reported average value of 59.72 + 29.27; $t = 5.221$, $p < 0.001$.

The sum of all aforementioned functions represents the assessment of the general health status of respondents; consistent with the results from all individual functions, average result is higher in controls (80.13 + 14.13) compared to cases (60.85 + 18.48); $t = 5.868$, $p < 0.001$.

Conclusions

Results show that health workers who work in night shifts have lower health status, i.e. perception of their own health status, as well as lower expectations for their health status in the future, compared to control group, and therefore represent a group that require further public health attention and action.

Employers with more ambitious Work Health Promotion programs have better health among their employees

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Background

In Sweden there are large unexplained differences in health and sickness absence between employers within the same trade. The aim has been to study whether municipalities with more ambitious workplace health promotion (WHP) efforts have better health status in their social care staff.

Method

A questionnaire about work environment and self-rated health was sent out to a representative sample of 15,871 employees in municipal care of elderly and disabled in a random sample of 60 out of the 290 municipalities in Sweden. A database with aggregated data from the questionnaire and register data concerning the municipalities was constructed. Another questionnaire was sent out to the head of the sector of care of elderly and disabled in the same municipalities (N = 60). This questionnaire consisted of questions concerning 1/ the organization, 2/ management control, 3/ WHP, and 4/ occupational health services (OHS). Employer questionnaire data and aggregated data on employee health and sickness absence were analyzed by correlation and regression analyses with control for external municipality characteristics.

Results

Neither municipality characteristics (number of inhabitants, income level) nor organizational characteristics (number of managers and employees, number of employees per manager, policies concerning management control and quality assurance) were related to health and sickness absence. However, municipalities with more organizational support for employee health had a better health status in their staff. Local health projects, resource persons for WHP work and a broad repertory of WHP services/activities were especially important. All municipalities had access to OHS. Those with a more ambitious way to utilize OHS by routines for needs assessment and follow ups had lower levels of sickness absence.

Conclusion

A significant part of the variation in employee health between municipalities is related to the employers' way of organizing WHP endeavors. Municipalities with a more active and ambitious WHP program have better self-rated health among their employees, which in turn is related to a lower level of sickness absence. Both WHP offers directed to individuals and more general organizational support are of importance.

Absenteeism due to illness or accident in Greece. One more championship?

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Background

Approximately 3% of employees on average are absent due to illness daily in Europe, while in some countries sickness absence exceeds 20 days per year per employee. The few comparative studies indicate Greek employees to be less frequently absent with less than 5 days per year per employee. The aim of this study was to estimate sickness absence in Greece and compare the findings with previous reports.

Methods

A retrospective cohort study in shipyard employees took place between 1999 and 2006 using the absenteeism archives from the Human Resources Department and the Medical Office. In addition, the national annual statistical reports from 1987 to 2006 of the Social Insurance Organization (IKA) were used to calculate, among other indicators, the absence per employee (in working days) and absenteeism rate (%). Statistical package for social sciences (SPSS) program-version 17.0 was used for data entry and analysis.

Results

In the 1850 shipyard employees (annual average) the daily average prevalence of absenteeism was 1%.Total days of absence per employee per year ranged between 4.6 and 8.7, the mean duration of each spell of absence between 5.9 and 8.6 days and absenteeism rate between 1.4% and 2.7%, respectively. The corresponding indicators for the 1.9 million insured employees at IKA ranged from 7.2 to 8.5 days of absence per employee per year, and from 2.2% to 2.6%, respectively. An increase in absenteeism is observed from 2001 in both sources, while the mean duration of each sick leave shows a decrease in the shipyard industry.

Conclusions

The levels of absenteeism in Greece are lower compared to other European countries. However, they are higher than suggested by previous international studies. This phenomenon is difficult to explain and could partly be attributed to low compensation rates in Greece.

Measuring sick leave in the Danish municipal elder care sector: Is registered sickness benefit a valid proxy for actual sick leave of at least 15 days?

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Background

Very few validation studies have been conducted in relation to sick leave measures. Even though these studies conclude self-report to be as valid as company records, the studies show imprecise recollections, especially of longer spells of absence. The validity is found to be associated with gender, age, educational level and health status. The aim of this study is to validate registered sickness benefit data as a proxy for sick leave of at least 15 days using company registered data as the reference standard.

Methods

3554 employees employed in eldercare the entire year of 2006 in the Municipality of Aarhus were dichotomised having sick leave of at least 15 days or not. The same individuals were identified and categorised as sickness benefit reimbursed or not based on data from the national benefits register called DREAM. Sensitivity, specificity and positive predictive value was calculated. Logistic regression was used to adjust for age, gender, profession and workplace. Duration of sick leave was validated by Bland-Altman plot and Wilcoxon signed rank test.

Results

The overall probability of DREAM derived sickness benefit agreeing with company registered sick leave of at least 15 days was 95.8 % (95 % CI: 94.7–96.8%) . The specificity was close to 100% (95 % CI: 98.4–99.9%). Separate analysis on pregnancy related sick leave revealed a maximum sensitivity of 20 % (95 % CI: 4.3–48.1%) in this group. Agreement was not statistically significantly associated with age, gender, profession and workplace. DREAM overestimated the first sick leave spell by an average of 1.4 weeks ($p < 0.001$) compared to company registered data.

Conclusions

DREAM data on sickness benefit is a valid measure of sick leave of at least 15 days among municipal eldercare workers. DREAM offers valid objective measurements hence imprecision due to recall is avoidable. DREAM is not valid in relation to pregnancy related sick leave. Durations of sick leave spells from DREAM shall be interpreted cautiously.

Subgroup analyses on return to work in sick-listed Danish employees with low back pain in a randomised trial comparing brief and multidisciplinary intervention

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Background

Multidisciplinary intervention is recommended to rehabilitate employees sick-listed due to low back pain (LBP). However, a comparison of a brief and a multidisciplinary intervention in a randomised clinical trial of sick-listed employees showed similar return to work (RTW) rates in the two groups. The aim of the present study was to identify subgroups, where the brief or the multidisciplinary intervention was associated with higher return to work rates than in the other group.

Methods

A total of 351 employees sick-listed 3–16 weeks due to LBP were recruited from their general practitioners. The brief intervention comprised clinical examination and advice offered by a rehabilitation doctor and a physiotherapist. In the multidisciplinary intervention a case manager was assigned, who made a rehabilitation plan in collaboration with the patient and a multidisciplinary team. One-year RTW was defined as receiving no sickness compensation benefits (national database) for four consecutive weeks. Cox hazard regression analyses were used with RTW as outcome measure and adjusted hazard rate ratios (HRR = HRmultidisciplinary/HRbrief) were calculated. An interaction term was added to the multivariate regression model to identify subgroups, where the effects of the two interventions were different. Subsequently, a new study including 120 patients following the same protocol was carried out, and similar interaction analyses were performed to verify the findings from the original study group.

Results

Results indicated that employees with low job satisfaction, without influence on job planning, no interest in returning to the same job and at risk of losing their job had higher RTW rates in the multidisciplinary intervention group than in the brief intervention group and vice versa. Interaction analysis of the data in the new study displayed similar or even more pronounced differences between subgroups in relation to intervention type.

Conclusions

Brief intervention seemed more effective for some subgroups and multidisciplinary intervention for other subgroups related to work place factors. This may be used to define the right treatment to the right patient when deciding on interventions in sick-listed employees.

Disability pension and everyday life: a period of transition and subjective aspects of future occupational life

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Background

In Sweden, the number of people who receive a disability pension has increased dramatically during the last decade. The purpose of this study is to explore the everyday life experiences among people with a disability pension and their expectations for future occupational life.

Methods

In the autumn 2005, a purposeful sample of 14 men and women were interviewed. Of these, ten people received full-time disability pension and four people were on partial disability pension while working part time.

Result

A content analysis approach revealed three themes: strategies for handling a changed life situation, adaptations to remaining functional capacity, and expectations on future occupational life. Initially, leaving the work market entailed a period of emotional discomfort for the early retirees. To help handle this discomfort, structures for participation and performance came to signify a balanced everyday life.

Conclusions

The central conclusion drawn in this study is that the informants with full-time disability pension reconciled themselves to their situation, changing their conception of what life on a disability pension means, while those informants who worked part-time saw their future role as that of worker.

(a) This study thus, demonstrates that being employed constitutes one factor that promotes a future work career.

(b) Another factor related to work capacity worth considering is the need for balance between paid work and domestic work reported by disability pensioners working part-time.

(c) Accordingly, the need for balance between paid work and domestic work could be one important area serving as a point of departure for work rehabilitation.

How do musculoskeletal pain, avoidant coping and sickness absence relate to each other? Findings from a prospective cohort study

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Background

Musculoskeletal pain is common and causes extensive sickness absence and work disability in many industrialized countries. An avoidant coping strategy has also been associated with an increased likelihood of sickness absence, but there is a lack of knowledge how these two predictors of sickness absence relate to each other. The objective of this prospective study is to examine the single and joint effect of musculoskeletal pain and avoidant coping on incidence of sickness absence. Methods: The study was based on survey data from 2006 and register data from 2007. The study population consists of a sample of Danes aged 44–62 years, economically active in 2006, free of major depression and reporting functional limitations due to musculoskeletal pain, N = 3001. The outcome measure was retrieved from Statistics Denmark and contained information on sickness absence exceeding 2 consecutive weeks in 2007. Results: Multivariate logistic regression showed mutually adjusted odds ratios for sickness absence of 2.07 (95% CI = 1.71–2.52 by daily pain and of 1.49 (95% CI = 1.19–2.52) by high use of avoidant coping. Neither occupational social class, physical work environment nor gender confounded this association. A departure from multiplicativity was found, showing a joint effect of musculoskeletal pain and avoidant coping, and including an interaction term in the logistic model showed a significant effect (p = 0.013).

Conclusion

As long-term sickness absence is associated with the risk of subsequent labor market exclusion it seems important for health care professionals to be aware of the strong combined effect of pain sensation and avoidant coping when counseling patients about how to response to musculoskeletal pain.

Self-perception of general health and pain as predictors of return to work two years after rehabilitation for traumatic injury

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Background

Besides sickness and disability benefits, employment injury benefits from a significant part of the increase in total welfare spending that has occurred worldwide in the past decades. There is increasing evidence that psychological variables and subjective perceptions may influence return to work (RTW) in patients with musculo-skeletal disorders. Goal of this study was to examine whether a number of these variables may predict RTW after in-patient rehabilitation for traumatic injury.

Methods

1207 orthopedic trauma patients of two rehabilitation clinics in Switzerland were sequentially enrolled into a questionnaire-based study. Questionnaires were filled in at clinic admission, at discharge and two years after discharge to assess demographic and self-perception variables plus work status. Logistic regression modelling was used to find out which variables, measured at admission or discharge, were associated with RTW two years after discharge.

Results

After controlling for socio-demographic variables and trauma localisation, the chances of being at work were higher for patients with a higher perceived general health (visual analogue scale) at clinic admission (OR = 1.58 for 1-sd increments; 95% CI = 1.16–2.15), for patients whose general health improved during clinic stay (OR = 1.74; CI = 1.04–2.92) and for patients whose pain decreased during stay (OR = 1.63; CI = 0.96–2.77). Patients suffering heavier pain (visual analogue scale) at discharge (OR = 0.62 for 1-sd increments; CI = 0.47−0.82) or higher avoidance symptoms at admission (OR = 0.79 for 1-sd increments; CI = 0.63−0.99) had less chances of being working.

Conclusions

This study suggests that subjective perceptions of health or pain seem to be valid predictors of RTW two years after the end of an in-patient rehabilitation program for traumatic injury. Early assessment of these variables may be useful to establish strategies to improve the chances of RTW.

A qualitative study on return-to-work after breast cancer: Belgian stakeholders' diverse perspectives

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Background

The diagnosis of breast cancer increasingly implies a return-to-work (RTW) challenge as survival rates increase. Many stakeholders are involved in the RTW process. Scarce research suggests that their divergent perspectives hamper RTW. Research that includes contextual factors is necessary to better understand the dynamics of multidisciplinary RTW. We studied RTW of Belgian breast cancer patients as perceived by the stakeholders involved.

Methods

Three multidisciplinary focus groups (n = 7, n = 9, n = 10), with one or more representatives of each stakeholder type were formed, including treating physicians (n = 4), employers (n = 6), social security physicians (n = 3), occupational physicians (n = 4), survivors (n = 5) and representatives of patient associations (n = 4). Experienced moderators guided the interviews on their experiences with the RTW process of breast cancer patients. A qualitative thematic analysis was performed on the interview transcripts.

Results

Stakeholders reported different perspectives, which also might change during the process. Patients initially focus on handling the diagnosis. After treatment and recovery they are doubtful about their capability and feel not well informed on RTW possibilities. Treating physicians do not feel competent to advise on work-related questions. Employers balance between interest in their business and in the employee. Social security physicians have to assess workability and advise on RTW options which is difficult after hardly being involved in the first months. Occupational physicians have mixed feelings about their RTW role: they see opportunities but legislation does not support their involvement. All stakeholders recognized the diverging perspectives and expressed their need for coordination. They criticized legislation and reported ways of bypassing barriers, to support RTW.

Conclusions

The involved stakeholders were motivated to support RTW, however their perspectives differed. The Belgian legislation emphasized the patient or disability role, not the employee role. The results suggest how education of stakeholders and legislation could improve RTW support for employees and breast cancer survivors in particular.

4.H. Cardiovascular disease

Time Trends in Population Proportions in Ideal Cardiovascular Health

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Background

The main focus in cardiovascular epidemiology has for many years been on the part of the general population with increased risk of cardiovascular disease. However focusing on the part of the population in ideal cardiovascular health will reveal how well preventive goals are met in the general population.

The aim was to investigate the development in the proportion of Danish adults in ideal cardiovascular health from 1978 to 2006.

Methods

Data from six different population based cohort studies from the Research Centre for Prevention and Health (the former Glostrup Population Studies) from 1978 to 2006 was used. A total of 17 041 individuals aged 25–64 years was included in the analysis. Individuals were identified as having ideal cardiovascular health if all of the following criteria were met: No previous CVD, no diabetes, no antihypertensive treatment, no lipid lowering treatment, non-smoker, blood pressure $\leq$ 120/80 mmHg and a total cholesterol $\leq$ 5 mmol/l (193 mg/dl). Proportions of individuals in ideal cardiovascular health were age standardized and given separately for each sex.

Results

The proportion of Danish women in ideal cardiovascular health has increased from 1978 to 2006 with a more pronounced increase from 6% in 1991 to 12% in 2006. For men a similar increase was seen between 1978 and 1991 however the proportion in ideal cardiovascular health dropped from 4% in 1991 to 2% in 1999. Despite an increase in the last decade, only 4% of the Danish male population is in ideal cardiovascular health (2006). Despite small increases in prevalence of diabetes, antihypertensive treatment and lipid-lowering treatment, decrease in mean levels of cholesterol and a large decrease in the prevalence of smokers result in the described population trends.

Conclusion

This study showed increases in the proportion of the population with a favourable cardiovascular risk profile. These increases were more pronounced in women. For men the favourable increase seems to stagnate. These population trends mirror the decreasing cardiovascular mortality shown in Denmark and most western countries.

Alarming cardiovascular trends in eastern mediterranean countries

Belgin Unal

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Background

Many Eastern Mediterranean countries are undergoing demographic and epidemiologic transitions and hence now face noncommunicable disease epidemics.

Objectives

To evaluate recent trends in cardiovascular mortality and risk factors in Palestine, Turkey Syria, and Tunisia.

Methods

Data sources in each country were identified, searched and appraised on population, mortality, major CVD risk factors and uptake of medical or surgical treatments. Official statistics, electronic databases, national survey and studies were screened from 1995 onwards.

Results

In the Palestine, coronary mortality rates increased from 1996 (150 per 100000) until 1999 (266 per 100000) then decreased to 258 per 100000 in 2009. In Turkey with a 5 years gap, coronary mortality trends increased from 1988 (279 per 100000) until 1995 (347 per 100000) but started to decrease after 1995. Coronary mortality rates increased by 60% in Tunisia between 1997 and 2009 and 24% in Syria between 1996–2006.

Obesity and diabetes prevalence in the region rapidly increased, especially among women. Smoking prevalences were high ranging from 24% to 39% in men. Smoking prevalence decreased in Turkey and Palestine but persisted in Tunisia and Syria. Population blood pressure levels decreased in Palestine and Turkey but increased slightly in Tunisia and Syria. Cholesterol levels decreased in Palestine and Tunisia but increased in Turkey and Syria.

Conclusions

Good quality epidemiologic data on the extent and determinants of noncommunicable disease are essential to respond the changing health needs of the population. Recent regional cardiovascular mortality and risk factor trends are worrying, and represent a new policy priority.

Does the association between union dissolution and ischemic heart disease depend on time since union dissolution?

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Background

Marriage is associated with lower risk of ischemic heart disease (IHD). Most studies only measure marital status once; however, marital status may change. Due to increase in non-marital cohabitation information on non-married unions should also be included. Theories about stress associated with divorce or union dissolution (UD) diverge. The stress-adjustment theory suggests an increased risk shortly after UD and no long-term excess risk while other theories see UD as a process in which stress from quarrels with ex-spouse, single parenting, poorer economy and changed health behaviours could lead to an elevated risk years after the UD. The aim of this study is to test if the association between UD and IHD depends on time since UD.

Methods

Register study of the entire Danish population. The population was restricted to those aged 30 to 65 years who lived with a partner at least once between 1980 and 2006. Each individual has an annual record and the database consists of approximately 53 million records. The National Hospital Register and the Causes of Death Register were used to follow-up on fatal and non-fatal cases of IHD. The exposure variable (time since UD) was updated annually and divided into the following categories: same year as UD, 1 year after UD, 2–3 years after UD, 4–8 years after UD and 9+ years since UD. Poisson regression was used to study associations between time since UD and IHD adjusted for age, ethnicity, education and income. All analyses were stratified by gender.

Results

Compared to those who did not experience UD, the relative risk (RR) of IHD in men with UD same year was 1.15 95% CI (1.10–1.21), the year after UD 1.27 95% CI (1.22–1.33) and 2–3 years after UD 1.16 95% CI (1.12–1.20), 4–8 years 1.11 95% CI (1.08–1.14) and 9 years or longer since UD 1.07 95% CI (1.05–1.10). In women, the RR same year as UD was 1.56 95% CI (1.45–1.68), the year after UD 1.26 95% CI (1.16–1.37), 2–3 years after UD 1.26 95% CI (1.14–1.24), 4–8 years after UD 1.20 95% CI (1.16–1.24).

Conclusions

For both men and women, there was evidence for both stronger short term elevated risk of IHD following UD and a weaker long term elevated risk. Prevention of IHD may be strengthened particularly in those who recently experienced UD.

Gaps in the prevention of cardiovascular disease among rural disadvantaged population in Bulgaria

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Background

Cardiovascular diseases (CVD) are the leading contributor to the burden of diseases in Bulgaria causing 66% of all deaths for 2009. The rural population is especially disadvantaged with stroke rates among the highest in Europe. With the introduction of the absolute risk approach for prevention of CVD multidrug regimens consisting of aspirin, cholesterol and blood pressure lowering drugs have been proposed as highly cost-effective preventive strategy for low and middle income countries.

Aim

To evaluate the management of cardiovascular risk in the rural population of Bulgaria and the combined use of aspirin, blood pressure and cholesterol lowering drugs among individuals at high risk.

Methods

A population based survey was conducted among 1183 residents of 12 from 16 in total villages in obshtina Dolni Chiflik, Varna region in 2007. Approximately 200 individuals from each sex and ten year group 45–54, 55–64, 65–74 were randomly recruited from the population register. All participants underwent anthropometric and blood pressure measurements, analysis of fasting blood glucose and lipid levels. Demographic and medication information was collected. Ten year risks of death from vascular causes were estimated using the SCORE system for countries with high risk (≥ 5 or history of vascular disease = high risk).

Results

More than half 55.5% of the sample were at high risk - 44% of 685 women, and 56% of 498 men. Only 20 (3.0%) of the 656 participants with high risk reported combined treatment with aspirin, blood pressure and cholesterol lowering drugs. This low coverage with the recommended regimen is mainly due to low statin treatment. While 65% of the high risk group received antihypertensive drugs, 49.5% aspirin, those with cholesterol lowering medication were only 5.6%. At the same time 81.3% of the 656 high risk individuals were with cholesterol level ≥ 5 mmol/L. Only 33.8% of the high risk group reported that their cholesterol was measured in primary care and only 8.1% of those with high risk and total cholesterol ≥ 5 mmol/L were prescribed to statin by their general practitioner.

Conclusions

The data confirms substantial mismatch of treatment of high risk individuals in the population with scientific recommendations which requires urgent attention.

Secondary prevention of coronary heart disease at population level in Poland

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Subjects with established coronary heart disease are at high risk of further cardiac event and secondary prevention is a priority for public health.

Aim

To assess the effectiveness of secondary CHD prevention in adult Polish population.

Methods: Randomly selected sample of 14 752 men and women aged 20–74 years were examined in the National Health Survey (WOBASZ) conducted in Poland during the period 2003–2005. A subsample of 1591 persons (M-841, W-750) with a clinical history of myocardial infarction or PCI or coronary bypass surgery was analysed. Standardised questionnaire on life-style and knowledge of its impact on health, medical and treatment history as well as type of advice provided by physicians to patients on life style was completed for each subjects by trained personnel. Anthropometric and blood pressure measurements and laboratory tests were performed according to study protocol.

Results

Frequency (%) of major modifiable risk factors (men/women): smoking (27/14), diabetes mellitus (20/16), controlled DM (37/48), hypertension (65/64), controlled HT (22/29), obesity (32/39), cholesterol level more or equal than 5 mmol/l (64/70). Prevalence (%) of preventive drugs use (men/ women): aspirin (42/39), beta-blockers (7/8), statins (8/7), ACE-inhibitors (9/8). Proportions of patients with knowledge on non-pharmacological intervention to prevent reccurent event (men/women): weight reduction (41/42), salt reduction (30/31), increasing exercise (64/63), not smoking (54/45), reducing fat intake (48/50), fruits and vegetables intake (30/34), none (32/31). Proportions of patients received preventive advice from their doctors (men/women): quitting smoking (for smokers - 67/49), dietary counselling (45/48), physical activity (34/30).

Conclusions

This survey shows that in subjects with established CHD: 1. The prevalence of modifiable risk factors is very high and their control in very poor. 2. Use of secondary prevention drugs is very low. It is a result of poor knowledge on importance life style changes in patients and poor physician's performance. There are still considerable opportunities to reduce risk of recurrent CHD in Poland through lifestyle changes, rigorous control of other RF and more effective use of proven drug therapies.

Completeness of percutaneous coronary intervention registration in the Danish Heart Register, 2008−09

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Background

The Danish Heart Register (DHR) is a national clinical database of invasive cardiology and heart surgery. DHR is widely used for evaluation of treatment quality, trends of treatment activity and scientific studies. Therefore, it is of major importance that the information in the register is valid and complete. Percutaneous coronary intervention (PCI) is a procedure used to treat narrowed coronary arteries of the heart in patients with coronary artery disease. The aim of the present study was to evaluate completeness of the registration of PCI in DHR.

Material and methods

PCI procedures in the period July 2008 to June 2009 were identified in DHR and in the Danish National Patient Registry (DNPR) which contains information on all hospital admissions and treatments. Patients can be identified in DHR and DNPR by their unique personal identification number (CPR) assigned at birth or immigration to all people living in Denmark. The completeness of DHR was calculated as the percentage of PCI procedures registered with the same procedure date and CPR in the DNPR also found in DHR. Disagreement was calculated as percentage of PCI procedures registered only in one of the registers. Fisher's exact test was used to compare disagreement in stratified groups.

Results

A total of 9292 PCI procedures were registered in DHR and 9403 in NPR giving an overall completeness of 96.2% (95%CI = 0.958−0.966). In all 9755 PCI procedures registered in either NPR or DHR 8% were registered in only one of the registers (disagreement) when matching with CPR and procedure date. There was a significant difference in agreement between heart centres ($p < 0.001$) with lowest agreements 78% and 83% compared to 95–98%. During weekend the agreement was significantly better (94%) than during weekdays (91%) ($p < 0.001$). Agreement in PCI procedures performed in tourists with foreign CPR was low (69%) compared to Danish residents (92%) ($P < 0.001$).

Conclusion

Completeness of PCI registration in DHR compared to DNPR is highly acceptable. The main reasons for incorrect registration of PCI were use of foreign CPR and differences between hospitals.

Reduction in out-of-hospital cardiovascular mortality in first 10-days of January after introduction of 10-days winter holidays in 2005: an analysis of 24730 death certificates in Arkhangelsk, Russia

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Background

Hazardous alcohol consumption on weekends and holidays is considered to be among the main contributors to excessive cardiovascular mortality in Russia. Therefore, the introduction of 10-days holidays from 1.1 to 10.1 in 2005 was feared to increase alcohol consumption and mortality in this period. However, the effects of these holidays on mortality have not been reported.

Aim

To investigate whether introduction of long winter holidays resulted in changes in cardiovascular mortality as well as to assess weekly variations in cardiovascular mortality in Arkhangelsk, Northwest Russia.

Methods

All 24730 out-of-hospital deaths from cardiovascular diseases, neoplasms and external causes in 2000–2009 comprised the study base. Data on age, gender, date and cause of death were obtained from death certificates. The effect of holidays was studied using the following ratio: (Deaths during 1–10.01.2005–2009*Deaths during all other days 2000–2004) / (Deaths during 1–10.2000–2004*Deaths during all other days in 2005–2009) with 95% confidence intervals (CI). Weekly variations of the abovementioned causes of death were studied using chi-squared tests.

Results

The ratio for all cardiovascular deaths was 0.76 (95% CI: 0.61−0.91), while no significant associations were observed for external causes 0.94 (95% CI: 0.71–1.25) and neoplasms 1.34 (95% CI: 0.89–2.02). Mortality from cardiovascular diseases ($\chi 2 = 2.39$, $p = 0.88$) and from neoplasms ($\chi 2 = 2.13$, $p = 0.91$) did not vary across the week while mortality from external causes varied significantly ($\chi 2 = 30.7$, $p < 0.0001$) with peaks on Mondays and Tuesdays.

Conclusion

Introduction of 10-days holidays resulted in significant reduction in the proportion of out-of-hospital cardiovascular deaths during this period, but not external causes or neoplasms. Combined with no weekly variation of mortality from cardiovascular diseases the findings are not in line with the hypothesis that excessive alcohol consumption on weekends and holidays is the main contributor to cardiovascular mortality in the study area.

Socioeconomic and environmental factors are the main determinants of regional differences in cardiovascular mortality in Poland - ecological analysis

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Background

Cardiovascular disease (CVD) are the leading cause of death in all 16 administrative provinces in Poland. CVD mortality rates and prevalence of CVD risk factors vary considerably by province however data from National Survey showed that the mortality rates are not clearly corresponded with the prevalence of CVD risk factors in particular provinces. It suggests that other factors can play important role in the differences in CVD mortality within country.

Aim

To assess the extent to which classical CVD risk factors and wide range of socioeconomic, medical service and environmental factors are related to within country differences in CVD mortality.

Methods

The main outcome measures were age-standardized CVD mortality rates (ICD-10: codes I.00-I.99) in each of 16 administrative region in Poland for men and women aged 20–74. Also for each region 90 indicators, were collected in 9 categories from several sources: prevalence of risk factors, medical care, economy, education, welfare state, environmental pollution, demography, living conditions, health status.

The analysis was based on univariate correlation and discrimination model and multivariate stepwise regression models. Partial and multivariate coefficient of determination was calculated with determinants significant in univariate models.

Results

In men about 73% of the within country variance in CVD mortality were significantly explained by the differences between provinces in the level of air pollution, urbanization, employment rate, monthly income and expenditure on environmental protection. For women: 42% of those differences were explained by differences in expenditure on environmental protection. Differences in the prevalence of classical CVD risk factors explained only 5–15% between province differences in CVD mortality.

Conclusion

The results promote a deeper understanding and awareness of socioeconomic health determinants including living and environmental conditions, which should contribute to the development of a multisectoral health policy to improve population health.

4.I. Health services 2

Composite indicators to evaluate the performance of national health systems in Europe: what matters?

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Background

This study aims at investigating the availability and application of composite indicators to Beveridge healthcare systems and at building up a methodology suitable to evaluate and compare the performance among the Italian regional healthcare systems.

Methods

An extensive literature search on several electronic databases was carried out, by using different search algorithms, to classify the main performance dimensions and to identify synthesis methods used to build up composite indicators useful to evaluate healthcare systems performance among UK, Denmark, Italy, Sweden, Norway, Finland, Spain and Portugal. By using a Delphi approach, three groups of researchers applied the main results of the literature search in order to: a) select a group of comparable indicators between countries and referred to the dimension of evaluation of performance of health care systems; b) identify and compare the different methods to yield composite indicators useful to describe and evaluate the healthcare performance among the Italian regions.

Results

Three healthcare performance frameworks (UK, Denmark, Italy) resulted as the most useful to classify the main dimensions of performance and to identify relevant indicators. Among the indicators identified, the three research groups agreed to use a list of indicators and to classify them into the following dimensions: healthcare needs, structure, process, outcome, appropriateness, expenditure, quality, efficiency.

As far as the composite indicators are concerned, we preliminary identified three different methods to be used for the assessment of performance: multi-way factorial analysis, weighted mean and, simultaneous equations model.

Conclusions

The existence of a wide range of methodological approaches to composite indicators is a proof of their increasing importance as a tool for policy analysis, decision making and healthcare systems accountability.

To apply such composite indicators to provide simple comparisons of regions can help to evaluate some complex and sometimes indefinable issues in wide-ranging fields, with huge impact on healthcare systems.

Assessing the relationship between health care market competition and health care quality under Taiwan’s national health insurance program

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Background

The research objective of the paper was to assess the market competition effect on inpatient care quality of stroke patients in a national health insurance environment.

Methods

This is an 11-year population-based study. Data of all hospitalized stroke patients between 1997 and 2007 were sourced from the National Health Insurance Research Database (NHIRD) in Taiwan. We defined all stroke cases as study participants who were hospitalized due to stroke during the aforementioned 11-year period, and further categorized them into ischemic stroke (International Classification of Diseases, Ninth Revision, Clinical Modification [ICD-9-CM] codes 433 to 434.9 or 436 to 437.1) and intracerebral hemorrhage (ICD-9-CM codes 431 to 432). A pooled cross-sectional time series analysis with fixed effects regression model was conducted to evaluate the effects of market competition effect on inpatient care quality of stroke patients.

Results

Analytical results revealed that market competition exerted a negative impact on health care quality. Compared to hospitals located in low competition market, in-hospital mortality rates for intracerebral hemorrhagic stroke patients were significantly lower in moderate ($\beta = -0.054350$, $p < 0.01$) and high competition markets ($\beta = -0.049150$, $p < 0.01$).

Conclusions

In sum, healthcare market competition does not improve quality of care. State differently, free market competition does not operate well in health care settings. Hence, simply fostering free market competition will not solve the problem of high medical expenditures associated with low medical care quality. Other health policy actions should be explored.

Pay for Performance in primary care: towards quality in Healthcare

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Background

Pay for Performance (P4P) is a method of remuneration, which relates physicians' payments to healthcare quality and outcomes.

The study aimed at assessing the impact of explicit financial incentives for improved performance on measures of health care quality in primary care setting.

Methods

A literature search was performed covering studies published up to December 2010, by consulting PubMed electronic database. Search terms used were as follows: ''Pay for performance'', ''Payment by Results'', ''Primary care''.

Studies that evaluate the effects related to the introduction of financial incentives in primary care were considered.

Results

Ten studies were included. Six out of them showed that the quality of primary care improved through the introduction of financial incentives (i.e. UK Quality and Outcomes Framework, QOF). The QOF is a voluntary program that provides financial incentives for general practitioners (GPs) to meet performance criteria in four domains: clinical, organizational, patient experience and additional services. One out of these 6 studies found a positive effect of P4P on access to care. Two studies found partial effects of financial incentives on measures of quality. Two studies demonstrated that financial incentives may lead to negative unintended consequences (i.e. adverse selection of patients with undertreated subpopulations and inequities for socially disadvantaged populations).

Conclusions

Our study findings suggest that P4P could improve the quality of care although unintended consequences of incentive programs should be considered according to the way in which these programs are implemented. Therefore these results need to be interpreted with caution because some studies showed disappointing results. When designing incentive schemes, more attention should be paid to negative consequences that these tools should produce.

In conclusion, further research would be necessary aimed at helping the policy and decision making processes and at assessing the cost-effectiveness of P4P. Moreover it would be of interest to investigate the possible implementation of this approach in Italy.

Consumer choice of healthcare providers: the role of status-quo bias in the Dutch healthcare system

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Background

Despite the considerable energy that has been put into improving the preconditions for consumer choice in the Dutch healthcare system, relatively few consumers seem to exercise choice in health care. Various explanations have been offered, focussing on the lack of comparative information or on the difficulty for consumers to understand this information. However, the number of people that will actually exercise choice in health care will always be limited because of the so-called status-quo bias. This implies that the better the quality of their own doctor or hospital, as perceived by patients, the less inclined patients will be to switch to another doctor or hospital. The question addressed is: How do Dutch patients perceive the quality of their healthcare providers and how much loyalty towards their healthcare providers do they report?

Methods

Data are derived from surveys of patients' experiences conducted with the so-called Consumer Quality Index (CQI). Consumers' loyalty to providers is measured with the so-called net promoter score, which is based on asking consumers how likely it is that they will recommend a certain firm or product to their relatives or friends.

Results

CQI surveys of consumer experiences, conducted annually since 2005 have shown that less than 10% of healthcare consumers report negative experiences with interpersonal conduct of ambulatory GPs and specialists. The vast majority of hospital patients are so satisfied with the care they received, that they would probably or definitely recommend this hospital to their relatives or friends. Less than 10% of all hospital inpatients would probably or definitely not recommend their hospital. In addition, also patients' loyalty to their general practitioner is quite high. Still, around 8% of the respondents in this survey would not recommend their GP to family or friends.

Conclusions

Because of status-quo bias, Dutch healthcare consumers will only be willing to switch to another GP, medical specialist or hospital if they are dissatisfied with the care that they currently get. The results indicate that the number of people for whom switching is attractive, is relatively low. Experiences with the care provided are generally positive and the level of loyalty is high.

Channelling consumers towards preferred providers

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Background

In the last decades, health care systems in several European countries changed from a supply-oriented system to a demand-oriented system based on managed competition. In a system of managed competition, health insurers play a crucial role. They are allowed to selectively contract providers based on price and quality and channel their consumers towards these preferred providers. In practice, it seems quite difficult for insurers to channel their insured. This however is necessary in order to make the system work. In this paper we explore why consumers are not open to this channelling from their health insurer. We expect trust of consumers in their health insurer to play a key role and therefore we focus on this aspect.

Methods

Questionnaires were sent to 6.732 members of the Insurants Panel (response 65,7%). Amongst other questions, respondents were asked if they trust their insurer to select good quality care providers as preferred providers and if they want to choose their own care provider.

Results

Preliminary results show that the majority (>60%) of the consumers trust their health insurer to select good quality care providers. However, 85% also indicate that they want to have the option to choose their own care provider. Almost 50% of the respondents are even willing to pay a higher premium in exchange for freedom of choice. The data is now further analysed in more detail.

Conclusion/discussion

The results indicate that the majority of consumers trust their health insurer to select good quality care providers as preferred providers. Thus, a lack of trust does not immediately seem to hinder the insurers in channelling their consumers to preferred providers. Yet, consumers still want to have freedom of choice. The problem of channelling insured might thus be a problem of restriction of choice, instead of a problem related to lack of trust. Questions that arise are whether consumers actually turn to their insurer for advice when selecting a care provider and the number of preferred providers an insurer should offer to provide consumers with a feeling of "choice".

Diabetes screening in primary care for preventive interventions

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Background

The prevalence of type 2 diabetes is rapidly and constantly growing worldwide.

The objective of PRE.DI.CO project (PREvention of Diabetes in Val di COrnia area) is the identification of individuals with high risk of type 2 or unknown diabetes for preventive interventions.

Method

The screening was performed by the FINDRISC questionnaire (Finnish Diabetes Risk Score), validated for italian population, administered to 658 subjects, randomly recruited in Val di Cornia, aged 35–70 years. All those identified at high risk were subjected to perform oral glucose tolerance test (OGTT) and, if not diabetic, invited to attend the program for lifestyle modification.

Anthropometric measurements and blood pressure were detected with standard methods. Where possible we calculated the European Heart Score and collected information on fasting glucose, HDL, triglycerides and the main current therapies. Data were processed using Epi-Info; descriptive analysis was performed.

Results

142 subjects (21.6%) resulted at high risk for type 2 diabetes (FINDRISC ≥ 15). 16 subjects found with diabetes were reported to the general practitioner, the others performed the OGTT (dropout 1.6%), which showed 42.7% of normoglycemia, 12.1% of impaired glucose tolerance (IGT), 14.5% of newly diagnosed diabetes. Prevalence of diabetes was 10.6% in subjects with FINDRISC score 15–19 (high risk) and 35% in subjects with FINDRISC score ≥ 20 (very high risk). The distribution by risk of diabetes was similar in both sexes ($p > 0.05$).

The prevalence of subjects with Impaired fasting glucose (IFG), IGT and newly diagnosed diabetes (Men: 23.1% Female: 8.3%) was significantly higher in men than in women ($\chi2 = 16.64$, $p = 0.002$).

With the increasing of the risk of diabetes we observed a progressive and significant enhance in systolic and diastolic blood pressure ($p < 0.0001$). At the same time, with the rise in the FINDRISC score, we observed also an increased risk of mortality at 10 years for Cardiovascular disease, estimated by the HeartScore.

Conclusion

The PRE.DI.CO. study confirmes that identification of individuals at risk of type 2 diabetes in primary care setting is possible through easy and inexpensive screening tools.

Patient safety and quality of care

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Background

Patient safety and quality of care are priorities of the NHS.

The consolidation of professional skills and their training are essential key elements to ensure the provision of safe and effective treatment.

The aim of this study is to:

- carry out a survey about the knowledge and perception of clinical risk among health care facilities identified;
- define a mapping of the clinical risk;
- test and validate the instrument to detect the events / incidents in hospitals departments of the Incident Reporting System.

Methods

The survey was conducted through a structured interview addressed to nurses and healthcare operators in the departments of Internal Medicine, General Surgery, Obstetrics-Gynecology and Pediatrics in Rivoli's hospital, using a self-assessment questionnaire with values from 1 to 10 on individual topics of clinical risk (Risk Management, Incident Reporting Guidelines, Sentinel Events, Malpractice, Informed Consent, Error, Insurance Risk, Clinical Governance and Clinical Audit).

Data were collected in a database on which descriptive statistical analysis and logistic regression models with age were carried out.

Results

119 employees were been interviewed. From the data the overall self-assessment was less than 5 in 48% of them.

From logistic regression models, a sufficient value (>5) on the degree of knowledge of guidelines for employees who had a younger age (OR = 0.5; 95% CI = 0.22–1.11) has been showed, while for the older ones it was related to advanced knowledge about the risk management (OR = 1:44; 95% CI = 0.78–2.65), the error (OR = 1.68; 95% CI = 0.87–3.21) and the clinical governance (OR = 1:58; 95% CI = 0.81–3.09).

Conclusions

The data analysis shows a lack of knowledge of clinical risk in individual themes investigated. In the perspective of a correct clinical risk, an extensive training to the staff in addition to a culture of the broad applications of Clinical Governance should be provided; this, obviously, before proceeding to a trial of a voluntary system of reporting on events.

Consumer judgement and risk perception on availability of over-the-counter-drugs

Anne Brabers

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Background

Over-the-counter (OTC)-drugs are available without a doctor's prescription. Whereas this is convenient for consumers, it also makes consumers responsible for appropriate and safe use. European countries differ considerably when it comes to the availability of OTC-drugs. In the Netherlands, the availability of OTC-drugs changed in 2007. A limited number of OTC-drugs can now be sold outside pharmacies and chemistries, mainly in supermarkets. This had led to a discussion on whether consumers are aware of potential risks of inappropriate use of OTC-medication. The objective of this study was to assess consumer judgement and risk perception on availability of OTC-drugs in the Netherlands.

Methods

A questionnaire was sent in June 2010 to 1422 members of the Dutch Health Care Consumer Panel, a cross-section of the Dutch population. 972 members of the panel (response 68%) returned the questionnaire. Questions were aimed at measuring the judgement of consumers on the availability of OTC-drugs as well as their opinion on safety profiles of OTC-painkillers.

Results

The majority (87%) of the consumers used OTC-drugs in the last five years. The far most used OTC-drugs are painkillers (97%). Consumers are quite 'conservative' when judging safety profiles of painkillers. Regarding four of six safety profiles, the majority of the consumers stated that painkillers with such a safety profile should only be provided at pharmacies (while now most of them are available in supermarkets). This applied most (69%) for the safety profile 'safe at normal use, but potential serious side effects when used in combination with certain prescription drugs'. Only 11% of the consumers think that others know how to apply OTC-drugs safely. They trust their own capabilities much better: 65% of the consumers agree with the proposition 'I know exactly how to use OTC-drugs in a safe way'. Currently, additional analyses are being performed.

Conclusion

Consumers are convinced of being aware of how to use OTC-drugs in a safe way. The question is, however, whether this is true. Therefore, a more proactive attitude of pharmacies and chemistries regarding providing information is necessary to make consumers aware of the potential risks of inappropriate use of OTC-medication.

Inequality in 30-day mortality and wait for surgery after hip fracture: the impact of the Regional Health Care Evaluation Program in Lazio (Italy)

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Background

Studies on interventions to address inequalities in health care are a priority area for public health research. We evaluated the change in socioeconomic differential in quality of healthcare for hip fracture before and after the implementation of the Regional Health Care Evaluation Program in Lazio region (P.Re.Val.E.), which systematically calculates and publicly releases hospital performance data.

Methods

From the Hospital Information System database we identified all patients (65 + years old), resident in Rome and hospitalized for hip fracture (ICD-9-CM codes 820.0–820.9) between 1 January 2006 and 31 December 2007 (period 1) and between 1 January 2009 and 30 November 2010 (period 2). We excluded the hospitalizations occurred in 2008, the year during which the regional program was implemented. We defined three outcomes: mortality within 30 days of hospital arrival, median waiting time for surgery (days) and proportion of intervention within 48 hours. An area-based socioeconomic position index (SEP) was available (level I well-off, level III disadvantaged). We used multivariate regression analysis and stratified Cox model to test the association between SEP and outcomes controlling for age, gender and comorbidities.

Results

We studied 11581 admissions (5880 period 1, 5701 period 2). Lower SEP was associated with higher risk of 30-day mortality in period 1 ($RR = 1.42$; $p = 0.027$), but not in the period 2. In period 1 disadvantaged people were less likely to undergo intervention within 48 h than well-off persons (level II: $RR = 0.72$; $p < 0.001$; level III: $RR = 0.46$; $p < 0.001$). Similar findings were found for period 2 (level II: $RR = 0.88$; $p = 0.037$; level III: $RR = 0.63$; $p < 0.001$). Comparing the two periods, we observed a higher probability to undergo intervention within 48 hours in period 2 vs period 1 for each socioeconomic level. Small differences were found in the adjusted median waiting times for surgery.

Conclusions

This study contributes to the debate on effective strategies to tackle inequality in health and suggests that a systematic evaluation health outcome approach, which includes public disclosure of results, could reduce socioeconomic differential in health care through a general improvement in quality of care.

Relationship between volumes and outcomes in colon cancer surgery

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Background

there is a wide debate in the literature about whether concentrating surgical procedure for colon cancer in larger hospitals could improve quality of care and outcomes.

The aim of our study is to assess if there is an association between volume and surgical outcomes such as: reintervention in the index hospitalization, 30 day readmission and 30 day in-hospital mortality in patients with a diagnosis of colon cancer in the surgical wards in Emilia-Romagna Region, Italy.

Methods

14,200 colon cancer interventions performed from January 1st 2005 to December 31st 2010 were considered for analysis. Gender, age, comorbidities, presence of metastases, admission status and type of intervention were collected from hospital discharge records and considered as potential risk factors. We categorized ward volume as low (< 50 interventions per year) and high (≥ 50 interventions per year). We then performed a random intercept multilevel logistic regression with three levels (patients, surgical wards and hospitals). In the multilevel logistic regression model only the factors selected by using a stepwise procedure ($p\text{-entry} = 0.05$ and $p\text{-stay} = 0.05$) were included.

Results

preliminary results in the final model showed a significant association between volume and each of the three outcomes. The adjusted ORs of reintervention and 30-day readmission in high compared to low volume wards were 0.64 (95% CI = 0.45−0.93) and 0.83 (95% CI = 0.72−0.96), respectively. The adjusted ORs of 30 day in-hospital mortality in high compared to low volume wards were 0.45 (95% CI = 0.27−0.72) for elective patients and 0.82 (95% CI = 0.55–1.24) for urgent patients.

Conclusions

our results suggest an association between hospital volumes and outcomes in surgically treated colon cancer patients. Therefore organizational efforts should be done in order to concentrate colon cancer surgery in hospitals with an adequate number of surgical procedures.

4.K. Poster workshop: A National Health Survey in Denmark - an important tool in the prioritizing, planning and monitoring of local health initiatives

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In 2007 the responsibility of Primary Prevention and Health Promotion surpasses from the regions to the municipalities. This was a big challenge for the municipalities. In order to prioritize the prevention initiatives information's on the burden of unhealthy behaviour, health, obesity and chronic diseases were needed. Therefore, the administrative units: The Ministry of Health, the Danish Regions, and the Local Government Denmark agreed on initiate ongoing National Health Surveys covering all 98 municipalities. Each of the five regions was responsible of carrying out the National Health Survey (NHS) using identical methods, hence comparison within and between municipalities is possible. The NHS is a continuing process which is planned to be carried out every fourth year. These surveys are important in the planning of future health promotion and primary prevention strategies and give an important opportunity to examine temporal changes across Denmark. In 2010 the historic and one of the most extensive NHS (''Hvordan har du det 2010?'' ''How are you 2010?'') was carried out in Denmark. Almost 300.000 (comprising 6.7 % of the entire population) inhabitants randomly selected but stratified by municipality received an identical 52 items questionnaire on health behaviour, health, and morbidity. The response rate was 59.5 % and with its nearly 180.000 respondents probably one of the biggest health surveys ever conducted. The dissemination of the results were preformed in different ways. The regions published regional reports based on local data, and a national online database including the most important indicators and a national report was also published. Due to this valuable work we want to share our experiences with other countries. The purposes of this workshop are 1) to inspire other countries to carry out similar kind of national surveys, and 2) to give a presentation of the methods used, some results, and a guided tour in a national public database on selected indicators. Moreover, a presentation of the collaboration between the different administrative units will be given.

Methods of the National Health Survey

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The Danish National Health Survey was inspired by the Danish municipal reform of 2007, which substantially extended the tasks of the municipalities in the health area. The municipal reform generated a need for reliable data on population health in the 98 new municipalities who took over the prime responsibility of primary prevention and rehabilitation from the then abolished counties.

Since 1987 four national health surveys had been carried out by the National Institute of Public Health but with a sample size too small to describe the state of health at the municipal level. Although local health surveys had been carried out in several municipalities in the years preceding the reform, there was no commonly accepted standard that ensured comparability across municipalities.

The first step to secure comparable data across neighbouring municipalities was taken by three of the five newly formed regions, who conducted regional health surveys in 2006 (Central Denmark Region), 2007 (North Denmark Region), and 2007 (Capital Region of Denmark).

The regional health surveys made comparisons possible between municipalities within each region, but despite a substantial overlap in content and method among the regional health surveys, differences remained. Therefore Local Government Denmark, who is the interest group of Danish municipalities, approached their counterpart on the regional level, Danish Regions, and suggested that a standard for future health surveys was developed.

The outcome of this initiative was a national agreement on health surveys between the central health authorities, the Ministry of Finance, the regions and the municipalities. The agreement is based on a set of common standards for the conduct of health surveys that was developed during the process.

It has already proved to be a working tool of great value in a number of contexts, both in local health planning, monitoring of health behaviour and health related quality of life and for research purposes. The survey will be repeated in 2013 and subsequently every fourth year.

The common standards will be presented including the content of the questionnaire, the sampling and data collection procedure, and matters related to data analysis and presentation of results.

The collaboration between the regions and the municipalities - an example!

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Building a bridge between administrative systems, between practice and research is crucial if Health Surveys are going to be an effective planning tool. In all five regions in Denmark there has been a close collaboration with the municipalities when carrying out the National Health Survey. Some of the benefits of these kinds of collaborations are greater local ownership of the survey results, and a higher response rate.

The purpose of this presentation is to give an example on the collaboration organised between The North Denmark Region and its 11 municipalities.

The managerial anchorage of the Health Survey in The North Denmark Region has been under the auspices of The Executive Steering Committee - collaboration with members from the region and the municipalities at the level of managing directors.

The Executive Steering Committee appointed a Steering Group for the Health Survey 2010 which is led by a regional chairperson and a municipal chairperson. Their responsibility was to lead and facilitate the process regarding the Health Survey. All 11 municipalities have been represented as well as members from the regional Department of Analysis and the regional Department of Public Health.

The Steering Group has dealt with many different tasks. It has participated in selecting additional questions to the identical national 52 questions; it has planned and coordinated PR and communication relating to the collection of data, and finally it has dealt with the final regional report Health Survey 2010. The group planned the closing conference too.

Furthermore, the municipalities produced 11 individual municipality reports, to which the region supplied the data. These individual municipality reports are now to be used in the municipalities' work with developing local health policies. The collaboration between The North Denmark Region and the 11 municipalities in the region continues in order to use data from the Heath Survey 2010 prospectively. For instance, The Health Coordination Committee has a political aim to minimise the social inequity in health. The Health Survey is seen as a possible contribution monitoring the social inequity in health and hence be the basis of socially differentiated health effort in the Health Agreement between the Region and the municipalities.

The National Health Survey 2010 Online Database

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The five Danish regions and the National Institute of Public Health, University of Southern Denmark has carried out a representative health survey of the Danish population in 2010. The survey was based on a random sample of 298,850 individuals aged 16 years or older. A mixed-mode approach was used to collect the survey data. The letter of introduction invited the selected individuals either to complete the questionnaire online or to fill out the mailed questionnaire. In all, 177,639 individuals completed the questionnaire (59.5%). The regions published regional reports and, subsequently, all regional data was gathered in a national database and a national report was published by The National Board of Health. In order to facilitate the accessibility and the use of the survey data it was decided to develop an online database.

The online database was developed by the National Board of Health and the National Institute of Public Health and was launched together with the national report in March 2011. The database includes approximately 90 health indicators - including indicators for health-related quality of life, health behavior, morbidity, consequences of illness and social relationships. The database allows users to generate tables categorized by region, municipality, gender, age, cohabitation status, combined school and vocational education, employment status and ethnicity. Furthermore, users can generate maps categorized by region, municipality and gender. It is possible to export the generated tables to EXCEL and users may view the generated tables and maps in PDF format.

The online database is a fundamental part of the publishing process of the National Health Survey 2010 and an important tool for Danish health professionals, policy makers, journalists and others. Hence, it is very relevant to present the online database in this workshop. More detailed information will be presented and the database will be demonstrated at the workshop.

4.L. Trans European public health

Mechanisms of issuing Public Health Policies - A process which can be transferred to the new European Union Members

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Romania faces these days the challenge of regionalization of the public policies. This exercise is a very difficult one because in Romania there is no tradition in regionalization the administrative and political issue. In many European countries the public health policies are designed and implemented at regional and local level, the central level having only the role of creating the frame in which the regional and local level institutions could move around when designing and creating public health programs. It is important for Romanian experts working in a range of public institutions, which have direct or indirect contact with public health issues, to understand and to learn how to identify health issues from the community level which could be translated into public health policies and how to evaluate the impact of this effort in order to become more efficient in spending public funds and in obtaining positive health results.

The objectives of the project are:

To assess and document the mechanisms in place for building Public Health Policies in 3 European countries: Germany, Spain, Italy and to organize a transfer of know-how to the Romanian policy makers

To promote the Health in All Policies concept and to motivate policy makers to apply it

The main method used was the case study; for each of the 3 European Countries the mechanism of issuing the Public Health Policy is described and 6 policies have been evaluated and translated into the case studies which can be used as educational tool but also as example of how these types of policies could be developed.

The most important result was to understand the Mechanisms of building and Implementing Public health Policies in Germany, Italy, Spain and how a public health policy is born starting with needs assessment at community level, through collaboration between politicians and technicians and how is implemented and evaluated.

Out of 6 examples of Public Health Policies described, the Romanian specialists will be able to understand the basis and the details of the policy making cycle containing the main stages: identification, formulation, adoption, implementation, evaluation and reformulation of public health policies as WHO recommended in 1988 in The Adelaide's Recommendation (WHO/HPR/HEP/95.2, Geneva: WHO).

Is gender policy related to the gender gap in cause-specific mortality? A study of 22 OECD countries 1973–2008

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Background

The gender mortality gap varies widely between countries and over time, but few studies have investigated predictors for these variations. The aim of this study is to investigate the link between gender policy and the gender gap in mortality, adjusted for economic factors and health behaviours.

Methods

Countries were clustered using indicators of gender policy including taxes, parental leave, pensions, social insurances and social services in kind. Male breadwinner countries were made reference group and compared to Earner-carer, Compensatory breadwinner, and Universal citizen countries. Specific policies were analysed separately. 22 OECD countries were followed 1973–2008 and the outcomes were gender gaps in external causes and circulatory disease mortality. Hierarchical linear regression was used.

Results

Both the Earner-carer cluster (Ns after adjustement) and specific policies characteristic of that cluster are associated with smaller gender gaps in external causes, particularly due to an association with increased female mortality. Cluster differences in the gender gap in circulatory disease mortality are the result of a larger relative decrease in male mortality in the Compensatory breadwinner cluster and the Earner-carer cluster. Specific Compensatory breadwinner policies were also related to a decreased gap. For circulatory disease, gender equality (measured by the GEM) was an important mediator. As measured here, neither alcohol consumption nor smoking are important confounders or mediators.

Conclusion

Results show that earner-carer policies mostly have an impact on women's conditions and behaviour (in the case of external causes) while cluster differences primarily affect men (in the case of circulatory disease). Whether cluster differences not explained by specific policies reflect unrelated societal trends or are the result of the whole policy package is an open question.

The implications of European integration for health systems in two transitioning states

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Background

Integration into the EU is a process that begins prior to accession and continues long after it. Romania and Bulgaria, which acceded in 2007, continue to adapt their policies and practices to their new situation; others that have yet to accede are following the same path but have further to travel. What can those who have yet to accede learn from the most recent additions? We report views on the implications of EU integration for health and health policy in one of the newest member states (Romania) and one that may soon join (TFYR Macedonia).

Methods

The research is part of a larger four country study of the health system response to multidrug-resistant tuberculosis. Approximately 20–30 key informant interviews were conducted in each country, examining the key health system functions: stewardship, service delivery, service-creation, and financing.

Results

Interviewees in both countries described net positive effects of EU integration. Benefits included standardisation of health policies, increased transparency, and the availability of funds for improvement of physical facilities. In TFYR Macedonia, the country currently benefits from a reported surplus of health professionals, yet a public funding challenge in competing against a growing private health sector. Additionally, TFYR Macedonia has undergone extensive reforms and privatisation to the health system, in part due to external influences. In Romania, negative aspects of integration included mass migration of health professionals (approximately 9,000 physicians since acceding to the EU), the loss of eligibility for external aid (e.g. The Global Fund to Fight AIDS, Tuberculosis and Malaria), and the impending repatriation of >13,000 prisoners from other EU countries into an already overcrowded system.

Conclusions

While EU integration presents many benefits for countries in transition, there are also challenges, especially where the acceding state has a fragile economy and weak health infrastructures.

The current state of national cancer plan policies in the EU countries

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Issue

This paper deals with an analysis of the current state of national cancer plan policies in the EU and EEA countries. The analysis is a part of the EU co-financed Joint Action on Cancer.

Description of the problem

National cancer (control) plans have been identified by WHO as one of the most efficient public health and public health policy methods to comprehensively tackle cancer as one of the most important chronic diseases. Recommendations and guidelines for a national cancer control plan were last revised in 2003. Consequently, also EC in 2008 adopted a recommendation that invites all member states to prepare their own national cancer plans by 2013. Experiences of the individual countries are different, hence it was to be expected that approaches to the development of national cancer plans would vary also.

Within the Joint Action on Cancer project we developed a questionnaire, which was circulated to all EU member states and Norway and Iceland. The questionnaire inquires about the key elements of the cancer plan, the process of its development, obstacles and the current state and level of its adoption. Financial issues and responsible institutions are also discussed.

Results (effects/changes)

At present the analysis of the questionnaires is undergoing and it is too early to report on the results. What can be said at this point is that almost all EU member states now have formally adopted national cancer plans and that they will comply with the EC recommendation. Some of the member states have experience with national cancer plans since the 1990s (e.g. France), others, such as Malta, have only recently adopted them.

We expect to present detailed results with respect to the predominant foci of national cancer plans in the EU member states and describe the processes, which led to their adoption. We are focusing on the contents and not on the formal obligation leading to their adoption.

Lessons

1. We expect to learn about the current state of national cancer plans, including their structures, financial coverage, responsibilities and problems encountered.

2. Lesssons learnt from the analysis of the questionnaires will provide the base for new guidelines for quality-based preparation of national cancer control plans, including their (preferred) structure.

Country level housing conditions: a cross sectional study in Europe

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Objective

To investigate which country level housing conditions discriminate between European households.

Methods

This cross sectional study analysed household survey data from 26 European countries. We first extracted 21 variables from the EU SILC database which were descriptive of the housing conditions of European households at the country level and have been shown to be linked to health (World Health Organization, 2005). Then we performed a frequency analysis to examine the variation in the data and eliminated the redundancy in the variables by examining the Pearson product-moment correlation coefficients. Next, we performed an exploratory factor analysis on the remaining nine variables incorporated in this study.

Results

Three factors resulted from the factor analysis, which together explained 55% of the common variance in the data (comprising nine variables and approximately 203,000 households). The correlations between factors were 0.26 for Factors 1 and 2, 0.49 for Factors 1 and 3, and 0.19 for Factors 2 and 3. Factor 1 was labelled 'housing strain' given the emphasis on the material deprivation linked to the housing structure. Factor 2, 'neighbourhood strain' reflected the disadvantage found in the local housing environment. Factor 3 was labelled 'household economic strain' to reflect the costs directly related to the household.

Conclusions

Our research suggests there are inequalities in housing conditions for children in Europe. Further research is needed to determine how these inequalities affect child mortality. By the time of the conference we will be able to present data on this relationship.

Validation of the European Health Literacy Survey (HLS-EU). Locations: Ireland,The Netherlands, Greece. Dates- June 2010 - October 2010

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Background

Health Literacy (HL) encompasses people's capacities, skills, knowledge and motivation to access, understand, appraise and use health information. HL is an essential component for successful use of health services, disease prevention, and health promotion. Its emergence as a field of study in Europe has led to a need to define and measure HL in the European context. The European Health Literacy Survey (HLS-EU) Consortium developed an integrative conceptual model of HL. On the basis of this conceptual model, an instrument has been developed to measure HL.

Methods

The validation of this instrument followed a sequential exploratory mixed method design using; (i) convenience sample focus groups in Ireland ($n = 6$), Greece ($n = 8$) and the Netherlands ($n = 6$), (ii) a pilot study in Ireland and the Netherlands ($n = 50$ in each country). Pilot samples were matrix based and representative of all education and age levels that may be recruited in the final survey. The data obtained in the piloting phase were statistically analysed using Item Analysis, Principal Component Analysis (PCA) and reliability analyses.

Results

Multiple issues with interpretation, understanding, difficulty, and timing of individual items and the instrument as a whole were highlighted by the focus groups and qualitative observations made during the pilot study. Item analysis identified one item and 9 sub-items for elimination. PCA confirmed the items used in the instrument can be used to construct scales that reflect the dimensions of the conceptual model. The resulting scales had internal consistencies (Cronbach's alpha) ranging between .51 and .94, taking into account that Cronbach's alpha is sensitive to a low number of items, these values suggest that the obtained scales were homogeneous. The scales predicted self-reported health status.

Conclusion

Observations made during validation work led to improvement of the HLS-EU instrument. The instrument measured the concept of health literacy as defined by the HLS-EU conceptual model. The findings of the validation work have been incorporated into the final instrument which will be used to collect data in ≥ 8 European countries in Summer 2011. This work provides a methodological framework for internationally collaborative development of measurement tools.

Global consensus for social accountability of medical schools. A challenge for international public health

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Context and issue: The beginning of the 20th century presented medical schools with unprecedented challenges to become more scientific and effective in the creation of physicians. This was captured in the Flexner report of 1910. The 21st Century presents medical schools with a different set of challenges: improving quality, equity, relevance and effectiveness in health care delivery; reducing the mismatch with societal priorities; redefining roles of health professionals; and providing evidence of impact on people's heath status.

Description: To address those challenges 130 organizations and individuals from around the world with responsibility for health education, professional regulation and policy-making participated for eight months in a three-round Delphi process leading to a three-day facilitated consensus development conference. From 10 to 13 October 2010, 70 delegates from medical educational and accrediting bodies around the world met in East London, South Africa to finalize the Global Consensus on Social Accountability of Medical Schools.

Effects changes: The Consensus consists of ten strategic directions for medical schools to become socially accountable, highlighting required improvements to: respond to current and future health needs and challenges in society; reorient their education, research and service priorities accordingly; strengthen governance and partnerships with other stakeholders; use evaluation and accreditation to assess performance and impact. It recommends synergy among existing networks and organizations to move the consensus into action at global level, with a number of tasks: advocacy to recognize the value of the global consensus; consultancy to adapt and implement it in different contexts; research to design standards reflecting social accountability; global coordination to share experiences and support.

Lessons: This important consensus includes the enhancement and development of accreditation standards, systems and evaluations, all dedicated to quality improvement in their impact on the health needs of public health from the local to the global scale. Measurable movement in this direction will become a worthy legacy of the 21st century.

Review of public health capacities in the European Union

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Background

In the last decade, the so-called ''Third Public Health revolution'' has confronted the public health community with changing goals, approaches and actors. Addressing the challenges requires an increased capacity of the public health community including policy makers and organizations. This study was performed under the EU Health Programme and aimed at reviewing the capacities of Member States (MS) to formulate and implement public health policies and programmes. The goal was to identify areas of action where the EU can support the strengthening of these capacities.

Methods

An assessment tool was developed, which appraised public health capacities across six different domains: (1) Leadership and Governance, (2) Organizational Structures, (3) Workforce, (4) Financial Resources, (5) Partnerships and (6) Knowledge Development. Accordingly, the tool was applied via a key informant approach in all 27 MS. In addition, focus group workshops, case studies, key informant interviews and policy dialogues with national decision makers were organized to complement the reported data from the MS.

Results

The analysis of data from all 27 MS identified relative strengths and weaknesses of public health capacities in each country. An additional comparative analysis of the data across countries revealed that common issues and problems were shared by many MS regardless of their individual level of capacities. The analysis showed that Knowledge Development across the EU MS was considered as relatively well established, whereas Financial Resources and Workforce factors were considered as being relatively weak. Accordingly, recommendations for EU support to strengthen public health capacities in the MS were formulated.

Conclusions

The comparative analysis of public health capacities in the EU highlighted strengths and weaknesses across MS and therefore provided a general picture of public health capacities in the EU. Although there are substantial differences in the organization of public health between MS, it was found that they still share a set of common issues and problems. Addressing these shared problems at EU-level can therefore be an appropriate approach to strengthen public health capacities.

Creating networks to support public health research capacity, the Quebec experience

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New approaches are needed to improve collaborations among researchers from different disciplines and institutions to sustain multidisciplinary research to generate the evidence base critical for effective public health (PH) practice and policy making. The Population Health Research Network (www.santepop.qc.ca) was created in 2001 to increase the capacity for public health, health services and policy research in the province of Quebec, Canada. The objectives are: 1) increase research capacity, 2) support research infrastructures and 3)support knowledge translation (KT) and research in KT. To achieve these objectives, the Network has identified 8 strategic priorities including: training of new investigators in PH intervention and in global health; health and social inequalities; ethics; global health; primary care research; longitudinal, linked administrative databases; internet and health; and KT. We hold annual competition for 1) seed funding for multidisciplinary grant writing for submission to Canadian granting agencies (success rate: 52% compared to 20% for those we do not support, return on investment of 31:1 or return of $13 million in research grants for an investment of $400000 over ten years); 2) book writing (30 books to date, topics include among others: epidemiologic methods, anthropology, sociology of health and PH history); 3) conference support (over 50 to date); 4) stipends for travel to developing countries for graduate students to return research results to local communities; and 5) research prizes. We fund two training programs which offer bursaries and innovative curricula for PhD and post-doctoral students in PH and Global Health (about 50 students trained to date). We publish three bi-weekly electronic bulletins which scan the gray literature in the areas of population and PH, health services and global health and which are distributed to close to 8000 subscribers across Canada and beyond. We publish research makers for policy makers and support a research team devoted to KT. The Network has succeeded in creating new partnerships between researchers from diverse disciplines and institutions and generated several initiatives to support long-term capacity development for PH research in Quebec.

4.M. Interesting miscellaneous Posters

KINSHIP PROJECT. An European qualitative research on the needs of kinship carers of children and adolescent descendants of drug users

Francisco Guillen Grima

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Background

Across Europe, there are hundreds of thousands of children and young people being cared for by family members because of their parents alcohol and drug problems. Sometimes these relationships are sanctioned by courts or supported by social services, but often grandparents, uncles, aunts and siblings take on these roles on an informal basis.

Methods

A qualitative study was conducted in 7 European countries (UK, Belgium, Sweden, Romania, Spain, Italy and Lithuania) during 2009. A random sample of 183 fulltime kinship carers of children and adolescents from parents with drug abuse problems were interviewed. Methodological triangulation was achieved by using 2 methods: face-to-face interviews and focus groups. Transcriptions were evaluated using conceptual content analysis

Results

Most of kinship carers were grandmothers 63% (95% CI 58.2–72.4) In Spain and in Sweden the number of uncles and aunts was 2 and 3 times higher that of grandparents. Becoming carer is stressful. They were grieving and uncertain of what the future holds. They are often financially worse off, some leaved their jobs to look after the children, others had to return to work just to get by. There wasn't a choice in becoming a carer; they felt a duty and some felt pressured to take on the role by circumstance or by other family members. Their relationship with social care services is uneasy and many expressed their dismay with the way they have been treated. In Italy carers don't feel listened to by statutory services while in Sweden carers feel humiliated by the bureaucracy involved in meeting their needs. Carers put their own health and well-being behind the needs of the children. They didn't have the time or money to sustain their adult friendships and felt shame for what their families had been through. They wanted to protect the children and expressed a desire to be better informed about drugs and alcohol.

Conclusions

The legal and financial hurdles that kinship carers and the children of alcohol and drug abusers in their care face create significant concerns to carers and should be a matter of the utmost concern to policy makers and legislators across the European Union.

POSEIDON "Promoting Optimisation, Safety, Experience sharing & quality Implementation for Donation Organisation & Networking in Unrelated Hematopoietic stem cell (HSC) transplantation in Europe": main results and policy recommendations

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POSEIDON was a project funded by the European Commission (EC) over 3.5 years, starting in June 2007. It aimed at improving the safety of Hematopoietic Stem Cell Transplantation (HSCT) and its access in Europe by concentrating on optimising steps prior to the actual donation: recruitment of donors, typing strategies and quality, organisation of donor registries/CBB (Cord Blood Banks). It involved 8 partners and was mainly a mapping exercise gathering information on the present situation in European states, using existing documentation, questionnaires and qualitative methods, content analysis of documents gathered by comparative qualitative or statistical analyses, use of economical analysis for generating models aiming at planning registry and CBB development, setting up training activities and actions for accreditation and quality assurance of immunogenetics laboratories. The different aspects of the donation chain were integrated in developing overall recommendations for professionals and policy makers.

The POSEIDON project helped implementing the EU public health programme by promoting quality implementation for histocompatibility typing and practical application of the Directive 2004/23 EC. It also dealt with volunteer donor recruitment and HSC donation. Main aspects were analyses of donor recruitment strategies in donor registries with proposals towards minorities, an effective boost of the quality process of HLA laboratories and an improved follow up of accreditation, improved models developed by economical analysis for measuring efficiency of registry / CBB and for prospective registry / CBB planning, a survey on existing education material for professionals and a line of action towards a European curriculum in histocompatibility and immunogenetics. The integrated report highlighted achievements in each part and listed specific sets of recommendations. The set of recommendations to professionals and policy makers includes 30 recommendations on the various aspects addressed and 15 transversal recommendations generated thanks to the interdisciplinary work of the POSEIDON consortium. The overall integrated results constitute an information package for professionals and policy makers at national and EU level.

Cost of illness analysis of Haemophilia A: resource use and direct costs in Italy

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Background

Haemophilia A is a hereditary bleeding disorder. Its complications (i.e. chronic joint disease, intra-articular and intramuscular bleeds and infections) cause often substantial morbidity, impairing patients' quality of life.

In 2008, 3.307 boys/men were affected by haemophilia A in Italy. People with haemophilia A require lifelong infusions of clotting factor, represented by either recombinant or plasma derived factor VIII (FVIII), in order to prevent episodes of bleeding.

The objective of the current analysis was to estimate the economic impact of haemophilia A in Italy.

Methods

A descriptive cost of illness (COI) analysis was performed from the Italian National Health Service perspective. Therefore, only direct medical costs (therapy with clotting factors, hospitalizations, diagnostic exams and physicians' visits) were included.

Regarding data input, epidemiological data were taken from the Italian Registry of Haemophilia, while economic ones were taken from National Tariffs Registries.

Medical resource use was measured by utilization of healthcare services at the patient level.

All costs were reported in Euro and, when necessary, adjusted for the inflation, using the Consumer Price Index (January 2010).

Results

The COI analysis found that the management of haemophilia depends on different variables.

The average cost of management of haemophiliacs is approximately €141.438,64 and €249.546,6 per patient treated with plasma derived and recombinant factor VIII, respectively. The analysis shows that the replacement therapy represents the main cost driver, accounting for 98% of total direct medical costs, followed by hospitalization, physicians' visits and diagnostic costs.

Conclusions

The current analysis confirmed that, although Haemophilia A is a rare disease, it is a very expensive condition.

The high cost of haemophilia management is due especially to the infusion of FVIII, in particular in the case of patients on prophylaxis. Actually few efforts have been made to quantify the economic burden of the disease in Italy. Otherwise, it would be necessary to estimate the costs of patients developing inhibitors and to calculate indirect cost in terms of work/school days lost in order to quantify the complete economic burden of this chronic disease.

Estimating a preference-based index for health states of dependency

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Background

The aging population and the consequent increment of persons in situations of dependency has caused a growing interest in the study of the provision of health and social care for this population group. In the field of public health there is also a growing interest in developing policies to prevent or delay dependency situations. However, in order to evaluate the effect of different policies, we need to develop a tool to measure the severity of dependence. The aim of this study is to elaborate a dependency measurement index combining the advantages of indicators proposed in the medical literature (broad description of characterizing dependency) with those from health economics (health measures based on preferences valid for the allocation of public resources).

Methods

The selection of dimensions to define the dependency index was based on medical literature and the conclusions drawn from a focus group. We used the experimental design methodology to select 24 dependency states. These states were evaluated by 312 people from the general population of Galicia (Spain), using the Time Trade Off method. Regression models with random effects were used to predict the value of states not directly evaluated.

Results

Six dimensions were selected to define a dependency index: eating dependency, dependency related to urinary incontinence, dependency for personal care, dependency for mobility, dependency for housework and dependency related to mental problems. Each attribute has between 3 and 4 levels. All levels are significant ($p < 0.005$) except the less severe level of dependency for housework. Dependency linked to mental problems is the dimension that generates the higher disutility (32% of relative importance), followed by mobility (18%). By contrast dependency for housework generates a lower level of disutility (6%). The results showed good internal consistency and convergent validity of responses.

Conclusions

In this paper we obtain a specific health measure for dependency, valid for use in economic evaluation. Our methodology allows comparing the proposed dependency measure with other health measures widely used in health economics, with an advantage over them: its higher sensitivity to changes in situations of dependency.

The use of knowledge translation in developing evidence for public health policy and practice: a staged, multi-methods study in England, 2007–2009

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Background

Engaging lay people in the planning and delivery of public health programmes offers a way to link services and communities. Lay workers and volunteers can be engaged in delivering a range of activities, consultation and evaluation. Previous research has proposed a multi-faceted model for evidence-based purchasing of public health programmes. It is therefore important to understand how different models are applied, and to identify issues affecting delivery and organisation of such programmes. The People in Public Health study in Leeds aimed to improve understanding of approaches to develop and support lay people in public health roles by investigating how programmes recruit, train and support people, and by identifying factors affecting programme development and sustainability.

Methods

The study drew on research and practice based evidence and lay perspectives in two stages: a scoping study, consisting of a literature review, expert hearings and liaison with public health practice through a register of interest and visits, and case studies of five programmes reflecting different models and populations. The expert hearings and an interactive website facilitated wider communication.

Results

Justifications for involving the public included accessing local knowledge, programme reach, ability to cascade information through networks, and offering culturally appropriate support. The literature review identified five main roles, which in practice were often combined. Altruism was a major motivation for lay workers. Programme development was held back by lack of infrastructure to support lay engagement. The nonprofessional status of lay workers facilitated participation, yet there were clear understandings of the distinction between lay and professional roles. A range of health and social benefits from lay engagement were reported but evaluation is required to investigate the effectiveness of bridging roles in addressing health inequalities.

Conclusions

The People in Public Health model of evidence generation for public health policy and practice provides a practical and effective mechanism for knowledge translation between policy, practice and research. Improved dialogue between sectors could ensure that evidence is meaningful in policy and practice.

Sociomedical parent-child screenings: a survey and comparison among 9 European countries

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Background

Parent-child screenings pursue the goal to reduce mortality rates among pregnant women and children. Most programmes are "Medicine-centred", i.e. physical check-ups, technical tests and laboratory tests are pivotal parts. However, some countries have considered additional screenings targeting sociomedical risk profiles. The proposed presentation is based on a research project that attempted to analyse strategies for pregnant women and children in selected European countries asking about the range of sociomedical screenings and the involved health professionals.

Methods

Apart of a literature review, we designed a questionnaire which was sent out to 9 international experts in the field of parent-child screenings. The survey asked about the existence of specific screening strategies for 7 potential sociomedical risk profiles among pregnant women and for 5 risk factors that may affect children.

Results

Basically, information could be gained from the United Kingdom, Finland, the Netherlands, Germany, Sweden, Ireland, Iceland, Norway and Switzerland. In these countries, the objective of the screenings is the provision of target-group appropriate services. Procedures for the risk group identification under existing ''screening infrastructures'' have already been established. In the case of early prevention programmes for children, some countries (e.g. the Netherlands) have established screening priorities on the psychosocial development and the social environment of the child. Sociomedical risk factors for pregnant women (e.g. domestic violence) and also diseases with health consequences (e.g. drug abuse) are widely the ones identified by a special question pattern. Other risks (e.g. social deprivation) are identified by outreach professionals in the immediate living environment of the family. These experts serve as contact persons for the target groups and can interface with other health professionals.

Conclusions

Parent-child screening initiatives discussed here, considered the increasing social and medical risk factors that pose potential health threats. Against the backdrop of different health threats, the expansion of health visitors offering ''easy-to-access'' services should be discussed without stigmatising certain parent-child groups, though.

Risk assessment of work-related neurological and musculoskeletal disorders in non-ferrous ore mining

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Background

Extraction of non-ferrous metals might be underground and associated with specific hazardous working environment and technique.

The aim of the study was to evaluate the work-related risk of peripheral nervous and musculoskeletal disorders in workers from a Bulgarian mine for underground exploitation of golden-copper ore deposit.

Methods

A cohort study of 639 exposed and non-exposed to risk factors in the working environment and labour processes was carried out divided into 4 groups. The first group comprised 363 underground workers with musculoskeletal overstrain, awkward postures, lifting, handling and exposure to vibration, unfavorable microclimate, noise, etc. The second group was formed by 74 workers with middle and light category of work, short underground stay and upper limb strain. The third group was of 94 office employees with possible psychological and senses tension, working on display. The fourth group of 108 extractive metallurgy workers was exposed to chemical hazards and senses tension. The risk assessment was done by defining the coefficients of prevalence and calculation of the relative risk with level of significance $P < 0.05$.

Results

The prevalence of peripheral neural disorders was 17.34% mostly being lumbosacral and cervical radiculopathies and autonomic dysfunctions of the hands - 12.20% (relative risk (RR) 9.17, 95% confidence limit (CL) 1.28 - 65.51, $P < 0.005$ between the first and second groups and RR 11.65, 95% CL 1.63 - 83.45, $P < 0.005$ between the first and third groups). The prevalence of musculoskeletal diseases was 10.03% mainly of the spine and upper limbs (RR 5.30, 95% CL 0.73 -38.45, $P > 0.05$ between the first two groups and RR 6.73, 95% CL 1.02 - 48.98, $P < 0.05$ between the first and third groups). Diseases predominated among workers from the first group.

Conclusions

Significantly increased risk of work-related neurological and musculoskeletal disorders among underground workers occupying professions of rotary drill operators, rotary rig engine operators, rotary-driller helpers, derrick operators, operators on power shovel with activities related to occupational risk factors necessitates regular screening check-ups of the workers for timely early diagnosis, treatment and ability expertise.

Efficacy of Roma health mediator programs in Bulgaria, Macedonia, Romania, Serbia, Slovakia, and Ukraine: a review from March to June 2011

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Issue

Roma throughout Europe experience persistent poverty and poorer than average health outcomes. Consistent with the European Union Roma Platform recommendation for targeted efforts to facilitate Roma inclusion, several countries have initiated Roma health mediator (RHM) programs. RHMs provide health education in the community, facilitate Roma access to health insurance and health care, provide linguistic translation, and assist Ministries of Health with specific projects. Roma health mediation is often the only governmental program aimed at improving Roma health. Many RHM programs lack sustainable funding.

Description of the problem: This Open Society Foundation policy review entailed qualitative and quantitative data collection in six countries. The review draws country-specific and regional conclusions regarding the efficacy of mediator programs and their role in wider governmental efforts to improve Roma health. Due to lack of baseline data, review conclusions are primarily based on process indicators and stakeholder opinions.

Results

Preliminary results (as measured by process indicators) suggest that RHMs meaningfully improve appropriate utilization of health care in areas where RHMs are present. Where health provider buy-in is strongest, RHMs improve the quality of doctor patient interactions. However, governments often fail to involve RHMs in Roma health strategy development and implementation. RHM success depends on sustainable and meaningful governmental support for the program. Long-standing RHM programs are better able to effect change, such as improved governmental and provider knowledge about Roma health, and improved health knowledge among the Roma.

Lessons

RHM programs should be leveraged to enhance governmental action on health disparities. Short-term interventions are much less cost-effective than sustained programs, and they risk further eroding Roma trust in the government's commitment to facilitate Roma inclusion.

On the need for mixed methods research in public health sciences

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IsIssue/problem

Public health is it important to bridge the evidence practice gap. A broad concept of knowledge is mandatory: Theoretical-scientific knowledge (to know), Practical-productive knowledge (to be able) and Knowledge as practical wisdom (to be wise) are needed. Therefore, public health research needs to be transdisciplinary as well as using both qualitative and quantitative methods, i.e. mixed methods.

Description of the problem: Bridging the knowledge practice gap needs a combination of research strategies including fundamental research (mechanisms), surveillance research (integrated knowledge management), intervention research with concern for both internal and external validity, and application and program delivery.

Knowledge is needed for policy/budget, practitioner, population, and the academy. In this endeavor quantitative and qualitative studies need to be combined. Approaches a specific question is the available evidence enough for drawing conclusions in either direction? The role for evidence, which is used in science, is a systematic collection of data in an attempt to reduce bias that is inherent in more anecdotic evidence.

There are three types of public health researchers: Quantitatively oriented scientists primarily working in within the postpositivist/positivist paradigm and principally interested in numerical data and analysis, Qualitatively oriented scientists within the constructive paradigm and principally interested in narrative data and analyses, and Mixed methodologists working primarily within the pragmatist paradigm and interested in both types of data and their analysis.

Results

Mixed method research is used in recent doctoral dissertation in public health in Sweden. However, a key concern is that mixing methods need competence in the three research traditions. A challenge is to use the full potentials of research designs as well as analytic strategies and interpretative rigor of mixed methods research.

Lessons

We need to go beyond the incompatibility thesis to fit the research methods to the research and evaluation problems without parochialism. A combination of exploratory and confirmatory, qualitative and quantitative approaches is needed. Relevance, quality, and trustworthiness are key characteristics.

Use of microbicide gels in preventing Human Immunodeficiency Virus infection in heterosexual relationships: A meta-analysis of global trials 2005–2010

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Background

Globally there are about 34 million people living with Human Immunodeficiency Virus (HIV), with 2.7 million people infected yearly. Since 1980, about 60 million people have been infected and of these 25 millon have died of HIV/AIDS related illnesses. In Europe there are about 1.2 million people living with HIV with an adult prevalence rate of between 0.2–0.8%. Sexually active women are the most vulnerable group among the adult population worldwide. Microbicides, in the absence of an HIV vaccine have become an alternative in preventing the threat of HIV infection. The study aims to inform through available evidence on the effectiveness and safety of microbicides in preventing HIV infections in heterosexual relations.

Methods

A meta-analysis based on randomised controlled trials on the use of microbicide gels in preventing HIV infection among women in heterosexual relationships. Four RCTs provided data on the effectiveness of microbicide vaginal gels and five RCTs providing data for safety analysis of microbicide gels (Published between 2005–2010). Database search of Google scholar, EBSCOhost and Science Direct was conducted, with data extracted for reported HIV infection, sexually transmitted infections in efficacy studies while for safety studies it was for adverse events. Statistical methods were the Mantel-Haenszel test and Chisquare test. Effect size was computed for Risk Ratio and Odds ratio including Heterogeneity, Sensitivity and P-value at 95% Confidence Interval.

Results

Population sample was 12 068 from ten randomised trials. Condom use was observed to have been used in both treatment and placebo across all studies. Overall effect on efficacy of microbicide was P = 0.05 with RR = 0.87 (95% CI = 0.75, 1.00), with Karim (2010) demonstrating RR = 0.63, (95% CI = 0.43, 0.96) and Skoler-Karpoff (2008) demonstrating RR = 1,01 (95% CI = 0.79, 1,29). Heterogeneity I2 = 26%. Overall effect on safety of microbicides P = 0.002, with OR = 0.61 (95% CI = 0.47, 0.80) Heterogeneity I2 = 0%. Heterogeneity was not significant in both efficacy and safety studies. Sensitivity analysis for efficacy studies heterogeneity was I2 = 62%, P = 0.83 with RR = 1.0, (95% CI 0.95, 1.06).

Conclusions

Microbicides demonstrated risk reduction of HIV infection by around 675 000 people in a year, with Karim study, reducing the risk by 37% which is about 1 million people. All microbicde formulas pooled for this meta-analysis, are safe to use in preventing HIV infection.

4.N. Poster workshop: Drug prevention in educational settings: The role of social networks and social norms

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Adolescent risk taking behaviour is largely influenced by the social environment and the social norms among peers. The workshop will address theoretical models to explain underlying mechanisms through which the social environment is shaping lifestyles and drug-taking behaviours. Olga Orosova will present the theoretical background and data on the socio-environmental determinants of substance use in Slovakian adolescents. Based on this background two intervention approaches in the school or higher education setting both aiming at reducing drug use and smoking will be discussed: The approach of social norms and normative and the approach of building social capital and social bonds. Guido Van Hal will present the Social Norms Intervention for the prevention of Polydrug usE (SNIPE), an EU funded project that is testing the feasibility and effectiveness of the social norms approach at universities in seven countries. Liselotte Inghold from the Danish alcohol prevention in vocational school project will present an approach that builds on institutional change and building social networks to reduce harmful substance use, smoking and school drop-out. While both projects address the social environment as an important determinant of young peopleÂ's risk-taking behaviour, the intervention approaches differ in comprehensiveness and intervention level (individual and organisational). The main aim of the workshop is to present intervention approaches addressing the social environment in educational settings, but even more to discuss the chances and limitations of the different approaches. Therefore the two presentations will be followed by a structured discussion addressing the following issues (1) relevance of intervention approaches addressing the social environment (2) conditions for successful implementation (3) future research needs.

Perceived accessibility of substances, normative estimates of substance use and substance use among young adolescents in Slovakia

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Background

Measuring the association between perceived accessibility, normative estimates, as socio-environmental factors related to alcohol, cigarette, and marijuana use among young adolescents, is an important source of information for drug use prevention policy.

Methods

The research sample consisted of 3725 young adolescents in the 8th and 9th grades at elementary schools (mean age 14.35 ñ0.73, 49.6% girls, data collection winter 2006). The set of questionnaires was administered during regular school lessons, on a voluntary and anonymous basis in the absence of the teachers. Binary logistic regressions were performed to assess the associations between gender, perceived accessibility of substances, normative estimates of substance use and substance use. Regression models were calculated separately for alcohol use, regular tobacco use and marijuana.

Results

Higher level of perceived accessibility of tobacco cigarettes was associated with regular tobacco cigarette use, the odds of regular tobacco cigarette use increased with the number of peers smoking. Male gender and higher level of perceived accessibility of alcohol were associated with alcohol use, the odds of alcohol use increased with the number of peers drinking alcohol. Male gender and higher level of perceived accessibility of marijuana was associated with marijuana use, the odds of marijuana use increased with the number of peers using marijuana.

Conclusions

The results supported the importance of socio-environmental factors related to substance use among adolescents, as well as the fact that by reducing substance availability and correction of normative misperceptions, a reduction of alcohol, regular cigarette, and marijuana use among young adolescents could be achieved.

The Social Norms Intervention for the prevention of Polydrug usE (SNIPE) project

Guido Van Hal

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Background

There is a growing concern regarding alcohol use and increasing use of synthetic drugs among university students. Peers are the most salient social referents for university students and overestimating their consumption may lead to increased personal use. Interventions providing students with accurate information on normative behaviour have been identified as a useful prevention instrument in the US and Australia, but have rarely been tested in relation to illicit drug use in Europe.

Methods

The presentation will summarize data from an internet-based data collection among University students in Denmark and Belgium addressing actual drug use and perceived drug use of peers as well as data from the Unitcheck intervention study using personalized feedback and social norms at the University of Leeds to reduce alcohol mis(use).

Results

Danish and Belgium students showed considerable overestimation of their peersÂ' smoking behaviour, drug use and alcohol consumption. The Unitcheck intervention led to a reduction in the consumption of alcoholic drinks in students from the University of Leeds. It will be presented how these research results will be used to develop a new intervention tool for the SNIPE project.

Conclusions

While the social norms approach showed promising results in the US and some pilot studies, the feasibility of the approach at European universities as well as its effectiveness under different conditions, such as school policies and institutional practices remains still unclear. The SNIPE project will address these research questions.

The significance of social relations in tobacco, alcohol and drug prevention: An intervention project in Danish vocational schools

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Background

In Denmark, vocational training is completed by only 51% of the students enrolled and 40% of those who drop out do not continue in education within ten years. Little is known of the health status of this particular group, but it is frequently reported that many experience problems with alcohol and substance abuse which contribute to the difficulties of completing the education.

The aim of this research is to analyze the social environment as well as institutional structures and the relationship to smoking, alcohol and drug use as well as drop-out among students at Danish vocational schools. On this background, the aim is further to reduce drug, alcohol and tobacco use and reduce the drop-out rate among the students by developing and implementing a multifaceted intervention programme working with the students' peer relationships and the institutional organizations of the vocational schools.

Methods

The project consists of a development phase (with structured interviews and field work at four vocational schools in Denmark) and an intervention phase. Based on the results of the development phase the specific form and content of an intervention programme is currently being developed.

Results

Students at vocational schools expect to develop new friendships when they start their education. However, vocational schools mainly focus on the development of the students' professional skills, not their social relations. Thus, the students are left on their own to develop social relations and bonds. Smoking, alcohol and drug use become important factors in the process of forming these relationships. For a proportion of the students, the focus is drifting from professional and social interactions to drug and alcohol use as a dominant part of life.

Conclusions

The institutional organization within vocational education should in the introduction of the students to their new school life as well as in daily practices be organized in order to improve the students' possibilities for having a better introduction to the school and development of social relations in everyday practice. This may potentially reduce tobacco, alcohol and drug use and the risk of drop-out, which will be addressed in the intervention phase.

4.O. Migrant and minority health

A life course framework for epidemiological studies of health risks and outcomes in migrants

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Background

Persons who immigrate form low- and middle-income countries to industrialised countries experience health risks and outcomes differing from those of the non-migrated majority population. Socio-economic deprivation of migrants explains only part of the observed differential, as is the case for selection effects such as a healthy migrant effect. We here examine whether a life course perspective which considers specific exposures of migrants has additional explanatory power.

Methods

We assess existing conceptual frameworks which attempt to explain health differentials migrant and their offspring experience using epidemiological data from the fields of cancer epidemiology and perinatal epidemiology, focusing on Turkish migrants in Germany.

Results

Observed patterns of risk factors and mortality, and their change over time, among Turkish migrants and their offspring in Germany cannot be explained by social deprivation or selection effects alone. A framework taking into consideration differential risks of exposure to noxi such as Helicobacter pylori or tobacco smoke over time in the country of origin and in the host country better accommodates the available data. This life course framework helps to understand ethnic differentials in the frequency e.g. of stomach, breast, lung and liver cancer as well as of haematological cancers.

Conclusions

A framework extending existing concepts of migrant health, i.e. those based on social discrimination and selection, by a life course framework, helps to analyse and explain differentials in health risks and mortality. It can help to tailor preventive programmes to specific risk patterns among immigrants and their offspring.

Attitudes towards (e)migration in socioeconomic and psychosocial context among Slovak university students

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Background

Permanent or temporary loss of young and highly educated adults through (e) migration can be a serious problem for many countries in Central and Eastern Europe.

In order to develop programs that might encourage people to stay in their home countries, it is important to know more about the individual reasons of (e)migration. It is clear that under the similar political, social, and economic conditions, some people want to leave their country while others want to stay. However, possible psychosocial factors such as family and cultural bonds have earned little attention in literature so far. The aim of this study is to compare the role of socioeconomic and psychosocial factors on attitudes to (e)migration among university students.

Methods

In 2011, the questions concerning attitudes towards (e)migration, socioeconomic status and psychosocial patterns were administrated to 211 Slovak university students (mean age 20.4 ± 0.65, 134 girls). The nonparametric Mann-Whitney U test was used to analyze the data.

Results

More than 20% of students in our sample reported strong intentions to live in another country. Those students which have planned to study or live abroad perceived negatively the socioeconomic status of their country and also reported psychosocial benefits from (e)migration such as self-fulfillment, knowing new culture and language, and overall higher standard of living. On the other hand, students which prefered to study and live in their home country perceived good socioeconomic status of their country and reported tight cultural and family bonding. Surprisingly, low income of students, low education and unemployment of their parents were not associated with the intention to study or live abroad.

Conclusion

Results indicate that psychosocial factors play an important role in e(migrant) behaviour. According to our results we can assume that the decision to stay or move is not only the function of the socioeconomic level but also a function of psychosocial factors such as family and cultural bonds. This may be linked to social capital theory where the degree of (e)migration is associated with kinship, friendship, and community network.

Can social dominance orientation predict racial discrimination in medical consultations?–

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Background

Despite the ambient egalitarianism, racial discrimination in medical consultation remains an important source of healthcare disparities. Racial discrimination leads to poorer medical outcomes and worse health status among racial minorities groups. Social dominance orientation (SDO), which assess the degree of preference for inequality among social groups, determines the level of prejudice toward outgroups and, consequently, discrimination against members of these groups. This paper explores the role of SDO in medical interracial relations. We assume that (a) interracial consultation modifies the provider's SDO and that (b) SDO predicts provider's interpersonal behaviors during the medical consultation.

Method

A sample of medical students ($N = 239$) complete a vignette study in which all factors were held constant except patient race. A half of the sample faced a Belgian white patient (ingroup patient), the other half faced a North-African patient (outgroup patient). All participants fulfilled the SDO scale and a questionnaire about interpersonal behaviors which are considered as our indicator of discrimination.

Results

A two-factor ANOVA showed an interaction between student gender and patient race ($F = 6{,}94$; $p = 0{,}009$) indicating that interracial medical consultations increase SDO but only for males. We demonstrated that SDO is negatively associated to interpersonal behaviors such as empathy ($\beta = -0{,}207$; $p = 0{,}001$), warmth ($\beta = -0{,}251$; $p = 0{,}0001$), providing information ($\beta = -0{,}255$; $p = 0{,}001$), decision sharing ($\beta = -0{,}182$; $p = 0{,}005$) and time allocated to the patient ($\beta = -0{,}228$; $p = 0{,}0001$).

Conclusion

Independently of patient race, social dominance orientation is considered as a general predictor of discrimination in medical settings. In medical interracial consultations SDO particularly increase for males suggesting that male providers have more chance to discriminate outgroup patients. Health students and health professional providers should be informed about SDO modifications during medical interracial consultations which, trough changes in interpersonal behaviors, impact on racial discrimination.

Policies and practices in the health related reception of quota refugees in Denmark

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Background

Quota refugees (QRs) arrive to asylum countries on the basis of an agreement between the country of asylum and the United Nations High Commissioner for Refugees (UNHCR). Since 1989 Denmark has received around 500 QRs for resettlement annually. Upon arrival to Denmark, QRs are received directly in the municipalities, and municipal caseworkers do hereby have the practical responsibility for the health related reception. In contrast, spontaneous asylum seekers live in Danish Red Cross asylum centres where they are assessed by health professionals and can receive care during the asylum process. Accordingly, the aim of our study was to investigate the health related reception of QRs in Denmark by focusing on municipal policies and practices in the health related reception of QRs, and to test for possible associations to these policies and practices.

Methods

The study was based on a survey of municipal caseworkers with practical responsibility for the reception of QRs. Respondents were recruited from all Danish municipalities that had received QRs after 1st of January 2007, one from each municipality. A questionnaire was elaborated on the background of preliminary research, and emailed to respondents who had previously been contacted by email or phone calls. Subsequently, possible associations with the presence of specific policies and practices in the health related reception of QRs were tested by means of a Fisher's exact test.

Results

49 of the 58 includable respondents returned the questionnaire, giving a response rate of 84 %. We found that 49 % of the municipalities had no policies for the health related reception of QRs, and 69 % had no specific policies for general health assessment of QRs at a general practitioner (GP) upon arrival. In practice, 71 % did arrange for a GP visit for all QRs upon arrival. The presence of health related policies and the practice of arranging for a GP visit upon arrival were found to be significantly associated with the number of QRs received, and the size of the individual municipality.

Conclusion

Due to the lack of policies, and the large responsibility of case workers, who are not health professionals, there is a risk that the health needs of this particularly vulnerable group might not be met satisfactorily.

Entitlements of undocumented migrants to healthcare, a comparative study in 16 European countries, 2009–10

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Background

International Human Rights laws oblige EU countries to guarantee the rights of undocumented migrants (UM) to the highest attainable standard of health, the same care coverage as the official population. Studies show that restricted UM access to health services threatens community health, burdens healthcare institutions, confronts providers with ethical commitments and threatened incomes, induces inefficient use of emergency services and does not deter illegal immigration. In 16 EU countries the entitlement of UM to healthcare, which determines the maximum level of effective access, was assessed.

Methods

In 2009–2010, legal experts analysed the immigration and healthcare legislation per country for types of care and treatments. To compare entitlements in each country, we adopted a common terminology. We also examined requirements to denounce and criminalisation of assisting UM.

Results

In Spain, France, Italy, Belgium, Portugal UM theoretically access most types of healthcare. Access to HIV treatment is limited to these countries and Cyprus. In the Netherlands, doctors decide whether care costs are covered by the system. In UK access is given but not to secondary and ante-post natal care (APNC). Free access is limited to rescue teams outside hospital in Poland, to emergency in Cyprus, to emergency and APNC in Slovenia and Romania. In Czech Republic, Malta and Sweden, there is no legal access to free care. Except for emergency care, limited access is overridden by legal requirements for German public institutions to denounce UM; Greek law prohibits provision of healthcare to UM by public services.

Conclusions

Despite international human rights obligations, UM' right to health is not guaranteed in Europe even for vulnerable groups. National laws openly discriminate UM regarding rights to health and administrative conditions for access. They contribute to the negative effects of restricted UM access to healthcare. This access might be further restricted by factors at field level. More studies will help health professionals to lobby for legal and institutional improvement of UM' access to care.

Entitlement, access to healthcare and health status of undocumented migrants; a multi-disciplinary and multilevel study in Cyprus, Malta, Poland and Romania, 2010

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Background

Studies raise public health concerns due to unmet healthcare needs of undocumented migrants (UM). The need for investigation combining legal analysis with data collection on access to care is suggested. This study aims at linking legal entitlement with access to care and health status of UM in four countries.

Methods

Legal experts analysed the immigration and health care legislation per country studied, per type of care and treatments. In parallel, 203 UM (33 to 70 per country) took part in interviews assessing socio-demographic conditions, access to healthcare, self-perceived health (as indicator for health status). They were recruited systematically while attending non-medical NGOs' services in Cyprus, Malta, Poland or Romania.

Results

For all countries, 79% (95% CI = 71–87) of the interviewees faced barriers to reach healthcare in the year preceding the interview. The main barriers by country are linked to legislation. In Romania, Poland and Cyprus, UM are not entitled to health coverage except for emergency: the most cited barrier is cost in Poland: 59% (95% CI = 45–72) and Cyprus: 62% (95% CI = 48–76). Their denunciation within health services required by law in Romania overrides the cost barrier: the most cited barrier is fear: 55% (95% CI = 35–75). In Cyprus, denunciations within health services are practiced; the second most cited barrier is fear: 45% (95% CI = 31–59). For all countries, 42% (95% CI = 32–52) of interviewees did not consult a health professional last time they felt sick, 33% (95% CI = 24–42) gave up seeking healthcare one or more times in the year preceding the interview. 18% (95% CI = 9–27) feel in bad or very bad state of general health and 43% (95% CI = 34–52) in bad or very bad state of psychological health.

Conclusions

Bad self-perception of health and the poor access to care observed show that health care needs are not well met for UM. The study also shows a link between poor access and restricted entitlement to health care. Public health-wise, and to avoid health deterioration, measures should be taken to ensure effective access to healthcare for UM, and to end the requirement to denounce them in the health system.

Socioeconomic Status of Elderly People in Transitional Kosovo

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Background

Ageing is one of the most prominent global public health issues, including also the transitional countries in South-East Europe. We aimed to assess the socioeconomic status of elderly people in Kosove, a country which has recently emerged from a devastating war in the Balkans.

Methods

A survey was conducted in Kosove in January-April 2011 including an age- sex- and residence-stratified (urban vs. rural) random sample of 1820 elderly people aged $\geq$65 years (91% response). A structured questionnaire was administered to all participants including information on socio-demographic and socioeconomic characteristics of elderly people. General linear model was used to assess the association of educational level and self-perceived income with demographic factors.

Results

In this sample of elderly people, about 45% of individuals had no formal schooling (64% and 27% of women and men, respectively; $P < 0.001$). Furthermore, 17% of subjects perceived themselves as very poor (19% and 14% of women and men, respectively; $P < 0.001$). Elderly people residing in rural areas had significantly lower educational and income levels compared with their urban counterparts (both $P \leq 0.001$).

Conclusions

Our findings suggest that the educational level of elderly people in Kosovo is very low, which raises public health concerns for this neglected subgroup of the population. In this post-war society, facing a multitude of socioeconomic challenges, the unmet needs of elderly people call for special attention.

Improving the TB control in homeless people in Romania - model of partnership among public institutions and civil society

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Issue

Despite the progress done in fighting against TB in the modern world, it still remains a public health problem at least in some vulnerable groups. Romania is an endemic area for TB, having a notification rate 6.8 times higher that EU average. A National TB Program (NTP) is implemented since few decades, providing free health services for prophylaxis, diagnosis and treatment to all TB suspects, insured or not, but some vulnerable groups still face barriers in accessing it.

Description of the problem

Our study aimed to improve the access to NTP of homeless adults from three counties of Bucharest, through partnership with a CSO that provides medical and social services to these people. We had three objectives: to identify the possible TB cases among the target population through clinical screening, to refer the suspects to specialized services of the NTP and to measure the degree in which the referred people accessed the specialised services. Inclusion and exclusion criteria were established for suspects. Ethical standard were fulfilled. Data were collected for two months, through both active and passive identification.

Results

406 people were registered, most of them males (3:1 males versus females) with an average age of 50.7 (52 median). No significant differences in age between males and females. 25.3 % of these persons were TB suspects following the established criteria. All the suspects were counselled to go to the specialised services, but only 44% of them reached the TB service and 10% were diagnosed with TB.

Lessons

The study confirmed that TB prevalence is much higher in the vulnerable groups. Just providing them free access to diagnosis and treatment is not enough if less than half from the suspects ever reach a specialized TB service. On another hand, the health system doesn't have enough capacity to actively identify the persons that need help. Partnership with civil society seems to be effective for improving their access to medical services.

4.P. Obesity in children and adolescents

Systematic Review and meta-analysis of the prevalence of overweight and obesity among school-age children in Italy

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Background

Nowadays 150–160 million school-age children worldwide are overweight (OW), of which some 35–40 million are obese. There is a wide range of prevalence levels in different regions and countries, with the prevalence of OW among school-age children in Africa and Asia averaging well below 5% and in the Americans and Europe over 20%. Several Countries in Europe have shown particularly high year-on-year increases in prevalence. Higher child obesity (OB) prevalence levels have been recorded in several Southern European countries. In Italy in 2001 a survey found that 36% of 9-year-olds in Central Italy were OW, with 12% of OB. The objective of this study was to perform a systematic review and meta-analysis of the prevalence of OW and OB among children in Italy.

Methods

We searched in MEDLINE/Pubmed and Scopus and we included all surveys that fulfilled the following criteria: English AND/OR Italian language, publication time period January 2000-September 2010, target of 6–11 years; Body Mass Index assessed according to IOTF criteria. Search terms included ''overweight'', ''obesity'', ''children" ''aged 6–11 years'', ''Italy'', associated AND/OR. StatsDirect 2.7.8 was utilized to perform statistical analysis.

Results

25 studies have been selected, the percentage of OW varied between 18% and 33,7% and OB between 5,5% and 21,9%.The highest values were in Southern Italy (OW: 25.6%, 95% CI = 24.8–26.3; OB:15.2%, 95% CI = 13–17.5) vs Central Italy (OW: 22.6%, 95% CI = 21–24.1; OB:9.3%, 95% CI = 7.9–10.7) vs Northern Italy (OW: 21%, 95% CI = 19.6–22.3; OB: 8.2%, 95% CI = 6.8–9.7).

Conclusions

A relevant prevalence of OW and OB was found in Italy, the excess weight concerns one child in four. Whereas for OB there are not significant differences in geographical distribution (North, Centre and South of Italy), the high prevalence of OW resulted statistically significant in the Southern compared to Central and Northern Italy. These differences are likely linked to different geographical areas in relation to socio-economic and environmental condition that must be further investigated. There is a need of promoting better eating habits in young children in Italy, above all in areas with highest prevalence.

Lifestyle health behaviour and perceptions of body satisfaction, image and ideal body weight (BMI) in Polish youth (2010–11)

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Background

How teenagers perceive themselves in relation to perceived body image/weight and self-contentment strongly influences lifestyle behaviour thereby impacting on public health in adulthood. This study focuses on target areas that require remedial action especially identifying problem areas different to both sexes.

Methods

A large scale monitoring study was recently undertaken on youngster's health behavior, (n = 25,000), aged 12–24 years attending school & university throughout Poland based on the USA equivalent 'Youth Behavioural Risk Factor Surveillance System', (YBRFSS), performed by trained SANEPID staff. Teenagers pay special attention to appearance and this survey focused on body weight and height allowing BMI calculation.

Results

According to WHO, BMIs for teenagers < 18 years are estimated from percentile graphs whilst those > 18years the BMI is equal to the weight:growth ratio squared. 10% of youngsters were thus discovered overweight and 5% obese, which in girls essentially remained constant over time compared to males where increases with age were seen at a constant ratio of being overweight:obese. Perceptions of being satisfied with image showed considerable differences between gender and age; 75% females with correct BMI nevertheless slimmed contrasting to males, especially youngsters, who desired weight-gain despite having normal BMIs. Over half the females adopted non-natural methods of weight loss, (through drugs or starvation regimes), however their mother's replies generally agreed, in contrast to boys where being overweight and obese went unrecognised. Eating disorders were observed in 20% of cases and coincided with girls adopting non-natural weight loss methods and were related to low self-esteem, bad relations with parents, especially mothers. 90% of respondents however gave favourable replies regarding relations with peers, happiness and the meaning of life, irrespective of gender.

Conclusions

Schools, healthcare staff and the media should therefore promote/educate a healthy lifestyle achieved by natural means allowing for gender differences.

Overweight children tend to underreport their weight

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Background

The prevalence and severity of obesity have increased among children and adolescents. However most of the studies exploring this topic used self-report measures which might be exposed to possible bias. Therefore the aim of this study was to compare objective and self-rated weight measures and to explore possible predictors of bias due to self-report bias.

Methods

Cross-sectional data from the Health Behaviour in School-aged Children study in Slovakia, 2010 were used. Out of 8050 respondents in age 11 to 15 years, 493 were selected for anthropometric measures and 434 with complete data were included into the study (44.7% females). Linear regression model was used to explore the associations of overweight (based on anthropometric measure), body satisfaction, and dieting behaviour with difference between self-reported weight and measured weight adjusting for age.

Results

Difference between measured and self-reported weight varied from −20.50 kg to 29.00 kg (mean: 2.04, STD:4.44). Females ($p < 0.05$) and overweight children ($p < 0.001$) tended to report lower weight in comparison to measured weight. Age, body satisfaction and dieting behaviour were not associated with differences in a statistically significant way.

Conclusion

The findings are important for a critical interpretation of subjective self-reported data on adolescents' body weight. Attention should be paid particularly on data from overweight children which tend to report a lower than their measured body weight.

Prevalence and trends of Metabolic syndrome and its components in Siberian adolescent population

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Metabolic syndrome (MS) is one of the main risk factors of CVD. The symptoms of MS appear long before the vascular dramatic event develops, particularly if there is a combination of unfavorable genetic factors and unhealthy life style.

The aim of the study was to investigate the prevalence of MS and its components (hypertriglyceridemia, low levels of HDL cholesterol, elevated blood pressure, abdominal obesity and hyperglycaemia) among adolescents aged 14–17 in Novosibirsk, Russia.

Methods

Representative samples of adolescent population 14–17 years of age and both sexes were investigated in Novosibirsk. In 2003 663 persons were examined, in 2009 - 742. The prevalence of the components of MS was estimated with the IDF criteria (2007): abdominal obesity ($\geq$90 percentile of waist circumference) and the presence of two or more other clinical features (triglycerides $\geq$150 mg/dl, HDL-cholesterol <40 mg/dl, BP $\geq$130/85 mm Hg, plasma glucose $\geq$5,6 mm/l).

Results

In the period 2003–2009 the prevalence of abdominal obesity among adolescents slightly increased, frequency of hypertriglyceridemia - decreased (1,5% versus 4% in 2003, $p < 0{,}003$). The prevalence of low levels of HDL cholesterol in 2009 was higher than in 2003 (12,1 % versus 6,0 %, $P < 0{,}001$). The prevalence of elevated BP in 2003 was 9,4 %, in 2009 -15,0 %, $p < 0{,}001$. The frequency of hyperglycaemia was higher in 2009 as compared with 2003 (4,0 and 1,3% accordingly, $p < 0{,}001$). The prevalence of MS among adolescents in 2009 slightly increased (0,3% and 0,5% accordingly).

Conclusion

The prevalence of MS in Siberian adolescent population has not statistically changed during the studied period ((2003–2009), but prevalence of some components of MS (low levels of HDL cholesterol, elevated blood pressure, hyperglycaemia) significantly increased.

Eating habits of Lithuanian school-aged children: changes in context of social and economic factors from 2002 to 2010

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Background

Intermittent monitoring of food intake at the population level is essential for the planning and evaluation of national dietary intervention programs. Social-economic changes in Lithuania probably affected dietary habits, but dietary data about schoolchildren are missing. This paper describes trends in food intake among Lithuanian school-aged children from 2002 to 2010 in context of social changes.

Methods

We used Lithuanian data from the cross-national Health Behaviour in School-aged Children (HBSC) study collected in 2002, 2006 and 2010. Analyses were conducted on comparable questionnaire-based data from students aged 11, 13 and 15 (total $n = 17{,}189$) from a random sample of schools. A food frequency questionnaire was used to ascertain tendencies in the frequency of food consumption. Logistic regression was used to examine the contributions of the social variables changes toward the adolescents' diet trends.

Results

In Lithuania, school-aged children underuse fruits and vegetables: 21.1% of boys and 27.1% of girls eat fruits and 24.9% of boys and 29.6% of girls eat vegetables at least once daily. Comparing 2010 to 2002, the proportion of girls who consumed fruits daily increased from 24.2% to 31.0% ($p < 0.001$) but the proportion of boys who consumed vegetables daily decreased from 29.3% to 23.1% ($p < 0.001$). For both sexes, in 2006 the increase of regular (at least five days a week) intake of sweets and chocolates, biscuits and pastries, and soft drinks was observed, but in the next survey (2010) the figures decreased. Fruits and vegetables consumption as well as intake of sweets and chocolates, biscuits and pastries and soft drinks increased with family social-economic status and family material wealth. The trends of fruits and vegetables consumption among schoolchildren were associated with changes of social inequalities over the past decade.

Conclusions

Based on the food consumption trends observed in Lithuania, an increase in the consumption of fruits and vegetables should be promoted, along with a reduction in the intake of less healthy choices, such as soft drinks and high-fat, high-sugar snack foods, by diminishing social inequalities in food consumption.

SPACE - A multicomponent intervention study for improving physical activity in adolescents

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Background

The multicomponent intervention study "SPACE for physical activity" has been developed based on a social ecological framework. SPACE is the acronym of School site, Play Spot, Active transport, Club fitness and Environment. The overall goal of the SPACE study is to develop, document and assess a comprehensive intervention in local school districts in an effort to promote everyday moderate PA among adolescents (11–15y).

Methods

A cluster randomised controlled study design is used to evaluate the effectiveness of the intervention. 21 eligible schools in the Region of Southern Denmark were matched and randomised in seven pairs according to best match regarding eight matching variables summarized in an audit tool. The seven best matched pairs were selected for randomization, resulting in a total of 14 schools participating in the study. In spring 2010 baseline measurements were conducted using accelerometers, questionnaires, diaries, and physical fitness test in 5–6th grade in 7 intervention schools and 7 control schools. Follow-up measurements will take place in spring 2012 (7–8th grade). Furthermore anthropologic evaluation of the intervention effect in two schools, and process and health economic evaluations of the intervention will take place. Primary outcome are average daily physical activity measured with accelerometer (Actigraph GT3X Activity Monitor).

Results

A total of 1348 adolescents in 5–6th grade in 56 classes in 14 schools in five municipalities in the Region of Southern Denmark participated in the baseline study (623 in intervention schools and 725 in control schools). There were no significant differences between intervention ($n = 623$) and control ($n = 725$) groups at baseline according to selected background variables and outcome measures: Age ($p = .17$), Gender ($p = .54$), BMI ($p = .59$), waist circumference ($p = .17$) physical activity (accelerometer) ($p = .09$), and physical fitness ($p = .93$).

Conclusions

The randomisation and matched pair design produced equivalent groups according to central outcome measures and background variables. SPACE will provide new insights on the effectiveness of multicomponent interventions to improve adolescents' physical activity level.

Interdisciplinary care of children and adolescents in an obesity outpatient clinic

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Background

The increasing number of obese children and adolescents in recent decades is a major public health challenge. Based on multiple causes and concomitant diseases a long-term and holistic care concept is needed. Patients in the Charité obesity outpatient clinic were divided into different groups according to their risk profile to offer a differential care by a multidisciplinary team. Studies have shown the advantages of interdisciplinary teams over conventional treatment programs but so far there are no findings of the participation of the various professions of multidisciplinary teams in health care in Europe.

Methods

The study population contained 231 young German and Turkish patients with obesity or extreme obesity. The parameters risk profile, diagnosis, gender and ethnic origin were chosen to classify the patients. Other variables described the contacts of the patients with the various professions to reflect the investment in care. In this study the influence of the parameters on the total number and volume of contacts, and the frequency and extent of contacts with different professions during the study period was analyzed.

Results

The participation of the various health professionals showed statistically significant differences in the risk profiles. The patients with higher risk profiles had less contact in number and volume with doctors and nutritionists. By contrast, the contacts to psychologists and the social worker increased with the risk profile. In the diagnosis, gender and ethnic origin groups the contribution of each profession was homogeneous. However, statistical outliers occurred for the contacts with psychologists and the social worker. The risk profile was the only factor independently influencing the probability of contacts with the psychologists or the social worker.

Conclusions

The differences in the participation of the various professions in the treatment of obese patients are related to the individual risk profile. The more difficult family circumstances and psycho-social situations are the stronger the psychologists and the social worker were involved in the care. A stronger focus on the psycho-social care may be necessary in the future.

4.Q. Lifestyle in children and adolescents

Connection between children participation in extra-curricular recreational activities and success in school

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Background

The aim of this study was to determine whether there is a difference between the school success of children engaged in extracurricular recreational activities (at least twice a week) and children engaged in physical activity only throughout the school curriculum.

Methods

The study included 259 children from the area of Zagreb (127 boys and 132 girls), aged 11–15 years. The study included questionnaire about participation in extracurricular recreational and sports activities, success in school, some of the social indicators and measurement of certain morphological variables.

Results

No statistically significant difference in school success between children engaged in extracurricular recreational and sports activities and children engaged in physical activity only throughout the school curriculum was determined (in the total sample). The same results were gained in the group of only boys. On the contrary, in the group of girls, statistically significant difference was determined in school success between those girls engaged in extracurricular recreational and sports activities and those engaged in physical activity only through the school curriculum (girls engaged in extracurricular physical activites have better success in school, p = 0,019).

Conclusions

According to the study findings, the assumption is that boys are, generally speaking, physically more active throughout their everyday life, regardless of their approach to duties. Girls may have more responsible approach to duties, both in school work and extracurricular activities. On the other hand, one might also assume that physical activity positively affects school success through strengthening of self-confidence, concentration improvement and structuring of time and commitment, which is perhaps, more expressed in girls. In any case, further research are needed to determinate the reason for these differences between boys and girls.

Safe with the sun

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Skin cancer is the first most numerous among cancers registered as individual cancer in Slovenia. Exposure against sun is the main risk factor for its development. Every exposure to the sun can be harmful no matter on how someone is exposed: by taking sunbath or by working outside. Because 80% of lifetime exposure to UV radiation is reached in first 20 years of life and because epidemiological studies indicate that incidence of skin cancer correlates with sunburns in childhood it is important that preventive behavior is educated as early as possible. This is where the educational program »SAFE WITH THE SUN« is aiming at.

The main objectives of the program are:
(a) To warn children (4–6 years) and schoolchildren (10–11 years) and their parents on importance of protection against sun radiation and to educate children and schoolchildren on self protecting actions,
(b) To incorporate those themes in regular curriculum of kindergartens and in primary school.

In the period of execution of the program (three to four weeks) children in kindergartens are educated by focused activities aiming in adverse effects of sun radiation and in possibilities of protection. In order to be as effective as possible a special didactic game named “SAFE WITH THE SUN” was also developed. The program is simultaneously displaced from kindergartens to the homes by providing all the information on the project to the children’s parents. In schools the program is executed during one week lasting so called “school in nature”.

Evaluation of the program is made every year on regular basis and includes tutors, children and parents. The results show that most of the tutors and parents strongly support the program. Close to 90 % of parents expressed intention to incorporate principles of natural protection against sunbeams in their everyday family life.

This project is financed by Ministry of Health and coordinated by Institute of Public Health Celje. In 2007 it started as pilot study in public kindergarten with 240 children. Since then more than 55.000 children from four to six years of age from whole Slovenia (2 mill. inhabitants) participated. In 2010 when program started in primary school, already 2500 school children joined the program. It continues in 2011 and it gains popularity.

Leisure time activities as a risk of injuries among adolescents in Latvia

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Background

Unintentional injuries are the main reason for mortality and also significant reason of morbidity among adolescents in Latvia. It is obvious that physical activity of a person can influence the risk of getting an injury. The tendency, that schoolchildren spend more time with friends just after school becomes more popular in Latvia. The aim of this study is to assess how leisure time activities influence unintentional accidents among adolescents.

Methods

Data from two crossectional studies of Health Behaviour in School - aged Children in Latvia in year 2002 and 2006 were used. The number of respondents was 3 481 (2002.) and 4245 (2006.). Data were analysed in program SPSS 12 for Windows. Descriptive statistics and logic regression were used.

Results

44,6% schoolchildren got injuries during the last year in the result of which they needed medical treatment. Boys had higher odds for injuries than girls (OR1,6 95%TI = 1,4–1,7) ($p < 0{,}05$). For physically active adolescents injuries were observed more often (OR 1,4 95%TI = 1,1–1,7). This relationship becomes stronger with increase of age. Odds to be injured are higher for adolescents who tend to spend more free time just after school with friends (OR 1,7 95%TI = 1.4–2.0). However, generally odds to get injury among schoolchildren who have and do not have friends are similar. Positive relation was found also with risk of injury and number of sisters and brothers in the family. For schoolchildren whose behaviour was aggressive the injuries were observed more often (OR 1,9 95%TI = 1,6–2,3). No relation among risk and type of injury and socially economical characteristics of family was found.

Conclusions

The lack of supervision of leisure time activities for adolescents leads to an increase of the number of injuries. Boys and older schoolchildren tend to spend more time actively with their equals in age. To decrease the injuries of schoolchildren, the society in general, including school and family have to turn their attention to the habits of leisure time activity, have to form safe environment for children at school as well as at home.

Child's diet and mother's interest in healthy eating in the prospective dietary intervention trial in childhood and adolescence in Finland

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Background

It has been recommended that to be effective nutritional education aiming at prevention of diet-related diseases should begin early in childhood. In the prospective, randomised STRIP study a cohort of Finnish children ($n = 1062$) with their families have taken part in a nutrition intervention with major focus and repetition on the dietary fat quality and minor focus on other aspects of healthy eating since the child's age of 8 months. The intervention families have taken part in family-based educational counselling sessions (duration approx. 30 minutes) twice a year. Because of the prospective study design it is possible to analyse the longitudinal diet of the children during the childhood and adolescence. In the present study the aim is to evaluate the association of the child's longitudinal diet with mother's general interest in healthy eating.

Methods

The dietary intake was measured yearly by a 4 day food record between the ages of two and eighteen years. In the present study dietary factors (unsaturated : saturated fat ratio (U:S ratio), fruit and vegetable (F&V) consumption and fibre intake from grain products) were evaluated in 96 intervention and 128 control children with > 50% of food records within each of the four intervals used (2–6y, 7–11y, 12–16y, 17–18y). Constantly high/low intake was analysed in two steps: first within the separate intervals and then during the whole time range. The mother's health interest was measured using the HTAS questionnaire scored with seven point (1–7) Likert scale at the child's age of 11 years. A t-test was used to analyse the associations.

Results

The child's longitudinal U:S ratio did not associate with mother's health interest (estimated difference between constantly high versus low ratio = 0.06, $p = 0.84$). Instead, longitudinal F&V consumption as well as longitudinal fibre intake associated with mother's health interest (estimated difference between constantly high versus low consumption/intake = 0.40, $p = 0.047$ and 0.66, $p < 0.001$, respectively).

Conclusion

The results imply that consistently healthier dietary choices are possible in child's diet without specific parental interest in healthy eating if more effort and repetition on a specific dietary factor is given in a dietary education intervention.

Sun exposure behaviors in children and parental attitudes: a pilot study in Romania and Slovakia

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Background

Even though some of the beneficial effects of sun exposure are acknowledged, excessive sun and ultraviolet exposure are the main exogenous causes of skin cancer. Moreover, the majority of time spent in the sun throughout lifetime occurs during childhood. Thus, the purpose of this study is to comparatively describe children's sun exposure behaviors in two urban communities, identify determinants of the behavior, and pilot-test an instrument and research protocol for investigating sun safety practices of young children in Romania and Slovakia.

Methods

The pilot study pursues a cross-sectional design, with a quantitative strategy of inquiry. The setting is described by 15 kindergartens in Cluj-Napoca - Romania, and Bratislava - Slovakia. The study is conducted on a sample of parents ($n = 241$) with children aged 3–6, which attend private or state kindergartens. Data was collected simultaneously in both countries, between September-November 2010. The data collection instrument was a self-administered questionnaire.

Results

More than 50% of parents in the sample report their children spending more than 4 hours outdoors, on sunny days, during holidays. However, in the Romanian sample (Ro) only 41.4% of parents regularly use sunscreen for their children, whereas in the Slovakian sample (Sk) 81.4% employ similar practices. Furthermore, 53.3% (Ro) and 35.1% (Sk) reported observing skin redness in their children at least once in the previous summer, whereas 22% (Ro) and 11% (Sk) reported at least one more severe sunburn (skin redness, tender and sore) in the previous summer. Determinants for sun safety behaviors are assessed (in terms of attitudes towards sun related behaviors, socioeconomic status, history of sunburns, sun exposure and protection behaviors, history and knowledge of skin cancer), limitations of the present study discussed, and recommendations for further investigations rendered.

Conclusions

Sun safety practices data for this population was previously unavailable, but the pilot-data suggests that urgent action must be taken, in terms of population-based interventions, policy initiatives and further research endeavors which would mitigate self-selection bias and provide data on more extensive samples.

Physical exercise in Polish youth and young adults (2010–11)

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Background

The alarming problem of declining physical activity in youth, (especially in association with other issues such as diet), is well recognised worldwide and its detrimental effects on public health. Within the last decade many initiatives, (eg. WHO), have been launched to counteract this phenomenon. This study highlights areas requiring remedial action for ensuring healthy lifestyles in Poland.

Methods

A large scale monitoring study was recently undertaken on youngster's health behavior, (n = 25,000), aged 12–24 years attending school & university throughout Poland based on the USA equivalent 'Youth Behavioural Risk Factor Surveillance System', (YBRFSS), performed by trained SANEPID staff. A major study aspect was devoted to physical activity/exercise.

Results

Overall, physical activity declined with age. Pupils aged < 17 years demonstrated high participation for physical training, (88%), recreational sport (61%) and professional sport (40%) where the resulting 'Moderate to Vigorous Physical Activity', (MVPA), is considered adequate for this age despite girls lagging a little behind. About 50% spent >3 hours daily by computers and television; this figure being higher in university students. Furthermore, only 20% of students engaged in any form of sports activity; reasons mainly given being lack of time (53%) or sports facilities (34%). Resulting MVPA levels are thereby inadequate and time spent on sedentary activities is >4hours daily; being significantly higher for women. Insomuch that male students appreciate benefits of physical exercise, women do not for reasons of cultural tradition. The latter are however concerned in being slim and in maintaining their figure but do not recognise physical activity as being helpful; most often dieting is used (60–70%) with low meat and fat contents and only sometimes decreased carbohydrate. Over 60% admitted to using non-natural methods for losing weight, (through drugs or starvation diets).

Conclusions

The promotion & education of a healthy active lifestyle will therefore be made in schools/ universities, providing more sporting opportunities and especially targeted at women.

Different forms of sedentary behaviours and aggressive behaviour among school-aged children

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Background

There is a strong and growing community interest focused on sedentary behaviours. It is mostly because of the reduced energy expenditure during periods of sedentary behaviours may contribute a positive energy balance and has been associated with obesity and obesity-related health problems. Correlation between screen-based media sedentary behaviours, decreased prosocial behaviour, and increased aggression was reported. Although sedentary behaviours includes several different forms of activities requiring low energy expenditure a number of studies measured sedentary behaviours using composite scores.

Aim

To investigate the association between two forms of screen-based media sedentary behaviours, time spent with preparation for school and aggression among school-aged children.

Methods

Study data originated from a cross-sectional Slovak national survey conducted in 2006 [n = 2617, 48.7% males, mean age 14.5(SD = 0.7)]. Participants completed the questionnaire in their classrooms, under the guidance of field workers. Response rate was 93.5%.

The association of three forms of sedentary behaviours (watching television and movies, using the computer and time spent with preparation for school) was assessed against four domains of aggression (Physical Aggression, Verbal Aggression, Anger and Hostility) using binary logistic regression. Analyses were controlled for both age and gender.

Results

Watching TV and Using the computer demonstrated a higher risk of Physical Aggression [OR = 1.3(95% CI = 1.2–1.4) resp. OR = 1.2(95% CI = 1.1–1.3)], Verbal Aggression [OR = 1.2(95% CI = 1.1–1.3) resp. OR = 1.1(95% CI = 1.0–1.2)], Anger [OR = 1.2(95% CI = 1.1,-1.3) resp. OR = 1.3 (95% CI = 1.2–1.4)] and Hostilty [OR = 1.2(95% CI = 1.1–1.3) resp. OR = 1.1(95% CI = 1.0–1.2)].

On the other hand Time spent with preparation for school demonstrated a lower risk of Physical Aggression [OR = 0.88(95% CI = 0.81−0.93)], Verbal Aggression [OR = 0.9(95% CI = 0.85−0.95)] and Anger [OR = 0.8 (95% CI = 0.78−0.91].

Conclusions

Results suggest different forms of sedentary behaviours might produce considerably different effects regarding aggressive behaviors. Our results suggest carefulness using composite measures when assessing sedentary behaviours, clear distinctions of sedentary behaviour forms are important.

Exploring students' health: ''another brick in the wall''

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Background

In latest years there was a growing interest in the scientific community to assess the quality of life and perceived health of university students. Some studies, performed mainly in north Europe and USA, showed that students, compared with their peers workers, live in greater hardship, have lower quality of life and worse perception of their health. In Italy this aspect, although the university has a high dropout rate and the rate of unemployment among graduates is high, have not been widely studied. The aim of this study was to describe the perceived health of university students and to investigate the influence of lifestyle variables.

Methods

The questionnaire SF-36 (8 scales scored from 0 to 100: physical activity, physical role, physical pain, general health, vitality, social functions, emotional role, mental health) was distributed to 480 first-years students of medicine, University of Siena (years 2005–2010). Information about gender, age, region of residence, marital status, employment status, BMI, smoking habit were collected. After a descriptive analysis, we performed univariate and multivariate analysis by robust regression.

Results

57% of the sample was female. The average age was 19, students not-resident in Siena province were 46%. Lower mean scores (60) were achieved in vitality and emotional role scales.

Higher mean score (95) was found in physical activity scale. There is a significant decrease of vitality score between years (p = 0,001). Female gender was associated with lower scores in all scales, except emotional role. Increasing age was inversely associated with mental health (p = 0.017) and vitality (p = 0.027). To be not-resident was associated (p = 0,025) with lower emotion role score.

Conclusions

Consistent with literature students feel psychological distress and females have a significant lower perceived health. This one, in particular emotive status, seems more influenced by factors like living away from home and uncertainty about the future than by lifestyle habits.

Theatre as health-edutainment for children

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The presentation reports on a study of two health-theatre plays for children. One for pre-school children between 3 and 6 years and one for schoolchildren between 6 and 9 years.

Interventions focussing on children's health-knowledge face problems concerning the children's diverse ways of navigating in the different campaigns and interventions focussing on children's health promotion. To strengthen the health-pedagogical and health-promoting actions in school and pre-school, and to ensure the children's involvement, it is important to gain understanding of how the children's acquirement of knowledge and their identity development are connected and how professionals working in the school and pre-school setting can influence this process. The research focus is on what kinds of knowledge the children acquire and how this acquirement of knowledge is linked to the children's development of identities.

The theoretical framework is based in constructivist educational sociology and combine knowledge theory and identity theory by focussing on participatory and relational aspects of the interdependencies of school children's orientation towards themselves, toward each other and toward communication and information. Identities are viewed as communicatively constituted.

The analysis is based on a qualitative study consisting of 20 focus group interviews with a total of 98 children between 3 and 9 years. The interviews were loosely structured around making the children talk about and reflect upon things that were important to them in the context of the play and health in general.

Two main conclusions: 1)Pedagogical coherence is essential to give the children the best conditions for acquiring health-knowledge. When teachers succeed in preparing children for the play and following up upon the curiosity generated by the play, the children acquire more knowledge than when the play stand alone without preparation or follow-up. 2) The children have clearly defined health-identities and the roles and expectancy-structures associated with these identities determine how the children observe and acquire the health-information. Many children identify themselves with unhealthy lifestyles and often describe themselves as unhealthy and therefore not interested in information about health.

Lifestyle health behaviour and perceptions of body satisfaction, image and ideal body weight (BMI) in Polish youth (2010–11)

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Background

How teenagers perceive themselves in relation to perceived body image/weight and self-contentment strongly influences lifestyle behaviour thereby impacting on public health in adulthood. This study focuses on target areas that require remedial action especially identifying problem areas different to both sexes.

Methods

A large scale monitoring study was recently undertaken on youngster's health behavior, (n = 25,000), aged 12–24 years attending school & university throughout Poland based on the USA equivalent 'Youth Behavioural Risk Factor Surveillance System', (YBRFSS), performed by trained SANEPID staff. Teenagers pay special attention to appearance and this survey focused on body weight and height allowing BMI calculation.

Results

According to WHO, BMIs for teenagers < 18 years are estimated from percentile graphs whilst those >18years the BMI is equal to the weight:growth ratio squared. 10% of youngsters were thus discovered overweight and 5% obese, which in girls essentially remained constant over time compared to males where increases with age were seen at a constant ratio of being overweight:obese. Perceptions of being satisfied with image showed considerable differences between gender and age; 75% females with correct BMI nevertheless slimmed contrasting to males, especially youngsters, who desired weight-gain despite having normal BMIs. Over half the females adopted non-natural methods of weight loss, (through drugs or starvation regimes), however their mother's replies generally agreed, in contrast to boys where being overweight and obese went unrecognised. Eating disorders were observed in 20% of cases and coincided with girls adopting non-natural weight loss methods and were related to low self-esteem, bad relations with parents, especially mothers. 90% of respondents however gave favourable replies regarding relations with peers, happiness and the meaning of life, irrespective of gender.

Conclusions

Schools, healthcare staff and the media should therefore promote/educate a healthy lifestyle achieved by natural means allowing for gender differences.

4.R. Alcohol

International differences in health inequalities and alcohol use

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Background

Self-reported physical health has been used in studies on social inequalities in health, but much of this research does not consider factors such as alcohol use. This paper examines differences in physical health status taking into account the role of drinking patterns and socioeconomic status using data from the GENACIS project

Methods

We used data on 72.253 individuals in 26 countries. Age range was 25–69 years. Socioeconomic status was highest educational level attained. Outcome variable was subjective assessments of physical health. As drinking indicator we used a categorised variable were we differentiated between abstainers, moderate drinkers, heavy drinkers, weekly binge drinkers and those who do both drink heavy and drink weekly binge. Country level variables included purchasing power parity gross national income (PPP). We analysed the relationship between individual education and subjective physical health in a meta-analysis with random effects and combined individual and country levels in a multilevel analysis of socioeconomic status and subjective health, taking drinking pattern into account results:Summary odds ratios indicated approximately a 77% higher likelihood of reporting poor physical health among those of low education than those of high education for men and approximately a 71% higher likelihood for women. In the multilevel multivariate analyses abstainers and those drinking both heavily and weekly binge were more likely than moderate drinkers to report poor physical health. PPP was negatively related to poor health on the country level.

Conclusions

Inequalities in subjective physical health appear to be surprisingly universal. Additionally the role of drinking pattern has a consistent effect. Such stable findings should help inform future health policy.

Prevalence and sociodemographic predictors of transitions across six stages of alcohol use in Romania

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Background

Little is known about the predictors of transitions across the stages of alcohol use.

Methods

Cross sectional study relied on face to face household interview conducted from 2005–2007

A lifetime history of alcohol use, regular use (at least 12 drinks in a year), DSM-IV alcohol abuse (AA) and alcohol dependence (AD) with abuse was collected using the WHO Composite International Diagnostic Interview (CIDI).

The relationship between sociodemographic predictors and the six stages of alcohol use were determined by cross-tabulation analysis.

The predictors of transitions were examined using discrete-time survival analysis with person-year as the unit of analysis.

Results

From all respondents 83.3% used alcohol at some time in their life, 38.5% used alcohol regularly, 3.1 % met criteria for AA and 0.7 % met criteria for AD.

The highest prevalence was found for 50–64 age group, male gender, never married (previously married for AD), low-average income (except for AA and AD where the prevalence was higher for average-high income).

The computation of transition probabilities showed that 46.2% of ever users made the transition to regular use, 8.1% of regular users went on to develop AA, and 41.0% of lifetime alcohol abusers made the transition to AD.

The highest probabilities of transition across alcohol use stages were found consistent higher for the 50–64 age group, male gender. If for first transition the highest probability was found for low education and low-average income, for the next two transitions the probabilities were higher for those with low-average education level and average-high income.

Among the sociodemographic risk factors for first onset of alcohol-related outcomes, the most intense were: the younger age OR 1.74 (1.40 - 2.16), average-high education OR 3.87 (2.56 - 5.84) and being never married OR 3.59 (2.76 - 4.66), significant at the 0.05 level, 2-sided test.

Conclusions

Social, education, marital, economic status should be taken into account when preventive strategies are designed and implemented. By identifying the high-risk individuals would help to improve the precision of existing prevention programs.

Alcohol consumption and peer effect : a social network analysis of college students

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Background and Aim

Excessive alcohol consumption accounts for an important share of morbidity and mortality among teenagers and adult population. Such behaviour is to a large extent learnt at the University where an increasing percentage of young adult are heading after secondary school. So far, however, most studies on college students relied on cross-sectional survey disregarding the ties between individuals. Yet, college students are socially connected so that it is very likely that their alcohol consumption behaviour is also socially connected. We aimed to analyse how much alcohol behaviour spread among peers networks. In particular, we hypothesized that individual social position within a network of social ties predict drinking behaviour depending on the overall level of drinking within a network.

Methods

We carried a social network analysis (SNA), with a complete network approach with first- graders of two faculties ($n = 487$), engineering and psychology, two faculties, respectively predominantly male and female. All students had to fill-out a social network questionnaire tapping their social ties (friendship, working with, partying with and room-mate-) as well as their drinking behaviours.

Results

We found that drinking behaviours is socially patterned : being close to a heavy drinker increased the risk of being a heavy drinker. Being socially central in the engineering faculty increases the risk of heavy drinking but not in the faculty of psychology.

Conclusion

We conclude that peer-effect is an important factor drinking behaviours but depends on the local social norms within a network.

Community health determinants of alcohol drinking among college students

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Background

In the OECD countries, one young adult in two is entering university education and this proportion is likely to increase in the future. Many of these young adults will be exposed, to substantial changes in living arrangement, socialisation groups and social activities. Such transition is often associated with risky behaviours such excessive alcohol consumption. The majority of previous research on alcohol has however focused on individual-risk factors. Yet, alcohol consumption among college students is largely linked to social activities. So far, there is little evidence addressing the social determinants of alcohol consumption. We aimed at understanding how societal factors shape college students drinking behaviours.

Method

In may 2010, a web survey was sent to all bachelor and master students registered to an important Belgian University, of which 7,015 students participated (participation = 39%). The survey tapped drinking behaviours, drinking norms, positive drinking consequences and involvement into the University activities.

Results

On average a student had 12 drinks per week and 23% drank more than the WHO recommended maximum. We found that the more a student was involved into the University life the higher the risk of heavy and frequent drinking. Alcohol consumption was related to the living arrangement, to involvement into the folklore and increased with the number of years spent in the University. Such exposures were partly explained by the role injunctive and descriptive social norms.

Conclusion

We conclude the future preventive strategies should be rooted on social strategies.

Social differences and trends in regular alcohol consumption in Lithuania from 1994 to 2010

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Background

Alcohol consumption significantly contributes to high mortality and social harm in Lithuania. The aim of the study was to evaluate trends and social differences in alcohol drinking habits of Lithuanian population aged 20–64 between 1994 and 2010.

Methods

The data were derived from nine cross-sectional surveys conducted every even year within the international Finbalt Health Monitor project during 1994–2010. An independent national random sample of 3000 inhabitants aged 20–64 was taken from National Population Register for every survey. The data were collected through postal surveys. The response rate varied from 53.8% to 74.4%. Regular alcohol drinking was considered as consumption of beer, wine or strong alcohol at least once a week. The odds of regular alcohol consumption according to social factors were calculated using logistic regression analysis.

Results

The prevalence of regular drinking of strong alcohol among men declined from 31% in 1994 to 23.6% in 2010. The proportion of women consuming spirits weekly increased from 5.6% to 8.8%. There were no significant changes in consumption of wine in both genders. In 2010 weekly consumption of wine was reported by 8% of respondents. The proportion of regular drinkers of beer increased significantly between 1994 and 2002 (in men from 43.8% to 59.0% and in women from 7.3% to 18.3%) remaining stable over the last eight years. Regular drinking of beer was more common among younger respondents and those living in cities. The odds of drinking wine weekly were higher in men and women with high education compared to low educated. Among highly educated women, regular drinking of spirits was most prevalent. The social differences in alcohol consumption remained similar over the period of observation

Conclusions

Over 16 years prevalence of regular alcohol consumption has decreased in men, but increased in women. Social differences were more obvious among women than men. These variations should be taken into account when formulating national alcohol control policy.

Nonbeverage alcohol consumption in Estonia

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Background

Nonbeverage alcohols are legal manufactured ethanol containing liquids not intended for consumption. They provide a cheap and concentrated source of ethanol for drinking that has been associated with premature mortality. Toxicological analysis of nonbeverage alcohols found that they do not contain significant amount of any toxic alcohols other than ethanol. The aim of this study was to provide the first estimate of the prevalence of nonbeverage alcohol consumption in a national population sample of Estonia.

Methods

The Estonian Health Interview Survey conducted in 2006–2007 was a nationally representative sample of the population aged 15–84 years (n = 6370). The age-standardized percentage prevalence of ever having drunk nonbeverage alcohol was estimated. The association of age, ethnicity and education with the prevalence of surrogate drinking was estimated using logistic regression.

Results

Of all respondents which reported drinking at least once in their lifetime (n = 5423), 65% had consumed alcohol during the previous four weeks. In this group (N = 3525), the age-standardized prevalence rate of nonbeverage alcohol drinking was 1.4% (2.3% men, 0.3% women). Among men, nonbeverage alcohol consumption was rare under the age of 35 years (0.3%). Ethnicity and education were both related to nonbeverage alcohol drinking: relative to Estonian men, non-Estonians (mainly Russians) had an odds ratio (OR) for nonbeverage alcohol drinking (adjusted for age and education) of 2.58 (95% CI 1.41- 4.72), while relative to those with higher education those with secondary education had an OR (adjusted for age and ethnicity) of 2.28 (0.78–6.67) and those with basic education an OR of 3.91 (1.29–11.84).

Conclusion

Nonbeverage alcohols are drunk in Estonia, particularly among men. This behaviour shows pronounced variation in prevalence by ethnicity and education. Reducing consumption of these substances needs to be part of any strategy to reduce the burden of alcohol-related problems in Estonia today.

Risk-consumption of alcohol among elderly in Sweden 2008

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Background

The proportion of elderly people is increasing in Sweden, as well as in other Western countries. Older people of today have been living in a considerably more alcohol-liberal environment than earlier generations and many of them are expected to maintain their alcohol habits. We can expect an increase of alcohol-related problems which will lead to increase of health-care costs. The aim of this study is to describe risk-consumption of alcohol among elderly people. A secondary aim is to study if risk-consumers are asked about their alcohol habits when in contact with the health-care.

Method

Data from "Life & Health 2008", a postal questionnaire to inhabitants aged 18–84 years in 55 municipalities in central Sweden has been used. The study population includes 40 267 respondents aged 18–84. The overall response rate was almost 60%. The first three questions in AUDIT (Acohol Use Disorders Identification Test) were used to estimate risk-consumption. The index range from 0–12 points where women with 6–12 points and men with 8–12 are classified as risk-consumers. The respondents were also asked if they at their most recent visit at a health centre or hospital received questions and/or advise about their alcohol habits.

Results

Risk-consumption is most common among 18–29-year-olds, where 16% of both sexes are risk-consumers. At the age of 30–59 years this proportion is 5%. Among 60–74-year-old women 2% are risk-consumers and for men in the same age-group the proportion is 4%. In the age-group 75–84 less than 1% are risk-consumers. It is more common that men are asked about their alcohol habits when in contact with health-care.

Risk-consumers are more likely to be advised about their alcohol habits than others.

Conclusion

The results show that there is a non negligible amount of risk-consumers of alcohol among older people. Considering the fact that the generations which now are entering into retirement ages have a higher alcohol-consumption level than the pensioners of today, the number and proportion of risk-consumers are expected to increase in the future. Targeted preventive strategies, such as health-care professionals asking patients about alcohol, and other strategies should be developed and implemented to meet risk-consumers at an earlier stage.

4.S. Towards a smokefree World

Modern approaches to control smoking among the population of Sofia, Bulgaria

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Smoking is the behavioral factor with significant adverse health consequences. According to the WHO, the total number of smokers worldwide is about 1.1 billion, of which 250 million are persons under 18 years. Bulgaria occupies one of the leading places in the world by tobacco consumption per capita. As to diseases caused by smoking, the list of the WHO is too long, treatment is costly and ends with disability or death. The problem of passive smoking is particularly important for children and adolescents. This is an open door to the next level of dependency - drugs.

This study aims based on a survey of five age groups (100 persons each) of Sofia to establish the extent of smoking, to propose a program for prevention and to conduct presentations on the dangers of smoking. Authors use rich toolkit of economic-statistical methods. The project is funded by the Council of Medical Science of the Medical University - Sofia. Based on the investigation results of the kindergarten group, comprising 100 children, we can derive the following conclusions: significant percent of smoking parents-58%; high percentage of families with all adult members smoking-23%; 61% of the questioned children do not estimate smoking of dangerous and have not asked their parents to quit smoking. The volunteers in the second group are adolescents between 13 and 19 years. We did not find statistically significant differences in the distribution smoking sex. 44 of 100 say they are smoking, it's very worrying. Tobacco appears strongly linked to all other lines say risk, a concept that includes drinks (alcohol, tobacco, drugs), violent or criminal behavior (running away, theft, extortion, fighting), risky sexual behaviors. The analysis of active age groups shows: it was found that men are more addicted to smoking in the younger age group and women - in the age category 40–65; younger smokers spend 50–75 euro a month, olders - more than 100 euro.

The current economic crisis makes it even more imperative that countries, in our case Bulgaria, ensure they have the means to fund effective tobacco control programmes. Above all, in addition to funding, tobacco control requires political commitment at all levels of government, of municipal authorities, public health institutions, families and individuals.

What interventions are most effective in combination with mass media campaigns in reducing tobacco use initiation? A systematic review of cluster RCTs

Ferruccio Pelone

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Background

Tobacco use is one of the most preventable cause of morbidity and mortality worldwide. Mass media campaigns intended to reduce tobacco initiation, use brief, recurring messages to inform and motivate individuals to remain tobacco free. Other interventions such as school-based programs, laws or parents' education can be also useful in reaching such a goal. Our systematic review wants to identify the effectiveness of intervention in combination with mass media campaigns in reducing tobacco use initiation among adolescents.

Methods

We conducted a systematic review according to protocols provided by the Cochrane Handbook 5.0.2. Criteria for study selection were: study design - RCT and cluster RCT; interventions - mass media campaigns combined with law restrictions or price strategies, bans, promotion through schools, parental education and others; outcome - evaluating the effect on smoking initiation or tobacco prevention; population - adolescent (13–18) and young adult (19–24). Studies were prescreened for relevance, assessed for inclusion by two people independently, grouped by intervention method and combined using qualitative narrative synthesis.

Results

50 papers were initially selected from an overall number of 167 references found. A total of 6 cluster RCTs met all the inclusion criteria. As for the intervention categories considered, studies were classified as follow: price strategies (1 study), promotion through schools (3 studies), parental education (1studies). Mass media campaigns combined with price strategies on tobacco products use was associated with a lower rate of tobacco use initiation among young; as well as it has been highlighted the effectiveness of school-based interventions if combined with mass media tobacco control campaigns in preventing the smoking initiation.

Conclusion

Mass media interventions have been recommended fighting back the tobacco initiation in youths but little evidence shows their effects when combined to other kind of interventions. Our preliminary findings provide evidence that mass media interventions targeted to higher risk youths, especially when combined with school programs, substantially reduced the long-term prevalence of cigarette smoking among this important target population.

How being a parent influences smoking behaviour in Europe?: an East/West contrast-

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Background

Smoking behaviour differs across the EU and successive Eurobarometers have monitored the smoking trends documenting gender and social differences among them education as well as attitudes toward smoking bans.

However these policies were not specially directed toward parents and there is no data to differentiate mothers and fathers with children living at home

Methods

The SCMHE is a cross-sectional survey about primary school children health. Self administered questionnaire was filled up by 4059 mothers randomized in 6 West and Eastern European countries. Participation rate range 71.91 to 40%

Tobacco questions were taken out from : Eurobarometers, Russian and Finland survey (Hugg et al., 2008;,and Statistics Canada (2006–2007;)

Results

As an average 41.3% of the mothers were actually smoking and 42.8% never smoke in their life; the remaining 15.9 declared to have quitted smoking at the time of the interview These percentage largely varies across countries from 59,3 in Bulgaria to 23,3 in Germany.

18% of the mothers and 23% of the fathers are smoking in the vicinity of their children with large variation between countries and gender

Most mothers have quitted smoking before pregnancy, some (11.1%) quit after pregnancy when the have the baby, and this is more the case in West than East.

On the reverse among the current smokers much more Eastern mothers have smoked during pregnancy and stop when they have the baby (27,9 versus 14,5)

Half of mothers (57.3) who are actually smokers did not smoke either during pregnancy or in the first year of the child. However this is more marked in Western (72,9) than Eastern countries (52,2).

High Education is very much linked to lower smoking behaviour is the West as in the East: Age is also very much linked to smoking the younger mothers smoke more often and Eastern mothers are younger than Western

Conclusions:

Smoking attitudes toward children certainly did not follow the tobacco control scale since Turkey and the Netherlands are the highest followed by Bulgaria two countries where mothers are actually smoking; on the reverse German mothers are less smoking when the Germany score is below the two latters

Global Health Professions Student Survey: Smoking Policies of Medical Schools and Secondhand Smoke Exposure Among Medical Students in Turkey

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Problem

Tobacco use is one of the most important public health problems, especially in the developing world. Elimination of smoking from indoor environments is the only science-based measure that protects public health from the adverse effects of secondhand smoke (SHS). Thus, regular assessment and full enforcement of smoke-free laws is critical. Medical schools and students are significant with respect to their role in tobacco control. This study, as part of ''Global Health Professions Student Survey'' (GHPSS), aimed to assess tobacco use and SHS exposure among third year medical students as well as the students' opinions and official policies of medical faculties concerning the recent anti-tobacco law in Turkey.

Method

This study in 2009, was a school-based survey of third-year students in 12 randomly selected medical schools in Turkey. One-stage cluster sample design was used to produce representative samples. After exclusions, data from 1217 third year medical students were analysed. Descriptive statistics with 95% confidence intervals were used to summarize data, whereas Chi-square and Fisher's Exact Test were used to compare groups, where appropriate. Alpha value was taken as 0.05.

Results

Prevalence of current tobacco use among third year medical students was 28.5%, while exposure to SHS in the last seven days was 46.9% at home and 42.2% in other places. Of the students, 90.7% reported that smoking should be banned in all enclosed public places. Overall, 88.2% of the students stated that their school had an official smoking policy. The percentage of students smoking on school premises/property (38.0%) and inside the medical school buildings (10.3%) in the past year were found to decrease (30.2% and 6.0%) after enactment of the anti-tobacco law ($p < 0.001$).

Lessons

Although Turkey is 100% smoke-free by law, prevalence of tobacco use and exposure to SHS is still common among medical students. Despite some improvement, smoking on medical school premises, and buildings also constitute a problem in practice. The findings of the study point out to the need to enforce the anti-tobacco law and policies of medical schools more strongly. Strategies on updating curricula for the medical schools will also contribute to tobacco control efforts in Turkey.

Tobacco use and cessation counselling among health professional students, 2010

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Background/ Objective

Getting advice from health professionals has been shown to be effective in preventing people from smoking. As health professional students are the future advisers, the purpose of this paper was to examine their smoking habits, attitudes and skills in cessation counselling as a pilot survey in Basel.

Methods

The Global Health Professions Student Survey (GHPSS) has been conducted in 2010 among third-year students attending medical, nursing and sports science school in Basel (n = 170/254) using an anonymous, standardized questionnaire. The questionnaire was transformed electronically and this version was made accessible for three weeks.

Results

18% of the students were smoking cigarettes currently and 32% were using other tobacco products. One third of the smokers wanted to quit smoking cigarettes. Nearly nine of ten students (88%) reported exposure to second hand smoke during the last week. The majority of health professional students (91%) recognised that health professionals do have a role in giving advice or information about smoking cessation to patients, but less than two thirds (62%) think that health professionals should get specific training on cessation techniques, and only 8% reported having ever received such training.

Conclusions

Smoking prevalence in the Basel GHPSS student population was considerably lower than in other countries. However, we were able to show that there is a significant higher prevalence of use of tobacco products other than cigarettes. The smoking students' willingness to stop smoking was lower than it was among Swiss people aged 20 to 24 in 2009. Health professional students in Basel were trained badly in cessation techniques.

Especially that the curricula of medical schools does not include specific training in cessation counselling is alarming and should definitively be changed in future years. To clarify whether these new trends are representative, a cross-country census should be conducted in Switzerland.

Smoke-free universities in Yerevan, Armenia, 2009

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Background

In 2005, Armenia enacted legislation restricting smoking in healthcare, educational, and cultural facilities. However, enforcement and compliance with the law has been lacking. This study aimed to develop and test a novel approach to encourage implementation of smoke-free policies in a university that failed to do so.

Methods

The study used surveys to characterize secondhand smoke (SHS) exposure, attitudes and practices among faculty and students before and after the intervention (6 months interval) in two universities (control and intervention sites). All available faculty were asked to participate in the survey. Student participants were selected by multistage random sampling. Baseline and follow-up data collection included airborne nicotine and particulate matter (PM2.5) measurements through a filter badges and TSI SidePaks AM510.

During the study the intervention university implemented a series of activities: National No Tobacco Day celebration; posting "no smoking" signs and posters in the university buildings; replacement of ashtrays inside the buildings with garbage cans with no-smoking signs on them; anti-tobacco essay and cartoon competitions among students; seminar series for students, faculty, and staff; distribution of leaflets about smoke-free policy and dangers of secondhand smoke.

Results

Overall, 1245 students and 211 faculty from the intervention site and 1155 students and 237 faculty from the control site participated in baseline and follow-up surveys. Significantly more students (62.5% vs. 31.6%) and faculty (48.3% vs. 30.8%) in the intervention site reported at follow-up that smoking was forbidden in the university; no such difference was found in the control site. Statistically significantly less smoking inside the building and lower exposure to SHS was found in the intervention site. About 16.7% less faculty and 8.2% less students noticed people smoking in corridors in last 30 days. Similar changes were reported for the stairwells, restrooms and cafeterias. Airborne nicotine and PM2.5 measurements confirmed these post-intervention improvements.

Conclusions

Involvement of institutions in planning and implementation of smoke-free policies helps to develop a sense of ownership ensuring sustainability of antismoking efforts.

Development in the smoking behavior of Dane's compared to changes in smoking policy

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Background

Smoking is the single most important factor regarding the Dane's short life expectancy and there has been made great efforts to reduce the proportion of smokers. The policy has through the 1980's and 1990's primarily been individually oriented through information campaigns and counseling. At the same time inequality in smoking behavior has increased. The article compares developments in Danish smoking policy to changes in smoking behavior in order to analyze whether there is consistency between the two. Doing so provides an important link between policy and behavior.

Method

The study is based on data from six cross-sectional studies of inhabitants in Copenhagen during the period 1978–2006. Smoking behavior and socioeconomic status are collected through questionnaires, and participants are randomly drawn from the Danish CPR register. Between 928 and 6,784 respondents have answered the questionnaires in each of the studies, and there are data from a total of 16,980 respondents. The studies are compared to smoking policies in the period to examine whether and how the policy prevention initiatives have had an effect on people's smoking behavior.

Results

From 1978 until 2006 the prevalence of daily smokers has declined from 60 % to 30 %. Furthermore, the prevalence has declined more in individuals with more than 4 years of education than in individuals without vocational training. In men with no vocational training the prevalence decreased from 70% to 49% over the period whereas for men with more than 4 years of education the smoking prevalence decreased from 63% to 20 %; similar picture was seen for women.

Conclusions

Policy initiatives that address campaigns and individual counseling seem to increase disparities and creating inequality in smoking behavior as well as inequality in chronic diseases. In order to eliminate social inequalitiy, new strategies, smoking bans and tax regulations as well as focused offers to the most vulnerable groups in society are required.

Can a 24 hour smoking cessation program improve the intention to quit of daily smokers? Evaluation of a 2009 pilot study in Flanders, Belgium

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Background

The prevalence of smoking remains high in Flanders, Belgium, with one out of five daily smokers. The Flemish Institute for Health Promotion and Illness Prevention implemented a 24 hour smoking cessation intervention study to give smokers a successful cessation experience and increase their intention to quit. The University of Antwerp analysed the data.

Methods

Participants could register online for the 24 hour smoking cessation starting one month prior to the intervention (3th of November 2010). Only inhabitants of the province of Antwerp and Limburg could participate in the intervention. Inhabitants of the provinces of East- and West-Flanders were chosen as a control group. Respondents filled in a survey (t0) upon registration, immediately after the intervention (t1) and after one month (t2). Surveys covered socio-demographics, smoking (cessation) behaviour, attitudes towards smoking (cessation), self-efficacy and intention to quit smoking. The stages of change (Prochaska & DiClemente, 1991) were used as theoretical framework. Whether someone had progressed one stage or more at t2, and smoking cessation at t2 were the outcome variables. All t0-variables and intention at t1 were analysed focusing on associations (Chi^2-test) and predictive relations (logistic regression) with the outcome variables.

Results

1,272 participants registered for the intervention yet only 406 (31.9%) completed all three surveys and were included into the analysis. The control group counted 185 respondents.

The experimental group showed more stage progression and had quit smoking more at t2 compared to the control group. Outcome variables did not differ for gender, educational level or age. A lower intention at t0 and a higher intention at t1 was predictive for stage progression at t2. Smoking cessation at t1 was a significant predictor for smoking cessation at t2. Agreeing with lesser statements on attitude towards smoking was also predictive for smoking cessation at t2. Control and experimental group differed significantly concerning t0 self-efficacy ($p \leq 0.001$ for all items) and intention ($p \leq 0.001$).

Conclusions

The intervention successfully improved intention to quit and smoking cessation. Participants with a lower intention to change also benefited of the intervention.

Are tweens safe at home from second-hand tobacco smoke exposure? Evidence from Eastern Europe

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Background

Second-Hand Smoke (SHS) is a known human carcinogen, being classified as the second most common human exposure to carcinogen after sun exposure. Children are especially vulnerable to SHS, as they are most often unable to protect themselves from the harmful effects of passive smoking. Determinants of children's SHS exposure have extensively been studied, but contradicting evidence still exists, suggesting a strong socio-cultural character of the issue. However, there is no data on children's SHS exposure in Eastern European countries such as Romania. As a result, the present study pursues to determine tweens (ages 11–12) prevalence of in-home SHS exposure in Cluj-Napoca Romania, explore exposure predictors, as well as develop recommendations for culturally responsive interventions.

Methods

The study pursues a cross-sectional design, with a quantitative strategy of inquiry. The instrument used is a self-administered questionnaire, targeting 6th grade children, pursuing information on child's SHS exposure, attitudes and knowledge on smoking and SHS, home smoking rules and practices, child health status, parental education and occupation, family affluence, home crowdedness and living arrangements, home neighborhood information. Data was collected in March-April 2011, in 39 schools in Cluj-Napoca, Romania on a total sample of 1241 tweens.

Results

Results suggest that approximately one third of the children are exposed daily within their homes to SHS, by at least one person, but two thirds are exposed at least 1–2 days per week. In approximately 40% of homes, smoking is allowed (anywhere or in certain areas), whereas in 20% of homes smoking is typically not allowed, but some guests are allowed to smoke within the home. Multiple logistic regressions were conducted and exposure determinants, mediators and their relation to reported health outcomes within this population assessed.

Conclusions

The significant number of children being exposed to SHS urges immediate action, in terms of interventions to adequately respond to the issue, as well as research initiatives to further explore children's SHS exposure, in relation to the socio-cultural context in which they occur.

4.T. Mental health and wellbeing

Work-life balance and health: The influence of the welfare state

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Background

Recent analyses showed that there is an association between welfare state regimes and population health. The aim of this analyses is to examine the relationship between work life balance and health in different welfare regimes. The question is whether there is an association between work-life balance and health status of a person and if this association varies between welfare regimes depending on the level of support available from the welfare system. Another question is if the quality of work-life balance varies between countries and if this variation can be explained by welfare state regimes.

Methods

Data from the 2005 European Working Conditions Survey were obtained. We included 21122 employed men and women aged 16–60 years who were working more than 15 hours weekly in the analyses. The participants stem from 28 European countries. Work life balance is measured with the question whether the working hours fit in with family or social commitments. Health status is operationalized with the question if work affects health. The countries are classified into five welfare state regimes (Scandinavian, Anglo-Saxon, Bismarckian, Southern, Eastern).

Logistic multilevel models and logistic regression analyses are performed to analyse the data.

Results

The preliminary results of the multilevel model show that there is a small but significant between-country variation which means that the largest variation exists within countries. After including the welfare state typologies into the model the between country variation was reduced.

The effect of an adverse work life balance on health varies between the welfare regimes (adjusted OR varying from 2.0 to 3.9). The association is strongest in the liberal welfare regime and weakest in the Scandinavian welfare regime.

Conclusion

The results indicate that an adverse work life balance and its effects on health vary between welfare regimes. These first findings suggest that welfare regimes provide different forms of support for the working population which might have an impact on the way employees can reconcile their work and family life and on the way employees can cope with an adverse work life balance.

Salutogenic health indicators and work experience factors - a comparison between nurses and teachers in Lithuania

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Background

Work conditions have a well-documented impact on health. Variations in work health are often studied in a pathogenic perspective, while salutogenic health indicators of importance to health promotion are less studied. Knowledge of work conditions and health in Lithuanian contexts is so far rare. The aim was to compare reports of salutogenic health indicators and work experiences between two large professional groups in Lithuania.

Methods

Nurses from one hospital (response rate 88%; n = 441; 100% females) and teachers from 11 schools (response rate 83.5%; n = 180; 87% females) completed a questionnaire on age, gender, other employment, health and work experience, using WEMS (Work Experiences Measurement Scale), and SHIS (Salutogenic Health Indicator Scale). WEMS and SHIS are two short validated instruments, which both give total indexes for work experiences and health indicators, respectively. WEMS also contains six subdomains of work factors. The WEMS and SHIS indexes were all standardised to range from 0 to 100% (from most negative to most positive work experiences and health indicators respectively). The analyses were made using t-test, chi-squared test and Pearson correlation.

Results

SHIS was higher among nurses compared to teachers (69% vs. 65%, $p < 0.01$), although total WEMS scores showed the opposite relationship (66 vs. 71%, $p < 0.001$). The teachers had higher values for all domains of WEMS, except Time experience (teachers 64 vs. nurses 68%; $p < 0.01$). Both groups showed a positive correlation between WEMS and SHIS ($r = 0.53$ and 0.56). Having more than one employment, which resulted in a lower SHIS, was more common among teachers (28% vs. 4%). Nurses were younger (43% < 40y) compared to the teachers (24% < 40y), which partly explains the difference in SHIS between the two professions.

Conclusion

Salutogenic health indicators were highly related to positive work experiences. Nurses reported less time stress compared to teachers, but scored less favourably on work conditions. They still showed a higher level on SHIS index. The differences may be explained by different work contexts, but also by the differences in age and gender. Further studies are necessary to increase the understanding of work health in relation to different professions and contexts.

Sense of coherence as a predictor of health-related quality of life among coronary heart disease patients

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Background

Sense of coherence (SOC) could be of interest for decreasing the public health burden related to coronary heart disease (CHD). One important clinical and research variable in patients with CHD is health-related quality of life (HRQoL). SOC affects mental and physical HRQoL in different clinical populations; the stronger the SOC, the better the HRQoL. The aim of this study was to determine whether SOC at baseline predicts HRQoL at 12–28 months follow-up among patients with CHD when controlled for sociodemographic and medical variables.

Methods

179 consecutive patients (mean age 58.28 ± 6.52, 16.8% female) scheduled for coronary angiography (CAG) were interviewed before CAG and then 12–28 months after. Both the baseline and the follow-up measurements were performed in the East Slovakian Institute for Cardiac and Vascular Diseases in Kosice, Slovakia. Medical and demographic data were obtained from medical records and a structured interview. SOC was measured using the 13-item Orientation to Life Questionnaire. HRQoL was measured using the Short Form Health Survey 36 (SF-36) from which the mental and physical summary components (MSC, PSC) were calculated. The relationship between a patient's SOC at baseline and HRQoL at 12–28 months follow-up was examined using regression analyses and adjusted for sociodemographic and medical variables.

Results

SOC proved to be a significant predictor of MSC ($B = 0.55$; 95% $CI = 0.33-0.76$) as well as PSC ($B = 0.54$; 95% $CI = 0.29-0.80$). After adjustment for gender, age, family income and functional status, SOC remained an independent predictor of both MSC ($B = 0.44$; 95% $CI = 0.23-0.66$) and PSC ($B = 0.31$; 95% $CI = 0.07-0.54$) components. Regarding PSC, adding family income and functional status to the models weakened the association between baseline SOC and PSC at follow-up.

Conclusions

SOC is a predictor of the mental and physical components of HRQoL at 12–28 months follow-up, crude and also after adjustment for sociodemographic and medical variables. Identifying predictors of HRQoL among CHD patients may help to tailor interventions for those at risk of recurrent CHD and mortality.

Process and outcome mental health indicators using administrative databases in Italy

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Background

In Italy and in other European countries, both at local and national level, the process of de-institutionalisation and implementation of a community-based model in mental health care has been characterized by a lack of evaluation. In particular, no activity is or has been in place to develop or maintain standards of quality of care. The aim of this study is to investigate the feasibility of the calculation of process and outcome indicators using administrative databases.

Methods

Process and outcome indicators of mental health care for 2 Local Health Authorities of Emilia-Romagna Region (Italy, 1.298.103 adult inhabitants) were obtained through linkage of hospital discharge records, the community mental health service database (year 2009) and the drug prescription database (years 2009 and 2010). The study cohorts include patients with a primary ICD-9-CM diagnosis code 290.xx-319 hospitalized or treated in the community mental health services in the year 2009. The set of indicators explore treated prevalence and incidence rates by disorder and setting, continuity between hospital and community care, retention in treatment, rehospitalizations, antidepressant drug and mood stabilizer prescriptions.

Results

Hospitalization rates varied by diagnosis (from 19 to 160 per 100.000 inhabitants) and increased with age. Treated prevalence in the two study areas was 2% and incidence was 0.7%. Of the patients treated by community mental health services, about 2% had a non-defined or a non-psychiatric diagnosis. The proportion of patients rehospitalized within 30 days from discharge was 19%. Less than 10% of patients with severe mental illness discontinued treatment with community mental health services.

Conclusions

Calculation of the selected indicators proved to be feasible, conditional on quality checks for completeness and accuracy of the primary diagnosis. Implementation of these indicators on a larger scale (regional or national) and on a regular basis may provide a unique opportunity to set up a mental health surveillance system and monitor treated prevalence and incidence of mental disorders as well as continuity of care and treatment outcomes at the patient level.

Differences in health status and well-being of the elderly in three Croatian districts

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Background

The number and proportion of elderly is increasing and their health is constantly changing.

The aim of the study was to compare and analyze the differences in health status and well-being of older people from three Croatian districts and assess the impact of age, gender and living alone/not living alone on it.

Methods

A cross-sectional study was performed in two mainly urban (Dubrovnik, Pula) and one mainly rural district (Koprivnica). A total of 1469 persons aged 70 or more were interviewed by trained interviewers in 2006 as a part of broader study TTB Second Decennial Survey of the Health Needs and Health care for Older People in Europe. Short form health survey-36 was used to measure current health status and well-being through 8 dimensions of health. Data were analysed descriptively and non-parametric tests (Kruskal-Wallis, Mann-Whitney) were used for comparisons between districts.

Results

Respondents in the two urban districts had better health status in all 8 health dimensions than in the rural district ($p < 0,001$). Dimensions of mental health were rated better (range 56–61%) than dimensions of physical health (42–44%). The greatest variability of measured values between districts was found for the limitation due to physical problems and bodily pain (13.5%) and the lowest for the limitation due to emotional problems (4.7%). Men rated their health better in all 8 dimensions than women ($p < 0,001$) The largest variability of measured values by sex was found for the limitation due to emotional (9.9%) and physical problems (9.2%) and least in the perception of general health (3.5%). Living alone does not affect the perception of health, but men who live alone rated their health generally better than those who live with someone. Health worsens with age, but least noticed changes were in the dimensions of health that measures the mental health and general health perception.

Conclusions

Our study has confirmed the large differences in health status and well-being among older people, for both men and women, living in different socio-economic and cultural circumstances and therefore it should be taken into account when adopting measures to improve health, reduce inequalities in health, planning and organizing care for the elderly at the local level.

School children's mental health in Europe: do German elementary school children report differences in mental health in northern Germany's former eastern vs. western part?

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Background

The School Children's Mental Health in Europe project (SCMHE project) is funded by the European Commission and aims at monitoring the mental health and its determinants of 6 to 11 year old school children from different perspectives (children, teachers, parents). 7 European countries are taking part. In the analysis of the data we are focussing on differences in mental health of children growing up in the former eastern part of northern Germany ("new Bundesländer") and in the former western part ("old Bundesländer").

Methods

Data were collected from a randomized sample of elementary schools in an eastern (N = 391 children in 10 schools) and a western (N = 450 children in 12 schools) part of northern Germany. The view of parents and teachers on internalizing and externalizing problems was collected with the Strength and Difficulties Questionnaires (Goodman, 1997; Woerner, Becker, Friedrich, Klasen, Goodman & Rothenberger, 2002). Children were interviewed with the computerized and pictorial Dominic Interactive tool (Valla, Bergeron, Berube, & Gaudet, 1994; Ederer, 2004), a reliable self report screening that makes it possible to identify risk classifications for 4 internalizing and 3 externalizing DSM-IV diagnoses.

Results

The preliminary results indicate differences in the views of the three informants. With just a few expectations parents and teachers do not report east-west-differences. Children report less symptoms of internalizing problems in former western Germany. The effect sizes are small.

Conclusions

Results are compared with the European results of the SCMHE study. Consequences for further research on monitoring mental health in elementary schools are discussed.

Individual and social identity of residents living in old people's homes in Slovenia

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Background

Slovenia is a country with a distinctly old population. Many elderly spend their retirement period living in special institutions where professional long-term care is provided. While being shelters, these institutions cannot replace primary homes. Mental health of elderly in institutional care is closely related to their perception of individual and social identity. The paper analyses the data, hitherto unavailable in Slovenia, in order to contribute to the caregivers and other health professionals on how to help elderly preserve and maintain their dignity, self-respect and identity, and consequently help to maintain them in good mental health.

Methods

A cross-sectional study was conducted in the period December 2005-January 2006. Included in the study were 164 elderly residents of 20 old people's homes. The study instrument incorporated 36 statements addressing individual (15), narrow social (18), and broad social identity (3), which the respondents were asked to agree or disagree with.

Mann-Whitney and Kruskal-Wallis tests were used respectively to facilitate the data analysis of the respondents' gender, age, education and original residence community.

Results

Results of the study indicate that there is no correlation between the individual identity levels and the respondents' gender, age, education and original residence community. Statistically significant, however, is the correlation between the narrow ($p = 0.007$) and broad ($p = 0.016$) social identity with the residents' educational level. In these two latter cases the identity was least pronounced in most educated respondents.

Conclusion

Educational level of the old people's homes residents correlates positively with their social identity crisis. The findings may contribute to the caregivers' and other health professionals' understanding and recognition of their role in assisting/supporting the more educated elderly effectively alleviate or prevent their social identity crisis. In view of the foregoing, the residents' quality of life and their overall wellbeing and health can be improved.

4.U. Environment and public health

Environmental pollution and health risk: the perception of an Italian sample

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Background

In the field of health communication a particularly critical issue is communication to the public of environmental risks, especially regarding topics for which it is difficult to obtain scientific evidence of risk estimates. Information on the presumed environmental and health risks is transmitted via numerous channels that contribute to shape risk perception. Perceived risk is a complex process which can lead to conclusions often very far from the scientific evidence characterized by a quantitative approach. The aim of the study was to evaluate risk perception about health risks associated to environmental pollution in a sample of Italians.

Methods

We performed a transversal study in 2010 administering an anonymous, self-administered, paper-and-pencil questionnaire to a sample of 867 people living in the City and Province of Cremona (North Italy), a highly polluted area. Risk perception was investigated through several questions included one in which, out of a list of 11 risk factors, we asked to say how dangerous they thought they were, using emoticons to assess the risk (smile = no dangerous, no expression = slightly dangerous, afraid face = dangerous, skull = very dangerous). We asked which institution they think safeguards them the most in this field, out of a list including governmental bodies and environmental associations.

Results

Regarding risk perception, adding together the two judgments 'dangerous' and 'very dangerous', the most feared risks resulted to be: smoking (93%), living in a high traffic area (88%), living close to industries (84%), living close to fields treated with pesticides (80%), and living close to waste landfills (75%), whilst other risks very debated like electromagnetic fields were perceived no or slightly dangerous by more than half of the sample. One fifth of the sample declared that environmental associations are the ones that safeguard them the most.

Conclusions

Environmental risk perception is one of the factors that needs to be taken into account by health institutions when managing the relation with inhabitants of polluted areas. Governmental institutions should carefully manage risk communication in order to perform successful strategies, in a context in which there are trusted competitive information providers.

EO2HEAVEN - Earth Observation and Environmental Modelling for the Mitigation of Health Risks

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Background

EO2HEAVEN is a research project which endeavours to contribute to a better understanding of the complex relationship between environmental changes and their impacts on human health. Co-funded by the European Commission under the 7th Framework Programme, it started in February 2010 with a duration of three years. The EO2HEAVEN consortium involves an international team of partners from Europe and Africa with long-standing experience in public health research, EO (earth observation) data analysis, distributed system architectures, and open source software.

Methods

Monitoring changes induced by human activities, EO2HEAVEN focuses atmospheric, river, lake and coastal marine pollution. It follows a multidisciplinary and user-driven approach where public health stakeholders work together with technology and service providers in the EO and the in-situ environmental monitoring domain. Three case studies have been defined in order to assess stakeholder requirements throughout the entire project phase. These refer to air quality-related diseases in Saxony/Germany and Durban/South Africa, and water-borne diseases in Uganda. Two case studies address the environmental effects on allergies, cardiovascular and respiratory diseases, while the third one investigates the impact of climatic variables on the outbreak of cholera.

Results

The result of the project will be the development of a geographic information system (GIS) which is based upon an open, standards-based Spatial Information Infrastructure (SII). This is envisaged as a useful tool for research of human exposure and early detection of potential health risks. The EO2HEAVEN project will develop models to relate health data with environmental and exposure data. The technical solutions proposed by it will be evaluated with the help of an iterative process to make sure that the solutions can be applied on a global scale.

Conclusions

Emphazising the health aspects of the EO2HEAVEN project, the presentation will introduce the three case studies, and summarize (1) the organizational structure of the EO2HEAVEN project; (2) its mandate; (3) its objectives; and (3) the work done so far.

Living conditions and health care use in periurban settlement with mostly Roma population

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Background

Majority of Roma population live within ethnically closed settlements. Roma population is the third largest ethnic group with 108000 residents in Serbia (Census 2002), but some statements elicit a five times higher number of 500 000. Their communities are experiencing poverty and socio-economic marginalization which involves exclusion from labour markets, exclusion and segregation within education system, difficult access to services including health services and extreme forms of spatial segregation.

Methods

Research was conducted as cross-sectional study from December 2009 until February 2010 as part of the project “Info network - statistical database of residents of settlement Veliki Rit”. Study included 788 households and 2751 residents, in other words total population of periurban settlement Veliki Rit near Novi Sad. Two sets of questionnaires were used, about housing conditions and about household.

Results

More than one third of houses (37%) has no individual address and 42% has drinking water supply only in the backyard. More than half of the houses (55%) has dirt road access, 30% has walls and 55% has roof made of non solid material. Almost 60% of houses have no floor covering, but solid ground or concrete. Half of the households (47%) have outdoor restrooms with no flushing capacities. Demographic characteristics indicate young population with average age of 27 years, compared to general population in Serbia which is old (average age 40). Half of the population has incomplete or complete elementary school (49%). Three quarters (77%) of participants aged 19–29 are unemployed and of those aged 30 and more 57% are unemployed. Most of the population has health card (90%) and more than three quarters (79%) has chosen doctor in primary health care center, but complete immunization has only 4% of participants, which is extremely low compared to general population. Every fifth person (21%) has one of the diseases listed in questionnaire and the most frequent were hypertension (3%), chronic bronchitis (3%) and asthma (2%).

Conclusions

Roma population in Veliki Rit settlement has poor housing and sanitary conditions, deprivation according to education, employment, preventive health care use and health.

Environmental and financial sustainability in healthcare organisations: the experience of the Italian National Health Service

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Issue

The issue of the economic and financial sustainability in the healthcare sector has become an inescapable aspect to be considered within the Italian National Health Service (INHS). As confirmed by the scientific literature, healthcare organizations are one of the main causes of environmental pollution and energetic consumption worldwide. Although at the European level there is strong attention both to environmental and financial, in Italy there is no consciousness of this issue among policy makers.

The purpose of this research was to make Italian policy makers aware of the important role played by environmental sustainability.

Description

A review of the scientific literature available and grey literature on the main search engines (MEDLINE, Google, Google scholar) has been conducted using keywords such as “healthcare/environmental/economic/financial sustainability”; “energetic savings/consumption/waste”. The experience of the English NHS has been analysed as golden standard. Then, Italian best practices have been reported (i.e. innovations to reduce the ecological and financial impact of hospitals as the case of the Meyer Paediatric Hospital).

Results

The high level of consumption in the healthcare sector depends on the need of providing a continuum service for 365 day/year. Electric energy and heating are the main cost drivers within hospitals(respectively 20% and 80%). Recently, the annual energetic cost per bed has been estimated to be €1.700 (€1.300 due to heating). It is well recognized that increases of the energetic efficiency could reduce 10% of total INHS costs. Environmental effects related to waste management have been not included as data were not available.

Lessons

In order to guarantee a sustainable development of the INHS, information and educational campaigns and events aimed at promoting eco-sustainable behaviours and policies should be supported. Furthermore, a multidisciplinary approach should be promoted in order to make the healthcare sector a driver for creating value by guaranteeing a sustainable development. In Italy an event in which the report data have been explained has been organized. Nevertheless, it would be necessary to promote further events aimed at spreading and enhancing environmental awareness among policy makers.

Air temperature and daily counts of ambulance calls in Arkhangelsk, Russia, 2000–2009

Andrej Grjibovski

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Background

International studies have reported associations between both high and low air temperatures and mortality. Less is known about associations between temperature and ambulance calls, particularly in high latitudes.

Aim: To study associations between air temperature and daily counts of ambulance calls in Arkhangelsk- (64Â°32’N), Northwest Russia in 2000–2009.

Methods

Daily counts of ambulance calls for external causes (ICD-10 codes: S00-T98), respiratory diseases (J00-J99) and cardiovascular causes (I00-I99) were obtained from the municipal ambulance service. Mean apparent temperature and mean daily temperatures were obtained from the local hydrometeorological centre. Associations between temperature and ambulance calls were studied by negative binomial regression models with adjustment for year, month, holidays, flu seasons, mean daily values of relative humidity, atmospheric pressure and wind speed. All climatic variables were introduced in the models with lags 0–2 to account for delayed effects. Analyses were performed separately by gender and by age-groups 0–17, 18–59 and 60 + years.

Results

An increase in mean apparent temperature by 1°C above the threshold of 15.5°C was associated with an increase in the number of ambulance calls for external causes by 1.6% (95% CI: 0.2–3.0) among men, by 2.5% (95% CI: 0.7–4.3) for respiratory causes among children of both genders and by 3.0% (95% CI: 0.6–5.5) for respiratory causes in the age-group of 60 years or older. A decrease in mean daily temperature by

1°C below -12.8°C was associated with an increase in the number of ambulance calls for external causes by 1.6% (95% CI: 0.1–3.2) in the age-group of 60 years or older and a decrease by 1.7% (95% CI: 0.1–3.3) in the number of calls for respiratory causes in the age-group 18–59 years and decrease by 1.2% (95% CI: 0.1–3.3) in the number of all calls among children on the same day as well as with a decrease in the number of calls for cardiovascular causes on the next day by 0.9% (95 CI: 0.1–1.6) among women 18–59 years.

Conclusions

Associations between high temperatures are in line with the international evidence, while most associations with cold differ from what was observed in European studies. The factors behind this discrepancy will be discussed.

The projected impact of climate change on the daily mortality: a case study in Archangelsk city in Northwest Russia

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Background

There are several international studies of climate change impact on the daily mortality.

Aim

To investigate the associations between air temperature and mortality in Arkhangelsk, Northwest Russia in 1999–2008.

Methods

Time series analyses of daily mortality data were performed. Daily mortality counts for the study period were obtained from the Federal State Statistics Service and constructed for deaths from several causes: coronary heart disease, brain strokes, respiratory diseases, all non-accidental and external causes in two age groups (30–64 and 65+). Mean daily temperatures were obtained from the local hydrometeorological centre. Associations between air temperature and mortality were studied by poisson regression models. Temperature-mortality curves were constructed for all causes. Several discrete weather events (heat waves and cold spells) during the study period were analyzed. Excess mortality during heat and cold waves was assessed by the dispersion analysis of independent samples.

Results

Associations between daily air temperature and mortality were confirmed by V- and U-shaped curves (except brain strokes cause in age group 30–64). Ten heat waves and eight cold spells were identified. Relative increases in mortality during heat waves were documented for the following causes: strokes in age group 65 + (RR = 1,42; CI: 1,23–1,62), non-accidental deaths in age group 65 + (RR = 1,14; CI: 1,02–1,26), and external causes in age groups 30–64 (RR = 1,24; CI: 1,01–1,47) and 65 + (RR = 1,70; CI: 1,08–2,32). Relative increases in mortality during cold spells were observed for the following causes: coronary deaths (30–64 (RR = 1,44; CI: 1,13–1,75), 65+ (RR = 1,32; CI: 1,06–1,58)) and all non-accidental deaths (30–64 (RR = 1,26; CI: 1,08–1,43), 65 + (RR = 1,35; CI: 1,19–1,52)), strokes in age group 65+ (RR = 1,37; CI: 1,12–1,62) and external causes in age group 30–64 (RR = 1,47; CI: 1,18–1,76). There were 289 additional deaths in Archangelsk city during 1999–2008, which were directly attributed to the impacts of heat waves and cold spells (95% CI: 220–360).

Conclusions

This study confirms that daily mortality associates with air temperature and increases in Arkhangelsk city during heat waves and cold spells.

Estimates of the health risk reduction associates with attainment of the new particulate matter standards in Poland, a top-down risk assessment

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Clean air is considered to be the basic requirement for human health and well-being. There is also growing concern related to the health effects of airborne, especially fine particles. Numerous epidemiological studies supported by some toxicological investigations demonstrate positive association between ambient concentrations of airborne particulate matter and increased adverse respiratory and cardiovascular events, including morbidity and mortality

A top-down risk assessment model was developed on the basis of existing risk factors associated with ambient air pollution. Using this model it was possible to quantify the health outcomes from an existing or a new policy through its implications on health determinants and associated risk factors and to provide decision-makers with practical information on the costs and benefits of specific policy measures.

Categorizing risk factors, the updated monitoring data must be carefully considered, as they may have an impact on the decision-making and/or the next steps of the change in the national particulate standards (also for the PM2.5). The latency of long-term PM10 exposure effects on health could potentially be investigated using, for example, various cohort studies on the relationship between exposure to carcinogenic substances carried out by PM10 and cancer.

To estimate the influence of the new regulations on the public health not only the actual exposure of the general population to PM10 should be known, but also this exposure in the past, as well as, in the future. The detail analysis should respect the following problems: access to the historical data, finding the local conversion factor to convert TSP to PM10, proper assessment of the exposure of the whole Polish population to PM10.

The environmental policy in Poland significantly changed during last twenty years. On the other hand, significant political and economic transformation changed the profile of the sources of anthropogenic pollution and it is important that the new standards seem to be appropriate for the new hierarchy of the emission sources.

Cumulative risk assessment of chloroform in tap water in Novodvinsk, Northwest Russia

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Introduction

Chloroform is a by-product of drinking water chlorination with deleterious health effects. Traditional risk assessment of drinking water in Russia often considers only ingestion exposure of adult's population to chloroform. The study aims is to assess cumulative risk for ingestion, absorption and inhalation of chloroform from tap water in a Northwestern town of Novodvinsk.

Methods

Median (CMe) and 90 percentile (CP90) concentrations of chloroform from 116 samples of tap water taken in 2006–2010 were used. Information about exposure to chloroform in tap water was obtained by questionnaires. In total, parents of 515 children 1–6 years old and 483 children 6–17 years old and 695 adults comprised the sample. A three-route exposure model was used in the risk assessment: ingestion of water, dermal contact with water and inhalation during taking shower/bath. Chronic daily intake of chloroform (mg/kg-day), hazard quotients (HQ) and total hazard indices (THI) were used to assess non-cancer risk. Lifetime average daily dose (LADD) (mg/kg-day) and lifetime cancer risk (CR) were used to assess cancer risk. The reference values for THI were below 1.0 and for ICR were below 1 × 10–5.

Results

CMe of chloroform in tap water (0.033 mg/L) was lower than the maximum acceptable concentration (MAC) (0.06 mg/L), but CP90 (0.064 mg/L) was higher than MAC. The THI values for CMe and CP90 of chloroform were 0.40 and 0.79 for children aged 1–6 years, 0.28 and 0.53 for children aged 7–17 years and 0.23 and 0.44 for adults. Proportions of oral, dermal and inhalation routs to the THI were 86%, 1% and 13% for children aged 1–6 years, 57%, 2% and 41% for children aged 7–17 years and 43%, 2% and 55% for adults. The LADD for CMe and CP90 of chloroform overall for all three exposure routs for all population were 0.0008 and 0.0015 mg/kg-day respectively. The CR value for CMe and CP90 of chloroform were 3.8 × 10–5 and 7.5 × 10–5 respectively. A proportion of oral, dermal and inhalation routs to the ICR was 12%, 2% and 86% respectively.

Conclusions

Tap water in Novodvinsk has low non-cancer, but substantial cancer risk related to its chloroform concentrations. The important exposure route for children is ingestion of water while for adults, inhalation seems more important.

PARALLEL SESSION 5: ORAL PRESENTATIONS

Friday, 11 November, 13:45–15:15

5.A. Social inequalities in sickness absence

Gender differences in predictors of adult sickness absence - results from a 27 years follow-up of the Northern Swedish cohort

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Background

Sickness absence represents a considerable public health problem in many countries, particularly among women. To date the reasons for the observed sex differences in sickness absence rates are still unresolved. There is a particular lack of longitudinal studies with baseline data prior to entrance into the work force. The aim of this longitudinal study was to examine family, school and health related factors in adolescence as predictors of sickness absence in adulthood. The study was designed from a gender perspective.

Methods

Data were drawn from a prospective, population-based cohort study carried out in the municipality of Luleå, Northern Sweden. All pupils who proceeded to upper-secondary schooling (n = 719, 339 women and 380 men) with complete information on all variables (0.05% missing information and 0.07% attrition rate) have been followed up from the last year of compulsory school in 1981 (16 years of age) to 2007 (42 years old). A number of individual school and health related factors, parental health and socio-economic status were retrieved from questionnaires, interviews with school nurses and from local municipalities. Crude and adjusted Risk ratios (RR) with 95% Confidence Interval (CI) have been calculated for the risk of having at least one sickness absence spell per year from 1993 till 2007 using a Generalised linar model. Analyses were carried out seperately for women and men.

Results

For women following variables remained significant predictors for sick leave in adulthood in the multivariate adjusted model: at 16 years of age reporting being sometimes sickness absence from school (RR 1.60, CI 1.18–2.17) and having parents with low socio-economic status (RR 2.20; CI 1.44–3.38) and participating in an educational program in upper secondary school (18 years) with a high proportion, exceeding 60%, of women (RR 1.41; CI 1.00–1.97). Among men two factors reported at 16 years of age remained significant predictors: low school grades (RR 4.36; CI 2.06–9.22) and reporting the father not to be employed (2.36; CI 1.53–3.66).

Conclusion

Predictors of adult sickness absence measured during adolescence varied between women and men. The findings will be discussed having different gender theories as a point of departure.

Social inequalities in sickness: Does welfare state regime type make a difference?

Kjetil A. van der Wel

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Background

Medical sociologists and public health researchers usually examine disease and illness in comparative studies of health inequalities. In the present study we look at the sickness dimension of health, i.e. the extent to which poor health is accompanied by joblessness. We ask whether welfare regimes have different impact on sickness and sickness inequalities, and whether the association vary between genders. Two contrasting theoretical expectations exist to the relationship between welfare regime and sickness: the disincentive hypothesis and the social investment perspective. According to the disincentive explanation, generous and comprehensive welfare states will have higher levels of sickness and sickness inequalities, as compared to more liberal regimes, because of work norm disruption. The social investment hypothesis predicts the opposite relationship, because comprehensive welfare states provide disadvantage groups with important welfare resources that facilitate social participation.

Methods

We analyse cross-sectional data from EU-SILC (2005) using multilevel analysis. Cross-level interaction terms between welfare regime and health, as well as for educational level allow us to estimate predicted probabilities for different social groups. The analyses control for country level gross domestic product and business cycle. Health was measured by limiting longstanding illness (LLSI).

Results

Results show that sickness rates were lower in all social groups within the Scandinavian countries, and gender differences were smaller. Within the group of men reporting LLSI in combination with low education, the probabilities of non-employment were particularly high in the Anglo-Saxon and the Eastern regimes. In men, absolute and relative social inequalities in sickness were lowest within the Southern regime, while in women inequalities were lowest within the Scandinavian regime.

Conclusions

We conclude that countries within the Scandinavian regime are more able than countries within other regimes to protect against non-employment in the face of illness, and especially so among individuals with low education. While the Scandinavian regime also performs the lowest level of social inequalities in sickness among women, this was not the case in men.

Unemployment and disability pension. An 18 year follow-up study from a Norwegian County

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Background

By following a cohort of forty years old men and women through 18 years, we explored whether unemployment was associated with an increased risk of work disability. We also explored the extent to which the risk of disability could be attributed the local labour market as indicated by municipality residence.

Methods

A Norwegian cohort of 7,985 40–42 year old without disability pension at baseline was followed for 18 years in national registers, identifying new episodes of unemployment and cases of disability pension. The association between an unemployment period and disability pension the subsequent year was estimated with discrete time multilevel logistic regression with individuals clustered within municipalities. The association between unemployment and subsequent disability was adjusted for age in follow up, gender, baseline health indicators, education and baseline alcohol and smoking behaviour. A conditional intra class correlation coefficient (ICC) was estimated as a measure of between municipality variance.

Results

A total of 2,784 (35%) of the participants received disability pension in the follow-up period. The crude odds ratio (only adjusted for age in follow up and sex) was 1.42 (CI 1.14–1.77). Additionally adjusting for baseline health indicators did not alter this result substantially (odds ratio of unemployment of 1.36 (CI 1.09–1.70)). A fully adjusted model, also including education, baseline alcohol and smoking behaviour reduced the odds ratio of unemployment to 1.25 (CI 1.00–1.55). The ICC of the municipality level was about 2%.

Conclusion

Becoming unemployed did increase the risk of subsequent disability pension, even after adjusting for baseline health status. However, adjusting for education and baseline alcohol and smoking behavior at baseline attenuated the impact of unemployment considerable. The multilevel analysis indicated small geographical differences in disability pension risk-however larger than would be expected by chance alone.

Socioeconomic differences in disability retirement in Finland: contribution of health, health behaviors and working conditions

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Background

In Finland socioeconomic inequalities in health and disability retirement are large. In this study the major interest is to find the contribution of self-reported health, diseases and health behaviors to socioeconomic differences in disability retirement for men and women. Working conditions will also be considered.

Methods

The data are nationally representative Health 2000 survey to which register based retirement data have been linked. These data include 4,156 persons aged 30–64 years who were employed at the time of the study. 524 of them ended up into disability pension during the follow-up 2000–2009. Cox regression analysis was used to calculate hazard ratios and their 95% confidence intervals.

Results

The risk of disability pension was higher among blue-collar workers than lower-level and upper-level white-collar employees. The association between health and disability retirement was also evident. A large proportion of the socioeconomic differences in disability retirement was mediated through self-reported health, health behaviors and working conditions. Health behaviors had a greater impact on socioeconomic differences in disability retirement for men than women. The contribution of diseases to socioeconomic differences in disability retirement was quite modest for both men and women.

Conclusions

Health behaviors and self-reported health affect more socioeconomic differences in disability retirement than individual diseases. Our findings suggest that by improving health of lower social classes we can reduce socioeconomic differences in disability retirement.

Medical welfare dependence within families: a cohort study of health, socioeconomic status and work disability in young people and their parents. The HUNT Study, Norway

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Background

Health status is likely to be clustered within families, but the research on medical welfare dependence within families is underdeveloped. We wanted to explore whether adolescents with parents depending on medical benefits might have increased risk of receiving medical benefits in young adulthood, and if so, what role health problems and parental socioeconomic status play in these processes.

Methods

Data from 8950 adolescents participating in the Young-HUNT 1 study (1995–97) and their biological parents were linked to the National Insurance Administration database in order to identify long-term medical social insurance benefits. Information on a broad range of health issues (chronic diseases, functional disability, somatic symptoms and mental health) was available for most adolescents at baseline and for those mothers and fathers participating in the HUNT2 study (1995–97). The relationship between parental benefits granted between 1995 and 1997 and benefits received by adolescents during follow-up (1998–2008) was assessed using descriptive statistics and regression models adjusting for health variables, family risk factors and socioeconomic status.

Preliminary results

Parental reception of medical benefits in adolescence was associated with higher risk of long-term medical benefits during follow-up. The predicted 5-year risk (age 24 to 28) for receiving a long-term benefit was 11 % (95% confidence interval 9–12) in adolescents whose parents did not receive benefits (representing 80% of the cohort). Corresponding risk was 19% (16–23) if the mother only received benefit, 17% (13–21) if the father only received benefit and 30% (CI 22–39) if both parents received benefit. These differences attenuated but remained significant after adjusting for health, socioeconomic status and family risk factors.

Conclusions

Adolescents with parents depending on medical benefits are at substantial risk of receiving medical benefits in early adulthood. This association could not be explained by the factors available in our data. Our results suggest that factors other than health could be of importance, and points to the need to integrate the family perspective in health and welfare at all levels.

Job-mobility and health

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Background

If job-mobility leads to better adjustment between the health condition of individuals and job demands, it may have a positive effect upon public health. If job-mobility increases social stress, the effect upon public health may be adverse.

Aim of study was to analyse the effect of job-mobility upon ischemic heart disease (IHD) and other selected diseases (according to ICD-10: hypertension, gastric ulcer, colon cancer, alcoholism, lung cancer, depression).

Methods

We used a prospective cohort design for this register based study. Study population includes all 40–50 year old Danes in 2002. Persons were excluded who during 1997–2001 suffered from the disease under study, and who had taken early retirement. The exposure variable, job-mobility, was registered annually during 1992–2001, and grouped into: 0 mobility, 1–4 times, 5–9 times, and 10 times. The outcome variable, ischemic heart disease, was registered during 2002–2006. We used logistic regression to calculate the estimate (OR, 95% SI) for job-mobility as predictor for ischemic heart disease with adjustment for gender, age, educational level, and degree of unemployment.

Results

749.617 (379.733 men, 369.884 women) aged 40–50 years, were included in the study. The pattern of job-mobility showed that around 20% had 0 mobility and around 40% had 1–4 times mobility, 2%-points less in women. 26% of men and 30% of women showed 5–9 times mobility, and 13%, both men and women, 10 times mob-mobility during the 10 year observation period. 10.365 cases of ischemic heart disease occurred during 2002–2006, 7.103 in men and 3.262 in women. Odds ratios for IHD effected by job-mobility, and adjusted for age, educational level and unemployment showed a graduated association between job-mobility and IHD, e.g. in women 1.25 (95% CI 1.11–1.40) (1–4 times mobility versus 0), 1.50 (95% CI 1.32–1.69) (5–9 times mobility versus 0), 1.74 (95% CI 1.52–1.98) (10 times mobility versus 0). Same pattern for other diseases included in the study.

Conclusions

This study has demonstrated that job-mobility during a 10-year period has an independent graduated effect upon a wide spectrum of diseases during a 5-year follow-up period: The higher the degree of job-mobility the higher the odds ratios for subsequent disease.

5.C. Workshop: Mental Healthcare Systems Reforms in Europe

Chairs: Vincent Lorant, Belgium and Jutta Lindert, Germany
Organizer: EUPHA section on public mental health
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The Mental Healthcare System Reform in Belgium: Assessing Network Outcomes and Inter-Organisational Effectiveness

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Background

Despite a phase of partial deinstitutionalisation within a federal state with health competences at each level of authority, the mental healthcare system in Belgium has remained much fragmented, uncoordinated, and rather hospital-centred. In 2010, a new phase of reform, named 'Title 107' was initiated. It aims at implementing inter-organisational networks of a broad spectrum of mental health and other social care services coordinated from the psychiatric hospital units. However, the policy blueprint of the reform lists up to 18 goals which, as the theory suggests, cannot be all met at the same time. Moreover, there is no consensus in the literature and among stakeholders on how to assess the effectiveness of such inter-organisational networks.

Aim

Our study maps the effective goals of the reform process and identifies the most relevant indicators in stakeholders' views to assess the network outcomes and inter-organisational effectiveness in mental health.

Method

We combined a quantitative stakeholders web survey (n=110), completed by policymakers, professional groups, users and family groups, and qualitative focus groups (n=4). The indicators were selected according to the Rosenblatt's model while the reform goals were extracted from the policy blueprint and classified on structure, process and outcome goals.

Results

Globally, the most supported goals aim at improving the quality of life of the users and their inclusion. A clash was identified between two groups of goals, the first gathering goals aiming at increasing the network density of links between services, the second gathering goals aiming at increasing the network centralisation and service coordination. Goals and indicators related to clinical status and hospitalisation were somewhat considered as less important, although different stakeholders may have different priorities.

Conclusion

This study indicate how nation-wide mental healthcare reforms may be challenging to assess and why their effectiveness is patchy. However, it gives major indications on which network outcomes should be taken into account and how inter-organisational effectiveness in mental health can be assessed. Moreover, it gives policymakers indications on how the reform process can be properly implemented in the following years.

Providing care to immigrants in long-term mental health services across Europe: considerations for practical reform

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Background

Differences in the density and distribution of migrant groups exist within European countries. These regional disparities in demand affect the experience of long-term mental health service delivery for patients and mental health care professional alike. While there has been systematic research on the experiences of patients in these services, little research has explored the views and experiences of mental health professionals in the delivery of services to immigrants. This study sought to explore mental health professionals' experiences and views of delivering care to immigrants in densely populated districts in Europe. The issues encountered and the methods to manage them.

Methods

Forty-eight structured interviews were conducted with mental health care professionals working in areas with high proportions of immigrants in 16 European countries. Immigrants were defined in the interviews as first generation immigrants born outside the country of current residence, and included regular immigrants, irregular (illegal/undocumented) immigrants, asylum seekers, refugees, and victims of human trafficking. Interviews were transcribed and analysed using thematic analysis.

Results

The interviews highlighted issues specific to treating immigrants in mental health services including: complications with diagnosis; issues in gaining trust; different belief systems and explanatory models for understanding mental illness; and lack of accessibility for irregular immigrants.

Conclusions

Although differences in service delivery may vary between and within European countries, similarities exist in the experiences of mental health professionals delivering mental health care in communities with high proportions of immigrants. Considerations for practical reform should take into account the experience and views of those providing services, as well those receiving services, in order to further develop tools for diagnosis, building trust, working with alternative understandings of mental health and improving access for irregular migrants.

5.D. Parenting and/or education?

Integrated educational systems: Educational success - poor health?

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Background

PISA-studies provided sufficient evidence that integrated educational systems with a low number of tracks and late tracking are positively associated with the learning outcomes in adolescents. The individual learning success in turn is connected with health. So far, the impact of different educational systems and their meaning on health has been rarely investigated in a cross-national perspective. Therefore, it will be analyzed how different educational systems are related to self-assessed health in adolescence.

Methods

Based on the international ‘Health Behaviour in School-aged Children’ (HBSC) 2005/06 survey, 25 European and North-American countries (n = 111.339) have been characterized based on educational system-specific determinants such as first age of tracking and the number of tracks. For self-assessed health and health complaints, logistic hierarchical regression models have been calculated for adolescents aged 11–15 years.

Results

Adolescents in countries with late tracking are characterized by a higher odds ratio of health complaints, while no significant association have been found for subjective health. On the other hand, the number of tracks is neither significantly related to self-assessed health nor with health complaints.

Conclusions

First of all, the higher risk of health complaints in educational systems with late tracking is astonishing. It may be assumed that in contrast to educational success, the heterogeneous composition of adolescents in educational systems with a long time without tracking has no positive impact on health complaints in adolescence due to the competition among pupils.

A Systematic Review of the Effect of the School Environment on Adolescent Emotional Health

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Background

There is great policy interest in ‘whole-school’ approaches to emotional health, and some evidence that aspects of the school environment such as quality of relationships can affect emotional health, but this evidence base has never been systematically reviewed. Our study aimed to synthesise the evidence for the effect on adolescent emotional health of (i) the school environment and (ii) interventions targeting the school environment.

Methods

Searches of Medline, Embase, PsychINFO, CINAHL, ERIC, the Social Citation Index, and the grey literature were conducted. Criteria for inclusion were (i) cohort or controlled trial designs (ii) participants aged 11–18 (iii) emotional health/suicidal behaviour outcomes and (iv) exposure or intervention related to the school environment. Relevant studies were retrieved, and data extracted by two independent reviewers.

Results

Thirty cohort papers reporting 23 studies and 9 papers reporting 5 controlled trials were reviewed. Only one of the trials (non-randomised) found evidence that a supportive school environment improved student emotional health. Six (20%) cohort papers examined the effect of school-level factors but no predicted associations were found. There was some evidence that individual-level perceptions of school connectedness and teacher-student relationships predict future emotional health. Multi-level studies indicated that school effects were small compared to individual-level effects. Methodological shortcomings were common.

Conclusions

School-based approaches to emotional health that focus on environmental change are intuitively appealing, but a stronger evidence base is needed in this area. More studies measuring school-level factors are needed. RCTs evaluating one or two environmental components may have more success in establishing effective and feasible interventions compared to complex whole-school programmes.

School performance, health and SES in Finland - findings from a high-performing PISA country

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Background

Finland performs well in PISA (Programme for International Student Assessment) studies, that assess scholastic performance worldwide among 15-year-olds. One of the explanations for high performance is been the fact that by and large variation among students is small which increases the average level of performance regardless of students’ own social background and human capital. Recently options for school selection have increased which may produce more differentiation between schools in performance. Yet, little is known of whether the increasing differentiation between schools and areas induces also more diversity in the association between school performance, health and social background.

The aim of this study were:

1. to analyse the extent to which health, health-related behavior and social background contribute to school performance, and
2. to assess what accounts for school level variation in performance.

Methods

Data derive from the Helsinki Metropolitan Area (years 2002–10, aged 14 and 15 yrs.). School data from 88 schools comprising appx. 78% of all students of the area (N = 12 000–14 000 by year). Multilevel modeling by gender using R (lme function).

School performance was measured with average of grades (self-report). Covariants included self-rated health, perceived health complaints, level of education of mother and father, family structure, smoking (own, mother, father) and having a family meal together.

Results

Preliminary results show that all covariants are significantly associated with school performance. Health and social background associated with school performance but the association was attenuated after controlling for parents' and students' own smoking status and family meal. The strongest single association was that between daily smoking and poor school performance (-0.81 for boys and -0,86 for girls). In boys, 5.0% of school performance was due to school level (4.3% for girls). This variance was largely unaffected by time, health and social background at individual level.

Conclusions

The study suggests that the effects of health and social background on school performance are partly mediated by smoking. Despite increasing school selection there were little signs of widening differences in school performance between schools.

School experiences and medicine use for pain: cross sectional study of adolescents in 18 European countries

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Background

Increasing proportions of adolescents use medicine for pain and this is a public health concern due to possible side effects. Use of medicine for pain is associated with social and psychosocial strain but the role of school-related strain is under-studied. We examined associations between medicine use for headache and stomach-ache and school experiences.

Methods

We used data from the Health Behaviour in School-aged Children (HBSC) study 2006 in 18 European countries. In each country, the study population was 11-, 13- and 15-years old students in a random sample of schools or school-classes, n = 89,707. The students answered the standardised questionnaire with items on medicine use, school satisfaction and perceived school pressure. We used high school satisfaction and low perceived school pressure as reference categories in the multivariate logistic regression analyses.

Results

School satisfaction: The Odds Ratio (OR) for medicine use for headache was 1.24 (95% CI 1.19–1.29) among students with medium and 1.49 (1.43–1.56) among students with low school satisfaction. Similar results for stomach-ache were 1.09 (1.05–1.14) and 1.42 (1.35–1.48). The associations were almost similar across countries. Estimates attenuated when controlled for sex, age, country, and prevalence of the matching symptom (headache, stomach-ache) but remained significant.

Perceived school pressure: The OR for medicine use for headache was 1.33 (1.27–1.38) among students with medium and 1.72 (1.64–1.79) among those with high school pressure. The similar results for stomach-ache were 1.25 (1.19–1.31) and 1.61 (1.53–1.69). Again, the pattern of associations was fairly stable across countries. Estimates attenuated when controlled for sex, age, country, and matching symptom but remained significant. School satisfaction and perceived school pressure did not attenuate each other's effect on medicine use when included simultaneously in the analysis.

Conclusions

Medicine use for pain is clearly associated with negative school experiences. This observation calls for public health intervention to reduce school pressures and avoid unnecessary medicine use for pain among adolescents.

The effects of a parental program on alcohol use among Swedish adolescents

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Background

Alcohol drinking among adolescents is an important public health issue. Early alcohol debut is associated with subsequent high alcohol consumption during the teenage period and with dependency in adulthood. Alcohol consumption during adolescence is also linked to several problems such as undesired or unprotected sex, accidents, and injuries. Form a public health perspective, it is critical to pay attention to youths' alcohol consumption for the present and future well-being of adolescents.

The present study is an evaluation of a 3-year parental program aiming to prevent underage drinking. The intervention was implemented by a non-governmental organization in Sweden.

The program called Strong and Clear, targeted parents with children aged 13–16 years old and included recurrent activities during the entire period of secondary school. The program consisted of four different types of group and self-administered activities: parent meetings, family dialogues, friend meetings, and family meetings.

Methods

A quasi-experimental design was used following parents and children with questionnaires during the three years of secondary school. The analytic sample consisted of 509 dyads of parents and children. Parental attitudes and behaviour concerning underage drinking and adolescents' lifetime alcohol consumption and drunkenness were measured as well as some socio-demographic factors. A Latent Growth Modelling (LGM) approach was used to examine changes in parental behaviour regarding youth drinking and in young people's drinking behaviour. To test for the pre-post test differences in parental attitudes repeated measures ANOVA were used.

Results

Parents in the program maintained their restrictive attitude toward underage drinking to a higher degree than non-participating parents. Adolescents of participants were on average one year older than adolescents with non-participating parents when they made their alcohol debut. They were also less likely to have ever been drunk in school year 9.

Conclusions

Strong and Clear contributed to maintaining parents' restrictive attitude toward underage drinking during secondary school, postponing alcohol debut among the adolescents, and preventing drunkenness.

Effectiveness of the Primary care Triple P in preventive child healthcare: a randomised controlled trial

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Background

Psychosocial problems frequently occur in children and may lead to restrictions in daily functioning. Preventive Child Healthcare (PCH) can play an important role in their prevention, including early treatment. In The Netherlands PCH reaches more than 90% of all children. Primary care Triple P (Positive Parenting Programme) is likely to fit the needs of the PCH regarding parenting support, but its effectiveness in the Dutch PCH still has to be established yet. This study aims to determine its effectiveness in the Dutch PCH.

Methods

We conducted a randomised controlled trial. Eligible participants were identified by PCH nurses during routine examination using the Strengths and Difficulties Questionnaire following an evidence-based detection protocol. Parents of children (age 9–11) with a subclinical level of psychosocial problems were assigned at random to the experimental group (Primary care Triple P) or to a control group (care as usual). Outcome measures, i.e. child problem behaviour and parenting behaviour were assessed before and three times after treatment in both groups.

Results

60 families completed the pre and post intervention assessment. There were no differences between the intervention and control group on the pre-intervention scale scores. At post intervention, the results showed a statistically significant decrease in conduct problems and inattentive behaviour in the children in the intervention group. These children also showed clinically meaningful lower levels of problem behaviour than children in the control group. The results demonstrated improvement in successfully handling difficult child behaviour in day-to-day situations by the parents, but no significant improvements regarding parenting style and parenting stress. The long-term effects of the intervention will be presented at the EUPHA conference.

Conclusions

The short-term results of this study suggest that Primary care Triple P is supportive in dealing with child problem behaviour. However, the results show no significant effect in dysfunctional parenting styles and parenting stress. Primary care Triple P after evidence-based early detection helps to reduce the burden of child behavioural problems.

5.E. Workshop: Translating science into policy - illustration of a methodological framework for science advice

Chairs: Louise Gunning-Schepers, Dorine Coenen, The Netherlands
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Background

Public health problems often have a transnational nature and many European Member States face similar challenges. Accordingly, collaboration between national science advisory bodies (SABs) to share knowledge and expertise and to prepare joint advisory reports is important to promote evidence-based health policy at both the national and European level and efficient use of resources. To optimally achieve this, developing an internationally accepted common methodological framework for science advice for health, using also best practice experience, is essential.

General approach

The European Science Advisory Network for Health (EuSANH), currently consists of national advisory bodies in 13 Member States. It is involved in a FP7-supported collaborative project to Improve Science Advice for health policy (EuSANH-ISA project).

The first step is an evaluation of the characteristics and current performance of national SABs and of the content and quality of their advisory reports. The outcome of this step indicates the opportunity to exchange best practices and experiences between different SABs in Europe, and paves the way to a joint development of the most efficient, effective and successful science advice practice at a national and European level. This result is used as basis for the second step: designing a common methodological framework for science advice. This step includes a survey among policy makers and SABs staff as well as steps, principles and guidelines for a common methodology. Parallel to this, a plan for communication and cooperation in the expanding network has been developed and will be basis for the new EuSANH organization in 2012. Finally, the common methodology and the functioning of the network are illustrated by the development of two case studies, a European science advisory report on determinants of successful implementation of population-based cancer screening programmes and one on childhood leukaemia.

The workshop aims to exchange experiences and approaches in providing science advice for health policy throughout Europe. It starts with a presentation on the role of science advice at a European level. Then, results of the survey, the methodological framework as well as from the two case studies using this framework will be presented. Finally, in a panel discussion feedback from policy makers, stakeholders and the audience will be harvested and the formal EuSANH organisation will be announced.

Role of science advice at a European level

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Science and technology have become pivotal in our modern culture and are key drivers of social and economic prosperity. People expect governments to capitalize on the benefits of new scientific discoveries and new technologies. Put differently, there is huge public interest in valorisation: transforming findings from basic research into commercially viable products or services. Similarly, science can provide a sound basis for government decisions and public programs.

The issues facing governments are increasingly complex and require decisions that have deep societal impacts. And sometimes it seems as if the authority of scientific and technological knowledge is no longer obvious. It is increasingly seen in a broader societal context and has become a matter of public debate. To bridge the gap between innovation and implementation and to translate science into policy, science advisory bodies can play a role. These recent developments have underscored the importance of sound science advice as key input to policy formulation, both nationally and at the European or international level.

In this context, the European Science Advisory Network for Health (EuSANH) is operating to promote independent science advice on health issues to national and European health authorities and to support evidence-based health policy. To achieve this goal EuSANH will exchange national advisory reports; mutual consult national top experts; allow coordination of issues of members'work programmes; jointly work on the preparation of science advice on issues of common or European interest. It has also developed a joint methodological framework for science advice.

Top-level science and cutting-edge technology are merely a means to an end: success will be determined by the degree to which research results in tackling societal challenges. In the public health field, EuSANH can enhance the quality and efficiency of science advice to help bridging the gap between science and policy at the European level. Its core competence is multidisciplinarity: state-of-the-art advice on complex problems (such as mental health, screening and ageing) requires input from various scientific fields. Moreover, ethical, legal and societal aspects are taken into account. EuSANH is more than willing to help building a sound infrastructure for Science Advice in Europe.

A common methodological framework of Science Advice - The use of science advice in Europe

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Approach

There is an under utilization of research in policy making. Research is just one among other factors influencing and competing in the decision making process. The existence of the "Two Communities"(policy makers and science advisers) represents a difficulty for the use of science in policy making. The vast majority of literature on the use of research is largely written from the perspective of research rather than policy, and emphasizes mechanisms to promote the use of research, more than describing how research is used at policy level. The objective of this work is to understand the existing relationship between policy-makers (PM) and science advisory bodies (SAB) in Europe and describe situations which exemplify the actual use of science in policy making.

Methods

Two questionnaires were designed targeting both PM involved in developing health policy as governmental ministries, officials and senior public servants within national and/or local health service, and individuals with enough experience in a SAB. EuSANH partners identified PM and SAB senior staff willing to participate in their respective countries. The on-line questionnaire was sent to 25 PM and to 29 SAB staff.

Results

19 PM (3-Belgium, 1-Czech Republic, 1-Lithuania, 2-Netherlands, 2-Poland, 1-Romania, 5-Spain, 3-Sweden and 1-United Kingdom) and 25 SAB staff (1-Belgium, 1-Czech Republic, 1-Italy, 1-Lithuania, 4-Netherlands, 1-Poland, 3-Romania, 11-Spain, and 2-Sweden) responded the questionnaire. Most PM and SAB staff have more than 15 years experience in public health and science advice fields. Factors considered as barriers for the relationship between PM and SAB are the differences in timing and interests, and the difficulties translating policy problems into research questions. Communication between PM and SAB was considered regular by PM, and occasional by SAB. PM considered that most communication was informal. Both PM and SAB considered that usefulness of science advice could be improved with more clarity, brevity, simplicity and succinct and concise reporting. Transparency (clear, open and accessible information), independency, procedures to adequately deal with conflict of interest, rigor and knowledge systematisation are factors that both PM and SAB ranked with highest value.

A common methodological framework of Science Advice - Steps, principles and guidelines

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In our knowledge-based society sound science advice is a key input to policy formation, both nationally and on the European or international level. One of the activities of EuSANH (European Science Advisory Network for Health) is to create a methodological framework for the procedural and scientific aspects of producing advisory reports. This framework consists of principles and guidelines to enhance the quality and efficiency of science advice, both for those producing and those receiving the advice.

In the advisory process the following steps and principles are distinguished:

- Framing the issue: Identification of Priorities
- Planning the process: Timeliness
- Drafting the report: Scientific Credibility, Independence, Relevance, Scientific Transparency
- Formulating the recommendations: Policy Orientation
- Reviewing the advisory report: Quality Assurance
- Publishing and disseminating the report: Openness
- Assessing the impact: Evaluation

The application of each of these principles is specified by a number of guidelines. This involves a growth model, starting from a basic set of requirements and working towards a common methodology.

Case study - Determinants of a successful implementation of population based cancer screening programs

Susanne Allander

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Background

The uptake and practice of cancer screening programmes have been studied in recent reports, showing substantial variation between European countries. The International Agency for Research on Cancer published in year 2008 a report on the cancer screening situation in the European Union, pointing out that considerable efforts will be required over the coming years to overcome existing barriers to successful programme implementation.

Methods

The objective of this activity is to illustrate the common methodology and the functioning of the EuSANH network by performing a pilot case study for a European science advisory report. Questions: What are the important organisational aspects when implementing cancer screening programmes? How can barriers to participation in organised screening programmes be reduced? What advice can be given to decision makers in a European country wanting to initiate a cancer screening program?

Results and conclusions: This advice is addressed to the Minister of Health in a European country. It therefore focuses on general aspects and success factors that can be extrapolated from one cancer screening programme to another. The purpose is to facilitate for a region or country where there is a will to initiate or improve the implementation of a cancer screening programme. The experience in Europe shows that successful implementation of population-based cancer screening programmes requires long-term political commitment, a comprehensive quality management programme and sustainable resources. Once the political decision has been taken to establish a population-based cancer screening programme, a competent programme coordinator should receive the mandate to manage the entire process of programme implementation beginning with a planning phase, and followed by feasibility testing, piloting and, depending on the interim results, subsequent gradual rollout of a programme fulfilling the principles and standards recommended in the Council Recommendation and the European Guidelines and relevant national standards and guidelines.

Case study - The Childhood Leukaemia Project: evaluation of a bottom-up international collaboration between scientific health advisory bodies within the EuSANH framework

Katty Cauwerts

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Approach

Within the framework of the European Science Advisory Network for Health (EuSANH), two participating science advisory bodies (SABs), the Health Council of The Netherlands (GR) and the Belgian Superior Health Council (SHC), decided to collaborate on scientific advice regarding the role of environmental factors in the induction of childhood leukaemia. The collaboration set-up and the lessons learned from this project will be discussed.

Method

At the start of the project, the secretariat members with the help of experts wrote a project fiche. The SAB secretariats drafted a list of necessary expertise and chose 8 experts per country from shortlists of national top experts, assuring 1 or 2 experts per expertise area. Each SAB paid the travel expenses for their own experts, the SHC assured and paid the organization of the meetings and the GR assured and paid for a systematic literature review and drafting of the document. A small group of experts decided on the search and inclusion/exclusion criteria to be used for the systematic literature review. The review was performed by the Dutch branch of the Cochrane Collaboration prior to the set up of the advice and the meetings of the experts.

The next step consisted of five meetings of each approximately 4 hours in Antwerp. At the first meeting the methodology and results of the literature search were presented to the group of experts: determining gaps and important publications which were missed by the systematic literature review. In the next meetings, spread over one year, the working group discussed the draft advices. The final advice will be published by each of the SABs individually, but with a common template.

Results

Some important lessons learned were to convene the working group before the performance of the literature review in order to thoroughly discuss the methodology and to have fewer but longer meetings.

Panel discussion with

- Måns Rosén, SBU, Sweden and a Swedish policy maker
- Wim Saris, Coordinator JPI healthy diet for a healthy living, Netherlands
- Finn Borlum Kristensen, EunetHTA, Denmark
- Kevin McCarthy DG Research, Unit Health, sector Public Health
- Bernardo Delogu DG Sanco, Unit Head Risk Assessment

5.F. Workshop: Undertaking regional/local public health assessments in Europe using environmental health indicators

Chairs: Lorraine Stewart and Odile Mekel
Organiser: Lorraine Stewart, Health Protection Agency
Contact: adedoyin.awofisayo@hpa.org.uk

Objectives of the workshop:

In order to identify the major burden of diseases among and within European countries, it is imperative that we have appropriate tools to undertake population health assessments. The creation of a consistent and common framework within Europe will facilitate the comparability of health status data and help to identify those policies and interventions which deliver positive health outcomes and encourage their transfer to other regions. Therefore this workshop will seek to highlight the use of the environmental health information system to identify and prioritize health issues in sub-populations within European countries. This will stimulate and galvanize action aimed at reducing the burden of disease through control of environmental exposures and their health effects and address the possible existence of health inequality in such sub-populations.

The workshop will demonstrate the added value of the UNIPHE project which builds on previous work which used sets of indicators to carry out national assessments of the health status of populations in Europe. Such existing indicator sets include Environment and Health Information System, European Community Health Indicators Monitoring and European Community Health Indicators. These systems enable policy makers to quickly compare the performance of their country to another with very little effort. However, it is known that while some policies and interventions may have a positive outcome nationally, it is often necessary to have policies and interventions targeted at sub-population where a number of similarities may exist, such as access to hospitals, living in close proximity to industrial processes etc. Given this, there was a need to develop a harmonized environmental health information system of sub-national indicators to complement the national indicators set. The project will also aim to develop methods of collecting data for indicators which are considered relevant but for which comparable data does not exist or is ad hoc throughout Europe.

The workshop will commence with an overview of the UNIPHE project then focus on describing the methodology used for the identification of environmental and health indicators which can be used for sub-national assessments. It will also demonstrate the use of the harmonized environmental and health monitoring system and showcase policies and interventions which have been identified as delivering positive health outcomes and their transferability across European countries.

Overview of Use of sub-national indicators to improve public health in Europe (UNIPHE)

Lorraine Stewart

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Development of indicators for sub-national population health assessments

Ingrida Zurlyte, Adedoyin Awofisayo

I Zurlyte[1], A Laukaitiene[1], A Awofisayo[2], L Stewart[2]
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Development of harmonised sub-national environmental health information system

Anna Paldy

A Paldy, T Malnasi
National Institute of Environmental Health, Budapest, Hungary

Compendium of policies and interventions that deliver positive health outcomes

Odile Mekel

OCL Mekel[1], L Tacke[1], MJ Carroquino[2]
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A harmonised health monitoring system on sub-national level in Europe allows comparing the burden of disease of populations within and between European countries. Policies and interventions that deliver positive health outcomes are often implemented on regional rather than national level. The identification and systematic analysis of such policies/interventions will facilitate a transfer to other appropriate European regions.

Following the selection of a core set of indicators, the effectiveness of policies and interventions for the following four categories was researched: (i) chemicals, UV, ionizing radiation (ii) accident, mobility, transport (iii) air quality, noise, and (iv) water and food safety. A questionnaire on country-specific implementation of relevant policies and interventions was developed and cascaded to the seven participating partner countries, and results were analysed by a priori defined criteria. Data relating to socio-economics were collected to assist with the analysis of the transferability of the policies and interventions into other regions. Policies and interventions which deliver positive health outcomes within a region in a country were collated in a policy compendium.

Evidence on the effectiveness of policies/interventions for the four categories of indicators was identified in literature reviews and databases such as the Cochrane and Campbell Collaboration, WHO Health Evidence Network (HEN), Eurosafe EMIP, PRONET and others. Country specific knowledge complements the evidence on the effectiveness of regional policies and interventions which deliver positive health outcomes.

It was noted that the traditional approach to synthesize evidence, focused on effectiveness data drawn from experimental studies does not allow for the prediction of transferability of policies among regions. It is necessary to expand the definition of evidence and to consider additional resources when reviewing public policies, for example via the consideration of "best-practice" examples.

Socio-economic criteria were used to define similar regions in terms of social and economic conditions, and characteristics of the population, enabling the prediction of the transferability of policies. The compendium includes policies and interventions and evidence level of their effectiveness, as well as their potential transferability to other regions.

The presentations will be followed by a facilitated discussion session.

5.G. Sickness absence and work capacity

Explaining educational differences in work ability - the role of working conditions and health related factors

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Background

Limitations in work ability are commonest in the large population sections with low socioeconomic position. Maintaining work ability especially in these groups is essential to prevent sickness absence and early retirement. This study examined the role of working conditions and health related factors when explaining educational differences in work ability.

Methods

The population-based sample included 5835 Finns aged 30–64 years, of whom 5171 (89%) participated. Work ability score (0–10) was used as an outcome. We assessed the contribution of working conditions and health related factors to differences in work ability using logistic regression analyses.

Results

Differences in work ability between the highest and lowest educational level were clear (OR 3.6, 95% CI = 2.5–5.4) among men and (OR 2.3, CI = 1.5–3.4) among women. Adjusting for health related factors attenuated the differences in work ability by 44% among women but only 15% among men. Adjusting for all working conditions reduced the educational differences in work ability by 57% in women and by 25% in men. After adjusting for both health related factors and working conditions 88% of the educational differences inequalities in work ability among women and 21% among men were explained. Among women, the contribution of health and psychosocial working conditions were particularly important whereas among men, physical workload and hazardous exposures played a larger role.

Conclusions

Physical and psychosocial working conditions explained a large part of the educational difference in work ability even after adjustments of health status, risk-factors and health behaviour. Improvements in working conditions may reduce work disability and inequalities in work ability.

School dropout and social insurance benefits in young adulthood - a major public health challenge: A 10-year prospective study, The Young-HUNT 1 study (Norway)

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Background

School dropout and lack of work participation in young adulthood are a major concern in most western countries because it has negative effects upon individual health and economy and is harmful for the community. However, research on the importance of health for school attainment is limited and research on health and work integration has so far paid little attention to young adults. The aim was to study the association between self-rated health in adolescents, high school dropout and long-term receipt of medical and non-medical social insurance benefits in young adulthood.

Methods

A population of 8950 adolescents (13–19 years) rated their health in 1995–1997 in the Norwegian Young-HUNT 1 Study (90% response rate). Linkages to the National Education Database and the National Insurance Administration allowed identification of school dropout and receipt of social insurance benefits during a 10-year follow-up (1998–2007). The benefits were defined by medical benefits (long-term sick leave, vocational and medical rehabilitation, disability pension) and non-medical benefits (unemployment, social support). The relationship between health, school dropout and benefit receipt was explored by descriptive statistics and by multinomial logistic regression (with 95% CI).

Results

A total of 17% of adolescents was registered as high school dropouts at age 24. The predicted 5-year risk of receiving any benefit between ages 24–28 was 21% (CI 20–23). Adjusted for maternal education, sex and age at baseline, high school dropouts had an adjusted 5-year risk of receiving benefit of 45% (CI 42–48), compared with 16% (CI 15–17) in those who completed high school. Adolescents reporting poor self-rated health more often dropped out of high school (27%, CI 24–29) and received more often any long-term social insurance benefits between ages 24–28 (33%, CI 30–37) compared to those reporting good self-rated health (16%, CI 15–17 and 20%, CI 19–21, respectively).

Conclusion

High school dropout and reduced work integration are extensive problems among young people. Our study shows that they are associated both with each other and with poorer self-rated health in adolescence. The extent and the seriousness of the findings urge a need for knowledge to implement preventive measures.

Can Work ability explain the distributional differences of sickness absence over socioeconomic groups?

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There is a social gradient in sickness absence but the complete explanation for this remains unclear. One criterion for sickness absence in Sweden is impaired work ability. Work ability is viewed as the product of individual resources and the demands at work. The aim of the present study was to examine if work ability could explain the association between socioeconomic status and sickness absence. The study was conducted in Sweden and the study sample consisted of one general working population cohort (G-WP), n = 4,027, and one cohort including all incident employees on sickness absence (>14 days) in a period of two months (SA), n = 3,310. Outcome was defined as belonging to the SA with the G-WP as reference. Self-assessed mental and physical work ability was measured and socioeconomic status was categorized in five groups (also employed by Statistics Sweden). There was an evident association between socioeconomic status and sickness absence among both women and men. The Odds ratio (OR) for the lowest vs. the highest group was, among women OR 1.74 (95% CI = 1.38–2.19), and among men OR 2.98 (95% CI = 2.27–3.90). In the multivariate analyses mental work ability did not influence the association between socioeconomic status and sickness absence. Yet, when entering physical work ability all associations disappeared, among women. On the other hand, among men the association between socioeconomic status and sickness absence remained between the two lowest groups and the highest group with, OR 2.03 (95% CI = 1.53–2.71) and OR 2.07 (95% CI = 1.54–2.78). The explanatory effect of physical work ability was also stronger in the higher socioeconomic groups than in the lower ones. These results imply that physical work ability is more central as an explanatory factor than mental work ability for the social gradient in sickness absence. The importance of self-assessed work ability for becoming sickness absent also seemed to be more prominent among higher socioeconomic groups. Moreover, as physical work ability explained the association among women but not entirely among men it is possible that the relation between socioeconomic status and sickness absence follow divergent trajectories for women and men.

Health-related work functioning instruments in workers with common mental disorders: a systematic review of measurement properties.

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Background

Several instruments have been developed to measure the impact of health on functioning at work. To select appropriate instruments for use in occupational health practice and research, the measurement properties must be evaluated. The aim of this systematic review is to critically appraise the measurement properties of health-related work functioning instruments, taking into account the methodological quality of the underlying validation studies in common mental disorder (CMD) populations.

Methods

Three electronic databases were systematically searched for validation studies that had a main focus on the development and/or evaluation of the measurement properties of a self-reported health-related work functioning instrument in a CMD population. The methodological assessment of the validation studies was performed using the COSMIN checklist. This checklist rates the methodological quality for nine measurement properties: internal consistency, reliability, measurement error, content validity, structural validity, hypothesis testing, cross-cultural validity, criterion validity and responsiveness. In addition, the interpretability is rated.

Results

Five validation studies evaluating measurement properties of five self-reported health-related work functioning instruments in CMD populations were included. Most available evidence is limited in this population, mainly due to poor to fair methodological quality of the underlying validation studies.

Conclusions

The available evidence is based on studies of poor to fair methodological quality and for some measurement properties no evidence is available. Therefore, no evidence-based decisions and recommendations can be made for the use of health-related work functioning instruments in CMD populations. Studies of high methodological quality are needed to properly assess the measurement properties of the existing instruments.

Evaluation of the effectiveness of occupational injury prevention programs at the company level

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Objective

The objective of this study is to evaluate the effectiveness of an occupational injury prevention program, known as Preferential Action Plan (PAP), focused on companies with high incidences of occupational injuries.

Methods: We studied 1,189 companies in the industrial, construction and services sectors between 1999 and 2007 in the Valencia region (Spain). Our sample included 507,262 workers, among whom 44,250 traumatic non-fatal occupational injuries with at least a work-day lost were registered. Companies with a PAP in place were divided into three cohorts, according to the year that each company initiated a PAP (2000, 2001, and 2002). We calculated annual change percentages in incidences of occupational injuries for companies with a PAP and for those without a PAP (comparison group), and tendencies in the incidences of occupational injuries were compared between each cohort group and the comparison group.

Results

The tendency in occupational injuries declined 12%, 14% and 11% annually for the 2000, 2001, and 2002 cohorts respectively, and around 5% for the comparison group. The differences in cohorts and comparison group tendencies were found to be statistically significant. This stable pattern is reproduced with stratification variables (company size and activity sector, length of sick leave, and injury mechanisms).

Conclusions

According to these results, the use of PAPs in companies with high incidences of occupational injuries is effective in the prevention of occupational injuries.

Return to work (RTW) in comprehensive occupational rehabilitation - predictive properties of Readiness for RTW scale

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Background

Return to work (RTW) after long term sickness absence is a complex process which depends on recovery of function, motivation, behavior change and interaction with several stakeholders. The transtheoretical model of behavior change has been applied to RTW addressing the temporal aspects of work disability, and offers a promising conceptual framework to identify determinants of optimal RTW.

The aim of this study is to investigate the predictive properties of the Norwegian version of the Readiness for RTW scale in an occupational rehabilitation program.

Methods

Prospective cohort study with one year follow-up period of people attending a program at Rauland Occupational Rehabilitation Centre in Norway (n = 214). The purpose of the program is to help the participants to improve their work ability. The Norwegian version of Readiness for RTW scale is answered by the participants on the first day of the program, together with potential health-related, work-related and personal predictors of RTW. RTW data the following year after rehabilitation is collected from the national insurance register. Factor analyses are applied to the Readiness for RTW scale. Multiple regression analyses are used to analyze prognostic factors for return to work.

Results

Factor analyses of the Norwegian version of readiness for RTW questionnaire revealed two components in the subsample of not working persons : 1) ‘contemplation’, and 2) ‘RTW self-efficacy’. The two component solution explained a total of 47 % of the variance, with component 1 contributing 28 %, and component 2 contributing 19 %. Equivalent analyses of the subsample of working persons revealed a single component: ‘uncertain maintenance’, explaining a total of 50 % of the variance. Other preliminary results will be presented.

Discussion and conclusion

We did not identify the same components as Franche et al. (Franche RL *et al.* The readiness for return-to-work (RRTW) scale: development and validation of a self-report staging scale in lost-time claimants with musculoskeletal disorders. J Occup Rehabil 2007;17:450–72.), possibly because of different samples and study contexts. In a Norwegian occupational rehabilitation setting, changes in the Readiness for RTW scale therefore seem to be needed.

5.H. Workshop: Environmental cancer as a public health problem - integration of the research and education activities in Europe

Chair: Konrad Rydzynski, Poland
Organiser: Nofer Institute of Occupational Medicine
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Since 1980 the global burden of cancer doubled, from 6 million new cancer cases a year to close to 12 million for the most recent estimates. With an estimated 2.9 million new cases and 1.7 millions of deaths each year, cancer remains a major public health problem in Europe. An even a modest reduction of cancer cases in the general population would translate into a huge reduction in the social and economical expenditures within individual countries and in EU in general. In 2008, the International Agency for Research on Cancer (IARC) formally acknowledged a link between chemicals and cancer. In June 2010 the European Parliament officially recognized that exposure to certain chemicals may be the cause of many cancers Carcinogenesis is as a multifactoral, multistep process which may be influenced by exposure to environmental factors (toxins, wastes, life-style, nutrition, psychosocial etc) on almost every possible step. Nowadays human exposure to environmental carcinogens usually involves low levels of relatively weak carcinogens, frequently found as complex mixtures, and occurs over a prolonged period of time. There has been a rapid increase worldwide in the use of biomarkers to monitor exposure and to determine the resultant biological effects, together with studies of human susceptibility factors and of food components, which may modulate the effects of environmental carcinogens.

Until recently research on the association of environmental cancer risk, nutrition and individual susceptibility was to a large extent highly fragmented within EU. Environmental Cancer Risks, Nutrition and Individual Susceptibility - ECNIS, the network of excellence operating under EU FP6 successfully contributed to the realization of an Integrated European Research Area by coordination across the Community of relevant research activities in the field of biomarkers and molecular cancer epidemiology. Integrated platform for the pooling of resources and joint interdisciplinary activities were set up, with an ultimate goal of transforming network into a virtual centre, the European Centre for Research and Education on Cancer, Environment and Food (ECRECEF).

During the workshop three presentation will be held on 1) state of the art and contribution of the ECNIS network to biomarkers validation, 2) integrating biomarkers into molecular epidemiological studies on cancer, and 3) concept for the ECRECEF.

Validation of biomarkers for the study of environmental carcinogens

Peter Farmer

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Biomarkers are essential components in molecular epidemiological studies of human exposure to environmental carcinogens. As such exposures are to complex mixtures of compounds, biomarkers of exposure may considerably improve the resolution of conventional epidemiological approaches by reducing exposure misclassification. Biomarkers of effect (or bioindicators of disease) may advise on risk associated with the exposure and also provide valuable mechanistic information. Biomarkers of susceptibility such as for genetic variability inform on individual sensitivity to carcinogens and permit the detection of high risk populations. Valuable data have resulted from use of such biomarkers in studies of exposure to food-related carcinogens (e.g. aflatoxin B1 and acrylamide), and carcinogens in environmental pollution (e.g. polycyclic aromatic hydrocarbons and benzene). However despite the extensive work being carried out worldwide, few of these biomarkers have undergone thorough validation. Such validation is essential, both to be ensured that the analytical methods (including sample collection and storage) are reliable, and to clearly define the relationship between biomarker and exposure, effect or susceptibility. Thus such validation requires interdisciplinary studies both in the laboratory and in pilot human studies.

One of the important tasks of ECNIS was to facilitate the development of new biomarker methods and to evaluate their applicability to molecular epidemiology studies. The network made efforts to ensure that biomarkers were fully validated prior to their acceptance as suitable markers in future large scale human studies. This included interlaboratory validation of methods for determining carcinogen-induced DNA damage, e.g. 32P-postlabelling for DNA adducts, analysis of urinary oxidative DNA damage products, and the Comet assay for detecting DNA strand breaks. Core facilities provided standard chemicals, and antibodies are being made to assist in these analyses. With regard to the biological effects caused by environmental carcinogens, interlaboratory studies were carried out to validate phenotypic DNA repair assays, and genotyping protocols for investigating individual susceptibility.

It is anticipated that the use of these validated biomarkers will be a key part of future studies promoted by ECRECEF to reduce the risk to humans from environmental carcinogens.

Integrating biomarkers into molecular epidemiological studies on cancer

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The measurement of biomarkers is essential to assess the role of environmental exposures in human disease. Although methods such as GIS (georeferencing) and questionnaires have become more accurate, individual exposure assessment based on biomarker measurements tends to be the gold standard providing a quantitative assessment, at least in some circumstances, for individual exposures. Identification of such molecular entities is now eased by the recent developments in omics technologies, which introduced a wealth of potentially exciting intermediate biomarkers. Biomarker validation is crucial and relies on the identification of the hazardous component and the investigation and assessment of the potential underlying biological/biochemical process. Once biomarkers are validated, they ought to be incorporated in the exposure assessment to complement traditional approaches (e.g., GIS and questionnaire data) as well as in the continuum between exposure and disease.

Progress toward the achievement of any of the above steps is facilitated by the additional development of appropriate study designs. The application (and refinement) of appropriate study designs together with the development of dedicated analytical strategies constitute an important component of future research, which would provide new insight into exposure and disease pathophysiology, based on already existing samples available in biobanks.

Though the use of biomarkers (particularly omics) in longitudinal epidemiological studies can be very rewarding, it is clear that the field is still in its infancy. The challenges we face are unknown reliability and accuracy of marker measurements; lack of repeat samples in presence of potentially large intraindividual variability; large amounts of biological samples needed; only vague knowledge of time relationships between exposure, intermediate biomarkers (endophenotype) and disease onset; incomplete understanding of mechanisms of carcinogenesis; and incomplete mathematical modeling. However, from such challenges, extremely interesting results may emerge.

Environmental Cancer Risks, Nutrition and Individual Susceptibility (ECNIS) Network of Excellence Centre for Research and Education on Cancer, Environment and Food (ECRECEF)

Konrad Rydzynski

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ECNIS during its work brought together some of the best European research groups active in the area of environment- and food-related cancer and its modulation by genetic makeup, into a network of partners conducting high-class research on cancer causation and prevention. The next step will be to transform the ECNIS Network of Excellence into the 'ECNIS Centre for Research and Education on Cancer, Environment and Food (ECRECEF)' towards an ultimate goal of durable integration. ECRECEF will become a virtual coordinating centre and 'clearinghouse', formulating strategy for environment- and food-related cancer research in Europe and worldwide, and contributing to the development/coordination of new and ongoing national and European research projects. Moreover, it will be an educational and dissemination centre, on issues related to environmental cancer, for the benefit of the scientific community and different stakeholders. It would also be able to communicate with funding bodies, including charities, more effectively and perhaps contribute to development of their funding policies, (and also those of national governments). It could be a powerful voice within Europe and beyond - the 'face' of European science in this field. Workshops are planned to share the knowledge of the participants and guide the process of strategy development. ECRECEF will provide a venue for regular thematic meetings/workshops where European and non-European scientists can review and discuss hot topics in relevant areas and create documents/papers on future research and public health policy strategies on environmental cancer.

Acknowledgements: Project is funded under 7th UE Framework Program, Theme 2, Food, Agriculture and Fisheries, and Biotechnology.

5.I. Workshop: Twins: a powerful study design to control for genetic and environmental influences in public health research

Chair: Ute Bultmann PhD, Associate Professor, University Medical Center Groningen, The Netherlands
Organiser: Division of Insurance Medicine, Karolinska Institutet, Stockholm, Sweden (Pia Svedberg), and Department of Social Research, University of Helsinki, Helsinki, Finland (Karri Silventoinen)
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Twin studies have reliably shown that genetic factors are important not only for physiological traits, such as body mass index or blood pressure, but also psychological and health behavioral traits. Genetic factors explain a major part of the variation in, for example, eating behavior, major depression, physical exercise and self-esteem. Environmental factors on the other hand explain a major part in, for example, self-rated health and depressive mood. In twin studies there is a large number of models available to answer different kind of research questions, such as the dynamics behind associations between several traits, developmental processes in longitudinal designs, or gene-environment interactions. These models are also applicable in public health research. Analyzing twin pairs discordant for an outcome or risk factors (co-twin control) provides a unique possibility to control for familial confounding since cases and controls are matched optimally being twins. The focus of this workshop is to present the methods for analyzing twin data regarding public health outcomes. First, a basis for understanding the twin design will be provided by introducing methodological aspects and examples as well as available models to answer different kind of research questions. Second, the matched twin pair design and some results from ongoing prospective studies on risk factors for disability pension due to musculoskeletal diagnoses will be presented. The third abstract focuses on estimates of genetic and environmental components of variance for self-rated health, using both cross-sectional and longitudinal twin designs, and test of sex-specific effects. The last presentation applied the discrete time frailty model for estimating genetic liability to disability pension in two large prospective population-based twin studies.

Methodological aspects of twin studies to disentangle genetic and environmental effects

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Background

Twin design is an important tool to analyze the role of genetic and environmental factors. Recent rapid methodological development has, however, vastly increased the opportunities for twin studies.

Methods

Linear structural equations are intensively utilized in modern methods of twin studies. Currently there is a large number of models available to answer different kind of research questions, such as the dynamics behind associations between several traits, developmental processes in longitudinal designs, or gene-environment interactions.

Results

Twin studies have reliably shown that genetic factors are important not only for physiological traits, such as body mass index or blood pressure, but also for psychological and health behavioral traits. Genetic factors explain a major part of the variation, for example, in eating behavior, physical exercise and self-esteem, which can contribute to further health. The genetic architecture of these traits, however, changes over aging. Environmental factors shared by co-twins, such as childhood family environment, are important in childhood, but their effect seems to disappear in adolescence when children become more independent. These studies have also shown that genetic and environmental factors do not operate independently, but environment can also modify the effect of genetic factors.

Conclusions

During the time of rapid development in molecular genetics, the twin study design has maintained its importance in human genetics. It is also possible to implement information on measured genetic and environmental factors in twin models to more fully understand the genetic architecture of different traits and developmental processes. Increasing international collaboration between different twin cohorts world-wide makes it possible to further analyze how macro-level environment affects genetic and environmental variation behind traits important for human mental and physical health.

Co-twin control studies for investigation of risk factors for disability pensions

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Background

Merging twin methodology with the disability pension (DP) research provides a unique tool to control for genetic and environmental factors. Twins share not only genes (100% for monozygotic [MZ] and on average 50% of segregating genes for dizygotic [DZ]), but also family background (100%). Hence, more similar (concordant) MZ twins compared to DZ twins suggest that genetic factors contribute to the differences between individuals, while genetically identical MZ twins who are dissimilar (discordant for a trait) provide evidence of non-genetic influence, such as health behaviours and lifestyle.

Methods

A two-step procedure can be used. First, the twins can be treated as singletons, and the effect of risk factors on the incidence of DP is analyzed by applying Cox proportional hazard model. Second, analyzing twin pairs discordant for both outcome (DP) and risk factors (co-twin control), provides control for familial confounding. The use of co-twin control offers a unique tool, since cases and controls are matched optimally being twins. The analysis of discordant twins includes investigation whether twins who are exposed to a specific factor of interest more often are granted a DP than their non-exposed co-twin.

Results

Genetic factors explain a substantial extent of the variation in various MSDs such as low back pain (30%) and rheumatoid arthritis (60%). Moreover, indications exist based on large twin cohorts that familial factors, including assumption of genetic factors, are relevant both to MSD and DP. Therefore genetic influences can be expected on the multiple risk factors. These may include health and lifestyle related factors; important in the process of developing an imbalance between work capacity and work.

Conclusions

Co-twin control allows a full adjustment for family background and identification of risk factors. The results of discordant twin pairs add to the epidemiological findings of unrelated subjects. Based on population-based twin cohort studies with long follow-up, indications exist that the familial confounding may have different role in the association between risk factors and DP. More research accounting for familial confounding is needed to evaluate whether a direct effect of risk factors for susceptibility to DP is prevalent.

Sex, age and cohort differences in the relative importance of genetic and environmental factors for self-rated health

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Background

Self-rated health (SRH) has been shown to be a powerful predictor for future health status, functional ability, and is often a more powerful predictor of morbidity than medical diagnoses. Considering the increased use of SRH measures in, for example, health services research, and its importance for policy makers and physicians, it is also important to understand why individuals differ in their health perception. By studying twins it is possible to investigate genetic and environmental sources of variation in SRH at a specific time point and across time. An increase in total variance with age has been demonstrated for many health-related variables in cross-sectional studies and is consistent with life-span developmental theories. However, relatively little is still known about the causes of these individual differences across the life span. Even less well understood are sex differences despite reports of mean differences.

Methods

This presentation includes both cross-sectional and longitudinal twin samples with assessment of self-rated health. Structural equation modeling provided estimates of genetic and environmental components of variance, contributions to stability over time, and test of sex-specific effects.

Results

Individual differences primarily reflected individual specific environmental influences at all ages. The increase in total variance across age groups was primarily due to genetic influences among middle aged, and greater environmental influences in the oldest age group (>74 years). No significant sex differences were found in variance components. Earlier born cohorts were more variable and had lower SRH. Both genes and environments contribute to self-rated health longitudinally, and both age and cohort effects were present.

Conclusions

Genetic variance in SRH among middle aged may reflect genetic susceptibility to age-dependent illnesses not yet expressed in the youngest ages when environmental variance was more important. The study of twins provides additional insight into the role of familial factors for the variation in traits and common complex diseases and hence adds to the results from studies on unrelated subjects.

Genetic liability to disability pension: prospective twin studies in Finland and Sweden

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Background

Previous studies of disability pension (DP) have mainly focused on psychosocial risk factors, although biological, including genetic, factors may also be involved in pathways leading to DP. Genetic and environmental influences on a trait can be estimated by using data on twins. The twin method is based on the comparison of intra-pair similarity of twins that are genetically related to different degree. By combining twin method with frailty modeling it is also possible to take into account the different susceptibility for developing DP at different ages.

Methods

The genetic and environmental influences on liability to DP were investigated in two samples. The Finnish twin sample consisted of 11 186 complete same-sex twin pairs that were followed between 1975 and 2004. The Swedish sample included 23 227 complete same-sex and opposite-sex twin pairs that were followed between 1993 and 2008. Information on DP and diagnoses was obtained from Finnish nationwide official pension registers as well as from Swedish National Social Insurance Agency. Genetic and environmental contributions to the liability to DP were estimated by applying discrete-time frailty model, which is an extension of the discrete-time survival analysis using general latent variable framework.

Results

The cumulative incidence of DP during 30-year follow up was 20% in Finnish sample and 16.5% during 15-year follow-up in Swedish sample. The model fitting analyses showed that in Finnish sample genetic factors explained 37% (95% CI: 30–43%) of the variance in DP due to musculoskeletal, 42% (95% CI: 35–49%) due to mental, 48% (95% CI: 39–57%) due cardiovascular diagnoses, and 24% (95% CI: 17–31%) due to all other reasons. In Swedish data, genetic factors contributed by 35% (95% CI: 29–41) to DP due to musculoskeletal, 49% (95% CI: 39–59) due to mental, and 27% (95% CI: 20–33) due to other diagnoses. The influence of genetic effects on the liability to DP decreased with increasing age in both samples.

Conclusions

Genetic contributions to the liability to DP due to different diagnoses ranged from small to moderate size. In both Finnish and Swedish samples the influence of genetic factors decreased with higher age of participants. Further studies are needed though to identify specific factors that should be taken into account when planning strategies to prevent and intervene the development of DP.

5.K. Workshop: Improved data availability for the European Community Health Indicators; European Health Interview Survey, data collection pilot, and new DG SANCO dissemination tools

Chairs: Arpo Aromaa, (THL, Finland), Marieke Verschuuren (RIVM, The Netherlands)
Organiser: ECHIM project partners
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As of the late 1990s the European Commission (DG SANCO and Eurostat), together with the European Union Member States, have been developing and implementing a European public health monitoring and reporting system. At the core of this system is the ECHI shortlist (European Community Health Indicators), a carefully selected list of about 90 general public health indicators, suitable for making international comparisons, comparisons between population groups and reflecting time trends. Recently some important developments took place regarding the availability of data for the ECHI shortlist indicators and the dissemination of ECHI indicator data. The aim of this workshop is to inform the participants about these developments and about the usefulness of the new data and data dissemination tools for their own work, either as a public health policy maker, or as a public health researcher. In the first presentation, given by the ECHIM project partners, a short overview of the ECHI initiative will be presented, explaining the added value, current activities and future prospects of this long term Commission policy. Next, the new data developments will be highlighted. These concern the outcomes of the first wave of the European Health Interview Survey (EHIS) and the outcomes of a (partly) complementary data collection pilot that was carried out in the framework of the current ECHI project (Joint Action for ECHIM). In the second presentation the plans with regard to future waves of EHIS will be explained jointly by Eurostat and experts from the Robert Koch Institute (RKI) in Germany. Eurostat will focus on the development of the legal basis for EHIS, as well as the general revision of the EHIS questionnaire based on the outcomes of the first data collection round. After that, the RKI experts will explain some of the methodological challenges encountered during the revision process in more detail. To conclude the workshop, DG SANCO will present the interactive HEIDI data tool (Health in Europe: Information and Data Interface), which is developed for disseminating ECHI and other EU indicator sets. This data tool is linked to the HEIDI wiki, a website where public health experts can add and edit information on a broad range of public health topics. The integration of the ECHI indicators in the HEIDI wiki will also be explained and illustrated.

First results of the European Health Interview Survey (EHIS) and the outcomes of the European Community Health Indicators Monitoring project (ECHIM) data collection pilot

Jörgen Thelen

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The European Community Health Indicators (ECHI) shortlist has a broad scope under four domains, covering demographics, health status, health determinants, and health care. Therefore data from different types of sources are needed for the ECHI indicators, such as demographic statistics, mortality and morbidity registers, health care registers and Health Interview Surveys (HIS). HIS is an important instrument in particular for deriving population-based information on health behaviors and health status, and for breaking down data according to the socio-economic-status (SES). Though many countries carry out regular national HISs, the availability of comparable HIS-based data at EU level has been problematic. Therefore, during the past few years Eurostat together with the EU Member States (MS) have been developing the European HIS (EHIS) in order to accommodate the data needs of ECHI/SANCO and of other users. In the period 2006–2009 (part of) the EHIS was carried out by 17 MS plus Switzerland and Turkey. For about 20 indicators in the ECHI shortlist EHIS is the preferred source. To complement the EHIS data, in the 2010 ECHIM data collection pilot national HIS data were collected from those MS that did not yet (fully) carry out EHIS. In this way HIS-derived indicators were collected from 24 European countries in total. Though different national methodologies underlie these national HIS data, which limits their comparability to some extent, together with the data collected in EHIS they provide a first and complementary overview of data on important health indicators. Besides HIS-based data, other data were also collected in the ECHIM Pilot Collection, such as attack rates of acute myocardial infarction and stroke, and - as far as available- register-derived estimates of prevalence of diabetes, COPD, asthma, and depression, incidence of injuries, and health care utilization rates. In this presentation, the most striking and interesting results of the Eurostat EHIS data collection combined with the ECHIM Pilot Collection will be presented. These include prevalence data on diabetes, depression, asthma and smoking from surveys, attack rates of acute myocardial infarction and stroke from administrative sources, and road traffic injury rates from registers.

Plans for the future of the European Health Interview Survey (EHIS) and the revision of the questionnaire

Bart De Norre

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The European Health Interview Survey (EHIS) is the first comprehensive European HIS. It covers health status, health determinants, health care utilization as well as socio-economic background variables. The legal basis for EHIS is Regulation (EC) 1338/2008 of the European Parliament and of the Council of 16 December 2008 on Community statistics on public health and health and safety at work. This is a framework regulation under which multiple, more detailed implementing regulations will be developed and enforced. It is planned that one of the first of these implementing regulations will be on EHIS. This should form the legal base for the 2nd wave of EHIS in 2014. During the workshop the participants will be informed about the status of development of the EHIS implementing regulation. The workshop participants will be given a short overview of the different actors and steps involved in the development of the questionnaire and the implementing regulation to guarantee a realistic and high quality wave II. The EHIS questionnaire was developed together with all EU Member States (MS). Moreover, many technical experts have provided their input. To include the experiences of the MS, to organize the discussion process between the MS and to improve specific modules considered as being problematic (such as the modules on alcohol consumption, mental health and physical activity) a call for project was issued. Three research institutes in Germany, Belgium and Estonia participated in the project. Main work packages were to conduct an expert survey to review the MS experiences with EHIS wave I, to organize a workshop to bring all actors together, to revise the problematic modules, to conduct a cross-national cognitive testing of the new questions, and to carry out a field test of the revised EHIS questionnaire for wave II in a cross-national setting using different modes of data collection. The workshop participants will be informed about the main outcomes of the project. Some of the methodological problems addressed will be presented in more detail, to illustrate the challenges that arise when conducting a large scale data collection exercise like EHIS.

Dissemination of European Community Health Indicators through the HEIDI data tool and wiki

Tuuli-Maria Mattila

TM Mattila
DG Sanco, European Commission

During previous phases of the ECHI work the focus was on the selection and development of the ECHI indicators. In the current Joint Action for ECHIM the actual implementation of the indicators is the most important aim, i.e. making the indicators available for policy makers and public health experts and stimulating their use. To support the implementation process at both Member State and European Union level, the Commission has invested in the development of a central indicator database with an accompanying interactive data presentation tool (HEIDI-data tool). This central database is designed to hold data for different policy relevant indicator sets, such as the ECHI shortlist. The HEIDI-data tool allows users to download the ECHI indicator data, enabling them to use them for their own purposes, e.g. using them in national public health monitoring and reporting activities. Furthermore the tool provides other interactive features, such as adjustable graphs and maps. Another important feature in the HEIDI-data tool is the availability of structured meta-data, which helps users of the tool to interpret the indicators presented therein. For the ECHI indicators the Documentation Sheets, prepared by ECHIM and other experts, are presented, which is valuable because they allow the user to access the meta-data and other useful information about each indicator. The HEIDI-data tool is integrated in HEIDI (Health in Europe: Information and Data Interface), which is a website applying a wiki approach. In Heidi, European public health experts can apply for access to add and edit contents on a wide range of public health topics. The website itself is publically accessible. The HEIDI-data tool and the HEIDI wiki will be shown during the presentation, with a specific focus on the role of the ECHI indicators therein. Plans and prospects for the future will be sketched, both in relation to the further technical developments for the tool and the wiki, as to the creation of a sustainable data flow from the different sources, used for computing the ECHI indicators, to the central database.

5.L. Round table: Monitoring in Health - Civil society's contribution to assessing and improving policies and practices

Chairs: Erin Howe, Program Officer, Public Health Program, Open Society Foundations, New York, USA and Natasha Azzopardi, Muscat EUPHA Section Public Health Policy and Practice

Organiser: Open Society Foundations, Public Health Program

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Objectives of the workshop:

1. To highlight how the experiences and perspectives of service recipients can inform the development of health policies and effective delivery of services to reduce health inequities.
2. To introduce community monitoring as an approach to empower communities to address gaps between health policies and practices.
3. To describe concrete examples of how community monitoring is being used in Romania and Bulgaria, Macedonia and India to improve health policies and practices.

What is community monitoring and how can it contribute to improving public health services?

Abhijit Das

A Das

Center for Health and Social Justice, Delhi, India

Community monitoring is the systematic documentation and review of the availability, accessibility and quality of health services against specific government commitments or standards by beneficiaries of services. Community monitoring is an innovative approach that aggregates community experiences to inform policies, programs and practices. It also facilitates marginalized communities to engage policy-makers and health care providers about improving services and ultimately reducing health inequities.

During this session, community monitoring will be introduced as an interdisciplinary approach that bridges evidence-based policy and practice. Methodologies such as the community score card and social audit will be highlighted. The National Rural Health Mission, a program developed to address the health needs of the rural poor in India, will be discussed as an example where community monitoring approaches were adopted by a national government and integrated into the public health system. The discussion will also explore how community monitoring could be applicable in the European context and efforts to introduce these approaches to marginalized communities, particularly the Roma, in Romania, Bulgaria and Macedonia.

Community mobilization to address health inequities in primary health care in Veliko Turnovo, Bulgaria

Deyan Kolev

D Kolev, T Kolev

Center for Interethnic Dialogue and Tolerance Amalipe, Veliko-Turnovo, Bulgaria

Center Amalipe is piloting a community monitoring initiative with Roma communities to help them engage with health policymakers and practitioners to improve the services they currently receive. Working in two municipalities in Veliko Turnovo, Amalipe seeks to empower Roma communities through training on the right to health and mobilize participation in monitoring primary health care services. Throughout this process, community members will interact with health care providers, policy-makers and public health program implementers to improve health service delivery using community-generated evidence. This session will explore why community monitoring approaches were selected, context specific aspects of their application and plans to document the experience for learning and to support future scale-up.

Community assessments of maternal and child health services in Neamt County, Romania

George Radulescu

G Radulescu, D Radulescu, A Domiloiu

Roma Center for Health Policies SASTIPEN, Bucharest, Romania

Roma Center SASTIPEN is piloting a community monitoring initiative to assess the maternal and child health services in two hospitals in Neamt County with the aim of improving the care received by Roma communities. SASTIPEN is working with Roma community leaders and community-based organizations to increase their knowledge about the right to health and identify problems with service delivery faced in their communities. SASTIPEN is also collaborating with local government officials to inform them of the findings obtained through community monitoring and solicit their commitment to improve the delivery of maternal and child health services. Throughout this process, the voices of community-based organizations and leaders will be strengthened to effectively participate in local health governance. This session will explore why community monitoring approaches were selected and context specific aspects of their application.

Why is community-generated evidence useful to improve public health policies and programs and address health inequities?

Martin McKee

M McKee

London School of Hygiene and Tropical Medicine; European Centre on Health of Societies in Transition; European Observatory on Health Systems and Policies, London, United Kingdom

Researchers, policy-makers and public health program implementers have a broad range of information and tools at their disposal to contribute to the development of health systems. Community-generated evidence, like that collected through community monitoring, makes a unique contribution to policies, programs and practices, particularly in the area of health inequities. Martin McKee will discuss why and how this type of information is invaluable to establishing health service delivery mechanisms that meet community needs and the potential for input from communities to contribute to a robust public health system.

5.M. Overweight and nutrition

Significant changes in overweight rates in Russian adolescent population during the last two decades (1989–2009)

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Rising of adolescent obesity in recent decades was well documented worldwide, but there is a lack of information about Russian adolescents. During the 1990s Russian population has been exposed to major political, economic and social changes accompanying by remarkable changes in health status. The aim of the study was to evaluate the prevalence and 20-year trends of overweight (OW) among adolescents aged 14–17 during 1989–2009 in Novosibirsk (Russia).

Methods. Five cross-sectional surveys of representative samples of school children aged 14–17 were carried out in Novosibirsk in 1989, 1994, 1999, 2003 and 2009 yrs. This time period included years of Russian reforms. Total sample was 3311 (46% males) with response rate 88–92%. The program of the study was unified for all screenings. Body mass index (BMI, kg/mÂ^{2}), was measured. Diet was estimated using 24-hour dietary recall. To define OW the sex- and age-specific BMI cutoffs recommended by the International Obesity Task Force (2000) were used.

Results. The schedule of OW prevalence among Russian adolescents during the period 1989–2009 looks like a parabola with a lowest point in 1999 year (U-curve). At the period 1989–1999 the frequency of OW significantly decreased in both gender groups (from 14% to 4%, P < 0,001). At the next period (1999–2009) the prevalence of OW among adolescents considerably increased, mostly among boys: from 4% to 13% (P < 0,001). During the first period (1989–1999) significant decreasing of total energy intakes (from 3021 to 2342 kcal in boys and from 2300 to 1644 kcal in girls) and of basic nutrient intakes (proteins, fats, carbohydrates) was registered. From 1999 to 2009 there was moderate rising of nutrient intakes among adolescents. Levels of low physical activity (2 hrs/week and lower) were stably high during all period in boys (49–62%) and girls (83–79%) with tendency to rising. In 2009 average amounts of weekly screen time (computer games, Internet, TV, video) were 31 hours in boys and 28 hours in girls.

Conclusion

Significant changes in overweight rates among Russian adolescent population during the last two decades following by changes in diet and physical activity indicate on considerable influence of socioeconomic reforms on some health parameters in adolescence.

Socioeconomic indicators as determinants of major weight gain: a follow-up study

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Background

Major weight gain is a health risk. Socioeconomic differences in excessive weight are large but longitudinal studies examining changes over time in socioeconomic indicators and weight gain are few. The aim of this study was to examine various socioeconomic indicators as determinants of major weight gain.

Methods

The data were derived from the Helsinki Health Study mail surveys. The baseline respondents in 2000–2002 were 40–60-year-old employees of the City of Helsinki, Finland (n = 8960, response rate 67%). Follow-up questionnaires were sent to the baseline respondents in 2007 (n = 7332, response rate 83%). The outcome was weight gain at least 5 kg over the follow-up. Seven different socioeconomic indicators from childhood to adulthood were used: parental education, economic difficulties in childhood and adulthood, education, occupation class, household income and home ownership. First, age and baseline weight were adjusted for. Final models were mutually adjusted for all indicators of socioeconomic position. Logistic regression analysis was used to examine the associations between socioeconomic indicators and weight gain.

Results

Of women 27% and of men 24% gained weight at least 5 kg over the follow-up. Among women each socioeconomic indicator was associated with weight gain. Adjusting for age, baseline weight and all other socioeconomic indicators, only those with intermediate education (OR 1.39 95% CI 1.10–1.75), renters (OR 1.1895% CI 1.03–1.36) and those with frequent had economic difficulties in adulthood (OR 1.45 95% CI 1.23–1.71) had higher likelihood to gain weight than their more advantaged counterparts. Among men, those with lower income, renters and those with economic difficulties in adulthood were more likely to gain weight. After final adjustments, only economic difficulties in adulthood (OR 1.79 95% CI 1.25–2.56) had remained associated with weight gain.

Conclusion

Economic difficulties in adulthood was a consistent and independent risk factor for weight gain among both women and men. Prevention of weight gain is important also among employees in general and among those with economic difficulties in particular.

Sleep duration and overweight in European children - Is the association modified by geographic region?

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Background

Data on sleep duration and overweight have been published for different age groups from several countries but comparability of those results is limited by reasons of different study designs and methods. In the context of a European multicenter study we analized the association between sleep duration and overweight in children from northern and southern Europe to investigate differences and a possible effect modification by geographical region.

Methods

In the context of the IDEFICS-Study we examined 16.223 children, aged 2–9 years from eight European countries. Sleep duration was assessed by means of a uniform parental 24 h-Recall. Logistic regression models were applied to analyse the association between overweight and sleep duration and to test for effect modification by region.

Results

A dose dependent association between sleep duration and overweight could be seen, with odds ratios from 1.7 (99% CI 1.4; 2.1) for sleeping 10–11 hours to 3.7 (99% CI 3.0; 4.6) for sleeping <9 hours (reference category >11 hours). This persisted after adjustment, but remained significant only for sleeping <9 hours if stratified by region (north: OR = 2.0; 99% CI 1.3; 3.2 vs. south: OR = 2.5; 99% CI 1.4; 4.3). No effect modification by region could be found, but adjustment for it accounted for changes in the effect estimate for sleeping <9 hours (OR = 2.4; 99% CI 1.8; 3.3). The association was stronger in older children.

Conclusion

Geographic region and related aspects do not modify the association between sleep and overweight, but should be taken in consideration as a confounding factor on this association.

Acquired tastes: Children's nutritional trajectories from birth to early childhood

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Background

Health policy in the UK has either focused on promoting breastfeeding or on improving the nutrition of school aged children, overlooking children's nutrition in the early years. This research looks at the longitudinal trajectories in children's diets and the links between infant feeding experiences and subsequent eating habits in toddlers.

Methods

Longitudinal data from the Growing Up in Scotland national survey was used, which collects data annually from 8000 families and is one of the few longitudinal quantitative surveys of children aged 0–5. The analysis explored the relationship between breastfeeding, weaning and subsequent dietary habits at 22 months.

Results

The delayed weaning of infants was statistically significantly positively linked to children's subsequent diets with or without prior breastfeeding. The positive effect of delayed weaning was amplified when coupled with a long duration of breastfeeding. Children who were breasted for 6 weeks to under 6 months were less likely to be weaned prematurely (Odds Ratio 0.6) than those never breastfed, while those breastfed for 6 months or longer were those least likely to be weaned prematurely (OR 0.3). Children who were not weaned prematurely and who had been breastfed for 6 months or longer were far less likely to have unhealthy diets at 22 months of age (OR 0.2), compared to those who were weaned prematurely but who were also breastfed for 6 months or longer.

Conclusion

The results suggest that different mothers may have different strategies in feeding their children, but that they are consistent in their feeding decisions over time. Children's repeated exposure to optimal or sub-optimal nutrition over time may shape children's subsequent dietary preferences and habits. The findings highlight that important eating habits develop from birth and continue to develop during infancy and the early years, meaning that by school-age, children have already acquired certain learned eating habits. UK public health policy could focus more on child nutrition during the early years period. In Scotland, measures to regulate food offered to toddlers in childcare are underway. However, these measures still do not address the diets of toddlers as they develop within the context of family life.

The association between availability of fast-food outlets and intake of fast-food

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Background

Intake of fast-food is associated with an increased risk of health outcomes. The prevalence of obesity and diabetes is higher among deprived individuals; studies have shown that the availability of fast-food outlets (FFO) are higher in deprived neighbourhoods than in non-deprived neighbourhoods. Some studies find an association between the availability of FFO and unhealthy diet. Most of studies are performed in US or Australia with different context to Denmark. The aim is to examine the association between availability of FFO and frequency of fast-food intake.

Methods

Health survey data from the Capital Region of Denmark used in the analyses included a random sample of 95.150 inhabitants aged 16 + from 29 municipalities. Response rate:52,3%. Information's on fast-food intake and socio-economic factors is derived from a questionnaire survey (How are you 2010?). Information on FFO is collected through central a register using a validated name recognition method (sensitivity: 82%). Using network analyses in Geographic Information System (GIS) proximity (Road network distance to the nearest FFO) and density (numbers of FFO within 1 km) of FFO are calculated for each participant. Logistic regression analyses taking neighbourhood, individual social factors, age and sex into account are performed.

Results

17% of the population eats fast-food at least once a week, the proportion varies between 10.1% in the rural areas to 27.2 % in the inner-city of Copenhagen. Individuals living in high density areas or with low proximity have a significantly higher risk of eating fast-food once weekly; Compared to individuals living with 0–4 FFO within 1 KM the OR's were 1.4 (95% CI: 1.3–1.6) and 1.8 (95 % CI: 1.7–2.0) for individuals living with 5–9 or ≥ 10 FFO, respectively. After adjustment for individual and contextual factors the OR's diminished to 1.13, but remained significant. The same picture was seen for proximity, the greater distance to the nearest FFO the lower risk of eating fats-food.

Conclusions

This paper shows that availability of fast-food outlets is associated with frequency of eating fast-food weekly. In order to prevent the epidemic of obesity and development of chronic diseases, this may have an impact on future urban planning of fast-food outlets.

Negotiating health: the Role of the World Health Organization in addressing the marketing of food to children

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According to the World Health Organization (WHO) It is estimated that in 2010, about 43 million children under the age of five are obese and although the rate of childhood obesity is higher in developed countries, in terms of absolute numbers developing countries share a higher burden: 35 million overweight/obese children in developing countries versus 8 million in developed countries. In response to this rising trend of childhood obesity, in 2010, the WHO published Recommendations on Marketing of Food and Non-alcoholic Beverages to Children.This paper examines the formation of these Recommendations and asks more broadly about the role of the WHO in developing global policies to address childhood obesity. This paper also looks at the relationships between the

WHO, food industry and civil society during the consultation and negotiation process which led to the Recommendations.

This study takes an anthropological approach to policy analysis, seeing the WHO as a forum for the 'international health policy community' to convene and negotiate responses to global health issues. This is a qualitative study; the main research method was participant observation for six months at WHO Secretariat with the team responsible for developing the recommendations. Interviews were also conducted with participants in the consultation process, including consumer non-governmental organisations (NGOs), WHO member states and food industry representatives.

This study concludes that the WHO is well-designed for addressing infectious disease in terms of providing technical assistance. However, the multi-sectoral nature of nutrition and physical activity and the highly politicised nature of the role of marketing in contributing to childhood obesity issues necessitates a different approach. The WHO can best be the leader in addressing childhood obesity (globally) by realising its 'convening power' and legitimacy as the key international forum for health negotiations amongst the relevant stakeholders on diet and physical activity and on childhood obesity, specifically.

This study concludes with specific recommendations on achieving successful negotiations and how the WHO can best exercise its power and influence to further appropriate global policy responses to childhood obesity.

5.N. Workshop: Conflict, migration and public health

Chair: Natasha Muscat, Malta

Organiser, EUPHA section on public health practice and policy
Contact: natasha.muscat@gov.mt

Introduction

The aim of this workshop is to discuss the challenges that the public health community faces in the wake of conflict and ensuing migration. The background to this workshop shall be the events that have taken place in 2011 in North Africa and the impact that these events have had on public health and health systems on both sides of the Mediterranean. The workshop shall consist of three presentations and a discussion on the role of the public health community in responding to the arising challenges to protect the health of both displaced populations as well as indigenous populations.

Presentation 1 (WHO tbc)

This presentation shall give an overview of the situation in North Africa. It will describe the effect of the conflict and ensuing displacement of populations. The role of International organisations in supporting the public health and humanitarian effort will be discussed. The numbers and profiles of displaced populations and the health risks both faced by these populations and equally posed to the indigenous populations they are displaced to are highlighted. The preparedness and response efforts in mitigating these effects are also described.

Presentation 2 (Italy)

The political crisis that is affecting the North-African area has prompted very large numbers of people to move initially between Countries within this geographic area, and then towards the Mediterranean shores of Europe.

This has induced Italy and other European Countries particularly affected by these movements to come together to enhance international cooperation and coordination, in order to address the public health challenges that could emerge from the current situation.

In particular, there is a need to discuss how best to proceed in providing aid to the displaced populations, while at the same time protecting the health of the population in receiving Countries, and what further public health measures should be planned and put in place in upcoming months to allow national health systems to heighten their preparedness to respond to these emerging needs.

Even though at this point in time such migrations have not produced health problems of the type and size that would constitute an alarm for the health systems of the Mediterranean countries of the European Union, and of Europe in general, there is the need to be aware of the epidemiological risks inherent in the displacement of large proportions of heterogeneous peoples. Consequently, there is the need to take suitable measures to be able to cope with such possible risks, which may include emerging and/or re-emerging diseases.

With the flow of migrants arriving to receiving Countries, especially if from conflict areas, an increased demand of treatments for acute and chronic health problems is often observed. Treatment actions and health work force surge capacity need to be planned so that an appropriate health care support can be provided where the presence of acute or chronic health problems are identified among the migrants and refugees.

Presentation 3 (Malta)

From the onset of the phenomenon of increasing Movement of Displaced Populations in the Mediterranean Countries of the EU, approximately 7 to 8 years ago, Malta has been continuously preparing, utilising and updating its multi-sectoral preparedness plans. Over the years several thousand migrants from North Africa have transited the country, and an estimated 7000 have stayed and live more permanently on the Islands.

On arrival, all irregular migrants are examined by the port health doctors for clinically evident diseases and in particular for infectious diseases. Following the turmoil in Libya, massive influxes of displaced persons arrived in countries within or on the northern shores of the Mediterranean Sea.

A multi-sectoral preparedness planning process is in place to tackle the consequences of an influx of displaced persons. The current state of preparedness of the Maltese health system to cope with the public health consequences of a potential mass influx of displaced populations was recently evaluated by a WHO Europe mission. This mission concluded that while the health services are generally well prepared, in a small island state environment the options to mobilise a surge capacity has severe limitations. The limited number of health professionals within the existing health workforce is the critical bottle neck in the Maltese health system's ability to provide the surge capacity needed in the case of a mass influx of displaced populations. The associated extra burden on the health systems could quickly overstretch the coping capacity of the system.

Discussion

Section on migrant health, IOM, Who,?EU

To discuss:

What are the public health questions that need to be addressed?

What support is needed at International level?

What research is required to enable public health systems to improve their response and their ability to cope on a longer term basis with the effects of conflict and population displacement?

What intersectoral partnerships should we be building as an academic public health research community to contribute to knowledge in this growing area of public health practice?

PARALLEL SESSION 6: ORAL PRESENTATIONS

Friday, 11 November, 15:45–17:15

6.A. Round table: Tackling the gradient in health amongst children and their families: analysis of evidence and policies

Chair: Caroline Costongs, Eurohealthnet

Organiser: Eurohealthnet (Caroline Costongs)

Contact: g.barbareschi@eurohealthnet.eu

Background

Health equity is one of the most important public health goals in the EU, but it is still unknow which policies are most effective to level up the gradient in health. The GRADIENT FP7 project aims to address that knowledge gap, to maintain political momentum and develop operational strategies to tackle the gradient in the different social, cultural and economical contexts of the EU. The target population is children and their families.

Aim of Gradient

1.Develop a consensus-based European framework to monitor and evaluate public health policies and their impact on the gradient and its determinants; 2. Investigate, through qualitative interviews with policymakers and policy users, if and why children and families from different socio-economic groups respond and act differently to public health interventions; 3. Identify, through secondary data analysis, protective factors for the health of children and their families, focusing on social relations and networks; 4. Compare the impact of general policies for families and children with those targeted at 'at risk' families and children in the different EU countries, and changing socio-political contexts and welfares of the EU Member States; 5. Most importantly formulate policy recommendations at European, national, regional and local level.

To reach these goals, 4 parallel research lines have been developed within the Gradient project. Based on the knowledge and outcomes of the four studies, the consortium developed a framework of analysis. The project is about to enter the next phase of applying this to the policy and practice level. Four researchers will present and discuss with the audience the outcomes of their research, their analytical framework and how it can be applied to discover what best tackles the gradient in child health.

The aims of the GRADIENT workshop are 1. To present the evidence and knowledge from research; 2. To discuss the different aspects of the evaluation framework for policy analysis that has been developed by the consortium; 3. To explore how the collected knowledge and evidence can be translated in policy recommendations aimed at tackling the gradient, and, finally; 4. To generate a discussion with experts, policymakers practitioners and other participants present at the workshop, to inform them on the development of new practical tools to assess public health efficacy and to gather further inputs for the continuation of the project.

The Gradient Evaluation Framework (GEF)

John Davies

JK Davies[1], *N Sherriff*[1]

[1]International Health Development Research Centre University of Brighton United Kingdom

The International Health Development Research Centre (IHDRC) at the University of Brighton is leading Work Package 2 of the Gradient project in developing a consensus-based European Evaluation Framework with appropriate indicators to monitor and evaluate public health policies and their impact on the gradients that exists in health determinants and related health inequalities. The Gradient Evaluation Framework (GEF) has therefore been developed as an action-oriented policy tool to guide policy makers when designing and evaluating their policies and related actions to reduce health inequalities. Linking directly to the policy cycle, it is designed specifically to assist policy-makers working within Member States to evaluate the likely impact of their policies and related actions on levelling up the gradient in health and its social determinants among children, young people and their families. This presentation will introduce and explain the background of GEF, discuss its primary function as an analytical tool to guide European decision-makers, describe how it has been created during a series of consensus-workshops involving a number of European experts and its strengths and weaknesses in action when tested out at different levels in a number of European countries.

Applying Public Health Policies to Effectively Reduce Health Inequalities amongst Families and Children

Annemiek Dorgelo

H Spitters[1], *A Dorgelo*[1], *J Vervoordeldonk*[1], *S Pos*[1], *J Jansen*[1], *A Ieven*[6], *K Lotz*[1]

[1]The Netherlands Institute for Health Promotion and Disease Prevention (NIGZ), The Netherlands.

[2]Eurohealthnet, Belgium

Background

In order to flatter the health gradient, it is crucial to understand if, how and why children and families from disadvantaged groups respond differently to policy measures. The aim of the present study is to find reasons for the unintended differential impact of policies aimed at children and families with various socio-economic backgrounds. Results will help policy makers in taking the necessary steps to reduce the health gradient.

Methods

We used ''Knowledge synthesis'', which combines information from research, policy and practice in a structured way. Initially a literature review was carried out to determine which policies in Europe are successful in tackling the gradient in health and/or give an explanation of reasons why these policies are successful. The results from the literature review were used to prepare the interviews and focus groups for the second part of the research. The second part of the research focused on success factors and barriers of selected policies. In four European countries (Czech Republic, Sweden, Spain and The Netherlands) interviews were held with policy makers to find explanations for effects of the policies on health inequalities and possible barriers and success factors. Focus groups were conducted with policy users to find out reasons why/how they responded (or not) to these policy measures. The outcomes of the literature review, interviews and focus groups will lead to the development of framework to identify the success factors and barriers for policymakers and professionals who work on health inequalities.

Results

Policy evaluations were scarce. Only six European policies showed an impact on the social gradient. However, the review did identify a number of other policies areas that had an impact on determinants of health inequalities and could have an positive impact on the health gradient. These policies are further explored in the final year of the project. The life course perspective and different outcome levels are included in this research. Currently, the outcomes in terms of success factors and barriers are under development. In the coming months a paper entitled ‘‘Success factors and barriers influencing the effect of policies on the Health Gradient’’ will be finalised.

The outcomes will be presented and will serve as input for discussion. Key questions will include: ‘‘How can the outcomes be used by policy makers and professionals?’’ and ‘‘What do these outcomes mean for European policies?’’

Social Capital and Social Inequality in Adolescents' Health in 601 Flemish Communities: a Multilevel Analysis

Bart De Clercq

B De Clercq[1], V Vyncke[1], A Hublet[1], F Elgar[2], U Ravens-Sieberer[3], C Currie[4], M Hooghe[7], A Ieven[5], L Maes[6]

[1]Department of Public Health, University hospital, Ghent University, Belgium.
[2]Department of Psychology, Carleton University, Ottawa, Ontario, Canada
[3]Research Unit Child Public Health, University Medical Center Hamburg-Eppendorf, University of Hamburg, Germany.
[4]Child and Adolescent Health Research Unit, University of Edinburgh, Scotland, UK.
[5]Centre for Political Research, Leuven University, Belgium.
[6]EuroHealthNet, Belgium

Background

Promoting child and adolescent health is a key issue for public health policy. Traditionally, interventions focused on proximal factors to improve health through behavioral change focused on individuals' knowledge, attitudes and skills, but this approach largely places responsibility on individuals and evaluation studies indicate that the effects are limited especially in disadvantaged populations. Therefore, distal factors like socioeconomic status and community social capital open new perspectives to understand children's and adolescents' health and open new opportunities for interventions. Although it is widely acknowledged that community social capital plays an important role in young people's health, there is limited evidence on the effect of community social capital on health inequalities.

Methods

Using data from the 2005/6 Flemish Health Behavior among School-aged Children survey (HBSC) (601 communities, $N=10,915$), this study investigated whether community social capital is an independent determinant of adolescents' perceived health & well-being after taking account of individual compositional characteristics. Multilevel statistical procedures were used to estimate neighborhood effects while controlling for individual-level effects.

Results

Results show that individual-level factors (such as family affluence ($p<0.01$) and individual social capital ($p<0.05$)) positively related to perceived health & well-being and that community-level social capital ($B=0.309$, $SE=0.038$) predicted health better than individual social capital ($B=0.019$, $SE=0.006$). A significant ($p<0.05$) complex interaction effect was found, such that the social gradient in perceived health & well-being was flattened in communities with a high level of community social capital. Furthermore it seems that SES differences in perceived health & well-being substantially narrow in communities where a certain (average) level of community social capital is present.

Conclusions

This should mean that especially individuals living in communities with a low level of community social capital benefit from an increase in community social capital. The paper substantiates the need to connect individual health to their macro socio-economic context and this being intrinsically within a multilevel framework.

Policies to level the social gradient in health among families with children in four European welfare states

Elisabeth Fosse

E Fosse[1]

[1]Department of Health Promotion and Development, University of Bergen, Norway.

Background

Governments address the issue of health inequalities differently. Policies aimed at marginalised groups may improve the situation for these groups, but the gradient will not change. Policies aimed at the whole population will be necessary to reduce the social gradient in health.

WP5 of the GRADIENT project is a case study, comparing policies aimed ac children and families in four countries, representing different welfare state types; England, The Netherlands, Slovenia and Sweden. The objectives are:

- Map general national policies for families and children and national policies targeted at ‘‘at risk’’ families and children
- Compare policies in four different welfare state types
- Explore how different types of policies work together to protect families and children from falling into poverty and ill-health
- Investigate what anticipated impacts the different types of policies have in terms of reducing social inequalities and the social gradient

Methods

The study design was qualitative, using policy documents and interviews with national policy makers as data sources.

Results

All the four countries have policies in place for children and families, and these policies are high on the political agenda in all the countries. All countries also have public health policies in place and children are a main target group in all the countries. However, the policies have different focus in the four countries.

None of the four countries have an explicit policy to reduce the social gradient in health. England and Slovenia has an overall objective to reduce social inequalities in health: England had a policy mainly aimed at supporting vulnerable groups and geographic areas; Slovenia combines targeted measures with universal support. Slovenia is also developing policies in a number of sectors to develop their family policies, where reducing social inequalities is an important objective.

Neither Sweden nor The Netherlands have formulated explicit aims to reduce social inequalities in health. In the Dutch policy the families' responsibility is strongly emphasised, while the Swedish government suggests universal measures to support families with children.

Conclusions

To level the gradient it is important to combine structural policies and targeted measures .Only two of the countries had an explicit aim to reduce social inequalities in health, and there is little awareness of the social gradient in health in any of the countries.

6.B. Round table: Making better use of EU Structural Funds to reduce health inequalities: the perspective of marginalized groups

Chair: Tamsin Rose, OSI Consultant, Brussels, Belgium

Organizer: Open Society Foundations Public Health Program, Roma Health Project

Objectives of the workshop:

A main goal of the 2011 EUPHA conference is to discuss progress achieved in policies designed to reduce health inequalities. This workshop proposes to contribute to the debate from the perspective of marginalized groups who are deeply affected by health inequalities. The workshop will explore both effective and ineffective uses of EU funding mechanisms (with special focus on the Structural Funds) to reduce health inequalities.

Speakers invited by the Open Society Foundations Roma Health Project and Mental Health Initiative will discuss their work with national and European authorities to get health and access to health care for vulnerable groups included in Structural Fund priorities, and to ensure that Structural Funds are not used by member states to invest in perpetuating segregation and inequality among Europe's most marginalized populations. Mr Deyan Kolev will provide insights into the efforts of the Roma civil society to increase the use of Structural Funds for targeted Roma health programs and to involve the Roma in the design, implementation and evaluation of these programs. Ms. Klein will provide insights into the use of EU Structural Funds to advance the rights of people with mental disabilities in new member states by supporting the development of community-based alternatives to institutionalization. Representatives of the European Commission involved in the disbursement of Structural Funds to member states will join the panel to discuss their experiences about how European funds can be used to promote equality of opportunity among European citizens.

Panel discussants:

Mr Deyan Kolev, Chair, Center for Interethnic Dialogue and Tolerance Amalipe, Veliko-Turnovo, Bulgaria

MHI speaker: Judith Klein, Program Director, Mental Health Initiative

DG SANCO speaker: Charles Price

DG Regio or DG Employment speaker: Andor Urmos and Carsten Rasmussen, DG Regio

6.C. Workshop: Amenable mortality: indicator of health care performance?

Chair: Johan Mackenbach, The Netherlands

Organiser: Department of Public Health, ErasmusMC, Rotterdam

Contact: R.Hoffmann@erasmusmc.nl

In a project funded by the European Commission we have tried to validate indicators of health care performance based on the concept of amenable mortality. We have reviewed literature on the effectiveness of health care interventions, assessed the timing of introduction of these interventions in 8 European countries, analysed mortality trends from conditions amenable to these interventions in these countries, and conducted a Delphi study to assess consensus among experts. This workshop presents the results of this study, proposes new guidelines for the use of amenable mortality indicators, and highlights some general observations on the possible impacts of health care on population health. The workshop consists of four presentations followed by a general discussion:

1. Effectiveness of health care interventions: a literature review
2. Between-country variations in the timing of introduction of new interventions.
3. Association of mortality trends with health care interventions.
4. Selection of amenable mortality indicators: a Delphi study

Discussion (chaired by Johan Mackenbach)

Effectiveness of health care interventions; a literature review

Bernadette Khoshaba

B Khoshaba[1], M McKee[1]

[1]London School of Hygiene and Tropical Medicine, London, UK

Mortality amenable to medical care is attracting growing attention as a measure of health system performance. A number of governments and international agencies are exploring how rates of amenable mortality can be used for regular monitoring and comparison of health systems. However this represents a departure form how amenable mortality can be used, with the original aim being to identify deaths that would point to specific aspects of care requiring more detailed information.

For this reason, it is timely to reflect on whether the concept of amenable mortality needs to be adapted. In the AMIEHS study we chose a different approach not starting from existing lists of amenable mortality, but by the development of a new list. Our first aim was to develop a preliminary list of causes of death for which the literature indicates a reasonable level of evidence of amenability.

A structured process was used to select putative causes of death involving : a) identification of those that declined more than 30% in England and Wales between 1979 and 2000 (when ICD-9 was in use) b) where there was a plausible medical innovation that could reduce deaths, introduced after 1970 (based on systematic reviews of RCTs and observational studies) c) supplemented by data on improvements in cancer survival.

This process yielded 14 conditions that were potentially eligible to be considered as indicators of amenable mortality. Examples of these conditions are HIV (anti-retroviral drugs), ischaemic heart disease (introduction of coronary care units and beta-blockers) and cervical cancer (screening). Remarkable was the limited information available from randomized controlled trials on the effectiveness of innovations.

Any list of causes of amenable death is, of necessity, dynamic, reflecting changes in both diseases and the scope to treat them. Variations in diagnostic practices and cause of death coding also impact on international comparisons. However, the aim of projects such as this is to reach a consensus at a particular point in time so enabling robust international comparisons and target setting. Amenable mortality can never be more than an indicator and cannot, on its own, provide definitive evidence of health system performance. Above all, it is important to bear in mind that with evolving diseases and advancement in health care these indicators cannot be set in stone and will undoubtedly change over time.

Between-country variations in the timing of introduction of new interventions

Ragnar Westerling

R Westerling[1], I Plug[2], R Hoffmann[3], B Khoshaba[4], E Jougla[4], G Rey[5], K Lang[5], K Parna[6], W Hellmeier[7], J Alfonso[3], M McKee[2], JP Mackenbach[2]
[1]Uppsala University, Sweden.
[2]Erasmus MC, Department of Public health, Rotterdam, The Netherlands.
[3]London School of Hygiene and Tropical Medicine, London, UK.
[4]Institut National de la Santé et de la recherche medicale (INSERM).
[5]University of Tartu, Estonia.
[6]NRW Institute of Health and Work, LIGA, Germany.
[7]University of Valencia, Spain.

Diffusion of innovations can be explained by the theory of Roger's. His theoretical framework relies heavily on the individual and decisions made by individuals. However changes in clinical practice and clinicians' behaviour are increasingly linked to organizational changes. The transition of clinical research into daily clinical practise either fails or is delayed which has shifted the focus from adoption to implementation. This shift in focus applies to the implementation rate of clinical guidelines in clinical practise but also to new pharmaceuticals and cancer screening guidelines.

The objective was to acquire data on diffusion of medical innovations and to determine the timing of the introduction of innovations in seven European countries.

Information was obtained on the timing of the introduction of key medical innovation. This was done by sending out a questionnaire to all involved partner countries to obtain country specific information on the introduction of innovations. This proved not to be sufficiently as the only source of information. Therefore country specific literature reviews were performed per innovation after which country specific questions were returned to the partner countries. Resulting from this information it has been possible to determine a period in which the innovation was introduced and in which change in mortality could be expected due to the innovation.

Different kind of data represented different phases of the implementation process. For instance clinical trials often were the starting point of the process while clinical guidelines in many cases were published after the first introduction. For about half of the innovations studied the timing of the introduction varied less than ten years between the different countries. For some pharmaceuticals in the 1970s and 1980s, the introduction was later in Estonia then in the other countries. For screening of cervical cancer and coronary care units there was a considerable variation in the timing of introduction among countries.

A main finding was that the timing of introducing innovations varied between countries. This finding is in line with the theories of diffusion of innovations. A wide range of data should be used in order to analyse the diffusion of new innovations in the different countries. Improved information systems on the implementation of medical innovations in the EU countries should be called for.

Association of mortality trends with health care interventions

Rasmus Hoffmann

R Hoffmann[1], I Plug[1], R Westerling, B Khoshaba[2], E Jougla[3], G Rey[4], K Lang[4], K Parna[5], W Hellmeier[5], J Alfonso[6], M McKee[7], J.P Mackenbach[1,3]
[1]Erasmus MC, Department of Public health, Rotterdam, The Netherlands.
[2]Uppsala University, Sweden.
[3]London School of Hygiene and Tropical Medicine, London, UK.
[4]Institut National de la Sante et de la recherche medicale (INSERM).
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[6]NRW Institute of Health and work, LIGA, Germany.
[7]University of Valencia, Spain

Amenable mortality is an indicator of the quality of health care which was first introduced by Rutstein in the 1970's. In the AMIEHS project, funded by the European Commission, this concept is reconsidered.

The aim of this study is to develop a new validated list of indicators (causes of death), taking into consideration the extended life expectancy and new developments in health care. To identify these causes of death the following study question needs to be answered; "for which causes of death do current national mortality rates strongly reflect the mortality-lowering impact of improvements in health care?"

The validation analyses were performed for 14 causes of death that were selected based on set criteria and the literature review. Cause-specific mortality data from 7 European countries (1970–2005) and trend analyses were used to study the association between the timing of an interventions and mortality decline. Changes in ICD coding were taken into consideration by a new jump detection method. Timing of the interventions was established among others through information from guidelines and literature reviews

The analyses were performed using join point models with 3 join points. Only knots that represented a favourable change in the mortality trend (the start of mortality decline, the acceleration of mortality decline, or a deceleration of the increase in mortality) were used in further analyses. In the final step the period of innovation were compared to these knots to see whether these coincided. We looked at the number of countries where such an association between innovation in health care and change in mortality trend could be found.

For most of the 14 causes of death no association between intervention and mortality could be found. Associations could be established for example for HIV (introduction of anti retroviral drugs in late 1980's) and testicular cancer (Cisplatin introduced in the early 1980's)

A small number of avoidable causes resulted from a strict selection process in which the effectiveness of medical interventions, reported in clinical studies, was validated with mortality trends. Our findings show that it is difficult to precisely identify medical interventions that can causally be linked to declines in mortality. The indicators from the AMIEHS project and proposed new guidelines for the use of these indicators will contribute to the assessment of international differences in the performance of health systems

Selection of amenable mortality indicators: a Delphi study

Martin McKee

M McKee[1], B Khoshaba[1], M Karanikolos[1]
[1]London School of Hygiene and Tropical Medicine, London, UK

In the AMIEHS project the concept of amenable mortality is revisited. In this study we are interested in conditions where health systems prevent death. Therefore a narrower definition of the health system is used than that in the 2000 World Health Report. The Delphi procedure is the final stage of an exercise to identify potential indicators of health system performance. The aim of the Delphi is to seek consensus on the pre-selected conditions based on expert judgment.

A total of 29 experts from high income countries were contacted, 27 were willing to participate. The group consisted for experts from the fields of epidemiology, health policy and health services research, working in public health institutes, hospital, research institutes and universities. Vignettes were developed for 24 conditions containing information on trends in death rates, published evidence from clinical research and evidence on improvements in population outcomes, mortality trends in European countries, and the observed associations between cause-specific mortality and specific medical innovations plausibly linked to them.

In the first round 25 of 27 experts (93%) were willing to participate. The distribution of scores by cause of death varied among the experts. No definite results are available yet, as the second round of the Delphi is ongoing. So far, 22 of the original 25 participants (88%) have responded.

There is no simple means of deciding whether a cause of death can be considered useful as an indicator of health system performance. Factors to be taken into consideration include the numbers of deaths, the evidence for a sizeable effect of health care, and the time lag between intervention and outcome. In these circumstances, some form of expert judgement is necessary. A Delphi study provides a means of synthesising expert judgements that overcomes the many weaknesses of less formal methods.

6.D. Workshop: Direct-to-consumer advertising of prescription medicines

Chair: Diana MJ Delnoij, The Netherlands

Organiser: Tilburg University in cooperation with NIVEL and the EUPHA Section Utilisation of Medicines

In the United States, direct-to-consumer advertising of prescription medicine is allowed. In the European Union, direct-to-consumer advertising is not allowed. However, the EU Commission is working on a draft directive on information to the general public on prescription products, to replace the existing Directive 2001/83. The draft proposal has aroused considerable controversy. While some argue that this can have positive effects, such as patient empowerment and better adherence to medication instructions, others pose that such advertising promotes inappropriate use of prescription drugs. In this workshop we shall focus on this debate. Questions addressed are, for example: How can safeguards be put in place to ensure that information is objective, transparent and independent, and is conveyed without commercial interest? Should information provision be limited to certain specific channels of communication? What is the role of healthcare authorities or healthcare providers/insurers in providing information? How should benefits and risks be communicated?

The workshop will start with a presentation by dr. Eva Földes, about the content of the draft EU proposal. Then dr. Liset van Dijk will give a presentation about research evidence with respect to consumer information about prescription drugs. Finally, two stakeholders will share their views: one representative from the European Public Health Alliance will present the consumer view, a representative from the pharmaceutical industry will discuss the topic from the perspective of the industry.

Empowering patients to access information on prescription medicines: the reform proposed by the European Commission

Maria-Eva Földes

L Hancher[1], ME Földes[2]

[1]Tilburg University, Department of European and International Law & TILEC
[2]Tilburg Law and Economics Center, Tilburg, The Netherlands

European Union law prohibits direct-to-consumer advertising of medicinal products for human use that are subject to prescription. As ruled by the European Court of Justice, Member States cannot diverge from this prohibition. However, EU law does not clarify the borderline between advertising and provision of non-promotional information on medicines, the latter being not as yet regulated at EU level. Consequently, Member States pursue divergent approaches to the regulation of information provision. This results in significant disparities across what ought to be a single market for pharmaceuticals, as well as cross-country inequalities in access to information and potential risks for patients, given that information of various quality can cross both EU and external borders via the media and internet.

Revision of EU rules on direct-to-consumer communication by the pharmaceutical industry has been repeatedly on the agenda in the context of the debate on improving access to medicine information for patients. The latest initiative was launched by the European Commission in December 2008 in the form of a proposal to establish a Community legal framework on direct-to-consumer information on prescription medicines by pharmaceutical companies. The proposal claims to ensure high-quality and non-promotional character of information by imposing harmonized quality standards on its content and presentation and maintaining the ban on advertising.

The Commission has launched the proposed reform as a means to pursue patient empowerment. The proposal intends to meet the legitimate claims of patients to have improved access to information, and give the industry a clearer legal framework for information provision. The presentation focuses on the proposed reform and discusses whether it is likely to realize its stated objectives. On the background of earlier attempts at reform and the growing body of case law of the European Court of Justice it assesses the Commission proposal and the amendments put forward by the European Parliament in 2010. It discusses whether the approach foreseen is the right method to promote patient empowerment and whether sufficient safeguards are put in place to prevent information being used to persuade as opposed to empower patients. It examines whether the proposal is likely to clarify the persisting legal uncertainties as to when the provision of information becomes promotional, and therefore should fall within the scope of the ban on advertising.

Consumer views on DTCA advertising

Liset van Dijk

L Van Dijk[1], M Vervloet[1], RD Friele[1]

[1]NIVEL, Netherlands Institute for Health Services Research, Utrecht, the Netherlands

Background

In most Western countries, except for New Zealand and the USA, direct-to-consumer advertising of prescription drugs is prohibited. Currently, at European level, there is an ongoing discussion whether or not to allow pharmaceutical companies to inform consumers about prescription drugs. However, the distinction between non-promotional information and advertising is unclear. The objective of this presentation is to assess consumer views on advertisements for over-the-counter (OTC)-drugs in The Netherlands and to discuss these views in the light of 1) results of studies referring to consumers views on DTCA for prescription drugs and)the new proposals for patient information in Europe.

Methods

A questionnaire was completed by 1,038 consumers participating in a national representative consumer panel (response: 74%). The questionnaire aimed at measuring consumers' experiences with advertising of OTC-drugs, as well as their judgment on which information ought to be given in advertisements. In addition, we assessed the reliability of information in OTC-advertisements compared to other information sources for (new) drugs. A PubMed literature search was performed to assess consumers views on DTCA on prescription drugs.

Results

Consumers rated truthful and adequate information as most important feature of advertisements, but they often experienced misleading information in advertising. They stated, for example, that advertisements often suggested that the drug is beneficial for everyone, while they doubted whether this is true. Only a small number of consumers found advertising to be useful, for example in informing them about a new OTC-drug on the market. The majority of consumers (79%) considered the information in advertisements as unreliable. These results are partly in line with those of US studies finding that consumers want advertisements for prescriptions drugs to be accurate and not misleading.

Conclusions

Advertisements for OTC-drugs from pharmaceutical industries were assessed as unreliable, and the information given was far from complete according to Dutch consumers. Whether the pharmaceutical industry will be a good information source on prescription drugs remains questionable. Consumer information on medicines needs to meet high standards of objectivity, completeness and reliability. New EU regulations in this field should safeguard this.

Discussion: The perspective of consumers

Monika Kosinska

M Kosinska
European Public Health Alliance (EPHA)

Discussion: The perspective of the industry

to be confirmed

6.E. Round table: Lost in translation? The need to improve communication between research and policy

Chairs: Dineke Zeegers Paget, EUPHA and Natasha Muscat, Malta

Organiser: EUPHA and EPHA

Contact: d.zeegers@nivel.nl

Objective of the workshop:

Following the positive experience of our 2010 workshop on ‘‘Researchers are from Mars, policymakers from Venus’’ in Amsterdam on how researchers and policymakers (do not) communicate with each other, this workshop focuses on ways to improve communication between research and policy. The main focus of the workshop will be on the panel discussion with representatives from the European Commission, European Observatory, EUPHA, EPHA and ASPHER based on questions formulated by the younger generation of public health professionals (using the EUPHAnxt network).

From Mars and Venus to Lost in translation - introduction

Dineke Zeegers Paget

EUPHA

This workshop is all about communication between research and practice. On the one hand, researchers have to publish scientifically in order to be taken serious by policymakers. Presenting the results to policymakers is a different task. Policymakers are interested in using research to set up their policies, but research needs to be presented in a format that they can use (short, understandable and answering the policy questions). The new way of communication between research and policy is an interactive one, where research and policy questions as well as interim results are continuously exchanged. Even though time-consuming, interactive communication will be essential to avoid getting ‘‘lost in translation’’.

Communication, communication, communication

Monika Kosinska

EPHA

The interaction between research and policy is all about communication, communication and communication. In this short presentation, tips and tricks on communication will be presented.

Round table discussion

The round table will be moderated by Natasha Muscat, president of the EUPHA section on public health practice and policy. Panel members are:

- Karl Freese, European Commission
- Josep Figueras, European Observatory
- Jose Martin-Moreno, WHO/EURO
- Louise Gunning-Schepers, EUSanH
- Walter Ricciardi, EUPHA president
- Antoine Flahault, ASPHER president

Through the new EUPHAnxt network, questions will have been formulated to start the discussion (represented by Agnese Lazzari, EUPHA). The audience will be actively invited to participate.

6.F. Risk factors for psychological distress

Cognitive ability in childhood and mortality during 45 years of follow up among Swedish men and women

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Objectives

An association between childhood cognitive ability measured with IQ-tests and mortality among men has been reported recently. Few studies have investigated the association between IQ and mortality among women and with conflicting results. This study aims to investigate the association between cognitive ability measured at age 13 and mortality up to the age of 58 among men and women.

Methods

Data on cognitive ability was collected at school at age 13 among 21 809 men and women born in 1948 and 1953. Information on fathers education, as well as information on mortality up to 2005, was collected through national registers.

Results

Low cognitive ability was associated with an increased risk of all cause mortality among men (668 cases, adjusted HR 1.12 CI95% 1.06–1.16 for one step decrease in IQ on a nine graded scale) and among women an (386 cases, adjusted HR 1.09 CI95% 1.03–1.15). Adjustment for fathers education marginally affected the associations. Among men IQ also showed statistically significant associations with mortality from alcohol related diseases, cardiovascular disease, and injuries.

Conclusion

Lower cognitive ability was associated with an increased risk of all cause mortality among men and women. Adjustment for fathers education did not affect the associations.

Cognitive ability in adolescence associated with subsequent suicide and suicide attempt -how much is explained by psychological distress and personality factors?

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Objective

To investigate the association between adolescent cognitive ability/IQ and subsequent completed and attempted suicide. We also wanted to assess the role of psychiatric illness, personality evaluations and self-reported psychological symptoms in this association.

Methods

Data on IQ test performance as well as psychiatric diagnosis, psychologists' personality evaluations, and questionnaire self-reports were collected among 49 321 Swedish men, born in 1949–51, during compulsory military conscription in 1969–70. Information on outcome, suicide and hospital admission for suicide attempt, was collected from the national cause of death register and the national hospital discharge register.

Results

Lower IQ was associated with significantly increasing risks of both suicide and suicide attempt during 36 years of follow-up. The associations followed a dose-response pattern. Adjustments for psychiatric diagnoses, personality evaluations and self-reported psychological symptoms attenuated the associations substantially but significant associations remained.

Conclusion

Adolescent cognitive ability was associated with subsequent completed and attempted suicide. Psychiatric illness, personality and psychological symptoms measured in late adolescence contributed to partly explaining the associations.

Psychological distress among adolescents in Denmark

Bjørn Holstein

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Background

Mental health problems are common among school children and have severe consequences for the children and their environment. Recently, there has been a steep increase in diagnosing and medical treatment of mental health problems. This study describes the prevalence of psychological distress among 11–15-year-old school children, secular trends 1988–2010, and variations by socio-demographic background, social integration, and school.

Methods

We used the Danish part of the international Health Behaviour in School-aged Children (HBSC) study 2010. The study included all 11–15-year-old students in a random sample of schools in Denmark, participation rate 86.3%, n = 4,922. The HBSC questionnaire included 12 indicators of psychological distress: four psychological symptoms; four kinds of relational distress; three kinds of school related distress; and poor life satisfaction.

Results

A large minority, 21% of girls and 16% of boys reported at least one psychological symptom every day. This proportion has increased since 1991. The prevalence of the four indicators of relational distress (loneliness, not feeling accepted, feeling outside, feeling helpless) was low, approximately 5%. A large minority of the participants reported school related distress, e.g. 15% of girls and 19% of boys reported poor school satisfaction. This proportion has increased since 1991. Finally, 18% of girls and 13% of boys reported poor life satisfaction. In summary, 23.6% of girls and 17.3% of boys reported three or more indicators of psychological distress.

There was an excess prevalence of psychological distress among school-children from single-parent and reconstructed families, from lower social classes, from non-Danish families, and among students with poor social relations. There were remarkable variations in across schools.

Conclusions and implications: From a scientific point of view there is an urgent need for a sound conceptualization of mental health and for development of appropriate measurement methods. From a practice point of view there is an urgent need for efforts to enhance mental health among school-children and adolescents. Internationally, there are promising experiences with school-based interventions to promote mental health and prevent distress.

Parental separation and adult psychological distress: the role of material and relational pathways. Evidence from two British birth cohorts

Rebecca Lacey

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Background

The relationship between parental separation and adult psychological distress is well established, however relatively little is known about the mechanisms involved. This study looks at the role of material (via adolescent material disadvantage, educational attainment and adult material disadvantage) and relational (via parent-child relationship quality, peer relationships and adult partnerships) pathways and how these may have changed over time.

Methods

This study uses data from the 1958 National Child Development Study (NCDS) and 1970 British Cohort Study (BCS70). Parental separation was measured from 0–16 years. Psychological distress was measured by Malaise Inventory at age 33 years (NCDS) and 30 years (BCS70). Information on material and relational factors are taken from intermediate sweeps across the life course. Data are multiply-imputed resulting in a sample of 10,923 NCDS participants and 10,714 BCS70 participants with complete data on psychological distress. Path analysis in MPlus was used to calculate probit estimates and to investigate direct and indirect effects via material and relational pathways and the way in which these interlink across the life course.

Results

Parental separation is associated with increased reporting of psychological distress in adulthood in both cohorts. The direct association was found to be more important than the effect through relational and material mechanisms. Material pathways were found to be more important than relational. The picture for women appears to be particularly complex in both, with greater linkage between material and relational pathways across the life course. There is evidence that the pathways between separation and distress have different weights in either cohort, and have therefore changed over time.

Conclusions

Parental separation is related to increased psychological distress in adulthood. The mechanisms involved are complex and involve both material and relational factors.

Trajectories in the use of psychotropic medication before and after divorce: a register-based study in Finland 1995–2007

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Background

The number of divorces has increased throughout Western countries. However, the consequences of divorce on different health outcomes remain only partially understood. If the divorced continue to show higher morbidity levels compared to the married, the public health burden associated with divorce is also increasing. We examined trajectories of mental health 5 years before and 5 years after divorce.

Methods

We used register-based data covering 11% of all Finns and 80% of all deaths during the follow-up period 1995–2007 linked with data on reimbursements for prescribed medication expenses. We analyzed those aged 30–64 who either divorced during the follow-up or were continuously married. We calculated the proportions of individuals using psycholeptics and psychoanaleptics (ATC-codes N05 & N06, excluding N06D). Trajectories of medication use were analysed in 20 three-month intervals before and 20 intervals after divorce.

Results

Five years before divorce the excess use of psychotropics was 31% among divorced men and 24% among divorced women as compared to the continuously married. The use of psychotropics increased 119% among divorced men and 70% among divorced women during the 5-year pre-divorce period, the increase accelerating 15 months before divorce. The highest level of medication use was observed 9 to 6 months before divorce, when 9.6% (95% CI = 9.4–9.8) of divorced men and 12.6% (95% CI = 12.4–12.9) of divorced women purchased psychotropics. The proportions then declined rapidly until 6 months after divorce among men and 12 months among women, after which the decline leveled off. However, the use of psychotropics increased steadily during the follow-up among the continuously married, and thus five years after divorce the excess use of psychotropics was 54% among divorced men and 40% among divorced women.

Conclusions

The period before divorce seems critical in the development of mental health. The excess use of psychotropic medication before and after divorce suggests that more efficient support measures are needed during the process of divorce. Policies aimed at reducing excess morbidity associated with divorce should focus not only on post-divorce but also on pre-divorce period.

Life-course risk factors for mental health problems in the 1987 Finnish Birth Cohort

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At least half of psychiatric disorders start in childhood and adolescence. Risk factors are pre- and perinatal, genetic as well as environmental and family-related. Psychiatric disorders, marginalisation and inequalities in health, income and other opportunities in life are interwoven. Research evidence is still insufficient in providing basis for understanding life-course development of links between psychiatric disorders, marginalisation and inequalities in well-being.

The 1987 Finnish Birth Cohort covers all children born in Finland in 1987 surviving perinatal period (N = 59 476). The study covers detailed health, social welfare and socio-demographic data of cohort members and their parents from various Finnish registers.

Altogether 11 981 (20.1%) of the cohort had used psychopharmaceuticals or received specialised psychiatric care during their lives. Psychopharmaceutical purchases were registered for 7 850 (13.2%), 7 711 (13.0%) had received specialized psychiatric care as outpatients and 3 193 (5.4%) as inpatients. Main familial risk factors for mental health problems were having a teenage parent OR 1.88 (1.70–2.06), parents' divorce OR 2.03 (1.94–2.12), death of a parent OR 1.82 (1.70–1.95), parents having basic education only OR 1.81 (1.67–1.96), childhood family receiving social assistance OR 2.08 (2.00–2.17) or having a parent treated as inpatient at psychiatric ward OR 2.25 (2.11–2.39). Perinatal problems, such as prematurity had only minor effect on mental health problems OR 1.13 (1.05–1.22). The risk increased if the adolescent had no education after comprehensive school OR 4.22 (4.01–4.44), had received social assistance OR 3.95 (3.78–4.12), had committed a criminal offence leading to imprisonment OR 7.31 (5.84–9.13) or had child welfare actions OR 10.02 (9.06–11.07).

Psychiatric disorders, measured by service use and psychopharmaceutical purchases, had many social risk factors. Financial problems, low education and psychiatric disorders pass on through generations and are interlinked. Families with social adversities and with parental mental health problems should be supported to secure children's development and to prevent marginalisation. Links and pathways of social factors, inequalities and mental well-being need further clarification.

6.G. Sickness absence and pain

Pain and disability retirement: a follow-up study

Peppiina Saastamoinen

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Background

Factors associated with disability retirement need to be better understood to be able to reduce early retirement. Pain affects functional capacity and sickness absence, but less is known about the effect of pain on disability retirement. The aim was to examine the association of pain with disability retirement (all cause, musculoskeletal diseases, mental disorders) and to detect whether working conditions, health behaviours, or self-reported long-standing illnesses affect this association.

Methods

The data consisted of the Helsinki Health Study baseline survey (n = 8960, response rate 67%) linked to national pension register data from the Finnish Centre for Pensions (74%, n = 6606, consented to data linkage). Mean follow-up time was 8.1 years. The data included 565 disability retirement events.

Results

When adjusted for all covariates, chronic pain was associated with disability retirement due all causes (HR 2.08, 95% CI 1.70–2.53), musculoskeletal diseases (HR 3.62, 95% CI 2.59–5.06), and mental disorders (HR 1.46, 95% CI 1.00–2.12). Adjustments for working conditions and health behaviours had only a small effect on the association of pain with disability retirement. Adjusting for long standing illnesses affected the association most.

Conclusions

Despite the fact that working conditions, health behaviours and long standing illnesses explain part of the association of pain with disability retirement, chronic pain seems to have a quite strong independent effect on the disability process leading to early retirement. However, the strength of the effect varies by the main cause of disability. Prevention and treatment of chronic pain may help prevent early retirement due to disability.

Sickness absence due to musculoskeletal diagnoses and risk of premature death: a nationwide, Swedish, prospective cohort study

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Background

Musculoskeletal disorders are a major public health problem in the Western world and among the most common diagnosis groups regarding long-term sickness absence. Very little is, however, known regarding health-related consequences of such sickness absence. The need for large, population-based, prospective studies has been stressed. The aim of this study was to investigate the association between sickness absence due to musculoskeletal diagnoses and risk of premature death.

Methods

We performed a prospective cohort study including 4,760,987 individuals living in Sweden December 31, 2005, aged 20–64 years, not on old age or disability pension, based on nationwide register data. Persons receiving sickness benefits in 2005 were compared to persons receiving sickness benefits due to other diagnoses and persons with no sickness absence. Sickness absence due to musculoskeletal diagnoses was categorized into: 1) artropathies/systemic connective tissue disorders, 2) dorsopathies and 3) soft tissue disorders/osteopathies/chondropathies/other musculoskeletal disorders. The study participants were followed from January 1, 2006 through December 31, 2009 for all-cause mortality or December 31, 2008 for cause-specific mortality. Hazard ratios (HR) and 95% confidence intervals (CI) were estimated by Cox regression in models adjusted for age, sex, socio-economic factors and morbidity.

Results

In total, 34,225 deaths were identified during follow-up, 22,033 among men and 12,192 among women. Sickness absence due to all categories of musculoskeletal diagnoses was associated with 1.5-fold increased risks of all-cause mortality among both men and women (adjusted model, total cohort, category 1, HR 1.50, 95% CI 1.38–1.63). Increased risks of mortality due to cancer, circulatory diseases, mental and behavioral disorders, musculoskeletal disorders and suicides were also observed among predominantly men on sick leave due to musculoskeletal diagnoses.

Conclusions

This is the first nationwide cohort study of sickness absence due to musculoskeletal diagnoses and risk of premature death. The study reveals an increased risk of premature death among persons on sick leave due to musculoskeletal diagnoses after adjustment for several potential confounders including morbidity.

A randomized controlled trial of two different home-based exercise programs in Danish patients on sick-leave due to nonspecific neck and shoulder pain

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Background

In 2005 33% of the Danish adult population reported pain or discomfort in the shoulder and/or neck within a period of 14 days. There is moderate evidence for exercise in the treatment of chronic nonspecific neck pain. The ideal type of exercise to be recommended is however yet to be established. Furthermore, the role of fear-avoidance in the development and maintenance of chronic pain and disability has been highlighted. The aim of this study was to compare the effects of two different home-based exercise programs on pain, muscle strength and fear avoidance in patients on sick-leave for 4–16 weeks due to symptoms of the neck and/or shoulder.

Methods

A total of 69 patients referred from general practitioners to a hospital clinic were randomized to one of the following interventions: 1. general physical activity > 30 minutes per day (GT) or 2. specific strength training of the neck and shoulder muscles AND general physical activity > 30 minutes per day (ST). The outcomes were collected at three months and included pain measured on a VAS-scale of 0–10, isometric muscle strength and fear-avoidance (FA) measured on a scale of 0–30.

Results

The ST-group achieved a mean pain reduction of 1.4 (95% CI = 0.5–2.4, p = 0.006). In the GT-group, pain reduction was 1.6 (95% CI = 0.1–3.0, p = 0.032), improvements did not differ between groups (p = 0.86). Significant change in muscle strength was achieved within both groups, but for neck flexion only. ST-group mean was 4.4 Nm (95% CI = 0.4–8.4 Nm, p = 0.032) and GT-group mean was 3.5 Nm (95% CI = 0.5–6.4, p = 0.022). The change achieved did not differ between groups. The level of FA was significantly reduced within both groups, with a mean change in the ST-group of 8.5 (95% CI = 6.3–10.8, p < 0.001) and in the GT-group of 4.7 (95% CI = 2.2–7.3, p = 0.001). The reduction in the ST-group was significantly larger than in the GT-group (p = 0.03).

Conclusions

General physical activity seemed equally efficient in pain reduction as did specific strength training, the latter being superior with regards to reduction in fear-avoidance only. Choice of exercise in the treatment of nonspecific neck pain may hence be at the preference of the individual patient.

Work related psychosocial factors and return to work in sick listed employees with low back pain. A mixed method study

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Multidisciplinary and coordinated interventions have been found to be beneficial in the return to work (RTW) process in sick-listed employees with low back pain (LBP). We aimed to study a) which psychosocial work related factors predicted early RTW, b) who benefited from coordinated multidisciplinary RTW interventions and c) how patients perceived the role of workplace in the overall process of returning to work. Methods: With a mixed method sequential study design we explored the role of psychosocial work related factors on RTW as part of an intervention study in three study populations (n = 351), (n = 120) and (n = 8). RTW was defined in an administrative database of sickness benefit reimbursements. Whether RTW was predictable from psychosocial work related factors, were analysed in Cox' proportional hazard models. Semi-structured in-depth interviews were conducted with eight LBP patients during the RTW process, focusing on the role of the workplace. The transcribed interviews were organised with NVivo 8 and the analysis guided by grounded theory.

Results: Colleagues' willingness to listen to work related problems, were important for faster RTW (HR = 1.33 (C.I.: 1.03–1.72)) and so was influence on work planning ((HR = 1.40 (C.I: 1.03–1.90)). Work pace and support from superior was not associated with faster RTW. Subgroup analyses indicated that employees being at risk of losing their job and without influence on job planning benefitted from a coordinated multidisciplinary intervention. The interviews revealed three potential work related mechanisms relevant for RTW: relation to superiors, work identity and collegial relations. Although relationship to superiors played a central role in the RTW process, there was no univocality of whether supportive leadership was a motivational factor to faster RTW or not. A perceived risk of being fired, and subsequently a strained relationship with superiors, may have been counteracted by the multidisciplinary intervention or it may have triggered patients to RTW prematurely, considering their health condition.

Conclusion: The studies illustrated that social relations at work were a key issue in successful RTW. It suggests that interventions to a higher degree should focus on social relations when employees return to work.

Effects of work-related factors on risk of disability pension due to low back diagnoses: a 30-year longitudinal study of Finnish twins

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Background

Knowledge of work-related risk factors for disability pension (DP) due to low back diagnoses (LBD) is limited and knowledge about how risk factors are affected by genetic and early environmental factors (familial factors) is lacking. Twin studies can provide this. We aimed to investigate association of work-related factors with the risk for DP due to LBD, and the role of familial confounding, in a 30-year follow-up.

Methods

Risk factor data on 24 043 twins (50% men) aged 18–65 year from a baseline survey in 1975 was followed up with national DP register data until 2004. Cox proportional hazard regression models were used.

Results

Among those 16016 at work in 1975, 300 men and 170 women were granted DP due to LBD during follow-up. For men, having a work at baseline including lifting and carrying (hazard ratio (HR) 1.54; 95%CI 1.15–2.07), and physically heavy work (HR 1.52; 1.04–2.22) compared to sitting work were significant risk factors. Also shift work (1.41; 1.05–1.90) compared to day work, and monotonous work (1.68; 1.27–2.22) compared to variable work predicted DP. Prior unemployment was a risk factor for DP due to LBD; once or twice, HR 1.46, and three or more times, HR 1.80. For women, outdoor, physically heavy, or monotonous work, and unemployment due to disease were risk factors (2.25; 2.41; 1.47; 2.97, respectively). Analyzing the possible effect of genetic and familial factors by accounting familial confounding, the associations were mainly retained for men, but for women they attenuated to statistically non-significant.

Conclusions

The risk of DP due to LBD seemed to be influenced by several work-related factors. For men, the association between work-related risk factors and DP may be a direct effect of risk factors for susceptibility to DP, but for women there seem to be an effect of familial factors.

Implementing interorganizational cooperation in labour market reintegration: a case study

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Background

To bring people with complex medical, social and vocational needs back to the labour market, interorganizational cooperation is often needed. Yet, processes and strategies for achieving sustainable interorganizational cooperation have not been investigated in detail. The aim of this study was to analyse the implementation processes of two interorganizational teams. The article focuses on different strategies for and perspectives on implementing interorganizational cooperation.

Methods

An exploratory case study was used, where two interorganizational cooperation teams were studied in order to elucidate and compare the development of cooperative work in two local settings. The material, collected during a three-year period, consisted of documents, individual interviews with managers, and focus groups with officials.

Results

Two different implementation strategies were identified. In case 1, a formalized strategy was used to implement cooperative projects, which led to difficulties in maintaining cooperative work forms due to a time-limited implementation process. In case 2, an interactive strategy was used, where managers were constantly involved in developing a central cooperation team that became a central part of a developing structure for interorganizational cooperation. An interactive cooperation strategy with long-term joint financing was here shown to be successful in overcoming organizational barriers to cooperation.

Conclusions

It is suggested that an interactive implementation strategy, where the participating managers are engaged for a longer term in specific cooperative structures, is more likely to succeed in developing interorganizational cooperation, than a linear and formalized implementation strategy.

6.H. Chronic diseases and sickness absence

Interventions to enhance return-to-work for cancer patients: a Cochrane review

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Background

The number of cancer survivors of working age is rapidly growing. However, return to work presents a problem in many cancer survivors. The aim of this review is to assess the effectiveness of interventions aimed at enhancing return-to-work in cancer patients.

Methods

A literature search was conducted using eight electronic databases including PubMed, with no restriction on publication year or language. Inclusion criteria were: 1) randomised controlled trial (RCT) or controlled before-after study, 2) adults $\geq$ 18 years diagnosed with cancer, working at the time of diagnosis, 3) time to return-to-work or work retention rates measured. All abstracts were examined by two independent assessors. Reference lists of all included articles and reviews were checked to identify additional eligible studies.

Results

A total of 3,652 abstracts were retrieved. Fourteen articles reporting 14 RCTs and 4 CBAs were included with a total of 1652 participants.

Results indicated similar return-to-work rates for psychological interventions compared to care as usual (odds ratio (OR) = 2.32, 95% confidence interval (CI) [0.94 to 5.71]). No vocational interventions were retrieved. Physical training was not more effective than care as usual on improving return-to-work (OR = 1.20, 95% CI [0.32 to 4.54]). Eight RCTs on medical interventions showed that functioning conserving approaches had similar return-to-work rates as more radical treatments (OR = 1.53, 95% CI [0.95 to 2.45]).

Multidisciplinary interventions involving physical, psychological and vocational components, led to higher return-to-work rates than care as usual (OR = 1.87, 95% CI [1.07 to 3.27]). No differences in the effect of psychological, physical, medical or multidisciplinary interventions compared to care as usual were found on quality of life outcomes.

Conclusions

Few interventions are effective in enhancing return-to-work and work retention in cancer patients. A mixed approach of vocational, psychological and physical rehabilitation aiming at return to work is effective in enhancing occupational health outcomes in cancer patients. Interventions based on correlates and/or risk factors of return-to-work in cancer survivors need to be developed and tested using RCTs with appropriate follow up intervals.

Fatigue and its correlates in cancer patients who had returned to work

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Background

Fatigue and other symptoms in cancer patients often interfere with social and occupational activities. Only a few studies, however, have examined relationship between fatigue and work-related outcomes. The aim of this study was to investigate which disease-related factors and work-related factors were related to fatigue in employed cancer survivors.

Methods

Data were collected by questionnaire at 6 months (baseline) and 18 months (end of the follow-up) after cancer diagnosis. Fatigue was measured with a four-item sub-scale of MFI. Scores ranged from 4 to 20, with higher scores indicating more fatigue. Disease-related factors included treatment, diagnosis, cognitive dysfunction (measured by CFQ), depression (CES-D), pain (VAS), and sleep disturbance (PSQI). Work-related factors included work-load, work pressure, relationship to supervisor and colleagues, size of the company and workplace accommodations.

Results

In total, 135 people with different types of cancer were included who were working either fulltime (n = 110) or part time (n = 25) at the end of the follow-up. Of these, 40 people (30%) were already working at 6 months. The mean age was 42 years and 60% of them were women. The mean rate of general fatigue was 11.9 at baseline decreasing to 10.4 at the end of the follow-up ($p < 0.0001$). At 6 months, higher work pressure ($p = 0.02$), higher physical workload ($p < 0.05$) and less workplace accommodations ($p = 0.03$) were related to higher levels of fatigue. From disease-related factors, depression was associated with fatigue ($p < 0.0001$) at baseline.

Lack of workplace accommodations was the only factor affecting higher levels of fatigue at 18 months ($p < 0.001$) and was also related to higher levels of depression at 6 months ($p = 0.02$) and at 18 months ($p < 0.001$).

Conclusions

Lack of workplace accommodations was significantly related to fatigue and depression at the end of the follow-up. This suggests that workplace accommodations for illness such as reducing the number of working hours and shifting to physically less demanding tasks when returning to work can help to reduce fatigue and depression.

Looking beyond return-to-work after cancer: a 5-year longitudinal cohort study among Dutch Post employees

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Background

Today, an increasing number of cancer survivors are living with cancer as a chronic disease. At the time of diagnosis, approximately half of all cancer patients are employed or available for employment. More and more cancer survivors continue to resume their everyday life during or following treatment â€“ this includes remaining in or returning to work. While return-to-work (RTW) has been extensively studied, little is known about the phase beyond RTW in terms of sickness absence and employment consequences.

Methods

To examine sickness absence and employment consequences, all employees at Dutch Post who had been diagnosed with cancer from 2002 to 2005 and who had fully returned to work after cancer were followed for 5 years. Cancer survivors were compared with employees who had returned to work after a non-malignant chronic disease. Data were obtained from the 365 ArboNed Occupational Health Services registry.

Results

From 2002 to 2005, N = 340 Dutch Post employees on sickness absence with a certified diagnosis of cancer (e.g., breast, genital, gastrointestinal, lung) were identified. Of these, N = 103 (30%) did not RTW, leaving N = 237 to be followed for 5 years after full RTW. Of the N = 746 employees with a chronic disease (e.g., diabetes, arthritis, hypertension), N = 86 (12%) did not RTW, leaving N = 660 for the analysis.

During follow-up, N = 83 (35%) cancer survivors terminated their job compared with N = 253 (38%) employees with a chronic disease. Cancer survivors who returned to work had fewer short-term (731/1000 person-years) and long-term episodes (507/1000 person-years) of sickness absence when compared to employees with a chronic disease (911 and 716, respectively). The incidence of sickness absence due to cancer was higher in cancer survivors (both genders), while the incidence of sickness absence due to mental disorders was significantly higher in female employees with a chronic disease (46/1000 person-years) compared to cancer survivors (25/1000 person-years).

Conclusions

The findings clearly underline the need to monitor and support cancer survivors (and employees with a chronic disease) when they have returned to work - and the importance to look beyond return-to-work in occupational and public health research and practice.

Disability pension after coronary revascularisation. A national follow-up study in Sweden 1994–2003

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Background

Cardiovascular disease is a major public health problem in terms of chronic disorders and mortality. Coronary revascularisation by coronary artery bypass graft surgery (CABG) or percutaneous coronary intervention (PCI) are common and well established treatments. However, knowledge regarding exclusion from the labour market in terms of disability pension (DP) following coronary revascularisation from population-based studies is lacking. The aim of this study was to investigate the rate of DP within five years following coronary revascularisation in women and men and type of occupation.

Methods

In this population-based, prospective cohort study all patients in Sweden, who when aged 30–63 years had a first CABG or PCI, were recruited from two national Quality Registers for coronary revascularisation covering the years 1994–2003. Detailed information on DP was obtained from the National Social Insurance Agency. Socio economic data was obtained from national registers.

Results

Included were in total, 34660 patients who were not on old-age pension or DP at the time of intervention. Of these, 14113 underwent a first CABG (13% women) and 20547 a first PCI (19% women). During the five-year follow up 47% of the women and 36% of the men who had had CABG were granted DP. Corresponding figures in PCI patients were 41% in women and 27% in men. In both genders DP after CABG was more common in manual workers, 52% and 41% respectively, compared with 41% and 29% among women and men in non-manual workers. Corresponding figures for DP after PCI were 46% and 30% respectively, for women and men among manual workers and 37% and 22% among women and men in non-manual workers.

Conclusions

Disability pension within five years following coronary revascularisation was common and especially so among the women and men in manual workers. Future analyses will focus on associations with this and severity of disorder and other socio-demographic factors.

The effect on return to work and absenteeism of a multidisciplinary stress treatment programme.

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Background

Increasing numbers of patients have been referred to the medical sector with stress symptoms during the last years, and the number of employees being on sick leave due to persistent stress symptoms has increased having high costs both for the individual and the community. Hence, we find a need for stress treatmentprogrammes in general medical practice.

The aim of this study was to test the effect of a multidisciplinary stress treatment programme on the return to work rate (RTW) and length of sick leave.

Methods

General Practitioners within the capital region of Denmark were informed about the project and invited to refer patients with persistent symptoms of work related stress to the project. Inclusion criteria were being employed but on sick leave. Exclusion criteria were major psychiatric or somatic disease or abuse. From August 2010 to January 2011 121 patients were referred. Using a randomized wait list control design, the participants were divided into two groups: intervention and wait list control. Five of the participants were excluded after psychiatric evaluation due to major depression or severe anxiety. The intervention group consisted of 65 patients and the control group of 51.

The stress treatment programme consisted of the following: Nine one-hour sessions aiming at:1.Identification of relevant stressors. 2. Changing the coping strategies of the participants. 3.Change the workload and tasks. Each participant also attended a Mindfulness meditation course (2 hours a week in 8 weeks). Outcome measure is RTW defined as having returned to a job after three month.

Results

The RTW rate in the intervention group was 85.7 %. This was significantly higher than in the control group (56.9%). Among those who had returned to work, days of absence were 72.8 days in the intervention group compared to 91.9 days in the control group ($p < 0.05$).

Conclusion

The stress treatment programme showed a significant effect on the return to work rate and length of sick leave. The treatment programme seems feasible for GPs.

ISRCTN52839015

Keywords: Stress, return to work, stress treatment programme, sick leave

Lived experiences of capacity to work while depressed and anxious - a phenomenological study.

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Background

Despite the impact of common mental disorders on functioning, studies on people's experiences of working while afflicted by depression and anxiety are lacking. The purpose of this study was to explore lived experiences of capacity to work while depressed and anxious.

Methods

A phenomenological design was chosen. A total of 17 individuals, aged 30–62 years, took part in four focus groups. Some had experienced a period of ''feeling blue'' and others had been diagnosed with depression and/or anxiety disorder. All were currently employed within the ordinary job market. The interviews were tape-recorded, transcribed and qualitatively analysed.

Results

In this study nine constituents of capacity to work while depressed and anxious were identified. The participants experienced being subjected to a surrounding continuous work flow (1) where it was almost impossible to keep track of all work tasks with a hypersensitive mind. Leisure time activities were traded in (2) since the individual needed to save strength to work. Experiences of being exposed in the professional interpersonal situation at the workplace (3) were troublesome. The dynamics of alienation from work content and cohesion in the group (4) was described by which the individual also distracted the work place order (5). The demands of time and pace (6) were also hard to keep up with. To manage demands at work and own claims of being ''good enough'' (7) a working façade (8) was used. Lastly, an experience of deficient job satisfaction was identified (9).

Conclusions

The constituents covered a broad range of which some were more related to the individual and others to social dynamics and leisure time experiences. These new findings point to actions needed for maintaining employment apart from treatments of symptoms. This knowledge is significant for the health care system, employers and for developing the research of work capacity in depressive and anxiety disorders.

6.I. Skills building seminar: Scientific integrity in public health research: what, why, how?

Chair: Els Maeckelberghe, The Netherlands
Organizer: EUPHA section Ethics in Public Health
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Background

Trust and accountability are integral to the research enterprise and the sharing of scientific information. Integrity in public health research is of utmost importance as it regards research that might influence policies and practices that affect the broader society.

Researchers have developed professional standards designed to enhance the progress of science and to avoid or minimize the difficulties of research. These standards more and more become expressed in formal codes that address issues of interpersonal, professional, institutional, and public responsibility. Researchers have an obligation towards their fellow researchers in providing accurate and reliable research. They owe themselves adherence to professional standards to build personal integrity in a research career. They may expect an environment in which research can be conducted in an ethically sound way. Finally, researchers have an obligation to act in ways that serve the public.

These high moral standards play a role in all phases of research, from research problem selection, methodology, working with research subjects to issues of international collaboration, commercialisation and authorship, and many other aspects related to the context of doing research. How should anomalous data be treated? How do values influence research? How should credit for scientific accomplishments be allocated? What are the borderlines between honest error, negligent error, and misconduct in science? How to deal with conflict of interests? What about collaboration with commercial partners? These questions are of interest to more than just the scientific community. As the influence of scientific knowledge has grown throughout society, nonscientists have acquired a greater interest in assessing the validity of the claims of science. With science becoming an increasingly important social institution, public health researchers have even more responsibilities to the broader society that expects to benefit from their work.

Aim

In this seminar, the questions mentioned above will be addressed. Participants will 1. attain a clearer understanding of the values at stake; 2. receive an overview of existing standards; 3. reflect in a structured way on existing practices.

Results

A clearer understanding of what is necessary for a public health research environment that fosters integrity.

Outline of the seminar:

1. Introduction General Principles and its context (20 minutes)
2. Short discussion of the general principles (15 minutes)
3. Case analysis (40 minutes)
4. Results (15 minutes)

Aim

This skills building seminar is an inter-active session aimed at providing participants practical tools for reflecting on scientific integrity and the prevention of scientific misconduct in public health research.

Background

1. Introduction:

In the introduction to this skills building seminar, we will present general principles in order to give participants insight in the international discussions and guidelines concerning scientific integrity.

Guidelines for the responsible conduct of researchers generally comprise the following general principles: 1. Commitment to Society and Global Well-Being: Researchers protect the interests of society within a broader commitment to global well-being. They recognize that the public has entrusted them to uphold the integrity of the scientific record.; 2. Commitment to Competency: Researchers are aware that they are responsible for maintaining professional competency and remaining knowledgeable within their areas of expertise; 3. Understanding Laws, Regulations, Policies: Researchers are aware of and stay informed of professional, institutional, and governmental regulations and policies in proposing, conducting, and reporting research; 4. Conflicts of Interest: Researchers are cognizant that conflicts of interest occur in the context of professional activities and they recognize and avoid them.

1. Short discussion:

Participants will be given the opportunity to identify in what way their own research practices relate to the general principles

1. Case analysis

What does it mean to practice scientific integrity? Participants will be asked to provide relevant research cases in which scientific integrity might be compromised. (relevant cases will also be provided by the organizers of this seminar in case participants have no relevant experience) These cases will be analysed systematically, using a check list of morally relevant questions that has been developed and used by the ethicist/philospher Tom Regan.

1. Results

Based on the systematic case analysis, conclusions will be drawn: 1. what values are at stake when research integrity is compromised?; 2. what standards should be upheld?; 3. how to prevent scientific misconduct?

6.K. Round table: ECHO: Dealing with validity and reliability in a performance measurement project

Chair: Enrique Bernal-Delgado, Spain
Organiser: ECHO project consortium
Contact: ebernal.iacs@aragon.es

ECHO, European Collaborative for Healthcare Optimization, is a health services research initiative that aims at describing and analyzing variations in healthcare performance within and across countries.

Scientifically founded on the geographic variations in medical practice research, and the outcomes research literature, ECHO will assess the actual performance of seven European countries (Austria, Denmark, England, Portugal, Slovenia, Spain and Sweden) by using micro-data in available administrative datasets.

For that purpose several tasks must be carried out: a) the selection of a common set of indicators with sound construct validity, b) a face validity process meant to make the definitions homogeneous and acceptable across countries; c) an empirical validation process intended to obtain those indicators which are precise and discriminative enough; and d) to develop analytical tools that, using the previously validated indicators, signal those underperforming healthcare providers. The methods used in the empirical validation process, the challenges faced, and the current achievements, are precisely the topic of this workshop. Particularly, how ECHO is answering the questions that should be responded along the empirical validation of whichever performance indicator. When it comes to validity: Do they measure differences in providers (or differences in patients?) As for reliability: Are the differences across providers systematic (as opposed to random)? Are estimates precise enough and able to detect providers with a higher (lower) than expected number o cases?

Methodology

Contents will be posed on for discussion throughout four presentation (15 minutes average). A discussant person will provide critical feed-back to stimulate the debate at the end of the dissertations.

ACKNOWLEDGMENT: ECHO project is funded by the 7th Framework Programme of the European Union.

ECHO: The project

Enrique Bernal-Delgado

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An overview of the ECHO project will be presented, highlighting the basic architecture of the two methodological approaches to be used: the geographic aimed to detect uneven utilization; and, the hospital-specific intending to elicit uneven quality across hospitals.

Drawing out the variation attributable to healthcare provider

Karen Bloor

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The risk-adjustment procedures followed in the ECHO's hospital-specific approach will be debated. Once the risk-adjustment instrument available for administrative data are presented, several of the critical elements affecting risk-adjustment will be illustrated using micro-data from England and Spain; thus, the need of tailored tools, comorbidity and severity, the risk of over-adjustment, etc. will be discussed.

Is variation in performance systematic or random?

Terkel Christiansen

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This presentation will focus on how we will elicit random variation (from the systematic one) in the ECHO's geographic approach. Several techniques will be presented, with particular emphasis in some Bayesian techniques (Empirical Bayes statistic, Standardized Utilization Ratio, Besag-York-Mollié or Shared Component modelling). Using Danish and Spanish micro-data, we will discuss some of their properties, and particularly the added-value of each one.

How much of the totals individual variation is at the area level? A simple multilevel model for reassessing small area variation in aggregated databases

Juan Merlo

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Thought to debate around the use of multilevel techniques, this presentation will provide insight on how to draw out the existence of a cluster-effect, using Swedish and Spanish micro-data. An application on several performance indicators will determine whether this effect is large enough to allow for the detection of providers performing over (under) the expected. Funnel plots and shrunken residuals will be also discussed.

6.L. Workshop: Cultural Competences and Ethnic Minorities

Chairs: Vincent Lorant, Belgium and Walter DeVillé, The Netherlands
Organiser: EUPHA section on Migrant and Ethnic Minority Health
Contact: marie.dauvrin@uclouvain.be

Increasing diversity of populations in Europe is a challenge for health services and clinicians, in order to make health care accessible and equitable to all migrants and ethnic minority groups.

The workshop will address several issues that are relevant for improving equity of health care system, particularly towards migrants and ethnic minority groups: such as cultural competence, the role of legal framework and cultural factors. The workshop will draw experience from several european countries and will also rely on recent cross-comparative researches.

Chronic Care Management and Culturally Competent Interventions in Type 2 Diabetes Mellitus: Walking together or following two opposite directions?

Marie Dauvrin

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Background

Health services have to face with two main challenges: inclusion of the growing diversity of the population groups and the increasing number of patients with chronic diseases as Type 2 Diabetes Mellitus. Culturally competent interventions were designed to cope with intercultural diversity in healthcare while Chronic Care Model was developed to manage chronic diseases. However it is unknown whether these approaches converge when transposed in the delivery of care.

Objective

We aimed to assess whether culturally competent interventions targeting ethnic minority patients with Type 2 Diabetes Mellitus is consistent with the Chronic Care Model.

Method

We first developed a classification of culturally competent interventions. We reviewed the literature between 2005 and 2010. We classified interventions according to five culturally competent components as integration of cultural norms, language adaptations, ethnic concordance, linguistic concordance and training of the providers. We also identified the chronic care management adaptations in the studies: (a) community resources and policies, (b) healthcare organisation, (c) self-management support, (d) delivery system design, (e) decision support and (f) clinical information systems.

Results

Thirty-seven studies met our inclusion criteria. Most of interventions (n=21) integrated cultural norms of the patient. Provider of the intervention was linguistically concordant in 18 interventions and ethnically concordant in 16 interventions. Self-management (n=32) was the most frequent Chronic Care component developed in the culturally competent interventions while twenty interventions used community resources and policies. Among the 5 interventions modifying the delivery system design, only 3 integrated the cultural norms of the patients.

Discussion

We concluded that the nature of the needs of the patients had an influence on the CC components developed in the intervention. Self-management skills are considered as a crucial component in the treatment of T2DM. Supporting health professionals in the community-based approach may help introducing changes at organisational level.

Migrant status and access to health care services in Denmark

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Background

Denmark has a universal health care system granting access to health care services for all persons registered with the National Register of Persons. However, for migrants access to health care services depends on a persons' migrant status and under which conditions they enter the country as not all migrant groups are registered in official systems.

Aim

To investigate the legislative foundation for access to health care services in Denmark for different migrant groups: immigrants, asylum seekers, refugees, undocumented migrants and persons subjected to human being trafficking.

Methods

This article builds on a review of existing legislation and national level policies regulating access to health care services for different groups of immigrants in Denmark. Data has been collected as part of an EU-project on European Best Practices in Access, Quality and Appropriateness of Health Services for Immigrants in Europe (EUGATE).

Results

Access to health care services in Denmark is dependent on migrant status and regulated by different legislation and policy. Emergency care is available to all migrant groups though people not officially residing in the country may be subjected to payment. For regular immigrants and persons with refugee status access to health care is regulated by The Health Act, whereas access to non-acute health care for other migrant groups such as asylum seekers, undocumented migrants and persons subjected to human being trafficking is mainly regulated by The Alien Act and is far more restricted. Access to health care services is recognized as a basic human right for all human beings by international organisations such as the UN and the Council of Europe. Denmark has ratified several of the international conventions recognizing the right to health care. Therefore, it is highly problematic that the most vulnerable migrant groups also are the ones with the most restricted access to care.

Conclusions

Access to health care services in Denmark depends on a person's migrant status. Highlighting discrepancies between national legislation and international conventions in the delivery of health care services is an important step in working towards a health care system providing equitable care for all migrant groups.

Health status and primary care use by Roma community in Europe: results of a literature review

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Background

Equity in access to health care has been a major concern in many countries in the last decades, with respect to Roma's social welfare. The health status of Roma is often low compared to that of the majority population, and large discrepancies in health status can be observed. Although research exists on Roma, showing that Roma suffer from many diseases, little systematic research has been done to compare the health of Roma to that of the general population.

Methods

Published literature on health status, access to health services and socio-economic status (SES) was identified using PubMed (Medline), Science Direct and Web of Knowledge databases for the period 2000–2010. Papers targeting people younger than 18, asylum seekers and certain specific conditions (like mental health) were excluded, as these population groups require a different set of socio-economic variables for analyzing the reasons for failure to visit a GP, have different legal situation compared to the general population and present different patterns in using health services.

Results

16 studies out of 389 fulfilled our inclusion criteria. Results show that in general, Roma are more likely to experience acute, transmissible and chronic diseases than the general population. The reported health burdens were pain, depression, hypertension, HIV, TB and chronic obstructive pulmonary diseases. Roma are less educated, have lower salaries, lower employment status than non-Roma and are more often uninsured. Access to health care has not received much attention so far in the existing literature. Available research shows that around 48% of Roma are registered with a GP compared to 98% of non-Roma. Utilization of health care services is influenced by high costs of medical services, lack of education and ownership of a Green card or social security card.

Conclusions

It is clear that the gap between Roma and non-Roma still exists. Further research on utilization of health care services is encouraged to contribute to a better understanding of the process through which medical care is distributed and to the development of innovative policies to combat the mechanisms sustaining health inequalities.

Getting Access to Culture in Health

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Issue

Studies have shown that ethnic minorities have a worse health profile compared to the majority of the population. This deteriorating health profile is often strengthened by a different cultural and social understanding of disease patterns and symptoms. "Getting access" to understanding culture and individual perceptions of health among ethnic minorities is crucial for healthcare professionals, when trying to provide health services.

Description

In a combined effort between five Danish municipalities in Central Region Denmark this project provides and documents the effects of using a narrative interview approach to meetings between health practitioners and ethnic minority patients. The aim is to increase the knowledge about cultural, social and psychological predictors, when dealing with health problems among ethnic minorities.

Method

Developing a narrative or "lifestory" interview and using it in a clarifying patient conversation is crucial in the intervention. The narrative interview consists of five questions framing the patients lifestory in future, present and past. By using questions situated in an explicit "lifestory timeframe", patients interconnect concepts from wishes for the future concerning health with their present day life situation and experiences from the past, bringing hidden cultural values & norms out in the open for healthcare professionals to dive into.

Narratives are being analyzed using an anthropological approach focusing on identifying individual and social concepts.

Results

Our research shows that using narratives as an interview method framed around time gives a unique access to individual and social cultural perceptions pertaining to health. Our research has shown, that using narratives in healthcare:

- Helps to incorporate individual concerns when providing healthcare
- Gives access to a broader perspective on the position of cultureProvides a new methodological approach to healthcare services

Conclusion

By incorporating patient narratives in healthcare services we are taking a profound step away from cultural preconceptions between patient and healthcare professionals. More attention in the future should be focused on the necessity of understanding culture when providing healthcare.

6.M. Use of psychotropic substance

Social relations, social cohesion and alcohol consumption: Results from a multi-level analysis of the Swiss Health Survey 2007

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Background

Health consequences and socio-economic costs related to alcohol consumption pose a major public health problem all over the world. The aim of this study is to investigate associations between individual- and macro-level variables on social relations and social cohesion with alcohol consumption.

Methods

Cross-sectional data of 8424 (44.9%) men and 10336 (55.1%) women (mean age 49.6 ± 18.5 years) participating in the Swiss Health Survey 2007 are analyzed. Alcohol consumption in grams per day was predicted with individual-level variables on social relations (socio-demographic characteristics, perceived social support, social network contacts) and macro-level variables on social cohesion (Gini-Coefficients, crime rates of the Swiss counties) using negative binomial regression models with county as Panel variable.

Results

Being part of a minority (having migration background, not living in the German part of Switzerland) is significantly associated with lower alcohol consumption. High perceived social support, frequent visits of friends and weekly participation in clubs significantly enhance alcohol consumption. In contrast, frequent contacts to family members decrease consumption. Results indicate an association between crime rates and increased alcohol consumption and a trend towards decreased consumption in counties with higher Gini-Coefficients.

Conclusion

The sociable nature of alcohol consumption may plays an important role in enhanced drinking in persons closer to the hegemonial culture, those being socially supported and having close network contacts outside the family. Future public health interventions aiming at the reduction of alcohol consumption should take into account the important role of social networks and peer influences that encourage drinking across almost all age groups. Policy interventions, e.g. aiming at the reduction of crime rates, may be also suited to address the problem of high alcohol consumption.

Changes in Alcohol Drinking Patterns and their Consequences among Norwegian doctors 2000–2010. A Longitudinal Study based on National Samples

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Background

Doctors' drinking pattern is an important public health issue, because of their health, the potential adverse effects on their clinical praxis and their function as role models in the population with regards to lifestyle. The aim of the study is to describe the changes in patterns and consequences of alcohol use among Norwegian doctors over the past decade.

Methods

Data were collected by postal surveys in 2000 and 2010, from a nation-wide sample of approximately 1,600 doctors in Norway. The Alcohol Use Disorders Identification Test (AUDIT) was used to measure the changes in drinking patterns (Question 1 frequency of drinking, Q2 frequency of heavy drinking, Q3 quantity of drinking), symptoms of alcohol dependence (Q4–6) and adverse consequences of drinking (Q7–10). A cut-off value of > 8 indicated hazardous drinking. The analysis included GLM, paired-samples T-test and 95% CI for proportions.

Results

From 2000 to 2010, doctors reported significantly more frequent alcohol use (≥ 2 a week, 31% vs. 49%) accompanied by unchanged typical quantity of drinking (1–2 drinks, 60% vs.

59%; 3–4 drinks, 32% vs. 31%) and significantly less frequent heavy drinking (never, 32% vs. 42%; ≥ 1 a week, 7% vs. 3%). The proportions of abstainers were stable (5% vs. 5%). There were significant differences between 2000 and 2010 in the scores for frequency of drinking ($t = -11.3$; $p < .001$), frequency of heavy drinking ($t = 7.9$; $p < .0001$, and adverse consequences of drinking ($t = 3.6$; $p < .001$). The proportion of hazardous drinking decreased from 11% in 2000 to 8% in 2010.

Conclusions

The drinking patterns of Norwegian doctors have changed positively in the past decade. Doctors showed tendencies to more moderate alcohol consumption and less alcohol-related consequences. Changes in professional life and in the attitude towards alcohol consumption may go some way towards explaining these findings. The results are useful for policy professionals in the public health sector.

International comparison on the consumption of psychoactive substances and driving habits of young people participating in TEN D by Night project

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Background

Inexperience in driving, alcohol and illegal drugs consumption are the main risk factors of traffic crashes, the first cause of death in young people. Previous studies have carried out the comparison of data, whose collection is not standardized. TEN-D by Night is an international multicentric cross-sectional survey, conducted on a large sample of young people in six European countries, to evaluate the relationship between driving performance and psychoactive substances assumption in young drivers enrolled at typical places of consumption. Aim of present paper is to identify differences, related to specific socio-cultural factors and national laws, in alcohol and illegal drugs consumption.

Methods

TEN-D survey collected data during weekend nights on 4134 subjects aged 16–35 years of six European countries: Belgium/Netherlands, Bulgaria, Italy, Poland, Spain. Each participant was subjected to a questionnaire, a driving simulator test and two test to detect psychoactive substances assumption. A multivariate analysis was performed using STATA 10.1. Primary outcomes were the alcohol and illegal drugs consumption and the prevalence of negative behaviors to drive. The analysis' results have been studied in light of the alcohol policies of the country of origin.

Results

Alcohol consumption is more widespread in Spain (OR 10.67; $p < .05$) and Poland (OR 3.80; $p < .05$). The consumption of illegal drugs is more frequent in Spain (OR 2.60; $p < .05$), Poland (OR 3.02; $p < .05$) but especially in Belgium/Netherlands (OR 6.58; $p < .05$). Negative behaviors, instead, are most common in Spain (OR 1.57; $p < .05$) and Belgium/Netherlands (OR 1.68; $p < .05$) but are uncommon in Poland (OR 0.23; $p < .05$). All countries involved in TEN D project have 0.5 g/L as the limit value of blood alcohol concentration for drivers, with the exception of Poland, which has a lower limit (0.2 g/L).

Conclusions

There are significant differences between countries in alcohol and illegal drugs consumption. If, on one hand, it is possible to envisage a different awareness of young people of different nationalities in not driving under the influence, on the other hand, a stricter legislation (Poland) seems to be associated with a lower rate of wrong behaviors. The effects of legislation policies will be discussed.

Psychotropic drugs and accidents in the whole population of Scania, Sweden

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Background

Injuries are second to cardiovascular diseases the main cause of hospital care in Sweden. The aim of the present study was to investigate the associations between medication with psychotropic drugs and injuries from two types of accidents, i.e., falling accidents and transportation accidents, respectively, in the whole population aged 18 years and older in the county of Scania, Sweden.

Methods

Injuries from falling accidents and transportation accidents during 2007 were identified from the Region Healthcare database. Exposure to psychotropic medication expressed as defined daily doses (DDDs) during the 18 months before baseline, i.e., 1 January 2007, was identified from the Swedish Medication Register. The results were stratified by sex and three age groups, i.e. 18–34 years, 35–64 years and 65 years or more. The logistic regression models were adjusted for marital status, country of origin, income, previous disease and previous accidents.

Results

Using psychotropic drugs was associated with increased odds for a falling accident in all age groups, however, with a dose-response relationship only among the elderly. Furthermore, using psychotropic drugs was associated with increased odds of transportation accidents in the ages 18–34 years and 35–64 years, respectively, but with a weaker association among the elderly. A similar pattern of association was seen for specific groups of psychotropic drugs: opioids, antidepressants and anxiolytics/hypnotics/sedatives.

Conclusions

In this total population-based study, there were consistent associations between use of psychotropic drugs and injuries from falling accidents and transportation accidents, even after adjustment for previous accidents, previous disease and sociodemographic variables

Work-family conflict and psychotropic medication: a longitudinal register based study

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Background

The conflicts between work and family factors contribute to health. However, we lack longitudinal studies on the impact of work-family conflict on objectively measured mental disorders. The aim was to examine whether work-family conflicts affect psychotropic medication use over a five year follow up after considering several covariates.

Methods

Data were derived from the Helsinki Health Study baseline surveys in 2001–2002 with consent to register linkages ($N = 3467$ women and 918 men, response rate 66%, consent received from 74%). Follow-up data were derived from the Social Insurance Institution's register of prescribed psychotropic medication. All psychotropic medication (ATC-codes ATC-codes N05 and N06 except N06D) three years prior to the baseline survey and five year follow-up after baseline were included. Covariates included age, marital status, socioeconomic position, health behaviour and BMI at baseline and psychotropic medication before the baseline. Hazard Ratios (HR) and their 95% confidence intervals (CI) were calculated using Cox regression analysis.)

Results

Frequent conflicts between work and family were reported by 26% of women and 24% of men at baseline. These conflicts were associated with subsequent psychotropic medication after adjusting for age among women (HR = 2.12, 95% CI 1.67–2.70) and men (HR = 1.97, 95% CI 1.14–3.37). Adjusting for prior psychotropic medication attenuated the association, for women (HR = 1.57, 95% CI 1.23–1.99) and men (HR = 1.42, 95% CI 0.82–2.45). Adjusting for the further covariates had negligible effect on the association.

Conclusion

Better balance between work and home would improve employee mental health. More flexible working hours may reduce work-family conflict.

Use of psychiatrist and psychologist in relation to mental health status for immigrants, their descendents and ethnic Danes

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Background

The stressful process of migration has been associated with a higher vulnerability for mental health problems in immigrants implying a higher need for mental health services among immigrants compared to the native-born population. Our objective was to investigate whether differences in use of private practicing psychiatrist and psychologist in immigrants, their descendents, and ethnic Danes could be explained by mental health status.

Methods

We conducted a nationwide survey in 2007 with 4,952 individuals aged 18–66 comprising ethnic Danes; immigrants from the former Yugoslavia, Iran, Iraq, Lebanon, Pakistan, Somalia, Turkey; and Turkish and Pakistani descendents. Sruvey data were linked to registries on healthcare utilization. Using Poisson regression models, contacts to private practicing psychiatrist and psychologist were estimated. Analyses were adjusted for mental health symptoms, mental health disorders, sociodemographic factors and acculturation measured as length of stay and language proficiency.

Results

In preliminary adjusted analyses, compared to ethnic Danes, immigrants had increased use of private practicing psychiatrist and decreased use of psychologist; utilization varied, however, by immigrant group. For both psychatist and psychologst, mental health symptoms and mental health disorders had positive explanatory effects within groups. Socioeconomic position and acculturation had no systematic effect on the mental healthcare use in the different groups.

Conclusion

The Danish mental healthcare system seems responsive to health needs across different population groups. We found no systematic pattern of inequity in use of private practicing psychiatrist (free-of-charge), but for psychologist (requiring co-payment), we found inequity among immigrants compared to ethnic Danes.

6.N. Genomics matter!

Genetic and environmental influences on sickness absence: findings from a Swedish twin cohort

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Background

Previous studies about risk factors for being sickness absent focus primarily on environmental exposures and less is known about biological influences. The present study aimed to investigate the relative importance of genetic influences on the risk for being sickness absent among women and men in a population-based Swedish twin cohort.

Methods

The study included 12,129 twin pairs between ages 41–65 years (3247 monozygotic (MZ), 4421 dizygotic (DZ), and 4461 opposite sexed DZ pairs) who were interviewed individually through a survey conducted at the Swedish Twin Registry. All twins were contacted once during the time period 1998–2002. Sickness-absence data, i.e. having a sick-leave spell > 14 days or not, at the exact same time as the survey was conducted, were obtained from the Swedish National Social Insurance Agency. Heritability estimates (the proportion with 95% Confidence Intervals (CI) of the total variance attributable to genetic differences between individuals) was assessed using structural equation models, and sex differences were tested.

Results

More women (8.0%) than men (4.5%) were sickness absent. Individual differences in sickness absence primarily reflected individual specific environmental influences, 65% (95% CI 55–74%), while the heritability was 35% (26–45%). No sex differences were found in variance components.

Conclusions

Both genetic and environmental factors explain individual differences for being sickness absent. Genetic factors may reflect genetic susceptibility to the disease or functional inability that lead to sickness absence. A large proportion of the variance in sickness absence was due to environmental factors, indicating that it is of great importance to continue to identify and address specific environmental stressors when planning intervention strategies for people at risk for sick leave.

Is telomere length a biomarker of aging?

Geoff Der

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Is telomere length a biomarker of aging?

Background

At a population level increasing age is associated with increases in morbidity and decline of functional capacity in a number of seemingly unrelated areas. There is also a great deal of variability between individuals of the same chronological age, suggesting that chronological age is an imprecise indicator of functional or biological age. This has prompted the search for more informative 'biomarkers of ageing' (BoA). After more than two decades of research, little progress has been made in identifying any suitable candidates. One that has attracted attention recently is telomere length. Telomeres are caps on the ends of chromosomes that prevent them from damage during cell division and, in doing so, are themselves progressively shortened. When the telomere is exhausted, cell death is triggered. Thus telomere length is a clear BoA at the cellular level.

The aim of this study is to consider whether telomere also fulfils the criteria more generally. We examine the relationship of telomere length to age; to several measures of physical and cognitive functioning each of which declines with age throughout adulthood; and to three measures of health.

Methods

Participants were those who attended wave 5 of the West of Scotland Twenty-07 study and comprised three cohorts aged around 37 57 and 76 at that wave. Telomere length was measured by Q-PCR relative to a single copy gene (36B4). Measures of physical and cognitive functioning included: Lung function (FEV1), pulse pressure, grip strength, choice reaction time and part I of the Alice Heim 4 test. Health measures included: self-rated health, registered disability and number of current medications.

Results

Telomere length was significantly related to age, sex, and all measures of functioning and health and the effects were all in the expected direction. In models predicting functioning and health telomere length added explanatory power over and above that of chronological age.

Conclusions

Telomere length has good biological credentials as a Biomarker of Aging and performs well against accepted criteria. It merits further consideration.

A meta- and pooled analysis of the literature on the association between factor V Leiden, prothrombin G20210A and methylentetrahydrofolate reductase C677T variants, their interaction with lifestyle factors, and risk of venous trhomboembolism

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Background

Three of the five most prescribed genetic tests in Italy are for the thrombophilic polymorphic variants G1691A factor V Leiden (FVL), G20210A prothrombin (PTM) and C677T methylentetrahydrofolate reductase (MTHFR). We evaluated the current evidence on the association between the presence of each of these three variants and the risk of first occurrence of thromboembolic events (VTEs) in adults, their combination and interaction with lifestyle factors.

Methods

We performed a meta- and pooled analysis of case-control and cohort studies investigating the association between each variant and the occurrence of VTE, published on Pubmed, Embase or Google through June 2009. Authors of the eligible papers were contacted and invited to provide all the available individual data for the pooling, including information on demographic and lifestyle factors. Odds Ratios (ORs) of developing a VTE in the presence of each polymorphic variant, individually and combined with the others, were calculated. A random effect model was used. All statistical analyses were performed using STATA 11.0.

Results

37 databases were deemed eligible, corresponding to 10,546 VTE cases and 21,649 controls overall. ORs were calculated after adjusting by age, gender and the three polymorphic variants considered. No significant association was found for MTHFR, whereas FVL and PTM were associated with a higher occurrence of VTE (OR = 3.51; IC95%: 2.53–4.87; OR = 2.47; IC95%: 1.86–3.29, respectively). The stratified analyses showed a stronger effect of FVL and PTM on individuals $\geq$ 45 years (OR = 4.26; IC95%: 2.67–6.81; OR = 2.65; IC95%: 1.84–3.83). Women carriers of the PTM variant are twice as likely than non-carriers to develop a VTE if they do not assume oral contraceptives, and four times as likely if they do (OR = 3.96; IC 95%: 2.43–6.45).

Conclusions

Testing for FVL and PTM can be useful in identifying individuals at higher risk of VTE, especially in the presence of other risk factors. MTHFR does not appear a risk factor for VTE. It is necessary to implement health technology assessments of genetic tests for an appropriate and cost-effective translation of genetics and genomics applications in public health.

A new biological agent for the treatment of Rheumatoid Arthritis: a Health Technology Assessment evaluation.

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Background

Rheumatoid Arthritis (RA) is a chronic inflammatory disease with a high social impact. The current first-line treatment are non-biologic disease-modifying anti-rheumatic drugs (nbDMARDs), the alternative for non responders are biologic agents combined with nbDMARDs.

We used the Health Technology Assessment (HTA) methodology in order to find the potential benefits of the utilization of tocilizumab, a new humanised monoclonal antibody against IL-6 receptor, and its impact on social and economic Italian context.

Methods

HTA is a multidisciplinary approach used to analyze clinical, social, organizational, economic, ethical and legal aspects of a technology, through a multidimensional evaluation. We applied it to tocilizumab, carrying out literature reviews about burden of disease, clinical manifestations and management of RA in the Italian setting.

A mathematical modelization finally allowed to consider the economic and budget impact analysis from the National Health Service viewpoint.

Results

RA affects mostly women in their fifth decade, with 80% developing disability and an estimated reduction of 3–18 years in survival. Non responders are commonly treated with a standard of care sequence of several biologics. Tocilizumab, in combination with a nbDMARD, dominates on all other available biologics when used as the first choice in the standard of care sequence, independently from the biologic replaced. This would lead to a saving of 3.1% and an increase of 4.3% of the total of patients kept in active treatment per unit of cost in the five years horizon. From the organizational point of view, it is fundamental an early diagnosis with a timely and multidisciplinary therapeutical intervention, besides an assistance directed to the single patient in an integrated therapeutic pathway. Useful would also be the promotion of consultation processes, in order to share and homogenize the formularies update.

Conclusions

This HTA may support decision-makers in the informed evaluation of impacts deriving from the employment of new drugs, such as tocilizumab, for the treatment of RA, a chronic illness often cast aside by Public Health perspective, but with a high considerable social impact for an age and gender group still contributory and active.

Health Technology Assessment of genetic testing for susceptibility to Venous Thromboembolism in Italy

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Background

Venous Thromboembolism (VTE) is one of the leading causes of mortality and morbidity in the developed world. Factor II (PTM) G20210A, factor V Leiden (FVL) G1691A and Methylenetetrahydrofolate reductase (MTHFR) C677T polymorphisms are the most common inherited risk factors for VTE. Oral contraceptives (OC) users among carriers of these polymorphic variants show a particularly increased risk of VTE. The aim of the study was to realize a Health Technology Assessment (HTA) report on genetic testing for susceptibility to VTE.

Methods

To evaluate all the implications regarding the use of genetic susceptibility tests for VTE, the ACCE model was used, which considers four main dimensions of evaluation: Analytic validity (A), Clinical validity (C), Clinical utility (C) and Ethical (E), legal and social implications. A survey to describe the Italian scenario of genetic testing provision strategies was performed using a questionnaire ad hoc. Clinical validity of tests was assessed through meta-pooled analysis of the literature. A meta-analysis was carried out to evaluate the risk of VTE among OC users, in order to assess clinical utility. Additionally, for the economic evaluation, a cost-effectiveness analysis was performed. An expert opinion was sought for a comprehensive ethical evaluation.

Results

In Italy the screening for PTM, FVL and MTHFR polymorphisms accounts for around 25% of all genetic tests performed in adults, with a growing trend in recent years. Results of the meta- pooled analysis showed a significantly increased risk of VTE for the carriers of FVL and PTM polymorphism. Odds Ratios (OR) and 95%Confidence Intervals were as follows: $OR = 3.51$ (2.53–4.87) for FVL and $OR = 2.47$ (1.86–3.29) for PTM. Among women with one of the thrombogenic mutations, those using OCs had a significantly higher risk of developing VTE. Currently, performing these genetic tests does not seem to be cost-effective in Italy. Minor ethical issues were raised regarding the prescription of these tests.

Conclusions

The evaluation of genetic testing for VTE suffer from a lack of evidence. Given this limitation, a comprehensive approach like HTA is important to address the decision making process and to make possible to translate the human genome discoveries into public health practice.

The Italian Prevention Plan for Public Health Genomics

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Issue

The Italian Prevention Plan (IPP) is developed every two years by a concerted action of Minister of Health and Regions and represents a key document that defines the preventive actions within the public health care system in Italy. In view of the raising concern on the potential for use of predictive genomic tests for common complex diseases, the Minister asked the Italian Network of Public Health Genomics (SPHINGE) to implement for the first time a dedicated section on public health genomics inside the IPP of 2010–2012.

Methods

The Genetic Epidemiology and Public Health Genomics Unit of the Institute of Hygiene, on behalf of the SPHINGE, elaborated a document after two-focus group meetings. Three macro-areas were identified where recommendations need to be developed: health technology assessment (HTA) of predictive genomic tests, capacity building, and communication plans.

Results

Eight sections were identified: 'Background introduction on the concept of Public Health Genomics', 'Reliable sources on the currently available evidences on the utility of predictive genomic tests', 'Review of the HTA framework currently adopted for evaluating genomic applications', 'Direct-to-consumer tests', 'Current applications of predictive genomic tests in the public health system in Italy', 'Capacity building', 'Best practice protocols', and 'Communication plan for medical doctors and citizens'. The current scenario was reported for each item, and recommendations were developed in view of the best available evidences.

Lessons

The potential of genomics to improve human health has been overstated in the past, and this hype has contributed to a lack of clarity about what public health genomics is capable of delivering in the future. The most effective agenda for public health in an age of personalised medicine involves multiple strategies and 'actors'. Among them, a sustained drive to collect relevant evidence about the scientific and clinical validity and utility of genomics approaches, so that effective comparisons can be made with other public health interventions, and to make this available to citizen, patient and physician alike. Public health practice must engage with this new scientific agenda and give it some priority over the coming years.

PARALLEL SESSION 7: MODERATED POSTER PRESENTATIONS

Saturday, 12 November, 10:15–11:15

7.A. Welfare and Health

Welfare state typologies, occupational social class, and mental health inequalities: evidence from the 2002 World Health Survey

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Background

Political determinants of welfare states and their associated social policies have begun to examine population levels of mental health. Initial studies show significant associations between welfare state types, policy indicators, and mental health. More work is needed to better understand the causal pathways leading to individual mental health. To this end, this study examines the role of welfare state regimes as determinants of population mental health among wealthy countries, and the moderating effect of occupational social class on mental health inequalities.

Methods

A total of 15,753 individuals (n = 6,700 female, n = 9,053 male) from 18 OECD countries were analyzed using the 2002 World Health Survey. The dependent variable was ‘feeling of sadness, emptiness or depression.’ Explanatory variables were welfare state typology (Esping-Andersen’s Social Democratic, Christian Democratic, and Liberal) and occupational social class (employment relation: employer/self-employed/private, public, unemployed/homemakers). Interactive models were fitted using multivariate logistic regression while adjusting for age, gender and marital status.

Results

Employers, self-employed, and private employees were most protected against poor mental health in Social Democratic countries [odds ratio (OR) = 0.55; 95% confidence interval (CI) 0.45–0.66] and Christian Democracies (OR = 0.61, 95% CI 0.51–0.72) compared to unemployed employees and homemakers in Christian Democracies (reference category). Mental health advantages were also observed among public employees in Social Democratic countries (OR = 0.58, 95% CI 0.47–0.73). Liberal Democratic employers, self-employed, and private employees (OR = 0.65, 95% CI 0.55–0.77) were slightly disadvantaged compared to public employees (OR = 0.62, 95% CI 0.50–0.77), revealing a non-gradient relation.

Conclusions

Given that mental health inequalities based on occupational schemes are lower in Social Democracies compared to Christian and Liberal countries, labour market policies appear to be salient predictors of individual worker health. The non-graded finding in Liberal Democracies underscores the value of future research to consider the interactive effect of welfare regimes and social class on population mental health.

Welfare to work interventions and their effects on health and well-being of lone parents and their children

Marcia Gibson

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Background

Lone parents and their children experience disproportionate levels of poor physical and mental health. Lone parents’ eligibility for welfare benefits has recently been curtailed in many OECD countries, and it has been hypothesised that employment may improve the health of lone parents and their children. We conducted a systematic review of randomised controlled trials (RCT) which had assessed the parental and child health impacts of welfare to work (W2W) interventions aimed at lone parents.

Methods

We searched 17 bibliographic databases, handsearched bibliographies of included publications, and contacted experts to identify relevant studies. Study quality, including allocation sequence and concealment, blinding, contamination and selection bias, was independently assessed by two reviewers. All health and employment outcome data were extracted and synthesised narratively, prioritising the better quality studies.

Results

We identified 11 RCTs which had assessed health outcomes of lone parents’ W2W interventions; all identified studies were from North America. All studies were at high risk of bias, in particular due to contamination of the comparison group. The interventions varied widely with respect to general approach, ethos and key components. This required the development of a detailed typology of W2W interventions, to facilitate an appropriate synthesis by intervention type. Preliminary analysis indicated that health impacts were minimal for lone parents. Few statistically significant parental health impacts were reported in any of the included studies. Impacts on child health varied across the different W2W interventions. Levels of employment increased in many interventions, but despite the explicit intention of some interventions to combat poverty, there were few significant effects on income.

Conclusions

Due to the high risk of bias, conclusions based on these studies are tentative. Welfare to work interventions appeared to have little impact on the health of lone parents, although effects on their children were more marked. Further analysis of impacts by intervention type and participant characteristics will shed more light on impacts and underlying mechanisms, and inform the development of lone parents’ welfare to work policies in many contexts.

Equality in health - a road to better health and decreased costs?

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Background

Self-rated health is among the most frequently assessed health perceptions in epidemiological research. Previous studies have found strong independent associations between socioeconomic conditions, such as unemployment and economic hardship, and poor self-rated health. The aim of this study was to estimate changes in health care costs as a consequence of changes in risk factors levels and the prevalence of poor self-rated health in the general population.

Methods

The area investigated covers 55 municipalities with about one million inhabitants in central part of Sweden. Questionnaire about health, lifestyle, living conditions and health service use was sent to a random sample of 68 710 persons in 2008. The overall response rate was 59%. This study is based on 34 425 respondents aged 18–75 years. Unemployment, economic hardship, experiences of being belittled, burdensome household work and physical inactivity were found to be strong independent risk factors for poor self-rated health in this population. Relative risks for poor self-rated health were derived for these risk factors. Using potential impact fractions, different prognoses for health development were calculated based on possible changes in risk factor levels. Health care use for respondents with poor vs good or neither good nor poor self-rated health was analysed and compared. Changes in health care consumption and health care costs were estimated depending of the health status change in the population.

Results

Good self-rated health was reported by 73% of women and 76% of men whereas the overall prevalence of poor self-rated health was 7%. Subjects with poor self-rated health consumed primary and hospital health care 2–3 times more often than persons with good or neither good nor poor self-rated health. A decrease or an increase in the risk factor occurrence will probably lead to a reduced or increased prevalence of poor self-rated health and as a consequence to a reduction or increase in health care consumption. The health care costs were estimated for the different alternative prognoses.

Conclusion

Changes in the prevalence of risk factors for poor self-rated health, including unemployment and economic hardship, can result in apparent economic consequences for the health care system.

General health and stress - is there an effect of the economic crisis in Denmark?

Lene Hammer-Helmich

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Background

Prior research has consistently demonstrated that economic crises are negatively associated with population mental health, distress and suicides. The current financial crisis with its long duration and high rates of unemployment has therefore caused international concern about the worldwide public health impacts.

The aim of this study is to assess changes in general health and level of stress in a Danish general population in the period of 2007 to 2010, before versus during the crisis, and to discuss whether these changes could be consequences of the economic crisis.

Methods

Two cross sectional population-based surveys of inhabitants aged 25–79 were conducted in The Capital Region of Denmark in 2007 (N = 69.800, response rate 52.3%) and 2010 (N = 77.517, response rate 54,8 %). All participants completed the questionnaire ‘‘How are you?’’ with identical questions in 2007 and 2010. Information on self rated health, physical and mental health (SF12) and perceived stress was collected from a self-reported questionnaire ("How are you?") with identical questions in 2007 and 2010. Furthermore information on socioeconomic characteristics was obtained from central registers. Data were weighted for non-response and analysed by multiple regression analyses adjusted for age, sex and chronic disease.

Results

In both surveys, a significant association was found between unemployment and poor self rated health, physical health, mental health and high levels of perceived stress ($p < 0.01$). During the period there was an increase in the rates of poor self rated health, poor mental health and high level of perceived stress, whereas no changes were found in respect of physical health. Adjusted OR for unemployed versus employed persons increased in the period from 5.8 (95% CI = 5.2–6.5) to 7.7 (95% CI = 6.8–8.7) for poor self rated health, from 2.8 (95% CI = 2.5–3.3) to 3.5 (95% CI = 3.1–4.1) for poor mental health and from 3.2 (95% CI = 2.9–3.6) to 5.0 (95% CI = 4.5–5.6) for high level of perceived stress.

Conclusions

The rates of self rated health, mental health and perceived stress have increased, and especially among the unemployed. This study suggests that the consequences of unemployment have been worsened by the crisis causing an increase of the social inequality in health.

Mortality differentials in disadvantaged areas of Greater Stockholm Area

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There are substantial socioeconomic differences in health in Sweden. People living in socially and economically disadvantaged areas in cities experience worse health than people living in wealthier areas. At the end of the 1990s 24 socially and economically disadvantaged neighborhoods were identified in Sweden, of which 16 were found in Stockholm county.

This study analyses different indicators of mortality among people living in disadvantaged areas compared to people in other areas of metropolitan Stockholm, using individual demographic and socio-economic information from population register data linked to specific cause of death for all county residents for the period 1995–2007. The county population was aggregated into two groups, the cluster of 16 disadvantaged areas in Stockholm, representing a population of 150 000 persons (about 8 percent of the Stockholm county population) and the rest of the county.

Life expectancy, age-standardised mortality rates and avoidable mortality (divided in health-policy indicators and health services indicators). Specific diagnoses for avoidable mortality were also included (such as cirrhosis of the liver, malignant neoplasm of the esophagus, malignant neoplasm lung, and motor vehicle accidents). The reference population was all county residents for the period 1995–2007.

Preliminary results indicate that men in disadvantaged areas had 1.33 times and women 1.17 times higher standardised mortality rates compared to the rest of the county. Life expectancy was 3 years shorter among men living in disadvantaged areas, and 2.1 years shorter among women. Health-policy avoidable mortality was 143 per 100 000 persons among men aged 1–74 years in disadvantaged areas and 39 per 100 000 for men in the whole county. The corresponding rates among women were 75 and 28 per 100 000 persons.

Conclusions

The results of the study indicate the importance of enhancing preventive health-policy measures among people living in socially- and economically disadvantaged neighborhoods of metropolitan Stockholm.

7.B. Northern European Health issues

Dynamics of cross-national poverty and mortality rates

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Background

Poverty has for centuries been seen as a crucial social determinant of health. Consequently, the fight against poverty has historically been at the forefront of public health and social policy. The relation between poverty and mortality is also at the centre of one of the most debated topic within the fields of public health research during the last decades, namely the health impact of income inequality. In this study we investigate if we can find evidence that cross-national variation in poverty rates is related to cross-national variations in survival possibilities within relatively rich countries.

Methods

Countries (25) and time points (two to six waves, from 1980 to 2005) and poverty rates were calculated from the Luxembourg Income Study; using household equivalent disposable income below 60 % of the median as the poverty threshold. Age-standardized mortality rates (SMR) were calculated from the Human Mortality Database. Two age groups were analyzed separately: children (0–17-year-olds), working age adults (25–64-year-olds). In total, the country and wave combination produced 116 data points. Data on control and mediating variables were gathered from various international databases. Pooled cross-sectional time-series regression methods were used.

Preliminary results

Adjusted for wave and Gross Domestic Product (GDP) per capita, higher poverty rates among children were associated with higher mortality rates (one point-increase in poverty rate was associated with an increase of 0.02 points in SMR per 1000 (95% CI = 0.01–0.03). The same pattern was found among adult women (B = 0.03; 95% CI = 0.01–0.04) and men, although not statistically significant among adult men (B = 0.08, 95% CI = -0.02–0.18). Adding social expenditure, as a measure of welfare state ambition, leads to non-significant estimates. Social expenditure was consistently associated with lower mortality rates.

Conclusions

Our preliminary results indicate that poverty remains of great importance to cross-national variations in mortality also in modern Europe. Moreover, our analysis of the influence of social expenditure suggests that the relation between poverty and mortality is possible to influence by social policy programmes.

Genetic and environmental factors affecting sense of coherence in Finland

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Background

Sense of coherence (SOC) is a life orientation scale originally developed by Aaron Antonovsky including three dimensions: comprehensibility, manageability and meaningfulness. It is still unknown how much genetic and environmental factors explain about the variation in SOC.

Methods

We measured SOC in 1285 twin individuals (54% females) including 578 complete twin pairs using an abbreviated 13-item questionnaire. The data were analyzed by quantitative genetic modeling for twin data.

Results

Additive genetic factors explained a major part of the variation in SOC in women (53% 95% CI 51–63%) whereas this proportion was somewhat lower in men (30% 95% CI 14–44%). For the dimensions of SOC, the heritability estimates varied between 24–33% in men and 36–44% in women. The residual variation in SOC was explained by environmental factors unique to each twin individual and we did not find evidence that environmental factors shared by co-twins affect SOC. The three dimensions of SOC showed from moderate to high correlations (r = 0.51–0.67 in men and 0.53–0.70 in women). These trait correlations were because of correlations of additive genetic (rA = 0.55–0.97) and unshared environmental factors (rE = 0.21–0.64).

Conclusions

We found that most of the interindividual differences in SOC was explained by genetic differences whereas environmental factors shared by co-twins, such as those experienced in childhood family, did not directly contribute to these differences. Further studies are required to analyze how much of the genetic variation is because of interactions between genetic and environmental effects and how much is shared with genetic influences on personality traits.

Perceived health and aspects of mental wellbeing among residents living near waste treatment centres in Finland, 2006

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Background

The effect of waste treatment odours on residents' wellbeing is scarcely investigated regardless of annoyance and concerns raised among residents living near large-scale waste treatment centres. In our epidemiological study, the associations between waste treatment centres and residents' perceived health and mental wellbeing were studied.

Methods

For the cross-sectional study, we first selected five Finnish waste treatment centres with composting plants. A telephone survey was conducted to 1142 randomly sampled residents living within 5 km from these centres. A questionnaire with 102 items asked about respondents' personal characteristics, odour perception and annoyance, perceived health and mental wellbeing during the preceding 12 months. The results were analysed by the vicinity of waste centre, by odour perception and by odour annoyance.

Results

The preliminary results show that the vicinity of waste centre, odour perception and odour annoyance showed no associations with perceived health and life satisfaction and weak associations with symptoms related to depression. However, both the vicinity and odour were associated with dissatisfaction to residential area and environmental worry. Moreover, a considerably high portion of respondents were of the opinion that waste centre has adverse effect on one's own health or the health of family members.

Conclusions

Although no effect on perceived health and life satisfaction was shown, the nearby waste treatment centre increased the residents' worry about their health, residential area and environment in general. This emphasizes the importance of community planning and developing more odourless waste treatment processes.

Household and individual economic position and ill health - a study on direction of causation using prospective register data on a Finnish population sample

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Background

Our objective was to test competing hypotheses about the relationship between economic position and ill health, and to examine whether household economic resources and individual labour market advantage predict future health or health predicts future economic position. Albeit there has been plenty of discussion on income and health, direct comparisons between contrasting hypotheses on direction of causation have been rare. It is also worth to note that the relevant theoretical questions concern the economic position of individuals and households in general, rather than income alone.

Methods: we analysed register data collected by the Finnish authorities. Health problems were measured by sickness allowance payable in case of medically certified incapacity for work lasting over nine days, household economic position by household equivalent disposable income and household wealth, and individual labour market position by individual taxable income and months of unemployment. The data set was derived from 11% random sample of the Finnish population, and we studied those who were eligible for sickness allowance, i.e. aged 17–67 years and not receiving any pension, during the entire period between years 1993 to 2006. The final analysed data set consisted of approximately 210 000 persons. Structural equation modelling was used to test for pathways, and negative binomial regression to illustrate the magnitudes of associations.

Results

Household economic resources predicted future ill health among both genders and all ages, those with lower resources having more allowance days. Individual labour market position predicted ill health in those aged over 36 at baseline. Ill health also predicted deterioration in individual labour market position, although this association was weaker than the association of household resources with future health. Marked cross-sectional associations not explained by longitudinal dependencies also remained.

Conclusions

The results supported both causation and selection hypotheses to some degree, but the strongest support was found for household resources affecting health, which points to the significance of consumption potential as a causal factor.

Sasonal affective disorder and its correlates in Northwest Russia: The Arkhangelsk study

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Background

Prevalence and correlates of Seasonal Affective Disorder (SAD) remain largely unknown in Russia.

Aims

To determine the prevalence and correlates of SAD and winter depression in the city of Arkhangelsk, Northwest Russia.

Methods

The data were collected in a cross-sectional population-based study in Arkhangelsk during 1999–2000. The Seasonal Pattern Assessments Questionnaire (SPAQ) and a separate questionnaire on self-reported winter depression were completed by 3705 adults. The prevalence of SAD, its subclinical form (S-SAD) and self-reported winter depression was estimated. Binary logistic regression analysis was performed to study associations between winter depressions diagnosed by the two independent questionnaires and their correlates. Odds ratios (OR) and 95% confidence intervals (CI) were calculated separately for SAD and self-reported winter depression.

Results

The prevalence of winter SAD and S-SAD as estimated by SPAQ was 2.6 % (95%CI: 2.1–3.2) and 1.9% (95%CI: 1.5–2.4), respectively while the prevalence of self-reported winter depression was 13.5% (95%CI: 12.4–14.6). SAD was positively associated with female gender (OR = 2.84, 95% CI: 1.42–5.67), lower quality of life (OR = 1.93, 95%CI: 1.20–3.09) and the use of sleeping pills (OR = 2.51, 95%CI: 1.68–3.75) and inversely with high physical activity (OR = 0.38, 95% CI: 0.16–0.94). Similarly, women (OR = 2.02, 95%CI: 1.50–2.72), those who reported lower quality of life (OR = 1.71, 95%CI: 1.36–2.14) and those who reported taking sleeping pills (OR = 1.85, 95%CI: 1.43–2.38) were more likely while those who reported high physical activity (OR = 0.54, 95%CI: 0.36–0.82) were less likely to report winter depression.

Conclusions

The prevalence of SAD in Arkhangelsk may vary considerably (from 2.6% to 13.5%) depending on the instrument used for assessment. At the same time, in spite of the large difference in the prevalence estimates, the correlates of SAD and self-reported winter depression were similar and included female gender, low quality of life and taking sleeping pills while high physical activity could be considered as protective factor.

Cutting down deaths by 80% - What really happened to pneumonia mortality in Finland in the 2000s?

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Background

Pneumonia is a common disease and an important cause of death. Its estimated annual incidence in Finland is ca 1% among the adult population. In the classification of causes of death, a new WHO recommendation was introduced in Finland in 2005–6 restricting the use of pneumonia as the underlying cause of death in connection to several chronic diseases. This study examines trends in pneumonia mortality in Finland and the effects of the implementation of the WHO recommendation to pneumonia mortality in the 2000s. In addition to pneumonia as the underlying cause of death we also examine it as the immediate, intermediate and contributory cause of death.

Methods

The data were compiled from the causes of death register. All cases having pneumonia in any of the causes of death fields in the register in 2000–2008 were extracted from the register. We examined annual trends in pneumonia mortality in different fields of the causes of death register and by underlying cause of death if the immediate cause of death was pneumonia. We further analysed the distribution of pneumonia mortality by hospital district and by the determination of cause of death (clinical examination, or medical or medico-legal autopsy). The results are reported as incidence rates.

Results

Pneumonia mortality decreased during the study period by ca 1500 cases if both underlying and immediate causes of death are taken into account. A more substantial change was found in the recording practices. While pneumonia as the immediate cause of death was registered as the underlying cause of death in 28% of cases in 2000, the figure was only 6% in 2008. The change was largest during the years of the implementation of the WHO recommendation, but continued throughout the study period. Alzheimers disease, other degenerative diseases of the nervous system and chronic ischaemic heart disease were chosen as the underlying cause of death more often towards the end of the study period.

Conclusions

Differences in the classification of causes of death impede comparisons between countries and in longitudinal studies. Moreover, changes in classifications also influence the related causes of deaths. These effects need to be taken into consideration when making inferences concerning public health monitoring.

7.C. Hospitals

Core Competencies to training Infection Control/ Hospital Hygiene professionals in Europe

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Background

Following the results of the Improving Patient Safety in Europe (IPSE) project, European Centre for Disease Prevention and Control commissioned the project "TRaining in Infection Control in Europe" (TRICE) to produce a guidance document aimed to develop and harmonize Infection Control/Hospital Hygiene Professionals (IC/HHPs) Training Programmes across Europe.

Objective

To propose a comprehensive list of competencies that IC/HHP's in Europe should acquire and practice according to different levels of experience and expertise.

Results

European IC/HH Core Competencies definition involved European National Representatives for IC Training and TRICE Coordination Group through different stages of agreement, improving contents and grading of final results.

Proposed IC/HH CC are classified in 3 areas Programme Management (PM), Quality Improvement (QI), Infection Control (IC). Each area consists of different professional tasks common to doctors and nurses (except one related to antibiotic prescriptions).

PM tasks are: elaborating and advocating an IC programme, managing an IC programme, work plan and projects. QI tasks are: contributing to quality management and to risk management, performing audits of professional practice and evaluating performance, training of hospitals employees in IC, contributing to research; IC tasks for surveillance and investigation are: designing and managing a surveillance system, identifying, investigating and managing outbreaks; for infection control tasks are: elaborating IC interventions, implementing IC and healthcare procedures, contributing to reducing antibiotic resistance, advising appropriate laboratory testing and use of laboratory data, decontamination and sterilization of medical devices, controlling environmental sources of infections.Two main phases for training and professional development were identified: foundation (newly appointed IC/HHP staff with little or no previous experience in the sub-specialty); expert (IC/HHP confident and experienced in all competencies).

Conclusions

The adoption of these competencies is helpful to standardize IC/HHPs competencies in Europe, to design and implement training courses according to different national contexts and facilitating the mutual recognition of competence across Europe.

Work experiences and health in a Lithuanian hospital. A Swedish salutogenic approach

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Background

Promotion of health and well-being at the workplace has been on the agenda for more than 20 years. Most of the measurements used when studying health and work have usually had an ill-health perspective. Salutogenic questionnaires focusing on health and work experiences have been developed at Kristianstad University, Sweden. The purpose of this study was to compare Lithuanian and Swedish data on health and work experiences in hospital settings.

Methods

WEMS, Work Experiences Measurement Scale, with six subdomains of work factors, and SHIS, Salutogenic Health Indicator Scale have both demonstrated good psychometric properties. The WEMS and SHIS indexes were both standardised to range from 0 to 100 % (from most negative to most positive work experiences (WEMS) and health indicators (SHIS), respectively).

The empirical data emanates from a questionnaire survey among 714 health care staff (response rate 88%) in a large hospital in Lithuania. Data are compared with previously published hospital data from Sweden.

The analyses were done using ANOVA and t-test. For comparisons between SHIS and WEMS, the WEMS data was divided according to the quartiles, from those with the worst to those with the best work experiences.

Results

SHIS was 70%, which was similar to Sweden (71%), with only small differences between occupations. Among men, SHIS was the highest (77%) under the age of 40 compared to 70% above 40. For women, SHIS showed a U-shaped curve with the highest index, 73%, among women above 55.

WEMS was 67%, which was higher than in Sweden (55%). The largest differences were in the domains Management

(Lithuania 75% vs. Sweden 60%), Reorganisation (54 vs. 27%), and Autonomy (62 vs. 52%). WEMS and SHIS were related - SHIS ranged from 55% in the lowest WEMS quartile (worst work experiences) to 82% in the highest, $p < 0{,}001$. The Lithuanian data were similar to the Swedish data.

Conclusions

The empirical findings have demonstrated similar patterns in health and work experiences in Lithuanian and Swedish hospital settings. Work experiences were even more positive in Lithuania, which could be explained by a greater contentment for having a job. Further research is needed to increase the understanding of work and health experiences in different contexts.

Humanization of an Emergency Department: the experience of an italian hospital

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Background

The project of humanization of the Emergency Room (ER) is part of the reorganization of the ER. of Rivoli's hospital, with actions on the organizational, structural, technological and assistance resources side, to improve the process of acceptance of patients in ER.

The attention was drawn to the orientation and reassurance of citizen and to improve the comfort in the waiting rooms.

The aim is to analyze the perceived quality of the users on the improvement actions taken.

Methods

68 patients who have benefited from access in the ER in January and February 2011 were interviewed by a phone questionnaire, in which they assigned a score with increasing satisfaction criteria about their first impression of the ER, of the signs of access, of the level of comfort in waiting room, of the staff availability, of waiting times, of the clarity of information provided.

The same questionnaire was submitted by a phone interview to a historical cohort of 50 patients, found from minute books of November and December 2010, that acceded to the service before the changes to the ER.

The answers were collected in a database in which it was made a descriptive and univariate analysis of the individual variables investigated, using the statistical software EpiInfo®.

Results

The average level of satisfaction on waiting times for the first visit is increased (+0.64; $p < 0.05$), but declined on the perceived quality of confidentiality during the triage (-0.66; $p < 0.05$), with both values statistically significant.

For the others variables, the average levels of satisfaction of the two samples are similar or with slightly positive (level of comfort, clarity of information provided) or negative (adequate signs of access) changes not statistically significant.

Conclusions

The need to implement projects in the ER and humanization of hospitals seems strengthened; this to ensure a guidance to citizen/user, whether Italian or foreigner, and to improve the comfort, the reduction of conflict, the path leading and details of the correct use of ER.

However in response to the implemention of measures to improve humanization, the perception of users is not significantly increased, mainly due to the need to work in parallel on the resources and on the service access conditions in ER.

From hospital nursing to health capability; differences in impacting nursing domains perceived by patients in Sweden and Japan

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Background

Hospitalisation is an aspect of a person's living positions, where patients reassemble their lives under their conditions and situations. Considering Sen's capability approach, patients gain well-being achievement and advantage while in a hospital. Hospital nursing can support patients to activate their capability, which is useful to translate individual resources into more valuable welfare, providing economic efficiency. The aim of this study is to investigate the impact of hospital nursing on activating patients' health capability through bilateral comparison study between Sweden and Japan.

Methods

Specific nursing domains perceived by inpatients in cardiac wards were investigated with a questionnaire developed in a previous work and compared between Sweden and Japan. The specific domains were divided into well-being achievement and advantage, and analysed to identify their effects on patient satisfaction with multiple regression analysis.

Results

Respondents of 116 in Sweden and 716 in Japan were analysed. All domains of advantage were higher in Sweden than in Japan, although those of well-being achievement varied. When domains composed into either well-being or advantage, advantage ($\beta = 0.497$) had stronger effect than well-being achievement ($\beta = 0.017$) in Sweden, while well-being achievement and advantage had approximately equivalent effects ($\beta = 0.356$ for well-being, 0.327 for advantage) in Japan. By each domain, education and accessibility to nurses (both belonging to advantage) had a significant effect on patient satisfaction in Sweden, while motional support and courtesy (belonging to well-being achievement) and education and post-discharge support (advantage) had that in Japan.

Conclusion

In Sweden, one of Nordic welfare states, only domains of advantage, not of well-being achievement, had an significant effect on patients' satisfaction, while in Japan domains both of well-being achievement and advantage did. When hospital nursing aspire for patients' capability, impacting domains of nursing service can vary with health care system and society structure. It suggested which of specific domains of nursing service should be enhanced for activating patients' capability according to societal or institutional circumstances.

Changes in hospital practice and breastfeeding in Lazio region, Italy

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The promotion of breastfeeding is a global priority with benefits for maternal and infant health. In the Lazio region, Italy, since 2003, fourteen hospitals participate to a project aimed at the application of the ten steps to successful breastfeeding to reach the accreditation as WHO-Unicef Baby Friendly hospitals.

Aim of this study is to observe trends in the application of the ten steps to best practice for mothers and babies and in breastfeeding rates over the period 2003–2009.

Ten steps to successful breastfeeding include: sharing and communicating to parents about a written policy regarding the promotion of breastfeeding; personnel training; skin-to-skin contact as soon as possible after birth; avoid supplementation of drinks other than breastmilk and dummies or artificial teats; practices of rooming-in and support to mother after discharge from hospital.

We calculated trends of hospital compliance to ten steps for breastfeeding, as the percentage of positive answer to a standardized questionnaire collecting for each step specific questions. We also measured the percentage of exclusive and predominant breastfeeding calculated for healthy newborns in a index month, November, each year.

Trend in the application of ten steps for successful breastfeeding showed an increase over time passing from 39% to 81%. The steps with a good level of compliance were the step 1 on policy (79%), step 2 on training (80%), steps on the use of formula milk and dummies and on information to women before birth. Steps more strictly linked to a change in clinical practice as skin to skin contact after birth (from 36 to 54%) and rooming-in (from 21 to 57%) were far away from the goal of 80% of compliance.

Trend in exclusive breastfeeding rate increased over time, from 46% to 63%, and formula feed decreased from 2% to 0.7%; however a variability over hospitals was present: five hospitals showed rates higher than 80% of exclusive breastfeeding and the other hospitals had rates under 50%.

The project showed substantial good results regarding cultural changes and training but it was harder to change clinical practice as skin to skin contact after birth, in particular in caesarean delivery, or rooming-in which are two fundamental steps for the best start of breastfeeding.

Hospital preparadness to respond to maxi-emergencies in Italy. Preliminarey results

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Background

In the last few years maxi-emergencies have increased. The response requires a strong link between territorial services and hospitals; In Italy the regulations require hospitals to provide the elaboration of plans for the simultaneous acceptance of a large number of patients (PEMAF - Emergency Plan for Massive Influx of Injured). These plans are dynamic, need regular updates and should include systematic education and training of all workers.

Methods

The present prevalence study investigates the ''state of the art'' of hospitals' PEMAF, using a questionnaire exploring the following areas: hospital characteristics; workers' training; organization and procedures; in-field experiences. The questionnaire was submitted using the website of SIMEU - Society of Medical Emergency, which covers about 10% of hospitals throughout the country. The questionnaire was to be completed on a voluntary basis, anonymously, directly on the web site. Preliminary descriptive analyses are presented in order to plan future actions.

Results

To date, 29 hospitals (30% of those in the network) responded to the survey, 13 of which (48%) were of high complexity (with ED of II level). Responders come from 15/20 Italian Regions, mainly located in the Northern section (52%). The PEMAFs appear to be consistent with many maxi-emergencies that can occur in the hospital's areas of influence (great social events, air/rail accidents, pandemias, etc.) but less with environmental events (e.g. chemical industry risk), which are considered only in about 50% of cases. High complexity and largest hospitals are consistent in 100% of cases for all maxi-emergencies. Most of hospitals (60%) refer they train workers on PEMAF, but an annual refresher course is organized only by 21%, mainly in the largest ones (>80.000 accesses/year). In 34% of hospitals the PEMAF has been tested in field because of a maxi-emergency; in these hospitals the PEMAF was of better quality.

Conclusions

These preliminary results, although obtained from a self-representative sample, show differences among hospitals in their ability to respond on time and correctly to a maxi-emergency. Further studies are needed to verify this results and to investigate on how to improve the hospital's supply.

How hospital healthcare management could promptly ensure safety of patient about Legionella risk? A molecular surveillance approach

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Background

Contamination of hot water distribution systems is the most important risk factor for nosocomial legionellosis. In order to implement an effective, applicable and timely decision making tool for hospital healthcare management, we performed, in a teaching Hospital of 1600 beds, an action plan that includes Legionella pneumophila nucleic acid detection in hot water supply. In this study we show results of the performance of a quantitative real-time PCR method versus conventional culture for Legionella pneumophila detection.

Methods

During routine hospital surveillance procedures, 40 water samples were collected between January 2010 and January 2011 from boilers, room showers, hot water recycling points. Samples were collected in duplicate, one processed according to ISO 11731 procedure for Legionella pneumophila detection (results were expressed as CFU/l), and the other processed for DNA extraction with AQUADIEN Kit and quantitative real-time PCR detection using the iQ-Checkâ, &centsign; Quanti L. pneumophila Kit (BIO-RAD). Results were expressed as Genomic Units GU/l. Sensitivity, specificity, positive and negative predictive values (PPV and NPV) were computed by using culture as gold standard, accordance between the methods was assessed with the Cohen's kappa coefficient.

Results

A total of 7/40 samples were positive (17,5%) for Legionella pneumophila according to conventional method, while 17/40 were positive (42.5%) according to molecular method respectively. Legionella pneumophila contamination in positive samples ranged from 1x102 to 6,07x103 CFU/l, and from 94 GU/l to 11,128 GU/l. The quantitative real-time PCR method showed a sensibility of 0.86, a specificity of 0.67, a PPV of 0.35 and a NPV of 0.96. Cohen's kappa coefficient is of 0.34.

Conclusions

An hospital safety plan, might be fully aware on the newly available technologies that might help in promptly addressing the potential for a water colonization from harmful bacteria. The quantitative real-time PCR method showed an high NPV, thus reassuring in less than 24 hours about the negativity of a certain sampling point. The low PPV is likely due to the presence of DNA from died germs, but it could be used as a warning for a potential (historical or actual) water contamination (immediate preventive action).

Hospital care in the process of EU cooperation and integration- a policy transfer perspective

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Background Over the last 15 years, the relevance of EU provisions to Member States' (MS) health care organisation has become obvious despite the EU's limited healthcare mandate. Also hospitals operate nowadays in a context where multiple links to EU policies exist (patient care, professionals' training, research, employer, & purchaser). Beside explicit EU policies and regulations, the spreading of innovative ideas among hospitals by mutual learning is also part of 'European integration' or 'Europeanisation'. However, the concrete processes, mechanisms and actual effects of 'Europeanisation' are understudied and a framework for analysis is missing. This gap has to be closed, among others, to support EU activities to benefit health services.

Methods We reviewed the literature on various political and social sciences concepts which account for policy change and the way policies 'travel' by screening WebofScience®, relevant key journals and hand-searching bibliographies of retrieved sources. We analysed the concepts of 'Convergence', 'Europeanisation', 'Policy learning', 'Policy transfer' and 'Policy diffusion' for their insights into rationales and facilitating conditions within the policy process.

Results Among the reviewed concepts we regard especially the discourses of Europeanisation and Policy transfer as useful for answering our questions. The former offers a good contextualisation of the policy process and the various interactions between EU institutions and the MS. Additionally, approaching Europeanisation processes from a Policy transfer perspective adds a broader set of causal and facilitating mechanisms, a more neutral position towards the role of the EU and towards alternative explanations for policy change. Moreover, the scope of the policy analysis is broadened including all steps from agenda setting to evaluation.

Conclusions The combination of described concepts enables to depict more precisely the variety of possible policy transfers between MS and between MS and EU institutions. Regarding hospital services we are going to apply the framework to analyse the financing and planning models and quality initiatives in the context of European integration. Ultimately, a better understanding of the transfers can improve policy making in European hospitals.

Income inequality from the gender perspective in public hospitals workers

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Background

Despite recent legislative progress, equality between men and women remains a challenge of major importance. From the hospital perspective, gender equality is a key element within corporate social responsibility policy. The aim of this study is to quantify the gender differences among professionals of the University Hospital Virgen de las Nieves (UHVN) in terms of relative presence and income.

Methods

This is a descriptive study carried out in the UHVN with the data offered by the analytical accounting system for 2010. From a theoretical point of view, we analyze the gender wage gap assuming that the labor market is limited to employment generated by the UHVN. This hypothesis could identify wage differences in the environment of a public health organization where the salaries of men and women are identical for performing the same job.

Results

The Index of Relative Presence of Men and Women in the HUVN reaches 1.35. The wage income curve obtained by men and women present different profiles. The profile for males shows two peaks at the beginning and end of their working lives. The profile for women's wage income is much more stable throughout their working lives. In general, the average wages for women are 24% lower than those of men. The greatest differences were in the group of doctors.

Conclusions

The salaries of men outnumber women in all age brackets. So gender analysis of professionals in the HUVN confirms the existence of gender differences in the relative participation of women and in their wage income.

7.D. Poster Workshop: Walk the Talk: A Participatory Approach to Patient Education

Chairs: Ingrid Willaing, Denmark
Organiser: Steno Health Promotion Center, Patient Education Research
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What do patients need? The development of a patient-centred model for patient education

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Reason for inclusion in the workshop

This study is a part of a larger research project on participatory patient education and presents the educational needs from a patient perspective.

Aims

The aim of the present study was to explore the educational needs from a patient perspective in order to develop a patient-centred model for patient education.

Methods

Guided by an Action Research approach we explored the perceptions, views and experiences of patient education among patients with type 2 diabetes, COLD and heart disease, eligible to group-based patient education in four Danish municipalities. Four highly interactive workshops were conducted with 25 adult patients in August and September 2010.

The workshops were video recorded and the analysis was based on the constant comparative method. The insights from the workshops were presented to a group of 25 health care professionals who were then asked to translate the insights into patients' needs for patient education. The identified needs were categorised and grouped repeatedly until four basic needs or focal points for patient education emerged.

Results

The following four focal points form a patient-based model for patient education: 1) Entirety, 2) Clarity, 3) Timing, and 4) Connectedness.

Entirety is about ensuring the link to the entire life of the patient:

"It's about what your life is and what keeps you going. You cannot talk illness all the time. That will make you ill" quote from a patient

Clarity is about creating clarity about challenges and possibilities:

"The most important was that I realized that I cannot deal with this myself. I need help and support" quote from a patient.

Timing is about choosing the right thing at the right time:
''*I would like to have more time to unplanned discussions and to talk with the others*'' quote from a patient (about the patient education process)

Connectedness is about supporting the need to be social and connected
''*It is really good to talk to the person sitting next to you and to the group. It gives inspiration and ideas*'' quote from a patient

Conclusion

In order to meet the needs of patients the developed model suggests that four focal points are central.

The model can be used as a planning tool for patient education programmes as well as an analytical tool for the evaluation and quality assurance of the education delivered.

Innovative health educational dialogue tools; a way to enhance empowerment and participation

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Reason for inclusion in a workshop

This study is a part of a larger research project on participatory patient education and presents the development and use of dialogue tools to enhance patients' participation.

Aims

Practical implementation of patient education with empowerment as primary outcome can be difficult. Patients may have problems articulating their experiences and challenges in relation to their chronic illness. Health care professionals, (HCP) may have problems carrying out the supportive approach and facilitating a problem identifying dialogue.

The aim was to investigate if *probes*, a design method, could be transformed into *health educational dialogue tools* to support HCP in facilitating dialogue and participation and to help patients reflect, articulate and share their experiences in order to generate relevant action.

Methods

Probes were designed for a research study of the patients' needs for patient education with four purposes: 1) to create patient participation 2) to create dialogue 3) to provide information 4) as inspiration for developing dialogue tools.

The transformation from probes to dialogue tools was based on patients' evaluation, researchers' observations and identified patients' needs from four workshops conducted with 25 patients with chronic illness. The dialogue tools were pilot-tested in a patient education program with 48 patients from four municipalities in Denmark. The tools went through further refinements based on evaluation from patients and HCP.

Results

Six types of dialogue tools were developed with the purpose of inspiring patients in different ways to reflect, articulate and participate actively. The tools were based on a variation of stimulus such as abstract and realistic pictures, peer quotes, provocative statements, tangible objects and illustrated factual knowledge. The pilot test showed that use of the tools did create a high degree of reflection, articulation, participation and action orientation. Furthermore they supported the HCP in facilitating an effective patient education.

Conclusion

The development and use of health educational dialogue tools is useful to accomplish participation in patient education where patient's experiences, needs, challenges and competences are being met. These tools furthermore support the facilitation of dialogues by the HCP. Future implementation and evaluation are important to carry out in order to determine the clinical effects of the developed dialogue tools.

The Health Educational Juggler; exploring needs for competences in health care professionals

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Reason for inclusion in a workshop

This study is a part of a larger research project a comprehensive study on participatory patient education and it presents the needs for competence development among health care professionals (HCP).

Aims

Patient education is a crucial element in treatment and care of patients with Type 2 diabetes and other chronic illness. Because of lack of significant effect patient education may need new approaches. Literature indicates empowerment and participation are promising approaches. However, working with participatory methods is not often a part of the curriculum and experience among HCP. The need for competence development was explored in order to design a model for competence development with the aim of providing participatory patient education for patients with chronic illness.

Methods

Qualitative data was collected with 25 HCP from patient educational settings in four Danish municipalities. Four workshops were conducted where data was collected through visual materials and group discussions focused on needs and challenges. Furthermore Story Dialogue exercises about challenging teaching situations performed and data from observations of patient education sessions were collected. Videotapes, filled-out material and field notes were obtained. The analysis had a Grounded Theory approach.

Findings

The analysis lead to the emergence of the core category 'The Health Educational Juggler' with four roles as sub-categories. Subsequently a competence model ''The Health Educational Juggler'' with four health educational roles was generated: a) the embracer role (the emphatic educator), b) the facilitator role (the facilitating educator), c) the translator role (the professional educator), and d) the initiator role (the inspiring educator). These four roles are crucial for managing genuine patient involvement that leads to empowerment.

Conclusion

The study indicates that HPC conducting participatory patient education need to develop specific role competences and to be able to juggle with the different roles in performing participatory patient education. Furthermore they need to take in new practices, reflecting on individual strengths and weaknesses as a part of the ongoing competence development. The model ''The Health Educational Juggler'' can be used as an analytical tool of HCP competences, and as a model for competence development for HCP.

7.E. Poster workshop: Estimating the burden of communicable diseases in Europe

Chairs: Alessandro Cassini, Italy and Mirjam Kretzschmar, The Netherlands
Organiser: BCoDe Project
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Tackling underreporting: the experience of the Burden of Communicable Diseases in Europe (BCoDE) pilot study

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Background

The aim of the Burden of Communicable Diseases in Europe (BCoDE) pilot study is to produce the best possible estimates of disease burden in terms of Disability Adjusted Life Years (DALY) for four communicable diseases in four European countries. To quantify this burden, all available morbidity and mortality data were collected for measles, influenza, hepatitis B and salmonellosis in Estonia, Germany, Italy and The Netherlands. However, it is recognised that notification and surveillance systems collecting such data suffer from considerable underreporting which results in incomplete datasets, as well as uncertainty about the 'true' incidence of infection and 'true' burden of disease. It was therefore a major objective of this project to examine the problem of underreporting, explore possible solutions, and devise methodology for enabling correction.

Methods

Underreporting was examined at each level of the surveillance pyramid for each disease in each country, and the reasons leading to this underestimation explored. The definition of underreporting was refined to include under-ascertainment and under-notification as sub-aspects of underreporting. Various methodological options for the correction of underreporting were considered including the use of mathematical modelling, community-based surveys, multiplication factors and others. A large literature search was conducted to find previous studies that corrected for underreporting or gave some estimation of the 'true' incidence or burden. All information was compiled in a manual showing a menu of options for correction for various situations. Validation was sought from experts and countries were consulted to give feedback on the suggested correction factors.

Results

Underreporting is a multifaceted issue which should be addressed at each level of the surveillance pyramid. The consortium chose to use multiplication factors to correct for underreporting. Multiplication factors must be disease- and country-specific and sometimes age- and gender-specific since underreporting rates can be heterogeneous between diseases and countries, and for different societal groups.

Conclusion

Underreporting is a major issue for the BCoDE project and only by correcting it can the project achieve the best possible estimate of disease burden. Ongoing refinement of the methodology and multiplication factors will provide improved estimates.

Integrating infectious disease dynamics into further burden of disease assessments - Introducing the concept of transmissible disease burden

Dietrich Plass

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Up to now in estimates of burden of communicable diseases we have focussed our attention on the burden carried by an infected individual. However, that person is infectious for others and therefore carries a potential future burden that may be prevented by breaking transmission chains. Such a potential burden may even be carried by asymptomatic individuals, who do not experience any disease burden themselves. In order to estimate that possible impact of intervention on future disease burden, we have to take that indirect disease burden into account.

Estimating the transmissible burden resulting from an infected person is useful complementary information to assess the impact of infections on population health. To calculate transmissible burden estimates, linking principles of infectious disease epidemiology with the burden of disease methodology might be a reasonable approach. Combining the Susceptible-Infectious-Recovered/Immune (SIR) model with the outcome-tree approach of the BCoDE Project is e.g. an option to investigate the feasibility of transmissible burden estimates. We assume that the pathogen-based BCoDE approach allows for integrating further parameters that represent the transmission dynamics in a population. Also, future work on this might allow for developing scenarios with varying demographic features, contact rates and rates of vaccination coverage in order to identify the range of infectious disease burden patterns.

Estimates of a transmissible burden can give further insights and additional information on the relevance of infectious diseases with e.g. a chronic disease course, or a high rate of asymptomatic cases, or decreasing vaccination coverage rates. Introducing more infectious disease dynamics might offer a distinct view on and thus improve future disease burden assessments tailored for infectious pathogens.

The burden of influenza: evaluation of the Disability Adjusted Life Years (DALYs) and hospital utilization in Italy

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Background

In 2009, we took part at the project "Burden of Communicable Diseases in the European Union and EEA/EFTA countries (BCoDE)". Italy was chosen as one of the test countries to perform the field study in order to apply the methodology developed for estimating the burden of selected communicable diseases (CD).

The aim of this abstract is to present the preliminary results for influenza and its impact in terms of DALYs on the Italian population.

Methods

Our starting point for the methodology was the approach taken by the Global Burden of Disease (WHO) for previous global estimates.

The burden of influenza was determined based on data for the years 2005–2007.

Since influenza notification is not mandatory in Italy and the sentinel surveillance system does not provide disaggregated data by gender and specific age groups, the decision was made to use the hospital discharges database of the Italian Ministry of Health.

In developing the outcome tree for influenza we considered four different complications (pneumonia, otitis media, acute respiratory distress syndrome, sepsis) and their long-term sequelae. We provided best estimates of the transition probabilities, durations and disability weights.

Underreporting for hospital discharges was corrected by a multiplication factor.

Results

In the time period considered, the burden of influenza in DALYs per year is 24,241, while the DALY rate per 100.000 is 39.4. The stratification by age shows a higher DALYs per year in the extreme groups of the age pyramid (0, 1–4 years and 80–84, 85+) for both genders.

Women have a greater burden of influenza than men, which is remarkable especially for the age groups older than 60 years.

Conclusions

In analyzing the data, limitations resulting from the use of hospitalization discharges instead of notifications should be taken into account. The impact of the burden can be greater in those age groups that are more likely to require hospitalization (children and older people), as also confirmed by the calculations of DALYs per year.

However, the methodology applied and its adjustments for underreporting showed to provide reliable estimates of influenza burden. Therefore, it can be properly used for those countries where surveillance systems do not provide adequate incidence data.

A good estimate of the burden for infectious disease is needed to help set priorities for reducing their impact on the population.

7.F. Perinatal health

Do Traveller mothers' use of maternity services differ from the general population? Findings from the All Ireland Traveller Birth Cohort Study

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Background

Ireland has one of the most comprehensive maternity services in Europe with maternal mortality half the European average in 2008. Minority group use of maternity services can be difficult to ascertain, specifically for Irish Travellers. The aim of this study was to compare the maternity service use of Irish Travellers with Irish mothers in the general population.

Methods

The All Ireland Traveller Birth Cohort Study comprises all babies born on the island of Ireland over a calendar year with linkage data to the maternity hospitals. For the general population data, we compared with latest national data (2008) from the National Perinatal Reporting System. Analysis was restricted to Irish-born mothers.

Results

Irish Traveller mothers use combined maternity services more than the general Irish population (82.2% vs 76.6%, $p = 0.000$), present later in pregnancy to General Practitioner (mean 13 weeks vs 9 weeks, $p = 0.000$) and maternity hospitals (mean 18 weeks vs 16 weeks, $t = 7.532$, $p = 0.000$). More Traveller mothers had a spontaneous birth (63% vs 55.2%, $p = 0.001$) and had fewer caesarean sections (CS) (25% vs 27.8%, $p = 0.21$). Traveller mothers had similar mean length of stay (3.4 vs 3.6 days, $p = 0.18$). There was no difference in length of hospital stay post-CS between the two groups. Traveller infants have comparable length of stay post-delivery compared with general Irish population (3.6 vs 3.4 days).

Conclusions

There is need for promotion of earlier pregnancy presentation by Irish Traveller mothers; Irish Traveller mothers and infants use of maternity services appear to be comparable with Irish-born general population mothers.

Pregnant versus non-pregnant women in general practice: a cohort study of differences in diagnoses, prescriptions, referrals, and rates of consultation

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Background

Pregnant women mostly contact midwives or obstetricians for pregnancy-related care, but in addition general practitioners (GP) provide both pregnancy- and non-pregnancy-related care. Evidence on the frequency and contents of these GP contacts fully lacks. Such evidence may provide insight in the workload of GPs, their training needs, and in the extent of collaboration between GP, midwife, and obstetrician.

The objective of this study is to determine the differences in diagnoses, prescriptions, referrals, and rates of consultation of pregnant women versus non-pregnant women in general practice.

Method

Data were retrieved from The Netherlands Information Network of General Practice (LINH). The LINH-data were retrieved from electronic medical records kept by a representative sample of about 84 GP practices with 330000 patients in 2007, 2008, and 2009. The LINH holds longitudinal data on consultations, prescriptions, and referrals. Practices as well as patients are representative for the Dutch population.

Two measures of health care utilization were developed. Firstly, we measured the total number of contacts with the GP. Secondly, we operationalized the content of a consultation in three ways: diagnoses related to ICPC-codes (International Classification of Primary Care), medication prescriptions related to ATC-codes (Anatomical Therapeutic Chemical classification system) and referrals to other professionals.

Results

We will present the health care utilization of pregnant compared to non-pregnant women to gain insight in the needs of pregnant women in addition to the needs of non-pregnant women. Results are to be expected in the summer of 2011.

Conclusions

With our results policy makers and professionals in maternal health care are able to plan maternal health care regarding to the needs of pregnant women. This study can provide information about a comprehensive approach to primary health care for (pregnant) women.

The implications of father's involvement in pregnancy/labor on the emotional connection with the baby

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Background

The emotional bond between parent and child is key in the transition to parenthood and the development of the baby (GENESONI, TALLANDINI, 2009). When the father is strongly linked to his child he feels more responsible for his family, to provide more emotional, physical and financial support (KNOESTER, EGGEBEEN, 2006). Recent literature indicates that pregnancy planning, expect their first child and a high socioeconomic promote father involvement in pregnancy, which increases the binding of prenatal care (Heinowitz, 2005; MCNAMARA [et al.], 2007). Cutting the umbilical cord by the father also positively influences the emotional bond with the baby's father.

Methods

This is a cross-sectional study, quantitative and correlational. Our intent is to verify if there are relationships between sociodemographic variables, involvement in pregnancy or cutting of the umbilical cord with the emotional bond with the baby's father. The study was conducted by administering a questionnaire at three different times (during labor, the 1st and 3rd days after birth) to 222 parents, Portuguese, between November of 2010 and January of 2011. The emotional bond with the baby's father was measured using Bonding's scale, validated for the Portuguese population (FIGUEIREDO [etal.] 2005).

Results

By the data analysis, with a confidence interval of 95%, the authors find that ages (between 25 and 40 years) ($p = 0.024$), monitoring of pregnant appointments for surveillance of pregnancy ($p = 0.011$), monitoring the pregnant in preparing for the birth of the baby ($p = 0.002$), reading information on the developing infant ($p = 0.006$) and cutting the umbilical cord ($p = 0.001$) positively influence the emotional bond with the baby's father.

Conclusions

The results indicate to an improvement in the emotional bond between father and child if health professionals tailor their actions to increase father involvement during the surveillance of pregnancy, at childbirth, and promote the of cutting the umbilical cord.

The impact of socio-demographic factors on low birth weight and preterm birth: A comparative study between Gaza and Brussels

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Background

Low birth weight (LBW) and preterm birth (PTB) are primary risk factors for infant mortality. The aim of our study was to investigate the impact of both geographical and socio-demographic factors on pregnancy outcomes in two different regions; Gaza Strip and Brussels.

Methods

A total of 700 women from two different geographical regions (350 each) participated in the study. Chi-square and logistic regression analysis were performed using SPSS program.

Results

Place of residence, age, maternal education and household occupational status were significantly associated with the pregnancy outcomes. The prevalence of LBW and PTB was higher among women living in Gaza than in Brussels. Elder women were four and two times at risk of having LBW babies and PTB than young women respectively. Women with low educational attainment were five and four times more likely to have LBW and PTB than highly educated women respectively. The risk of having LBW babies and PTB among families with both unemployed parents was four and three times higher than among families with both parents were employed respectively.

Conclusion

Place of residence, maternal age, education and family occupational status are all important factors that play a major role in birth outcomes.

Analysis of newborns' neonatal deaths due to congenital anomalies correlation with antenatal and neonatal characteristics in Latvia (2000–2007)

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Background

EUROCAT (European Surveillance of congenital anomalies) data base shows that congenital anomalies are the main cause of death during the perinatal period. Mortality rates during the first week are 0.55 per 1000 live births (2000–2004).According to Newborn Register of Latvia - 0.94/1000 live births (2000–2007).

Aim

To analyze neonatal mortality of newborns due to congenital anomalies and its relations with different antenatal and neonatal care characteristics in Latvia.

Materials and methods. Data sources - Newborns Register and National Death causes database. All live newborns (2000–2007) with diagnoses Q90-Q99; ICD-10 ($n = 5768$) at birth, finally analyzed death cases in the neonatal period ($n = 224$). Odds ratios (OR) with 95% confidence intervals (CI) were estimated using Multiple regression.

Results

Percentage share of early neonatal (0–6) and late neonatal (7–27) deaths is 71.0% (159) (95% CI 64.7% -76.5%) and 29.9% (65) (95% CI 23.5% -35.3%) of all deaths in that period.

Newborns with congenital anomalies have statistically significant odds ratio risk of early neonatal death ($OR = 3.54$, 95% CI 2.48–5.07). There is a statistically significant relationship between mortality and the mortality rate period ($\chi 2 = 54.58$; $p < 0.001$).

Statistically significant odds ratio risk of death in early neonatal period than in late neonatal period was in cases of newborns, which antenatal care was incomplete ($OR = 2.2$, 95% CI 1.3–5.5, $p = 0.05$) and in cases, when ultrasonographic examination has not done to newborns after birth ($OR = 2.3$, 95% CI 1.2–5.0, $p = 0.03$).

Conclusions.

Timely performance of ultrasound for pregnant women helps to find congenital anomalies, thereby reducing the risk of birth and in some cases it helps to make the right decisions in the maternity process management, and after in treatment. The additional ultrasonographic examination in neonatal period is very important for newborns with congenital anomalies.

The effect of social determinants on recurrent spontaneous abortion in an italian region (2009)

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Background

Recurrent spontaneous abortion (RSA) is defined as a loss of two or more pregnancies; the possible etiological causes of this event are numerous (genetic, hormonal, metabolic, uterine anatomical, infectious, immune disorders) but about 23% of cases are unexplained.

Methods

To identify the possible role of various social determinants, such as citizenship, occupation and education to RSA, we utilized data obtained from a population based study. The items ''number of pregnancy loss'' is contained into the routine maternity discharge data (CEDAP). A logistic regression analysis was performed in order to quantify the relationship between RSA and specific characteristics of mother.

Results

The study included 8525 mothers who delivered in Umbria, an Italian Region, in 2009: analysis showed that some factors increase significantly probability of RSA: low-medium educational level (99% CI = 1.2–2.5), non Italian citizenship of mothers (95% CI = 1.10–1.73) and the condition of housewife (95% CI = 1.1–1.45).

Conclusion

The findings suggest that sociodemographic variables of mother are related to RSA. More research is needed to explore possible mechanisms underlying social determinants and recurrent pregnancy loss (adverse pregnancy outcomes), Such information might be necessary to help improve maternal and fetal health.

Too many pregnancies end by abortion!

Cornelia Rada

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Background

Even contraceptives are widely available, there are many women who have unwanted pregnancies and abortions. The historical and recent abortion statistics indicate that the abortion rate in Romania is still high. In this context, our study (financially supported by CNCSIS - UEFISCSU, project PN II - IDEI code 72/2008) is aimed to evaluate and classify the population attitude regarding abortion and to understand the relationship among the influencing socio- demographic factors.

Methods

A questionnaire was administrated to a randomly selected sample of 1200 men and women, residents in urban and rural areas; they were asked about their attitude regarding the circumstances when the abortion is an acceptable option. Seven particular life circumstances were taken into the discussion (mother's health or life in danger, malformed foetus, unwanted pregnancy, unmarried woman, needy family, rape or incest). Data were analysed using latent class (LC) cluster analysis.

Results

More than half of the 600 interviewed women experienced at least one abortion; after the abortion, these women reported guiltiness/depression (24.6%), psychosexual disorders (47%), eating disorders (46.2%), aversion against the partner (44.9%). The LC analysis indicated as the best fit model the 3 clusters model ($BIC = 4660.90$, $L2 = 148.89$, $df = 102$, $p = 0.0017$; error of the model was 0.02). The first cluster (76.0% of the subjects) is ''pro-choice''- in this group the prevailing opinion is that the abortion is acceptable and justified in all seven situations. The second cluster (17.4%) is ''pro-life''- the abortion is considered unacceptable in any circumstances. The third cluster (6.6%) is ''adaptive'' - the attitude depends on the specific situation; the abortion agreement probability was high only when the mother's health was in danger.

Conclusions

The results suggest that it is not simple carelessness or irresponsibility that leads women to have abortions; frequently the aborted pregnancies are planned or are the result of a calculated risk. The abortion is still strongly supported by the population opinion especially in less educated people. This opinion must be adjusted through educational programs.

The impact of women's status on utilization of maternal health services in Eastern European and CIS countries. The cases of Albania, Armenia and Azerbaijan

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Background

Recent research on maternal health services utilization has revealed the importance of women's status as a demand-side factor. However, there are almost no studies of such kind on Eastern European and CIS countries. This disregard is unjustified. First, in this region, there are substantial intercountry, cross-services and intergroup differences in the utilization rates. Second, since the pattern of gender inequalities in this region is different from those in the other developing regions (e.g. in education), its analysis may challenge established explanatory models.

Methods

Data: Albanian (ALB), Armenian (ARM), and Azerbaijan (AZ) DHS. Dependent variables: use of modern contraception (MC); attendance of 4 + ANC consultations; institutional delivery (ID). Independent variables: women's decision-making power; gender role attitudes; employment status. Control variables: women's age; number of children; residence; region; women's education; partner's education; household wealth; geographic & economic accessibility of care. Analysis: multivariate logistic regression.

Results (preliminary) (adjusted odds ratios; *$p < 0.05$; **$p < 0.01$; *** $p < 0.001$): Below we present only statistically significant results. Women with high vs. women with low decision-making power: 1) MC: ALB 1.43 ($p < 0.1$); ARM 1.99***; AZ 1.74**; 2) ANC 4+: ARM 1.86***; 3) ID: ALB 4.28*. Women with gender equal vs. women with 'gender-unequal' attitudes: 1) MC: ALB 1.45*; ARM 1.38*; 2) ANC 4+: ALB 1.52**; ARM 1.38 ($p < 0.1$); AZ 1.86***; 3) ID: N/A. Working vs. unemployed women: 1) MC: ARM 1.46 ($p < 0.1$); 2) ANC 4+: N/A; 3) ID: N/A. No statistically significant association was found between women's education and utilization of the services in any of the countries. Women from the richest vs. women from the poorest households: 1) MC: ARM 4.26***; 2) ANC 4+: ALB 2.75**; ARM 2.71**; AZ 6.80***; 3) ID: AZ 5.44***.

Conclusions

Women's status does represent an important demand-side factor in all the considered countries. However, in difference to other regions, in these countries, among the women's status factors, not women's education and women's employment, but rather women's decision-making power and gender role attitudes appear to be the strongest predictors of maternal health services utilization.

7.G. Sickness absence and mental health

Three-year predictors of paid work in older individuals with depression, osteoarthritis and cardiovascular disease: an investigation into disease-specific and generic predictors

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Background

With the rising age of the working population and the increasing prevalence of chronic disorders with age, maintaining and improving labour force participation of older individuals with a chronic disorder deserves attention. The prevalence of chronic morbidity may be high, but the prevalence of specific disorders may be low. When different disorders have similar predictors, forces can be joined to develop and implement interventions to improve labour force participation.

Objective

To distinguish disease-specific and generic predictors of participation in paid work in older individuals with depression (D), osteoarthritis (O) or cardiovascular disease (C).

Methods

From the Longitudinal Aging Study Amsterdam, 249 participants with D, O or C aged 55–62 years were selected from the cohort 2002–2003. Independent groups were formed: D, O, C, D+O, D+C and O+C. The group D+O+C ($n=7$) was excluded. Potential predictors in 2002–2003 of participation in paid work in 2005–2006 were: health, functional limitations, personality characteristics, work characteristics, and demographics. For each group, for each predictor, a coefficient was calculated using logistic regression analyses. Next, a pooled estimate was constructed and the coefficients from the six groups were tested for homogeneity using Chi square tests. In case of homogeneity, the association with paid work in 2005–2006 was calculated based on the pooled estimate.

Results

All predictors included in this study appeared to be homogeneous across the six groups. Male sex, lower age, higher education, paid work in 2002–2003, better perceived health, comorbidity (other than O, C or D), less neuroticism and more mastery were significantly associated with paid work in 2005–2006 but marital status, having a partner, satisfaction with income level, functional limitations, social inadequacy and self esteem were not ($p > 0.05$).

Conclusions

All potential predictors examined in this study were generic (homogeneous) for D, O, C, D+O, D+C and O+C, although only some were significantly associated with paid work in 2005–2006. As predictors of paid work appeared to be similar for these chronic disorders, this provides opportunities for interventions for larger populations of chronic disorders.

Physical and psychological work demands and depressive symptoms in Denmark. Does their match matter for work ability consequences?

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Background

Denmark as other western countries has to tackle increasing public expanses because of an increasing number of persons who are temporarily or permanent work disabled with depressive disorders. Mainly, work disability is the result of the interplay and mismatch of health related functional limitations and work demands. This study tried to assess the single and combined effect of depressive symptoms and physical and psychological work demands on temporally and permanently reduced work disability, This might give new insight about hazardous mismatch on a population level.

Methods

Population based 6-year follow up study with baseline in 2000. After use of selection and exclusion criteria, 5785 person, aged 40 and 50 have been used from a population survey. Register information about employment status, sickness absence and reduced permanent work ability above 50% have been merged to the dataset. We used logistic and linear regression models to measure relative and absolute effects of labor market transitions between 2001–2006, as well as to analyze interaction effects.

Results

Preliminary: After adjustment for all covariates, physical demands and depressive symptoms, but not psychological demands measured had a graded effect on subsequent sick leave during 2001–2002 and permanent work disability during 2003–2006. Persons with depressive symptoms and high physical demands had the highest rates and relative risks especially for sick leave, but there was not found a significant combined effect on either outcomes, which was exceeding the single effects.

Conclusions

Preliminary considerations: Physical, but not psychological demands are associated with work disability. This might be result of an direct effect on health and function as well as a result of health selection processes. The strong disabling effect of depressive symptoms was further supported.

The association of the duration of sickness absence due to adjustment disorders with recurrences among Dutch Post employees

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Background

Adjustment disorders account for most psychiatric sickness absence (SA) in The Netherlands and recur in approximately 20% of cases. This study investigated the recurrence density and the time to recurrence of SA due to adjustment disorders in relation to the duration of the first SA episode due to adjustment disorders.

Methods

The study population consisted of 13,582 employees working at Dutch Post from January 1997 to December 2009. Employees were included when they had had a SA episode certified by an occupational physician as due to an adjustment disorder (ICD-10 code F43.2). The first episode was defined as SA due to adjustment disorders after a period of at least 5 years without psychiatric SA. A recurrence was defined as another SA episode due to adjustment disorders occurring 28 days or later after full return to work. The recurrence density was calculated dividing the number of recurrent SA episodes due to adjustment disorders by the person-time at risk of employees who had had a SA episode due to adjustment disorders.

Results

895 employees had one SA episode due to adjustment disorders and 123 (14%) had recurrent SA episodes due to adjustment disorders during the study period. The median SA duration was 54 (95% confidence interval [CI] = 49–59) days for first episodes and 47 (95% CI = 39–61) days for recurrent episodes. The recurrence density was 33.5 (95 CI = 27.6–39.4) per 1000 person-years and was not associated with the duration of the first SA episode. The median time to recurrence was 583 (95% CI 443–724) days and not related to the duration of the first SA episode.

Conclusions

The recurrence density and time to recurrence of SA due to adjustment disorders was not associated with the duration of the first SA episode. Further research is needed on factors that predict recurrent psychiatric SA.

Sickness absence due to mental diagnoses and risk of premature death: a nationwide, Swedish, prospective cohort study

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Background

Mental disorders are a major public health problem in the Western world and among the most common diagnoses regarding long-term sickness absence. However, very little is known regarding health-related consequences of such sickness absence. The need for large, population-based, prospective studies has been stressed. The aim of this study was to investigate the association between sickness absence due to mental disorders and all cause and cause specific mortality.

Methods

We performed a prospective cohort study including 4,937,759 individuals living in Sweden 31 December 2004, aged 16–64 years, not on old-age or disability pension, based on nationwide register data. Persons receiving sickness benefits due to mental diagnoses in 2005 were compared to persons receiving sickness benefits due to other diagnoses and to persons with no sickness absence. Mental diagnoses were categorized into eight groups. The study participants were followed from 1 January 2005 through 31 December 2008 for all-cause mortality and for cause-specific mortality. Hazard ratios (HR) and 95% confidence intervals (CI) were estimated by Cox regression in models adjusted for age, sex, socioeconomic factors and morbidity.

Results

In total, 26,394 people died during follow-up, 17,810 men and 8,584 women. Sickness absence due to all categories of mental diagnoses was associated with increased risks of all-cause mortality among both men and women (adjusted model, men, HR1.73, 95% CI 1.57–1.90; women, HR 1.65, 95% CI 1.46–1.86). Increased risks of mortality due to cancer, circulatory diseases, and suicides were also observed among subjects on sick leave due to mental diagnoses.

Conclusions

This is the first nationwide cohort study of sickness absence due to mental diagnoses and risk of premature death. The study reveals an increased risk of premature death among persons on sick leave due to mental diagnoses after adjustment for several potential confounders including morbidity.

Sociodemographic determinants of recurrent sickness absence due to adjustment disorders among Dutch Post employees

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Background

Sickness absence (SA) is a major occupational and public health problem. Adjustment disorders account for most psychiatric SA in The Netherlands and recurrences occur in approximately 20% of cases. This study investigated the association of sociodemographic factors, available from an occupational health service register, with the time to recurrence of SA due to adjustment disorders.

Methods

The study population consisted of 13,582 employees working at Dutch Post from January 1997 to December 2009. Employees were included when they had had a SA episode medically certified with the ICD-10 code F43.2 for adjustment disorders. The time to recurrence of SA due to adjustment disorders was analysed by using an exponential parametric survival model including age, gender, urbanization, income, and both type (part-time or full-time) and duration of employment measured at the first SA episode due to adjustment disorders.

Results

Of the 895 employees who had one SA episode due to adjustment disorders, 123 (14%) had at least one recurrent SA episode due to adjustment disorders. The median time to recurrence was 583 (95% CI 443–724) days and was not associated with age (Hazard Ratio [HR] = 0.96, 95% CI 0.73–1.28), gender (HR = 1.01, 95% CI 0.58–1.74 women compared with men), urbanization (HR = 1.13, 95% CI 0.58–2.17 rural areas compared with cities), income (HR = 0.64, 95% CI 0.35–1.18 high income compared with low income), type of employment (HR = 1.05, 95% CI 0.62–1.82 part-time work compared with full-time work) and duration of employment (HR = 0.98, 95% CI 0.96–1.01).

Conclusions

The time to recurrence of SA due to adjustment disorders was not associated with the sociodemographic factors available from the occupational health service register. Further research on medical and work factors as well as work and social functioning is needed to reveal determinants of recurrent SA due to adjustment disorders.

Potential predictors of recurrent sickness absence due to depression: a Delphi approach among mental health scientists and professionals

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Background

Psychiatric disorders are among the most common sickness absence (SA) diagnoses and notorious because of their recurrence. Little is known about factors associated with recurring psychiatric SA. This study sought for consensus on potential predictors of recurrent SA due to depression using a Delphi approach involving mental health scientists and professionals.

Methods

The panel (N = 46) included 23 scientists with 13 (range 2–27) years of experience in studying mental health and work, and 23 professionals with 19 (range 11–33) years of experience in assessing work disability because of mental disorders. Depression was defined according to criteria of the International Classification of Diseases (ICD-10 F32 excluding F32.3). Recurrences of SA due to depression were defined as episodes starting at least 4 weeks after full return to work and within 3 years. Based on a review of literature, an instrument was developed that included 67 factors related to recurrent depression. The panel members were asked to score the impact of each factor on recurrent SA due to depression on a range of 1 (no impact) to 10 (very high impact). If 75% or more of the panel members rated a potential predictor with a score ≥ 7, this was considered as consensus on high impact of the factor.

Results

In the first round, 78% of the panel members responded and consensus was reached on a high impact of the lifetime number of depressive episodes, substance abuse, residual symptoms after resuming work, social and work dysfunction, comorbid anxiety and DSM axis I and axis II disorders, neuroticism, stressful events in private life or at work, commitment to work, and high demands + low control in work. In the second round, 79% responded and additional consensus was reached on a high impact of the age at first depressive episode, severity and duration of the first and last depressive episodes, psychological job demands, decision latitude, and effort-reward imbalance.

Conclusions

By using a Delphi approach, 21 potential predictors of recurrent SA due to depression have been identified. These factors can be included a diagnostic model to predict future recurrences of SA due to depression.

Health, quality of sleep and professional career in female white-collar workers returning to work after long-term sick-listing due to burnout, stress reactions and depression

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Background

Long spells of sickness absence are associated with a reduced probability of return-to-work (RTW), and an increased risk of exclusion from the labour market. New definitions of sickness and changed attitudes could underlie at least part of the increase in sickness absence in the end of the 1990s in Sweden. Sickness absence is not identical to health status, strictly tied to biomedical dysfunction; the mechanism is more complex. It has been suggested that it could be an indicator of health if it includes social, psychological and physiological dimensions, as well as medical dysfunction. Accordingly, RTW has been recognized as a process influenced by a variety of social, psychological, and economic factors This study is a three-year follow-up of female white-collar workers, who were on long-term sick leave in 2004 due to stress-related and minor mental disorders. The aim is to show what promotes RTW, and the impact of a long period of sickness absence on professional career.

Methods

The study includes a cohort of 233 women who were currently on medically certified sick leave lasting ≤ 90 days in 2004. A postal questionnaire was sent out after 34 months, as a follow-up, regarding self-rated health, quality of sleep, sick-listing status, occupational status etc.

Results

69% of the women had fully returned to working life. One of the most salient findings is that almost half of those 69% had changed jobs and more than a third were in a new profession. Those who were back in working life rated less negative consequences of the long-term sick-listing on professional career, and their quality of sleep was better (OR 2.90 CI 1.50–5.60 “sleeping all night”). Improved self-rated health showed a weaker association with RTW than better quality of sleep. Those who had returned to working life reported more control over their lives (OR 1.98 CI 1.01–3.88).

Conclusions

The findings imply that in work health promotion and rehabilitation, and in efforts to prevent sickness absence due to stress-related disorders, important factors to be considered are job mobility and also changes in present work, improved sleep and control over one’s own life.

The Risk of Withdrawal from Labor Force in Patients with Schizophrenia in Taiwan

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Background

Mental illness has been showed to have a negative impact on labor market outcomes and productivity. This study was designed to assess the risk of withdrawal from labor force in schizophrenic patients using a national claim-based database in Taiwan

Methods

The Psychiatric Inpatients Medical Claims Data of 1996–2002 from the National Health Research Institute (NHRI), Taiwan was used. Patients who (1) were diagnosed with ICD-9-CM code of 295 for the first time between 1998 to 2001, (2) were aged between 18–65 and under employment at the incidence, and (3) were eligible National Health Insurance enrollees during the whole observation period were identified.

Controls were retrieved from a cohort of 1 million randomly selected subjects from the NHRI Database of 1996–2002. Those who had any psychiatric diagnoses (ICD-9-CM codes 230–239 or A-codes A210-A219) were exclude and then matched for age, gender and urbanization level at 1 to 4 ratios. An index date was defined as the date of the incident medical claim occurred with a diagnosis of schizophrenia. Baseline was marked 365 days before the index date. Subjects were observed from the baseline till death or the end of the study (December 31, 2002), whichever came first. Withdrawal was seen as an event and subjects without events occurred were considered censored at the end of observation. Kaplan-Meier method and Cox Proportional Hazard Model were used to estimate cumulated employment rates and the risk of withdrawal from the labor force

Results

- A total of 7,980 patients were eligible for analysis.
- Schizophrenia patients were at increased risk of withdrawal from labor force than controls found with Cox regression analysis after controlling for covariates (HR: 2.597, $p < 0.0001$).
- The chance of remaining in labor force was 76% and 91% at one year of time since baseline, and 44% and 80% since index date, respectively for schizophrenia and controls. The differences were significant ($p < 0.0001$).
- Median time of remaining in labor force was 423 days for schizophrenias.

Conclusions

Schizophrenia had an increased risk of withdrawal from labor force even before it was diagnosed in Taiwan.

7.H. Cancer prevention and care

A prospective association between quality of life and risk of cancer

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Background

The question of whether social and psychological factors contribute to cancer etiology has attracted attention for centuries. Although evidence has identified genetic, environmental, lifestyle, and socioeconomic factors as potentially increasing the risk of cancer, the contribution from social and especially psychological factors has been questioned, especially due to lack of prospective studies. The goal of this study was to investigate, in a longitudinal setting, the association between risk of cancer and measures of self-reported social network, self-reported health (physical and mental), and quality of life.

Methods

In 1993, 4488 cancer free individuals aged 31–33 years from The Copenhagen Perinatal Cohort were asked to rate their social network, their physical - and mental health, and quality of life. The study population was followed until end of 2006 in the Danish Hospital Discharge Register to obtain information on registration with a cancer diagnosis. Risk estimates were calculated using Cox proportional hazard regression.

Results

During the follow-up period, 102 individuals were diagnosed with cancer. After adjustment for age, sex, income, lifestyle factors, and other diseases, individuals rating their quality of life to be poor had a hazard ratio of 1.90 (95% CI = 1.1–3.4) for cancer compared to individuals with a high quality of life. Individuals rating their quality of life to be good had an age adjusted hazard ratio of 1.31 (95% CI = 0.8–2.2). Inserting a time-lad of three years to minimize reverse causation did not change the estimates notably. Self-rated physical and mental health were significantly associated with the risk of cancer, but these estimates became insignificant after adjustment for confounding factors. Social network was not associated with risk of cancer.

Conclusion

In this study, with a relatively strong design, the risk of cancer was almost doubled in individuals rating their quality of life to be poor compared to individuals with the most positive rating of their quality of life. Our results suggest that broad assessment of general well-being as assessed with global quality of life self-rating seems to be a better predictor of cancer risk than more specific information on social network and self-rated health.

Trends and inequalities in cancer mortality in Scotland, 1974–2009

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Background

Despite substantial declines, cancer mortality rates in Scotland are among the highest in Western Europe. Rates are generally higher in deprived areas of Scotland. We examine trends and socioeconomic inequalities in cancer mortality in Scotland between 1974 and 2009.

Methods

Death rates from the four most common cancers (lung, colorectal, female breast and prostate) were age standardised to the European standard population. Age, sex and deprivation specific time trends were analysed. Inequalities were assessed, using the relative index of inequality (RII), by quintiles of area deprivation; Carstairs and Scottish Index of Multiple Deprivation (SIMD).

Results

Between 1974 and 2009, all cancer mortality rates (30 + years) dropped from 534 per 100,000 men to 408 and from 329 to 297 in women. Trends varied by age, sex and site; eg for men 65+, lung cancer rate dropped from 726 in 1980 to 433 in 2009; 10-year % decline in 1980–89 was 6%, 1990–99 15% and 2000–09 15%. The rate for women rose from 130 in 1980 to 286 in 2009; respective 10-year increases were 65%, 21% and 6%. Male colorectal rate dropped from 213 to 166; respective 10-year % declines rose from 4% to 19%. Respectively, breast cancer rates were 133 and 112 with an increase of 16% in 1980–89 and a 16% drop in 2000–09; and for prostate, 169 and 186, with an increase of 26% in 1980–89 and a 17% drop in 2000–09. For men aged 30–64, lung cancer declines were 20%, 29% and 16% in 1980–89, 1990–99 and 2000–09 and for women 6%, 16% and 6%; colorectal were 17%, -10% and 11% (men) and 15%, 23% and -14% (women); breast 4%, 16% and 23%; and prostate 22%, -30% and 15%. Overall, socioeconomic inequalities had increased; eg for men 30–64, RII by Carstairs' quintile for lung cancer rose from 2.4 in 1981 to 4.3 in 2001 and RII by SIMD quintile rose from 4.6 in 2002 to 5.0 in 2008. Respective RIIs for women were 2.4, 2.4, 3.5 and 5.1. For colorectal, respective RIIs were 1.2, 1.2, 1.3 and 1.8 (men) and 1.0, 1.1, 1.1 and 1.5 (women); breast 1.0, 1.0, 1.0 and 1.4; and prostate 0.9, 1.1, 1.3 and 1.7.

Conclusions

Despite a decline in lung cancer mortality, inequalities are widening. Although less steep, declines are evident for colorectal, breast and prostate cancer at younger ages with inequalities also emerging.

Level of education and income as determinants of breast and cervical cancer screening: a meta-analysis

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Background

Despite the fact that mammography and Pap-test have been widely recognised as the most essential tool for reducing cancer mortality, socioeconomic disparities still persist in the use of these preventive services. This study aims to evaluate the extent of association between the level of education and the income and the use of breast and cervical cancer screening services.

Methods

A systematic review was performed to identify studies focusing on socioeconomic determinants of screening female attendance. The findings from studies, meeting specific inclusion criteria, were extracted for a methodological assessment of quality. Different meta-analyses were carried out separately for each type of intervention regarding to the level of education and the income. A random effects model was applied to the odds ratio comparing the highest group with the lowest one for both independent variables. Heterogeneity among studies was tested by using Cochran's Q statistic. A sensitivity analysis was performed to assess the robustness of the study.

Results

Results from meta-analyses of the 13 included articles, showed that both socioeconomic variables impact on the use of screening services. This association was stronger for the level of education: women with the higher level of education were more likely than women with the lower one to use screening both for breast cancer (OR = 1.81; 95% CI = 1.53–2.15) and for cervical cancer (OR = 2.13; 95% CI = 1.89–2.41). The higher income women had a higher likelihood of screening attendance compared with women with lower income with an OR = 1.57 (95% CI = 1.10–2.24) for mammography and an OR = 1.58 (95% CI = 1.27–1.97) for Pap-test. There was no evidence of publication bias by the funnel plot.

Conclusions

It is essential to promote screening services among women in order to tackle these wide and strong socioeconomic disparities.

Epidemiology of and survival from thyroid cancer in the Arkhangelsk region, Russia, 2000–2009

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Background

The aim of the study is to describe incidence, mortality and distribution of thyroid cancer in one of the largest counties in Northwest Russia in the first decade of the XXI century and to investigate factors that influencing survival of thyroid cancer patients using the data from the Arkhangelsk Regional Cancer Registry (ARCR).

Methods

Data on all new histologically confirmed cases of thyroid cancer in the Arkhangelsk region in 2000–2009 were extracted from ARCR. Population size was obtained from the Regional Bureau of Statistics. Age-adjusted incidence and mortality rates were calculated per 100,000. Survival was assessed by Cox Regression with backward elimination procedure. Patients' age, gender, place of residence (rural/urban), cancer stage and morphology were used as potential explanatory variables. Hazard ratios (HR) with 95% confidence intervals (CI) were calculated.

Results

Altogether, 529 new cases of thyroid cancer were registered during study period. Females constituted 82.8% of cases. Papillary carcinoma, follicular carcinoma and other forms were registered in 56.3%, 27.7%, and 21.9% of patients, respectively. Stages 0, 1, 2, 3, and 4 were detected respectively in 1.1%, 58.0%, 16.4%, 13.2%, and 11.0% of patients. Three fourth of all patients (74.5%) were urban residents. Patients older than 45 years among females and males constituted 66.4% and 62.6%. The incidence increased from 4.3 in 2000 to 4.4 in 2009 while mortality decreased from 0.4 in 2000 to 0.2 in 2009. Gender (HR = 2.85, 95%CI = 1.52–5.3), patient's age in decades (HR = 2.02, 95%CI = 1.51–2.70) and stage of disease (HR = 5.08, 95%CI = 3.01–8.57) were all associated with survival with stage being the most influential variable.

Conclusions

Incidence of thyroid cancer in Arkhangelsk region of Russia slightly increased during last ten years while mortality halved. Most of the patients are urban residents, females and are older than 45 years. Cancer stage, age of patients, gender and morphology were all associated with survival.

Hepatitis B and C viruses and survival of hepatocellular carcinoma patients in the Arkhangelsk region, Russia

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Background

Hepatocellular carcinoma (HCC) is the most common liver cancers representing. 6% of all cancers cases worldwide. Viral hepatitis B (HBV) and C (HCV) are causal agents of the HCC development. Less is known about the effect of HBV and HCV on survival of HCC patients.

Aims

to study proportions of HCC cases with and without HBV and HCV and to study their effect on survival of HCC patients in the Arkhangelsk region of Russia.

Methods

Data on all HCC cases from 2000–2008 including viral status were obtained from the Arkhangelsk regional cancer registry (ACRC). Kaplan-Meier analysis with log-rank tests was used for the analysis of survival of HCC patients with and without HBV and HCV. Further adjustment for cancer stage and patents' age and gender were performed using Cox regression.

Results

Altogether, 573 histologically verified cases of HCC were registered in the ARCR in 2000–2008. For 311 (54.1%) patients, pre-mortem diagnosis of viral hepatitis B and C was registered. Among them 39.9% (95% CI 34.4–45.4) had HBV, 17.4% (95% CI 13.5–21.9) had HCV, and 5.1% (95% CI 3.2–8.2) had both HBV and HCV. The median survival of HCC cases was 3.0 (95% CI, 2.3–3.4) months, 3.0 (95% CI, 2.1–3.9) months and 5.0 (95% CI, 3.5–6.5) months for HBV, HCV and virus-free patients, respectively (log-rank $\chi2 = 10.81$, $p = 0.013$). Adjustment for age, gender and particularly stage reduced the associations to non-significant levels.

Conclusion

More than a half of HCC patients in the Arkhangelsk of Russia are infected by HBV or HCV. Moreover, median survival among HCC patients infected with HBV or HCV is almost a half of that of virus-free patients. No associations between HBV and HCV and survival could be explained by the fact that patients with HBV and HCV seek medical attention and get diagnosed at more advanced stage of HCC. Other potential explanatory factors behind the observed associations will be discussed.

Malignant brain tumors in the Arkhangelsk region, Russia in 2000–2009: a registry-based study

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Background

Incidence of brain tumors (BT) has been increasing worldwide becoming an important public health issue. However, the evidence from Russia in general and Northwest Russia in particular is scarce.

Methods

Data on all new histologically confirmed cases of malignant BT for the period 2000–2009 were obtained from the Arkhangelsk Regional Cancer Registry (ARCR). The Regional Bureau of Statistics provided information about population size of the region. Age-standardized incidence and mortality rates were calculated per 100,000. Survival of the BT patients was assessed using Kaplan-Meier survival analysis with log-rank tests.

Results

Altogether, 664 new cases of malignant BT were registered during the study period. Females comprised 50.8% of all cases. More than two thirds of the patients (68.8%) were from urban areas. Patients from the two biggest cities of the region (Arkhangelsk and Severodvinsk) comprised 59.1% of cases.

Cases older than 17 years represented 92.9% cases. The incidence of BT increased from 5.4 per 100,000 in 2000 to 6.2 per 100,000 in 2009. At the same time, mortality decreased from 4.0 per 100,000 in 2000 to 3.8 per 100,000 in 2009. Both age and stage were associated with survival (both at $p < 0.001$) while no difference in survival by gender ($p = 0.648$) was observed.

Conclusions

Similarly to many other parts of the world, the incidence of malignant BT in the Arkhangelsk region of Russia increased during the last decade while mortality remained largely unchanged. Most of the patients were urban residents and adults. Survival was better for younger patients and for early stages of BT while no gender differences were detected.

Risk factors for patient delay among breast cancer patients in Estonia

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Background

Survival from breast cancer (BC), although improving, is still much lower in Estonia than in most other European countries. More than half of BC cases in Estonia are diagnosed at an advanced stage. The purpose of this study was to evaluate patient delay in BC diagnosis in Estonia and examine the role of socioeconomic factors on patient delay.

Methods

Data were collected on women diagnosed with BC from May 2008 to December 2010 and treated at the North Estonia Medical Centre (covering about two thirds of cancer patients in Estonia), using structured interviews carried out by trained nurses. This analysis included only symptomatic patients. Associations between potential risk factors and increased patient delay, defined as not seeking appointment with a doctor within seven days after discovering symptoms, were assessed using logistic regression.

Results

During the study period, 809 women were interviewed and among these, 571 patients were eligible for this analysis. A total of 64% of respondents attempted to contact a doctor within seven days after discovering symptoms. In multivariate logistic regression analyses, the risk of increased patient delay was almost two times higher (significant increase) among women aged 70 and over compared with younger women, women of Estonian nationality compared with non-Estonian women, current smokers compared with non-smokers and ex-smokers, and women who reported to have had no knowledge on BC prior to their diagnosis compared with women who reported having received information from two or more sources. Also, interview year 2010 was associated with a significantly increased risk of patient delay compared with year 2008. A trend towards increased delay was observed with lower educational level, although this finding was not statistically significant. Income, self-reported deprivation, unemployment, marital status, household size, and place of residence did not appear to be associated with patient delay.

Conclusions

Patient delay in BC diagnosis appears to be an important and increasing problem in Estonia. Efforts should be made to increase BC awareness and to make information on BC more widely available for all social groups, but particularly among older women, less educated women, and unexpectedly, Estonian women.

Pain Management in Emilia Romagna oncology home care patients

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Background

In recent years, Italian national studies have focused primarily on pain management in hospitalized patients. However there are still very few studies aimed at promoting the involvement of territorial health services.

This study is part of a national investigation of oncology patients, where the overall aim is to evaluate the quality of pain management in hospital, hospice, day hospital and home settings. Therefore, an adequate questionnaire on the quality of pain management for home patients was needed.

The purpose of this Emilia Romagna study is to assess the prevalence of pain and to evaluate pain management in oncology home care patients. Additionally some psychometric properties of the Italian version of the American Pain Society Patient Outcome Questionnaire (APS-POQ) for home care patients were examined.

Methods: A one-day prevalence study was conducted in all Health Authorities of the Emilia-Romagna region. The APS-POQ was sent by post and adapted to make it easier to understand for people living in a family context.

The survey tool consists of three main subscales, namely the modified Brief Pain Inventory, the subscale on satisfaction with pain management and the subscale on beliefs about pain management. The reliability of these three main subscales was estimated using Cronbach's alpha coefficients and the construct validity was evaluated using principal-axis factor analysis with oblimin rotation.

Results

607 (50,67%) out of 1198 eligible patients participated in the survey. The prevalence of severe pain is 29,11%. 30% of home patients waited between one day and over three days to receive medication.

Results showed positive psychometric properties of the Italian version of APS-POQ for home patients, particularly for the sections assessing intensity and interference of pain, and satisfaction with pain management.

Conclusions

This is the first national study aimed at assessing the prevalence of pain in home setting.

The revised APS-POQ appears to be an acceptable method of evaluating pain management in home patients.

However, the alpha value of the Beliefs subscale was low, and thus the subscale is not recommended for this purpose. For the future it would be more appropriate to make a cross-cultural adaptation of this subscale.

Knowledge, beliefs and attitudes on cancer and barriers to access services in North African population

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Introduction

The objectives were to explore the perceptions, beliefs and attitudes about cancer prevention, and the identification of barriers to their access to health services.

Methods

Qualitative study design using focus groups (FG). The study population were women and men from the Magreb, between 20–50 years, with low income, at least 2 years of residence in Spain, who understand and speak Spanish, two levels of education: low (no education or primary) and medium (secondary). The study was conducted in a neighborhood of Algemesí (Spain). Four FG were conducted distributed by gender and educational level, with a total of 38 participants. The dimensions explored and later analyzed were knowledge, stereotypes and beliefs about cancer and its risk and protective factors; their perception of risk and severity of cancer and the barriers accessing health care and the prevention cancer services. The groups were recorded and transcribed verbatim. A discourse analysis was made.

Results

Throughout all groups, a gender discourse but not by education level was identified. The most important gender discourse is produced by the different perception of vulnerability to development of cancer (''. . . . is a disease that mainly women have''). Regarding barriers to access to health services, the women were focused on the need for consent by the couple to seek health services, they recognizes the professional sex as a barrier, and the fear of being diagnosed with cancer by the possible rejection by a partner (''. . . . not useful in reproduction''). The men confirmed this discourse, but taken to a impersonal level (''. . . there are men that . . ..''). We identified correct knowledge, not different by educational level and gender, related with the risk and protective factors associated with cancer, related to food, skin protection, not smoking or drinking, hygiene, etc.

Conclusions

Would be necessary to change stereotypes of the disease by gender, through public health interventions designed and implemented with this population. Also improving information and access to services, including the adaptation of Arabic language material. Finally gender sensitive interventions that convey positive messages about the cure of the disease, and highlight the free nature services and screening programs.

Develop a helpful guide to reading quality information (e-Galic) on health and cancer on the Internet, a user manual and content validity

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Introduction

The objective is to develop a helpful guide for reading quality information (e-Galic) on health and cancer on the Internet, a user manual and content validity.

Methods

Medline search with keywords: health related websites, cancer, criteria, consumer (2000–2009) was made. We selected those that use quality criteria about cancer information in methodology, completed by a Google search. Criteria identified were used to design a preliminary questionnaire in order to help assess compliance with these criteria in Web pages. We developed a manual that along with this questionnaire was tested in a 24 hour workshop (Nov 2009) of 33 affected and unaffected with cancer, 4 men and 29 women, 18–60 years, with knowledge of Internet. The workshop's objective was to conduct a content validation of the questionnaire to ensure that cover the range of quality needs the information to the public. The workshop was evaluated with 4 focus groups (FG) in affected (C) and unaffected (NC) of cancer, pre-and post-workshop, and a continuous assessment.

Results

47 papers were obtained, and 16 were selected using following codes of conduct: DISCERN (7), Health on the Net (5), JAMA (3) and E-Europe (3). We identified 14 quality criteria and were grouped into 3 dimensions: a) formal quality b) ethical issues of authorship and conflict of interest and c) reading comprehension and content suitability. In the pre-workshop, the C identified the need for ''certified'' sites, NC barriers such as information overload, lack of effective search criteria, overly technical and incomprehensible language. After workshop, the C believe that more websites should carry quality labels, proposed to be easy to use and dynamic, that can be used while looking for information, understand and adapt to all kinds of people with an interactive cheklist / or hand-book format. The NC thinks that the questionnaire has to be quicker. The e-Galic was designed with 32 questions: 20 general assessment (eg: Is it clear what sources of information were used to compile the publication?) and 12 specific content (eg: Describes the risks of each treatment?) resulting in an overall quality index.

Conclusions

It has developed an e-Galic based on a compilation of quality criteria, guided and validated in a population accompanied by a manual.

7.I. Infectious diseases – from prevention to preparedness

A study of the prevalence of methicillin-resistant Staphylococcus aureus in swine and nasal carriage in personel working in swine farms in Romania

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Background

Zoonotic diseases are a significant threat to humans and animals as they represent 73% of emerging infectious diseases. One zoonotic pathogen that deserves special attention is methicillin-resistant Staphylococcus aureus (MRSA). MRSA is typically a hospital-related problem, but recently has emerged as an important community-aquired pathogen.

Methods

In July 2010, we conducted a cross-sectional study of veterinarians and swine workers in Romania in relation with MRSA occupational exposure with the intent to evaluate the prevalence of MRSA carrier status of veterinary personnel and swine farm workers in relation with the MRSA carrier status of the swine they are exposed to and evaluate the occupational risk factors for colonization and infection in veterinary personnel and swine farm workers. We sampled the nares of pigs (n = 80) and workers (n = 100) from different production systems in Tulcea county, Romania, comprising approximately 55,000 live animals. The samples were collected from 67 swine workers (from 2 commercial pig farms), 18 pig owners from Tulcea county villages (backyard farms) and 15 veterinarians (eight from commercial farms and seven from mixed animal practices). We tested the samples for MRSA by disk diffusion method. The positive samples were analyzed using the Technical University of Denmark PCR protocol: multi locus sequence typing, detection of mecA, nuc and 16s genes.

Results

The overall prevalence of MRSA carrier status was 25% for volunteers and 22,5% for pigs. All swine personnel identified as nasal MRSA carriers (n = 25) were working in commercial farms, none in backyard farms. One nasal sample out of 18 backyard farm pig samples was MRSA positive, 17 positive samples were obtained from commercial pig farms.

Conclusions

Large swine herds seem to have a higher risk of MRSA carriage. Also, the risk is present in the case of personnel exposed to swine, leading to increased opportunities for transmission between humans and pigs. This is the first study reporting on MRSA carrier status of personnel and pigs in Romania. In comparison to reported MRSA rates of 11–71% in pigs produced in other European Union countries, this result suggests that MRSA carriage by pigs and pig-to-human transmission may be a major issue in Romania.

Did pandemic preparedness activities aid the response to influenza (H1N1) pandemic in 2009? a qualitative analysis

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Background

Although the 2009–10 influenza A(H1N1) pandemic was of low severity compared with those of the 20th century, this was the first chance for Member States to implement a real-life pandemic response, drawing on plans made and planning activities undertaken in the preceding few years, notably from 2004 onwards. The aim of the project was to review the extent to which those plans and planning activities proved useful; and to identify areas of pandemic planning that require further strengthening.

Methods

We randomly selected seven Member States within the WHO European Region to participate in a comprehensive qualitative study to evaluate the pandemic planning activities (PPA) undertaken before March 2009, in relation to the subsequent pandemic response mounted from May 2009 onwards. WHO expert teams visited each country and interviewed stakeholders from health and civil response ministries, national public health authorities, regional authorities, family doctors and hospital physicians using a 'whole of system' approach from frontline services to central government.

Results

Using content analysis, we identified six consistent major themes, which were essential elements of successful PPA: communication; coordination; capacity; adaptability/flexibility; leadership; and mutual support. PPA had generally been successful, with multi-sectoral involvement, political support and dedicated funding emerging as important success factors. However, in future PPA, greater emphasis still needs to be placed on these areas, as well as improving planning for: communications (with the public and health professional end-users); vaccine procurement and logistics; flexibility of response; use of diagnostic tests; and real-time surveillance.

Conclusions

PPA were successfully undertaken in the WHO European Region prior to the 2009 pandemic. These activities proved to be effective and were generally appropriate for the response made in 2009. Nevertheless, consistent themes also emerged regarding specific areas of ''under-planning'' common to most countries surveyed. These should now be rectified in the post-pandemic recovery phase.

The Greater Manchester Hepatitis C Strategy needs assessments and equity audit of BBV prevention services in Greater Manchester: summary of key findings

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Background

The Greater Manchester Hepatitis C Strategy (GMHCVS) commissioned the Joint Strategic Needs Assessments (JSNA), Training Needs Assessments
(TNAs) and Health Equity Audit (HEA) for the prevention of blood borne viruses (BBV) focusing on Hepatitis C (HCV) in Greater Manchester (GM) following the year on year increase in prevalence of HCV in GM.

Methodology

We contacted all service providers in GM to complete validated, semi-structured telephone questionnaires. The questionnaires contained mixed quantitative/qualitative components. We collated existing data.

Results

The JSNA had a response rate of 84% (676/802). The results were split into demographics, service provision, primary prevention, secondary and tertiary prevention. There is excellent practice in some areas and services but significant variation in service provision across GM.

Testing services vary widely with limited testing in primary care settings. The TNAs response rate was 91% (84/92) to 100% (3/3) and found there are limited training packages for professionals working in the field of HCV. The HEA had a response rate of 88% (57/82) and identified a lack of available data and audits been conducted in service provision/client monitoring. There are inequities with regard to age, gender, ethnicity and socio-economic status. We have recommended an evidence-based action plan to be formulated in the BBV prevention strategy.

Conclusions

These reports provide an important baseline, sets out the policy context and current service provision situation followed by an analysis of local data. All recommendations are made based on available research evidence that is aimed at supporting future commissioning decisions. It is essential for a GM approach to commissioning, hence the need for the GMHCVS to co-ordinate activity.

Burden of infectious diseases in Germany - preliminary results from the Burden of Communicable Diseases in Europe (BCoDE) pilot study

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Background

To provide estimates of the burden of communicable diseases in Europe, the ECDC initiated the BCoDE project in 2009. The main objectives of the pilot study are to test and improve the feasibility of methodology by first assessing the disease burden of four selected pathogens in Estonia, Germany, Italy and The Netherlands. Methods: The BCoDE consortium used a refined methodology based on the Global Burden of Disease approach to estimate the disease burden of measles, influenza, HBV and salmonellosis. A pathogen-based approach was developed to account for long-term sequelae resulting from an initial infection. Disease burden was quantified in terms of Disability Adjusted Life Years (DALY) for the selected infectious pathogens in Germany, and multiplication factors were used to account for under-estimation. Results: For the study period of 2005–2007, annual averages of 882 DALYs for measles, 34,690 DALYs for influenza, 6,839 DALYs for HBV and 3,575 DALYs for salmonellosis were calculated for the German population. DALY rates per 100,000 were 0.99 for measles, 39.79 for influenza, 8.18 for HBV and 4.34 for salmonellosis. For measles and influenza the acute burden (mortality and morbidity) accounted for 97.4% and 94.5% and the sequelae burden for 2.6% and 5.5% of the total burden, respectively. For HBV and salmonellosis, the acute burden accounted for 2.6% and 35.0% and the sequelae burden for 97.4% and 65.0% of the total burden, respectively. Stratified by sex, male disease burden for measles, influenza, hepatitis B and salmonellosis was 1.03, 43.09, 8.04 and 4.29 DALY/100,000, respectively. The female burden of measles, influenza, HBV and salmonellosis accounted for 0.95, 41.19, 8.30 and 4.39 DALY per 100,000 population respectively. Conclusion: The preliminary results indicate that the BCoDE methodology allows for comprehensively estimating the impact of infectious pathogens on population health in Germany. For hepatitis B and salmonellosis, the approach highlights the impact of long-term sequelae from infectious pathogens with 97.4% and 65.0% of the total DALY burden. These estimates still exclude the burden of prevalent hepatitis B infection acquired elsewhere. Refinement of methodology is currently under way and will provide improved estimates.

PEARL analysis: Decision making on Vaccine policy
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Background
A number of analytic methods are available for comparative assessments to support priority setting in vaccine delivery. Some of them emphasize effectiveness or economic considerations while others mainly focus on public perception about vaccines. The dramatically increasing costs of vaccines and limitation of funding reveals the necessity of priority setting. In order to make decision on most appropriate vaccine candidates PEARL analysis was applied to incorporate the necessary data.

Methods
A decision making framework was developed by collecting the ranking variables into one scoring system. Ranking variables stood for Propriety(P), Economics(E), Acceptability(A), Resources(R) and Legality(L) analysis into one setting. The seven candidate vaccines for National Immunization Program of Uzbekistan were ranked based criteria set by decision making framework. Assumptions that Uzbekistan has the high level of vaccine coverage and quite unique primary health care delivery system helped to simplify analytical tasks.

Results
Based on ranking procedures on PEARL analysis platform the most appropriate candidate was MMR vaccine. The lowest score was obtained by IPV vaccine. The midst positions were occupied by Meningococcal and Rotavirus vaccines. The donor agencies support and cost-effectiveness studies assisted to the middle stand.

Conclusion
The results of the PEARL analysis depended on the accuracy and appropriateness of the data and the assumptions that were used. The combinations of numerical and verbal variables gave the fullest insight of decision making procedures despite some limitations and uncertainty.

Cost-effectiveness of pertussis cocooning vaccination in Europe: a comparative analysis in three countries
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Background and aims: Despite universal effective vaccination against pertussis in childhood, immunity wanes over time and adults become again susceptible to pertussis infection. The latter may act as a source of infection to unprotected newborns when pertussis infection could be potentially fatal at this age. Immunisation of newborns' parents (e.g. cocooning), could reduce this risk. This analysis assesses the cost-effectiveness of such immunisation strategy in three European countries: Norway (NO), The Netherlands (NL), and Italy (IT).

Methods
A decision-tree model is used for two cohorts in each country: a birth cohort with their parents. Data on pertussis epidemiology, morbidity and costs are collected separately for the three countries, using surveillance data, published literature, and public cost sources. Pertussis incidence in adults is adjusted for under-reporting using estimates from published studies, but it is assumed that all infant cases are reported. Health benefits and costs are estimated for both cohorts. However, no direct cost was associated with unreported cases. Vaccine prices used are retail prices in the respective countries. Incremental cost-effectiveness ratios (ICER) are calculated from payer and societal perspectives. Time horizon is one year for infants, until they are fully protected by primary vaccination, and eight years for adults to account for the duration of protection of the vaccine.

Results
50% coverage cocooning is found to reduce the incidence of pertussis by 21.5%, 23.3% and 35.8% in infants in NO, NL and IT respectively, and by 44.5% in newborns' parents in all three countries. At population level this translates into a gain of 48 QALYs in NO, 939 in NL, and 495 in IT. The strategy is found to be cost-effective in all three countries from the healthcare system (societal) perspective, with cost per QALY gained being kr314,157 (kr144,477) in NO, €4,939 (dominant i.e. more effective less costly) in the NL, and €19,826 (€12,427) in IT. Results are most sensitive to under-reporting but cocooning remains cost-effective even for reporting rates divided by 2.

Conclusion
This study estimated that pertussis cocooning strategy targeting newborn parents would likely be cost-effective in three European countries.

Cost-effectiveness and benefit-cost ratios of adult pneumococcal vaccination in Germany
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Background
Currently, the 23-valent pneumococcal polysaccharide vaccine (PPV23) is recommended in Germany for prevention of pneumococcal diseases in seniors older than 60 years and defined risk groups (age 6–59). A revision of this recommendation, once the market authorization of the 13-valent pneumococcal conjugate vaccine (PCV13) in adults is published, might be considered. Therefore, this study aims to model the potential cost effectiveness and benefit-cost ratios of an adult vaccination program with PCV13 taking the perspective of the German Statutory Health Insurance.

Methods

A cross-sectional steady state Markov model was developed to estimate the outcomes of PCV13, PPV23 vaccination schemes and 'no vaccination' considering the effectiveness of both vaccines on invasive pneumococcal diseases (IPD) and community-acquired pneumonia (CAP) for three different risk groups. The effectiveness of individual pneumococcal vaccination in adults was adjusted for expected herd immunity effects of a pediatric vaccination. Incidences, effectiveness, used resources and cost data were derived from literature and official databases.

Results

Compared to PPV23, PCV13 revealed the potential to avoid a greater number of yearly cases and deaths due to efficacy in IPD and CAP in Germany. For PCV13, monetary savings resulting from reduction in the use of health care services were shown to over compensate the costs of the vaccination program. These results make PCV13 a dominant strategy compared to PPV23 and 'no vaccination'. Every Euro spent on the PCV13 vaccination scheme yields savings of 2.38 Euro (compared to PPV23) and 1.44 Euro (compared to 'no vaccination'), respectively. One-way and probabilistic sensitivity analyses confirmed the robustness of the model.

Conclusions

Results of the model indicate that the health economic benefit of immunizing adults with PCV13 can be expected to outperform the use of PPV23.

Factors affecting the uptake of HPV vaccine in North West England

Arpana Verma

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Background

The human papillomavirus (HPV) vaccine was introduced across the UK in 2009. This study investigated which school and organisational factors were associated with high uptake rates in the North West (NW) of England in 2010.

Methods

Semi-structured telephone interviews with 77 key informants (Immunisation co-ordinators, school nurse leads, immunisation teams and school nurses) were conducted across 24 Primary Care Trusts (PCTs) in the NW. Demographic data were collected from routinely available data sources. Mixed methodology using quantitative and qualitative techniques were performed to analyse the data.

Results

The response rate was 84.6% across the 24 PCTs. Preliminary uptake of vaccine was reported as a percentage for 358 schools covering 41,150 girls. The regional coverage for all three doses of HPV among the cohort of girls aged 12–13yrs was 83.7%. This variance in uptake rate was significantly different across the PCTs and the three North West areas. The variation between PCTs was significantly greater than within PCTs. HPV uptake was not significantly correlated to any demographic or school level factors at a PCT level. Religious status and GCSE attainment were not associated with HPV uptake. The different types of immunisation team structures did not significantly affect HPV uptake. The significant delivery factors that showed a positive association were advertisement in the local press and social marketing. There are many different consent procedures both between PCTs and within PCTs. Uptake is significantly higher in schools where the consent strategy of the immunisation co-ordinator and school nurse lead agreed.

Conclusions

Variations in the strategy and delivery of the HPV programme were observed across the North West. Socio-demographic factors such as deprivation levels and religious status are not associated with HPV uptake. The differences in HPV uptake between PCTs are larger than within PCTs suggesting that effective strategies are more important than demographic factors and could be readily shared e.g. strong leadership and co-ordinated consent strategy. Local media and social marketing campaigns are useful tools to improve uptake.

Vaccine Coverage Rates Among 12–23 Month Old Children Living in Four Selected Provinces of Turkey: Results of a Lot Quality Survey

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Background

The Lot Quality Technique (LQT) can easily be conducted by local staff/trained interviewers and is particularly efficient when the overall vaccine coverage is high in general population, whilst, sub-populations have heterogeneous coverage rates; and, where coverage rates of individual sub-units of the population need to be evaluated. In this study, a population-based survey was planned to evaluate coverage rates for routine childhood vaccines at the provincial-level and to further identify the districts with "unacceptably low" coverage rates.

Methods

A LQT-based cross-sectional study was conducted in four selected provinces, on a representative sample of residents aged 12–23 months in order to evaluate coverage for routine childhood vaccines (BCG, DTaPHibIPV3, OPV, Hepatitis B3 and MMR), to identify the districts with coverage rates below 75%, and to investigate reasons for non-vaccination.

Results

A total of 1640 children were included in the survey. Based on self-reports, the percentage of fully immunized children ranged between 88.6% and 98.1% in the four provinces. The percentage of timely vaccinations varied from 71.5 to 78.4, according to the type of the vaccine. Overall coverage rates were below 75% in four lots, revealing that the quality of the vaccination services were below the acceptable level in those lots.

Potential associations between children's 'fully and timely vaccination' status and some socio-demographic characteristics were examined with logistic regression modeling. The results showed that the estimated risk of improper/inadequate vaccination had increased for having an employed mother; for having primary school graduate or less educated mothers; for increase in mother's and child's age

Conclusion

This study identified vaccine coverage for ten routine vaccines to be completed before the age of 24 months, as well as, the areas requiring special attention in vaccination services. The LQT, years after its introduction to health-related research, remains an appealing technique for rapid evaluation of the extent of a variety of local health concerns in developing countries, in rural areas in particular, and is very efficient in determining performance of individual subunits in a given service area.

7.K. Methodology

Analysis of health surveillance systems in Armenia, 2009–2010

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Background

After Armenia became independent in 1991, its health care system, including public health services, was dramatically impacted. Armenian health system transitioned into a period of national reforms in late 1990s that continue today. The objective of this analysis was to evaluate the existing health surveillance systems and capacities for responsible data sharing and analysis in Armenia.

Methods

Overall, 179 participants from seven Ministries, various government agencies and departments, educational and service institutions, international organizations, non-governmental organizations and general population participated in the qualitative analysis (47 in-depth interviews and 18 focus group discussions with 132 participants) in January-June 2009. The study guides were developed based on the participants' roles/responsibilities and experience.

Results

There are various functional surveillance systems in Armenia. However, data collection is often routine and not used for decision-making. There is a lack of collaboration between different surveillance systems and stakeholders. Data flows are not integrated into a central system where access to these data can be improved for end users. Many parallel closed surveillance data systems duplicate efforts and complicate access to data. Much of the data collected are not disaggregated into categories (cross-combinations of gender, age, socio-economic status, and geography). Data analyses are limited to descriptive assessments and never cross over to analytical assessments that would improve the information value for decision-makers and stakeholders. Therefore, the existing system does not allow for community health diagnosis, analysis of trends, gaps and inequalities in the health status of specific populations, identification of needs, and planning of data orientated interventions.

Conclusions

The recommendations include establishing an integrated surveillance system with optimally useful disaggregated categories, improving collaboration, communications and data-sharing between different surveillance systems and increasing data value for decision-making through utilization of analytical epidemiology and statistics. These findings are relevant to other economies in transition that face similar problems.

Models and approaches for quantification of health impacts - preliminary evaluation results

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Background

Internationally, Health Impact Assessment is now established as a key tool for supporting evidence-based policy-making, with quantification approaches being used to forecast future trends and to compare potential impacts across policy alternatives ('what - if'). This paper investigates quantitative models and approaches currently available for Public Health practice, and how they compare.

Methods

We conducted a dedicated 'comparative' workshop, involving model developers and presumptive users. Different approaches, models, and tools were presented in the workshop. In addition, program documentation as well as published literature was used. Based on explicit criteria (both descriptive and evaluative), all information was consolidated into a synopsis, highlighting specific strengths and differences.

Results

Six approaches from Europe (some of them originating from EC co-funded projects) and one approach from the USA were included: PREVENT, DYNAMO-HIA, INTARESE/HEIMTSA (representing multiple models), Impact Calculation Tool (ICT), MicMac, NRW "Burden of Disease" model, and the California Health Forecasting tool. These approaches are found to be rather heterogeneous. Some of them are "empty shells" and rely largely on user-provided data, e.g. on population, risk factors, diseases; others already incorporate data sets from registries, surveys, etc.; some focus on physical environment, others on personal risk factors, e.g. smoking, obesity. In some cases, micro simulations of potential life course developments are being conducted. Beyond stand-alone programs, there are comprehensive toolkits including user guidance. All approaches provide various epidemiologic outcome measures and allow for comparing health impacts under varying policy options. Users need profound knowledge of underlying epidemiological concepts. The documented application of such models for policy-making seems rather limited so far.

Conclusions

A range of sophisticated, science-based models and tools for use in HIA is now available, promising to support the practice of evidence-based policy-making. However, broader exploration in different contexts is needed in order to further evaluate the relative merits and usefulness of these approaches.

Quantitative health assessments for regional and local health policy-making - Adding value by considering their interrelationships

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Context

Health policy-making on regional (subnational) and local level involves numerous actors, is subject to multiple constraints, and is often short of resources. In this situation it is crucial to solidly support the policy-making process with reliable evidence. A range of different quantitative health assessments is in use for this purpose, but they are rarely used in a systematic, coordinated mode.

Methods & materials: Drawing on our combined professional experience, we reviewed 10 major types of quantitative health analysis known to be applied to support regional and local health policy-making. We also selected (EC co-funded) projects related to such analyses, existing guidelines as well as 'good practice' examples; defined comparative criteria; characterized the different assessments; and identified key interrelationships as well as main differences of the assessments.

Results

The list of health analyses considered here includes: status quo & trend analysis, forecasting, prevention potentials, health (care) needs analysis, prioritization, risk and impact assessment, performance assessment, technology (innovation) assessment, and evaluations. The main criteria selected for comparison are: purpose / information gain; timing; usage of indicators; role of comparisons; statistical methods. Across the range of assessments, e.g. of needs (HNA), risks (QRA), impact (HIA), systems performance (HSPA), and technology (HTA), the various forms included 'standard' epidemiologic methods, but were found to differ characteristically and often to involve comprehensive infrastructures ('cultures'). They were found to be highly interrelated, offering the opportunity for a novel 'modular' approach, adjustable for different contexts, priorities, and target groups.

Conclusions

For supporting regional and local health policy-making, a range of overlapping, interrelated health assessments has evolved at the science-policy interface. We conclude that these assessments and their 'cultures' provide a wealth of concepts and experiences. The success and efficiency of such assessments might be increased by modularizing and integrating existing approaches. For exploring such options, close cooperation with the existing 'cultures' of health assessment needs to be maintained.

Quantification in Health Impact Assessment - case study of commuting by bicycle in Copenhagen

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Background

The aim of Health Impact Assessment (HIA) is to prospectively assess the health effects of policies/plans/projects, primarily in other sectors than health, and hereby attribute to well-informed decision making. To date, only few HIA's conducted have focused on quantification of potential health effects. The objective of this study was thus to illustrate how a quantitative approach, based on Burden of Disease calculation, could be used in the effect analysis stage of HIA.

Methods

An HIA was conducted of a plan to increase the share of commuters using bicycles as their means of transport in and out of Copenhagen. The analysis followed HIA methodology, consisting of four phases: screening, scoping, risk assessment and reporting, with a focus on quantitative risk assessment. Based on WHO's estimates of the Global Burden of Disease, it was calculated how the population's disease burden would change as a consequence of increased commuting by bicycle. A literature review was conducted to select relevant health determinants and outcomes to include in the analysis. Relative changes in the burden of disease were calculated using Potential Impact Fraction.

Results

Based on the screening and scoping of the plan, the risk factors physical inactivity, air pollution and bicycle accidents were included in the analysis. Due to opposing effects of the disease burden from outcomes related to physical inactivity versus the burden from accidents, the primary analysis showed that the burden of disease in the population of commuters could only be reduced marginally through increased commuting by bicycle. However, if increased commuting by bicycle could be obtained without increases in the amount of accidents, and if the commuters shifted to bicycling were overall physically inactive at baseline, an effect on the burden of disease could be achieved.

Conclusion

Commuting by bicycle has potential to improve public health. However, achievement of this potential presupposes no increase in the burden of disease from bicycle accidents and a maximum change in exposure to physical inactivity among the commuters shifted to bicycling. The analysis hereby illustrates how HIA can help clarify the health effects of future policies/plans/projects and thus support decision making.

The application of the Data Envelopment Analysis to evaluate the efficiency in Primary care in Italy

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Context

Even though primary care (PHC) is a strategic area in healthcare systems, only few studies focused on tools and policies to evaluate its economic efficiency. The purpose of this study was to apply the Data Envelopment Analysis (DEA) in order to analyze the technical efficiency (TE) of primary care among the Italian Regions and to determine the contribution of endogenous and exogenous factors.

Methods

First, we performed an extended literature review to find out the application of DEA in PHC and to define the variables to be included in the TE analysis in primary care settings. Then, we built up a conceptual framework reflecting the aims and functions of the PHC system among the Italian regions and classified them in terms of endogenous (ie, inputs, activities, outputs and outcomes) and exogenous (eg, context) factors. Data were referred to 2007–2008. We processed the efficiency scores by univariate analysis and by means of a censored Tobit regression model.

Results

According to the literature review, we analyzed TE by applying an output oriented DEA model and assuming Constant Return on Scale (CRS). The input variables were represented by availability of General Practitioners (GPs) and per-capita GP financing, as the output variables were the GPs visits, flu- and Measles-Mumps-Rubella-vaccines, avoidable hospitalizations and accesses to Emergency Departments. Twelve Regions out of twenty-one, reported an efficiency score higher than the mean value. If compared with the more efficient Regions, the inefficient Regions were likely to use more input resources.

Discussion

As PHC is considered a milestone to keep healthcare more appropriate, timely and patient centred; troubles to deeply investigate its quality rely on the scarcity/lack of sustainable tools of information and investigation. DEA application in PC would pay such limitations, as well as the necessity to control for the exogenous variables. Nevertheless, in a context like the Italian, actually characterized by a devolution process in healthcare delivery and by the necessity to evaluate its impact on quality of care, the DEA analysis is likely to represent a decision tool sustainable and applicable in other National healthcare systems.

The effectiveness of health appraisal processes currently in addressing health and wellbeing during spatial plan appraisal

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Background

Spatial planning affects the built environment, which in terms has the potential to have a significant impact on health, for good or ill One way of ensuring that spatial plans take due account of health is through the inclusion of health considerations in the statutory and non statutory appraisal processes linked to planning processes. This is of particular relevance with the recent extension of the Protocol on Strategic Environmental Assessment (SEA) to the United Nations Economic Commission for Europe (UNECE) Espoo Convention, of which the European Union is party, which came into force on 11th July 2010, and provides a legal basis for enhanced attention to human health in the SEA process, and for the health sector to to be routinely consulted on development plans.

Methods

A systematic review to identify evaluation studies of appraisals or assessments of plans where health issues were considered from 1987 to 2010. A wide range of databases in the health and planning field were searched.

Results

A total of 6,126 citations were identified from the electronic database and website searches, of which 20 met the inclusion criteria. The studies were limited by potential bias (no independent evaluation, with those undertaking the appraisal also responsible for reporting outcomes), lack of detail and a lack of triangulation of results. Health impact assessments generally covered the four specified health domains (physical activity, mental health and wellbeing, environmental health issues such as pollution and noise, injury) more comprehensively that SEA or other integrated appraisals, although mental health and wellbeing was an underdeveloped area. There was limited evidence that the recommendations from any type of appraisal were implemented, and almost no evidence that the recommendations had led to the anticipated outcomes or improvements in health postulated.

Conclusion

Research is needed to ensure that the recommendations arising from health appraisal translate into the development process and that outcomes are as anticipated.

The proactive assessment of clinical risk with Failure Modes and Effects Analysis (FMEA) is a useful tool for heathcare quality improvement

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Problem

Failure Modes and Effects Analysis (FMEA) is a proactive risk assessment tool used in healthcare systems to improve patient safety. Despite its recognized value in clinical risk assessment there is not in the medical literature a clear evidence that FMEA improves the quality of care in clinical setting. Aim of the present study is to demonstrate a close correlation between the reduction of Indexes of Risk assessed by FMEA and a real improvement in the Indexes of Performances in a Cardiac Surgery Department.

Description

The FMEA Steps were i) team selection ii) selection of the priority processes iii) process study iv) Hazard Analysis v) Plan and adoption of the control measures in order to eliminate or reduce the likelihood of failure vi) Re-evaluation of the Risk Priority Numbers (RPNs) after the adoption of the planned control measures in order to eliminate or reduce the likelihood of failure. We analyzed and compared as Performance Indicators of the processes the clinical outcomes (operative mortality and complications, length of hospital stay etc.) of two group of patients consecutively operated before and after the adoption the control measures: Group 1 (263 pts during the first six months of 2009) and Group 2 (310 pts during the first six months of 2010)

Results

Two processes were evaluated as priority processes: Scheduling and Preoperative Evaluation for Elective Surgical Patients and 2) Surgery. The Indexes of Risks for both processes decreased of 60% and 51% respectively after the adoption of the control measures planned. From the comparison between the two groups it was evident that Group 2 exhibited better outcomes versus Group 1 as: reduction of operative mortality (-55%), operative complications (ranging from −37.4% to −57.1% according with the type of complication), length of hospital stay (-11.4%). All these differences were statistically significant. Reduction of Indexes of Risks parallels improvement of Performance Indicators for both processes

Lessons

In our experience proactive risk assessment with FMEA is a useful tool to improve quality in healthcare setting increasing patient safety. A reduction of the Index of Risk of a process forecasts an increase of the Indexes of Performance of the process itself.

Evaluating the co-ordination of services for families and children using structural equation modelling

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Since services for families with children aged 0–8 are multidisciplinary, it is challenging to organize them as an integrated entity. Promoting health and welfare of families and children requires a complete picture of the service co-ordination and related factors. The aim of this study was to evaluate the possible impact of various elements (co-operation structures, agreed procedures, access to services and participation by parents in services for families and children) on service co-ordination, service adequacy, co-operation between involved parties and awareness of municipal services.

The data were collected using a structured questionnaire directed to the heads of local social welfare, health care and education departments, which are in charge of municipal services for families and children (N = 327). The data represents 85 per cent of Finnish municipalities, so the results can be generalized with certain reservations. The analyses were conducted using structural equation modelling. According to our knowledge this study is the first attempt to model the co-operation structures of services for families and children and related factors theoretically and based on empirical data.

The results indicate that the service co-ordination requires co-operation structures and operating procedures that have been mutually agreed between different parties. The essential result suggests that integrated services do not directly impact on the adequacy of services. Nevertheless, integrated services combined with effective co-operation will increase the perception of adequate services. Results also indicate that the participation of parents indicated a smoothly functioning co-operation which then leads to a perception of adequate services.

The results confirm that the services of families and children do not form an integrated entity. Where practical development is concerned, it is interesting that co-operation structures alone do not guarantee a smoothly functioning co-operation. Thus, in developing these structures, attention must also be paid to modifying operations. The participation of families has been found to improve the effectiveness of interventions, and it is therefore the essential part of developing the health and welfare of families and children.

7.L. Media and Health

Internet bullying among schoolchildren

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Background

Internet bullying is use of internet to send or post text or images intended to hurt or embarrass another person. Cyber-bullying instances have been increasing over the last several years. An anonymous attacker could instantly disperse fabricated photos, lies and gossip throughout a large social network and cyber victims may feel more isolated, dehumanized, or helpless than in traditional forms of bullying.

Objectives

The purpose of this paper was to point out importance of education of children and parents about internet bullying.

Results

In school year 2010/2011, school pedagogues, school doctors and informatics experts organized program of education about preventative measures against internet bullying. At the beginning of program, parents answered anonymous questionnaire about children's internet use and internet bullying. In this paper we presented analysis of answers in accidental sample of 111 parents of children in 7th and 8th grade of primary school. Parents reported that 97% children use internet and 71% of parents controlled and monitored web sites that children usually visit. Children's use of Social Networking Websites was reported by 86% of parents, mostly Facebook 77%. Children's user name and password knew 53% of parents and 43% of parents confirmed that they were "friends" with their children on Facebook or other Social Networking Websites. That their children were bullied by internet knew 13% parents, 22% didn't know and 65% parents answered that their children weren't victims of internet bullying. About 7% of parents reported that gossip and lies about their children were spread by internet. Parents mostly try to solve child's internet bullying problem by clarification and advise, talk and advise to delete or block the bullies and personal communication and facing with bullies, if not anonymous, or their parents to request an explanation and stop bullying.

Conclusion

Results suggest that school medicine service and school should continuously provide intensive monitoring and education of children and parents how to use electronic media for communication, and not as a source of violence.

Internet addiction, mental stress, and sleeping disorders: new public health challenges among university students. A cross-sectional survey in Algeria, France and Hungary

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Objectives

To study the prevalence and risk factors associated addictions, Internet addiction, mental stress and sleeping disorders in students in higher education in three countries (Algeria, France and Hungary).

Methods

A cross-sectional survey was conducted in students in university campuses in Batna (B, Algeria), Miskolc (M, Hungary) and Rouen (R, France) in 2010 and 2011. The students completed an anonymous self-questionnaire. The questionnaire collected a large sample of data, including the age, gender, alcohol consumption, tobacco smoking, cannabis consumption (experimentation), practice of sport, perceived mental stress using the Cohen stress scale (on a total of 40), risk of cyber addiction using the Internet Stress Scale (Orman test) and sleeping disorders.

Results

A total of 1,917 students were included: 345 in B, 275 in M and 1,287 in R. The mean age was 21.2 years (SD = 3.1) in B and R and 21.6 (SD = 4.2) in M; the sex ratio M:F was 0.20 in B, 0.14 in M and 0.60 in R. In B, 4.1% of students were smokers, 21.5% in M and 22.5% in R ($p < 10–4$). 2.3% in B, 15.4% in M and 41.4% in R experimented cannabis ($p < 10–4$). In the last 12 months, 80.4% in M, 81.2% of students were drunk at least one time in R ($p = 0.34$). Respectively in B, M and R, the mean stress level was 18.9 (SD = 3.6), 21.9 (SD = 5.0) and 15.9 (SD = 3.1) ($p < 10–4$). Respectively in B, M and R, 22.9% of students, 10.5% and 29.0% presented a high risk of cyberaddiction ($p < 10–4$). In B, 33.1% of students, 61.4% in M and 34.7% in R reported sleeping disorders in the previous month ($p < 10–4$). In B, 4.7%, 4.4% in M and 7.3% of students in R reported a consumption of hypnotic drugs in the previous month ($p = 0.03$).

Conclusion

In addition, alcohol consumption, smoking and cannabis use, which were common in the three university student populations, new behaviours risk as mental stress, cyberaddiction and sleeping disorders, appear problematic. These findings stress the need to investigate health risks and behaviours and to initiate specific prevention interventions in student populations using integrated approaches. There is an urgent need for public health practitioners working on these challenges in the three university campuses.

E-health for a healthy eating and active living strategy

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Choosing to eat healthy food and being physically active require people to be empowered to make these choices. Therefore the healthy choice must be physically, financially and socially the easier and more desirable choice. Creating healthy places - neighbourhoods, schools, and workplaces - is essential to supporting healthy eating and physical activity behaviour. The harmful health consequences of this behaviour and the inequity in their social distribution are the result of a failure to protect the health of citizens of not only by the health sector, but also by the sectors outside of health (agriculture, environment, urbanism and so on). Greater accountability (by both) is needed.

In this context, an e-health strategy based on a 3 axes (behaviour and setting risk assessment, actions to control them and measurement of health outcomes) has been implemented in the Balearic Islands. Information Technology (IT) has become a critical component using Web2.0 tools as powerful tools to empower citizens and engage all possible external stakeholders as well as decrease costs and improve efficiency.

Web2.0 tools allow for the estimation of a healthy habits personal risk score (breakfast, Mediterranean diet, physical activity, etc) and provide personal recommendations depending on answers given. Moreover an overall risk profile is calculated by centre (school, workplace or community settings, including urban environment). Subsequently each overall centre risk is georeferenced on a map in order to help the policy makers implement interventions addressed to those centres at greatest risk. An example in the school setting is presented.

Web2.0 healthy tools were implemented and in the first four months following this, the online tool performed a total of 5429 assessments on students between the ages of 7 and 18 in the 45 participating schools. Approximately 50% of schools were classified as being of a high nutritional risk.

E-health web2.0 tools help to assess the individual risk as well as the setting's risk. The detection of the highest risk settings might help policy makers to plan more effective interventions to improve healthy habits and create healthy places, as well as improve the quality of public health services and reduce health inequalities.

Role of internet in getting information about health promotion and cancer prevention in Hungary in 2010

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Background

The population can get information about health promotion or cancer prevention in various ways: via media, internet, health care staff, newspapers, etc. The adequate information is very significant, can improve the attitude for cancer prevention. Today the internet plays even more important role in getting this type of information, too. The aim of this study was to explore which groups obtain information about health promotion or cancer prevention from the internet.

Methods

The cross-sectional study was delivered in the adult population of Southern Great Plain in Hungary ($N = 590$), the data collection based on self-administered questionnaire focusing on demographic parameters, the knowledge of risk factors of tumors and attitudes toward and participation in cancer screenings, costumer types of internet using. Statistical analysis was performed by SPSS 17.0 for Windows. Simple descriptive statistics and logistic regression analysis were used, and the level of significance was $p < 0.05$.

Results

Of all respondents 397 (67.6%) had internet connection, 274 (46.4%) searched on internet for information about health promotion, and 219 (37.1%) for cancer prevention too.

The females, those people who has university degree, the young adults aged 25–34 years and those who had cancer already in their family, the regular net users, those who got about cancer via other media earlier, and those who had rational attitudes when facing cancer significantly more often searched information on the internet. According to the logistic regression analysis the people, who had rational attitudes when facing cancer (OR:5.16, 95% CI = 1.69–15.78), the females (OR:3.21, 95% CI = 1.94–5.31) and the regular net users (OR:3.07, 95% CI = 1.85–5.09) gained information more frequently from the internet.

Conclusions

It seems that, the internet could be a new supporting factor particularly for those, who has in overall good health behaviour. It would be essential to draw the cancer risk groups' attention of the supportive role of the internet – for example providing with a list about specific homepages – which should be evidence based, too.

Making health policies more migrant friendly: a case study into the ET.Health

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Background

Ethnic health inequalities have been widely investigated in public health. However many health systems remain reluctant to support effective and specific interventions to improve the health of ethnic minorities. Despite the advocacy of the European Union and of the World Health Organisation, health policies in many European countries remain shy of addressing such issue.

Objective

ETHEALTH was a panel of experts commissioned by the Ministry of Health to come up with recommendations to reduce health inequalities among ethnic minorities.

Method

We identified key stakeholders in health and migration. These stakeholders formed the core group of ETHEALTH together with the researchers from 2 universities and 2 representatives of the Ministry of Public Health. Core group selected relevant themes to discuss and then contacted practitioners. Practitioners shared their daily experiences and recommendations. Final recommendations were based on the CSDH Equity model: context and socioeconomic position, exposures, vulnerability, health outcomes and consequences.

Results

In the context, experts argued for a monitoring of ethnic and social health inequalities. Reducing differential exposures needs to consider the socio economic factors together with an improvement of the culturally competent health promotion. Although experts acknowledged the need for a specific attention for migrants, initiatives must be carried out in the mainstream system to avoid ghetto of health care. We identified 3 more vulnerable groups among ethnic minorities: women, irregular migrants, and migrants with mental health problems. Differential health outcomes may be improved by reinforcing primary care services.

Lessons

Increasing pressures on health systems to integrate ethnic minorities may often lead to health policies neglecting the existing actions. By first setting up an expertise group and by auditioning field workers, ETHEALTH highlighted local initiatives reducing health inequalities. Instead of creating new projects, it identifies and disseminates the interventions already impacting the quality of life of ethnic minorities.

A study of asthma and allergic rhinitis prevalence, social and economic impact in Bulgaria in 2011 by a Facebook based on-line questionnaire

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Background

Asthma and allergic rhinitis prevalence is high and constantly growing. The social and economic burden of the diseases are considerable. Many countries carry out comprehensive studies on that topic. However up-to-date data for Bulgaria are scarce. The objective of the study is to examine the prevalence, social and economic impact of asthma and allergic rhinitis in Bulgaria.

Methods

ISAAC and AIRE questionnaires are modified to address the specific needs of the study. The questionnaire is published on a Facebook site available for completing on-line.

Material

227 pilot questionnaires are filled out by participants who referred to doctors' offices during a campaign for prophylactic

medical examinations. 3032 answers are obtained from the on-line version of the questionnaire between end of January and middle of March 2011.

Results

Valid answers number is 2795. 1985 of the participants (71%) consider themselves allergic. However just 689 (35%) have undergone allergy skin tests for respiratory allergy and no more than 440 (20%) have been tested for food allergy.

406 people (14,5%) report that at some moment in their lives they have had asthma. 453(16,2%) declare that they have been diagnosed as asthmatics by a medical specialist. 312 participants (11,2%) report to have had in the last year shortness of breath, cough and wheezing in the chest without common cold or any other infectious disease. On that basis we estimate the number of asthmatics in Bulgaria in 2011 between 823 338 and 1 190 900.

The number of those diagnosed by a medical specialist as allergic rhinitis sufferers is 966 (34,6%), These who report to have allergic rhinitis are 1142 (40,9%). Surprisingly 1750 of the participants (62,6%) affirm to have the main allergic rhinitis symptoms in the last 12 months without cold or infectious disease. The estimate number of allergic rhinitis sufferers in Bulgaria in 2011 is about 2 500 000–3 000 000.

Conclusions

A great majority of people are convinced they are allergic but a small part of them are tested for allergy. The prevalence of asthma and allergic rhinitis in Bulgaria is greater than expected. That poses a serious social and economic task to the health system and society.

Attitude and ranking of websites providing information about the 2010 flu vaccine

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Background

In public health preventive measures need an effective communication strategy for being successful. During the 2010 influenza pandemic people were bombarded with information on presumed risks associated with the flu vaccine, which created an atmosphere of suspicion (a ''plot theory'') that made it difficult to implement the vaccination campaigns. This study investigated the attitude and the Page Rank of websites providing flu vaccine information.

Methods

Website selection was performed in autumn 2010 via the Google and Yahoo engines using eight keywords. We analyzed the first 30 references, for a total of 480 occurrences. We included websites at least in English and we classified them in four categories: 1. ''classical'' websites with at least one section specifically dedicated to flu vaccine in a structured way; 2. websites based on web 2.0 philosophy (blogs, social networks, communities, forum, videos); 3. websites displaying popular news/articles; 4. scientific documents.

For all the four categories we evaluated whether the overall attitude was pro/neutral or against the flu vaccine, and the 'Page Rank' in order to assess user visibility.

Results

We selected 87 ''classical'' websites, 13 web 2.0 websites, 26 websites displaying popular news/articles and 25 scientific documents providing influenza vaccine information. Regarding the attitude towards the flu vaccine 6 (7%) ''classical'' websites, 3 (23%) web 2.0 website, 7 (27%) websites displaying popular news/articles and no scientific documents had a negative attitude. Statistical difference was found when comparing ''classical'' websites and websites with popular articles (p = .010).

By the Yahoo search engine we found a higher number of different websites on the first 10 occurrences compared to Google: 28 versus 18. The 6 negative attitude websites never ranked on the first page.

Conclusions

We found that the majority of the ''classical'' websites providing flu vaccine information had a positive attitude (93%). A negative attitude was more present in web 2.0 websites and in websites with popular articles. The page ranking analysis showed the crucial role of search engines regarding access to information. The knowledge of these mechanisms seem to be essential in order to perform efficient prevention campaigns.

Occurrence of visually induced sickness symptoms in elementary school children during and after viewing a 3D movie

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The strong sensorial exercise caused by the vision of three-dimensional (3D) movies can induce visual stress and the onset of discomfort in susceptible spectators. Symptoms of visual discomfort and motion sickness-like have been anecdotically reported and little is known about their occurrence in school age children. Here we report of a questionnaire based pilot study investigating the frequency of visually induced sickness symptoms related to ocular discomfort (tired eyes and headache) and to motion sickness (dizziness and nausea) during and after the projection of a 3D movie at an elementary school of Rome (Italy). After approval by the school dean and parents, questionnaires were distributed at projection room at the end of the movie and collected back within the next 20 minutes. We included questions about the general health conditions before the movie view, the susceptibility to headache, motion sickness and dizziness, the daily time spent playing videogames or watching television and if sitting close to the movie screen during the projection. Our sample was composed by 203 elementary scholars (age: 7–11, 38.9% female). At least one symptom was reported by 44.3% of individuals during the movie and 34.0% after the movie. Additionally, 25.1% reported discomfort wearing polarization glasses. The most often reported symptoms during the movie were tired eyes (18.2%), dizziness (10.3%), headache (9.9%) and nausea (1.5%). After the movie, the most frequently reported symptoms were tired eyes (14.8%), headache (12.8%), dizziness (10.8%) and nausea (3.0%). Reported visual discomfort was associated after gender and age adjustment with use of prescription glasses (OR = 3.14, 95%CI = 1.28–7.67), frequent car sickness (OR = 3.20, 95%CI = 1.52–6.71), frequent dizziness (OR = 5.43, 95%CI = 1.61–18.37) while visually induced motion sickness was associated after gender and age adjustment with frequent car sickness (OR = 2.40, 95%CI = 1.05–5.48), frequent dizziness (OR = 9.04, 95%CI = 2.90–28.20). Image safety for spectators are of increased concern because of the large offer of commercial 3D movies. Our results show that children are susceptible to visually induced discomfort and more research is needed to set consumers' protection norms for comfortable 3D view.

7.M. Work and health 1

The implementation of occupational safety and health protection in 28 European welfare states: a multilevel study on variations and possible drivers

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Background

It is unclear if the range and the implementation of occupational safety and health (OSH) regulations vary between European countries. We used individual survey data in order to quantify the strength of country differences in employee perception of OSH. To explore possible background factors individual as well as country specific characteristics were assessed. Country specific characteristics were operationalised as welfare state regime types classified as Anglo-Saxon, Scandinavian, Bismarckian, Southern and Eastern European regimes.

Methods

Data from 28 countries from the 2005 European Working Conditions Survey were obtained. We included 21,122 men and women (16–60 years) with working hours of more than 15 hours. Rates how poor the participants are informed about job related health and safety risks are used as indicator for the implementation of OSH measures and prevalence was compared between countries. Influence of individual level characteristics (sex, age, education, occupation, employment contract, company size, sector) and welfare state regime types on country differences was assessed in multilevel regression analyses.

Results

Preliminary results show that the number of employees who are poor informed about OSH risks vary by country. Prevalence ranges from 4 to 25%. Results from multivariate analyses demonstrate that individual job characteristics are strongly associated with the likelihood of being uniformed. For instance, persons with low education were more frequently uniformed in all countries. However, the between country variance was not substantially influenced by individual level variables. The prevalence of uniformed persons was considerably higher in Southern European and Bismarckian welfare states compared to Scandinavian and Anglo-Saxon regimes, explaining parts of the between country variance.

Conclusion

The number of persons who are poor informed about health and safety risks at the work varies between European countries. Consistently employees in precarious jobs were more frequently affected, indicating that efforts are needed to improve OSH in this group. Comparisons of different groups of welfare states pointed out, that some types might be more successful in implementing OSH regulations than others.

Risk assessment of occupational accidents and quality of life among employees in the military industry in Northwest Russia

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Background

Risk assessment of occupational accidents is an important public health issue. Little is known about the prevalence of accidents in Russian military industry and quality of life of the employees.

Aim

To perform risk assessment of occupational accidents and to study quality of life among employees in military industry in the Arkhangelsk region, Northwest Russia.

Methods

A cross-sectional study. A random sample of employees ($n = 624$) of the military enterprises answered a semi-structured questionnaire on quality of life, lifestyle, work characteristics and self-perceived health. Occupational hazards were analyzed by criteria for quality risk assessment of accidents at working place developed by the Tampere University of Technology in 1994. Spearman correlation coefficients were used to assess associations between ordinal variables. Proportions and mean values of continuous variables were compared using chi-squared tests and t-tests, respectively.

Results

The mean age of responders was 29.8 (SD = 11.3) years. Most of the responders were males (67.3%, $n = 420$) and unmarried (46%, $n = 287$). More than a third of workers (38.7%) reported, that the standards of living in this year have not changed, 10.3% reported that their standards decreased while 46.6% reported improvement in their living standards. The life quality criteria were compared with average Russian data. The amount of physical activity and a role of physical activity in professional work exceeded the Russian average ($p < 0.001$), while social activities of military workers were below the national average ($p < 0.001$). Altogether, 68.8% of responders considered their working place as dangerous ($n = 429$). Among males this proportion was higher than among females (75.8% vs. 24.2%, $p < 0.001$). Risk assessment of occupational accidents revealed substantial and intolerable risks of accidents in respectively 16.2% and 13.3% of males and in 5.4% and 9.8% of females ($p < 0{,}001$). Risk of occupational accidents was negatively associated with psychological comfort at working place ($p < 0{,}001$).

Conclusions

Study results provide some evidence to be used for development of the regional occupational safety promotion program.

Regional differences in unemployment and its consequences in Sweden

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Background

Earlier studies have described an increase in health-related exclusion from the labour market, related to changes in economic cycles and labour market policies. Geographic variations in labour market attachment and its economic consequences have not been focused on to the same extent.

Aim

To analyse regional differences in unemployment and its economic consequences over time.

Method

Data from the Swedish Survey of Living Conditions (ULF) were used. Rates of unemployment and the risk of poverty (defined as 60% of median income) among women and men aged 25–59 years with and without limiting long-standing illness (LLSI) was studied in three different kind of regions in Sweden (metropolitan areas, densely, and sparsely populated areas), in three time periods; 1978–1989, 1990–1999, and 2000–2005.

Result

Unemployment, LLSI, and risk of poverty were more common in sparsely-populated areas during all time periods studied.

During the 1980s the unemployment rate was 2–3%, equally distributed between individuals with and without LLSI and no excess risk of poverty was associated with LLSI.

During the 1990s unemployment increased. In metropolitan and densely populated areas unemployment were higher among those with LLSI while these rates were higher (about 6%) among healthy men and women in the sparsely populated areas. The risk of poverty among the unemployed increased during this period, with the highest levels in the metropolitan areas.

The decrease of the unemployment rates in 2000–2005 was less pronounced in the sparsely populated north part and the rate still exceeded 6% for men in the studied age groups. In metropolitan areas, the risk of poverty decreased among healthy individuals while it continued to increase among the unemployed with LLSI in all areas.

Conclusion

Regional analyses may reveal socio-economic and population density related inequalities in rates of unemployment and its consequences within a country, both momentarily and over time.

Mental health associates of employment arrangements: a typological approach to employment precariousness

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Background

During the past decades, standard employment declined in favour of non-standard employment. This process is described as employment precarisation. Distinct aspects of precarious employment (work intensity, temporary work, low rewards, etc.) are shown to be important causes of stress. However, stress-consequences of precarious employment are seldom studied in an integrated way. In our contribution, a multidimensional indicator of employment precariousness, combining different employment-aspects (employment stability; sustainability of income; opportunities for training and development; entitlement to workers' rights and benefits; formal collective bargaining and negotiation procedures; and informal employment relations) is related to mental health in a sample of European wage-earners.

Methods

Data from the EUROFOUND 2005 European Working Conditions Survey are used. This cross-sectional dataset contains information on more than 20,000 wage-earners from all EU countries. Multiple group Latent Class Clustering techniques are performed to construct the typology. Standard logistic regression analyses relate the typology to self-reported mental health.

Results

This contribution is a "work in progress". The results of the cluster analyses show five types of employment arrangements: (1) employees in standard employment; (2) employees in standard employment with intensive work schedules; (3) precarious qualitative employment characteristics (low participation, information provision, training opportunities); (4) overall precarious employment (low participation, information provision, training opportunities, unsustainable income, contractual instability) in combination with non-intensive work schedules and (5) overall precarious employment in relation with highly intensive work schedules. The mental health associations with these types of employment arrangements are now studied and results will be presented.

Conclusion

This multidimensional approach provides innovative insights into the structuring of contemporary employment characteristics among wage-earners. (Mental) health is assumed to be worse when more aspects of precariousness are combined. The results of this study will raise awareness to public health consequences of employment flexibility.

Work and mental health in Danish eldercare workers

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Background

In Denmark, care workers have disproportionally high rates of psychological health problems compared to other occupational groups. In this ongoing study, we aim to investigate associations between psychosocial working conditions and risk of onset of psychological health problems among employees in eldercare in Denmark. To achieve this, we combine information on self-reported exposures from surveys with workplace observations by trained observers and focus group interviews with selected employees. Endpoints include both symptoms of reduced psychological health, assessed with validated symptom scales, and treatment for psychiatric disorders, assessed by registers.

Methods

The study is based on a sample of 9,949 eldercare workers, employed in 36 Danish municipalities, who responded to a survey in 2004/05. Participants were followed-up in 2006/07. We are currently in the process of linking the survey data from all participants to the Danish Medicinal Product Statistics (information on prescribed medications) and the Psychiatric Central Register (hospital treatment of psychiatric disorders). In addition, in spring 2012, trained observers will conduct about 120 workplace observations in 60 work units of 10 selected nursing homes. All employees at these nursing homes will fill out comprehensive questionnaires on psychological health. Further, we will conduct focus group interviews with about 6–8 employees in 6 nursing homes to deepen our understanding of the psychosocial work environment processes that might affect elder care workers' mental health.

Results

Preliminary prospective analyses from the survey data showed that frequent bullying at work was a strong predictor of onset of clinical depression (measured with the Major Depression Inventory) with an odds ratio of 6.04 (95% CI = 2.45–14.94), after 20 months of follow-up and after adjustment for age, cohabitation, type of job, seniority, and psychological functioning at baseline.

Conclusions

This study aims to investigate the complex associations between work environment and mental health with a comprehensive design that includes both exposure and outcome data from different sources. First preliminary findings indicate that bullying at work is a considerable contributor to risk of depression.

The determinants of French GPs' burnout: the impact of the medical practice characteristics

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Background

In France as in many OECD countries, general medicine is in crisis. Although recent reforms aimed at improving the recognition of GPs, the disinterest of young doctors remains important. At the same time as a cause or a consequence, the burnout syndrome increases among GPs.

The aim of the study is to highlight ways to prevent burnout by identifying characteristics of medical practice and organization able to play a protective role.

Methods

423 GPs practicing in Midi-Pyrenees (south west French area region) completed a mailed questionnaire from April to July 2010. GPs were directly asked on the frequency of their perceived burnout: the focus was not to evaluate its magnitude (Maalash Burnout Inventory) but rather to analyze its association with organizational structure (group/solo), activity (specialized, diversified), patients, payment, etc. in addition to traditional variables (intensity activity, gender, age). Descriptive statistics and logistic regressions were used to explain the probability for the GP to report to ''often experience a burnout feeling''.

Results

Almost a quarter of GPs (22.9%) reported to ''often face a burnout feeling''. Strongly associated with the perceived health status ($p < .0001$), it was negatively associated with job satisfaction ($p < .0001$) and human reward ($p < .0001$) and positively with long working days ($p < .0065$) and GP's desire to change location ($p < .0001$), status (salaried/private, $p < .0002$) and organization structure ($p < .0005$). The regression analyses showed that age and gender were not significant features neither income nor GP's satisfaction of his income. However having long hours of work and wanting to change working location both increased the probability of reporting burnout. The study also highlights new characteristics that appear to protect the GP: group practice, frequent interactions with specialists as well as considering his job as humanly rewarding and satisfying. Moreover, a part time practice (< 30% of working time) of a specialization also appears to be protective for the GP.

Conclusion

While regulators set up payments for performance, it is feared that even if this system increases the GPs' remuneration, this can in no way be an answer to GPs' burnout. Non monetary incentives should probably be promoted.

Validity of workers' self-reports. Evaluation of a question assessing life-time exposure to occupational physical activity

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Background

In epidemiological studies including participants with many different job-titles, exposure assessment based on questionnaires is the most cost-effective method. However the validity of workers' self-reports should be validated. A question about life-time exposure to occupational physical activity (OPA) was used in a population-based study about work and ageing. The aim of this study was to evaluate this question through a three-step process of validation.

Methods

1. Cognitive interviewing: The response process was studied in seven persons who answered the question about life-time OPA. 2. Validity: 64 participants in the epidemiologic study participated in semi-structured interviews about their work-life, and expert judgments of OPA based on interview-data were compared with questionnaire-data. Exposure was defined as at least 20 years of work in one of four categories of OPA: 'mostly sitting'/ 'standing and walking' / 'moderate' or 'high OPA'. Kappa was calculated for agreement between exposure-status in interviews and questionnaires, and values were interpreted according to Landis and Koch' criteria. Agreement was furthermore visualised in Bland-Altman plots. 3. Intra- and inter-rater reliability of the expert judgments of life-time exposure to OPA was tested.

Results

1. Cognitive interviewing: The question about life-time OPA had a complicated instruction and the respondents found it hard to remember and summate exposures through the entire work-life. Response categories were vague and overlapping. 2. Validity: Kappa for exposure to 'sitting at work' was 'substantial' (0.71) but 'fair' for the other categories of OPA (0.29, 0.27 and 0.29 respectively). Bland-Altman plots showed that the agreement between questionnaire and interview was higher in sedentary jobs and jobs with high OPA. 3. The intra-rater reliability of expert judgments was 'substantial' or 'moderate' (Kappa values respectively 0.71, 0.62, 0.6 and 0.64). Inter-rater reliability was high in sedentary jobs but lower in the more active jobs.

Conclusion

Self-reports of life-time exposure to sedentary work are valid, and expert judgments of sedentary work are reliable. Qualitative methods are useful in evaluation of survey questions also in occupational medicine.

7.O. Health care for migrants

Migrants' Access to Primary Health Care and Immunizations in Europe

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Background

Reaching to migrants plays an important role in controlling vaccine-preventable diseases in the European Region. PROMOVAX is a 3 year EU-funded project, which aims to promote immunizations among migrants in Europe. The project consortium includes associated partners from 8 European countries and collaborating partners from 11 countries. We are presenting the results of the workpackage 4: ''mapping of EU migrants' origin and access to immunizations''.

Objective

Our objective was to evaluate migrants' access to primary health care, via the paradigm of immunizations and to record the available migrant immunization policies, legislation and practices in the participating countries.

Methods

Review of the existing data was conducted in order to identify the origin and demographics of migrants in the participating countries. Existing policies, legislation and practices regarding migrant and particularly migrant workforce immunizations were explored through guided literature review and qualitative interviews with experts and the relevant authorities. Immunization opportunities were investigated through mapping of venues where migrants (documented and undocumented) can access immunizations.

Results

In the majority of partner countries there are no specific legislations and regulations guiding migrant immunizations nor do specific immunization requirements exist for working migrants based on the field of their occupation. No national body is commonly assigned with the responsibility of monitoring and administering immunizations to migrants in particular. Most partner countries have no vaccination information system in place to monitor vaccine coverage or incidence of VPD for migrant population in particular.

Conclusion

Differences as well as legislation gaps were observed in migrant's access to immunization in the partner countries. Legislation and sustainable policies which can be effectively applied into practice are solely needed in order to guide migrant immunizations in the European countries.

Inequalities in the access to social and medical care for migrants in three European countries

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In spite of the efforts of the European law to harmonise healthcare access policies throughout the member States, differences could still exist for both legal and undocumented migrants. The aim of this work is to compare the legislative framework on social and medical care granted to migrants among three countries in the Schengen area: France, with a longer history of immigration, Italy and Spain, where immigration increased since the 90s.

A literature review was conducted in April 2011 using European, national and regional information sources from official or associative contents.

The European law considers health and social coverage as a universal right and promotes full accessibility to healthcare to everyone (especially to poor and marginalised populations). These three countries provide their citizens with universal health coverage, through mostly centralized (France) or decentralized (Italy and Spain) health systems. Legal migrants are granted the same healthcare as country citizens. A negative discrimination is present based on the legality of the stay but undocumented migrants are at least granted urgent care in public hospitals, coverage for maternity and children. In France and Italy, they are also granted care for some infectious diseases and preventive measures for the collective health. In France, the social coverage for undocumented migrants (less complete) depends on the duration of the stay. In Spain, without economic resources, they benefit from the same health services than Spanish citizen once they are registered in a municipality office, with the necessity to justify from an address. In Italy, the law forbids public healthcare operators to denounce undocumented migrants.

The European law, so far, has not managed to reduce the inequalities and to introduce equity among migrants, and among these countries. Also, undocumented migrants have different conditions of access to healthcare compared to European citizens. This study should be extended to other European countries to underline others disparities and then to perfect the established coverage system. A reflection on migrant care in term of global welfare could benefit both migrants and European citizens. Also, the European Union should take charge of the management and welfare of migrants.

Why do Polish migrants access healthcare in Poland or in Ireland? A Qualitative study

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Background

The Republic of Ireland experienced a large wave of immigration during the economic boom. Ten percent of the population in Ireland in 2006 was born outside Ireland. Recent estimates by the Polish embassy suggest that there are approximately 180,000 Polish residing in Ireland in 2011. A number of Polish medical and psychological centres have opened in the major cities of Ireland since 2004 The aim of this presentation is to explore the reasons why Polish migrants access healthcare in Poland or in Ireland.

Methods

Participants were recruiting using purposive and snowball sampling. All participants were Polish and included service users and providers. There were 12 individual interviews, 3 group interviews and four focus groups conducted between January 2010 and April 2011. All interviews were digitally recorded and transcribed. Thematic analysis with the aid of NVIVO was used to analyse the data.

Results

48 Polish participated in this qualitative study. The results indicated that 50% ($n = 24$) were married, 17 were male, 11 unemployed and 50% were educated to masters level. The major themes from the data analysis included: going home for the checkups, lack of information about the Irish healthcare system, expectations about the role of the GP (General Practitioner), access to specialist care, language skills of the participants, cost of healthcare and long waiting times. Many participants reporting going to Poland for dental care, gynaecological care or to have their bloods tests monitored. Although some participants had medical cards and thus free access to GP care, they choose instead to pay for care in the Polish medical clinics in Ireland.

Conclusions

The Irish Health Service Executive published an Intercultural Health strategy in 2008 and some of the key recommendations addressed access to Primary care for ethnic minorities and provision of culturally appropriate information. The Irish government provides generic information about the Irish health services in different languages. However, they need to develop more culturally sensitive information for Eastern Europeans who are not familiar with the role of the GP as a 'gatekeeper'. This may help encourage the Polish community to access the mainstream GP services.

Providing care to immigrants in long-term mental health services across Europe: considerations for practical reform

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Background

Differences in the density and distribution of migrant groups exist within European countries. These regional disparities in demand affect the experience of long-term mental health service delivery for patients and mental health care professional alike. While there has been systematic research on the experiences of patients in these services, little research has explored the views and experiences of mental health professionals in the delivery of services to immigrants. This study sought to explore mental health professionals' experiences and views of delivering care to immigrants in densely populated districts in Europe. The issues encountered and the methods to manage them.

Methods

Forty-eight structured interviews were conducted with mental health care professionals working in areas with high proportions of immigrants in 16 European countries. Immigrants were defined in the interviews as first generation immigrants born outside the country of current residence, and included regular immigrants, irregular (illegal/undocumented) immigrants, asylum seekers, refugees, and victims of human trafficking. Interviews were transcribed and analysed using thematic analysis.

Results

The interviews highlighted issues specific to treating immigrants in mental health services including: complications with diagnosis; issues in gaining trust; different belief systems and explanatory models for understanding mental illness; and lack of accessibility for irregular immigrants.

Conclusions: Although differences in service delivery may vary between and within European countries, similarities exist in the experiences of mental health professionals delivering mental health care in communities with high proportions of immigrants. Considerations for practical reform should take into account the experience and views of those providing services, as well those receiving services, in order to further develop tools for diagnosis, building trust, working with alternative understandings of mental health and improving access for irregular migrants.

Implementing diabetes courses for immigrants in health care centres in Denmark: a qualitative study of ideals and practices

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Background

Some immigrants groups in Denmark have a significant higher prevalence of type 2 diabetes than the general population. Social, structural and cultural factors often render immigrants further vulnerable regarding health. Health education efforts targeting immigrants have been limited, but a new arena for such efforts is found among Danish municipal health care centres. Knowledge about these efforts is scarce which make proper planning, implementation and evaluation efforts difficult. This study provides new layers of knowledge about the implementation of diabetes courses in Arabic in three municipal health care centres in Denmark by exploring employees' perceptions and practices.

Methods

This descriptive, exploratory and qualitative study was designed as a collective case study. The three cases were the only health care centres who had initiated diabetes courses in Arabic in Denmark. 19 semi-structured individual and group interviews were undertaken with heads and employees and 24 observations were carried out at the health care centres. Field and interview notes were analyzed using a content-driven approach to identify relevant themes, and data coded in Nvivo. The research belongs to a social-constructivist tradition, while theory on 'action competence', concerned with ideals of participation, voluntarism and equality provided the main analytical framework.

Results

Preliminary results show that the institutional philosophy as expressed by employees in the health care centres concur with health education ideals of 'action competence'. The employees' delivery of diabetes courses for Arabic speaking citizens, however, is characterized by navigation between an 'action competence' approach and a traditional 'disease oriented' approach. This was observed in relation to 1) using a holistic versus a biomedical health concept, 2) the health care professional's role as an equal versus an expert and 3) whether a health educator was used to mediate during classes.

Conclusions

Practice related to diabetes education for immigrants does not fully reflect the shift towards 'action competence' described in the literature. The co-existence of the two health education approaches were related to: the new and flexible organizational setting; the new practice field characterized by learning by doing; the health care professionals' biomedical background; and considerations related to the target group. Finally, the results showed that translating theoretical ideals into practice is a multifaceted and complex process. Further research on implementation practices as well as the experience of immigrants regarding such interventions is needed.

Is the immigrant condition associated with low birth weight?

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Background

Birth weight is the most important predictor of newborn health and can be associated with the neonatal and post-neonatal mortality. The aim of this study was to quantify the prevalence of low birth weight in a sample of newborns and to compare with maternal birthplace.

Methods

In a cross-sectional approach we evaluated 1601 mother-child pairs (499 immigrant and 1102 Portuguese). Immigrants and their child were consecutively selected during the year 2010 in twenty-one Portuguese maternity hospitals. For each immigrant selected, two Portuguese were included in the study, based on the hospital's records admission (previous and next admission). Data was collected in a face-to-face interview on the second day after delivery and with the consultation of medical hospital records. Low birth weight (LBW) is defined as a birth weight of less than 2500 g and very low birth weight (VLBW) less than 1500 g. Premature birth was considered if the baby was born before completing 37 weeks.

Results

The prevalence of premature birth was 7.5% in Portuguese and 5.5% in immigrants ($p < 0.01$). The prevalence of LBW in Portuguese newborns was 6.0% and in immigrants was 6.4% ($p = 0.41$). The prevalence of VLBW was 1.0% in both Portuguese and immigrants. The prevalence of LBW differed with maternal birthplace (Brazil = 7.3%, Eastern Europe = 3.3, Western Europe = 8.2%, Africa = 5.8, Asia = 11.1%, $p < 0.01$).

Conclusions

These findings showed that the prevalence of low birth weight is similar to referred in others studies and is associated with socioeconomic and maternal variables, and not associated with immigrant condition.

7.P. Monitoring lifestyle in youth

Food and nutrition in early years childcare settings in England: National, Regional and Local policy and practice in 2010

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Background

Nutritional intake in the early years of life has a significant effect on short and long-term health and welfare and can contribute to the cyclical pattern of health and social inequalities. Poor nutrition in the early years is currently having a negative impact on the health of children across England. Increasing numbers of children under five are spending time in childcare and the current quality of food offered in these settings is highly variable, often falling short of nutritional guidelines. This has lead to calls for action at all levels to improve food provision in these settings.

Methods

Current national policy governing nutrition in childcare settings was reviewed and policy translation at a local level was explored.

Design

Semi-structured interviews with regional experts. Setting: Childcare settings registered with the OFSTED Inspectorate in Southampton, England. Subjects: 13 subjects including childcare policy advisors, managers, providers and cooks.

Results

The rate of evolution of early years food policy is distinctly varied at national, regional and local levels.Whilst there is consensus between local stakeholders on the importance of improving early years nutrition in Southampton, intentions have yet to be translated into cohesive action. Stakeholders at a regional and national level have yet to demonstrate similar commitment resulting in a lack of specific policy. Policy translation and implementation is inconsistent leading to variation in practice between local settings and potential areas of duplication.

Conclusions

The study provides insight into the policy and practice of food provision in a range of childcare settings which both corroborates and challenges the findings of previous research. The study has also contributed to the recently published national review of food and nutrition in early years.

Recommendations for co-ordinated action at all levels have been made to ensure that the potential long-term benefits of improving food in early years settings are not sacrificed for opportunities to make short term savings. Existing commitment and capacity at a local and regional level must be supported by the acceleration of national policy development to enable this willing and able workforce to translate policy into action.

The effect of physical activity on concentration of elementary school children. A randomized controlled trial

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Background

The reasons that the relation between physical activity and cognition is not yet completely understood, are that both terms are rather general and different outcomes and interventions are investigated (Barr-Anderson et al., 2011). According to embodied learning theories some studies reveal that children showed a higher cognitive performance after completing mentally demanding physical activity tasks (Tomporowski et al. 2011).

Methods

This study was a part of the baseline measurement of a broader health promotion study. Teachers of 52 third grade classes consented to be part of this health promotion project called ‘‘classes in movement“. 859 children participated in the study. They were randomly allocated to two different study sequences: tests on coordinative abilities followed by the concentration test, or reverse. We used the d2-R Concentration Test to measure concentration under time pressure (Brickenkamp et al., 2010). The coordinative abilities (coordination under time pressure, coordination with precision, balancing backwards, spatial orientation and reactivity) were assessed with subtests of standardized coordinative ability tests (DMT 6–18, Bös et al, 2009; KIKO, Prätorius and Milano, 2007).

Results

A one-way Anova showed no relation between physical activity and the test scores of d2-R, $F(1{,}793) = 0.05$, $p = 0.82$. But the subgroup analysis (two-way Anova) indicated an interaction effect between the study sequence and children's physical abilities: Pupils performing higher on the physical activity test ‘‘reactivity’’ and completing physical activity tasks first attained higher scores in the d2-R ($F(1{,}779) = 7{,}69$, $p = 0{,}01$). Furthermore pupils with a higher ability of ‘‘spatial orientation“ who started with the physical activity tasks performed better on the d2-R ($F(1{,}779) = 4.85$, $p = 0{,}03$). We did not observe the interaction effect between the study sequence and other physica

Youth's health behavior among secondary schoolchildren of Mongolia

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Background

The purpose of the General Survey of Healthy Habits among Schoolchildren (GSHS) was to study schoolchildren's health behavior in Mongolia. These results will be used for development of youth health programs and policies; to establish trends in the prevalence of health behaviors and protective factors.

Methods

Mongolia GSHS employed a two-stage cluster sample design to produce a representative sample of students in grades 7–12. In total, 60 schools from Ulaanbaatar city and 21 aimags were selected to participate in the survey. The questionnaire contained 84 questions. The collected data was sent to the CDC, where it was processed, weighted, and analyzed. Overall, 5238 (female-52.5%; male-47.5%) students completed usable questionnaires. The age of students varied from 12 to 18 years.

Results

Almost one in four (23.3%) of students had smoked cigarettes, 29.1% had drunk alcohol, and 9.7% of students had ever used drugs. Overall, 13.4% of students had been in sexual intercourse. Of those, 43.3% did not use a condom. One in three of students were physically active, 27.4% of them had participated in at least 60 minutes of physical activity per day. More than half (63.3%) of students cleaned their teeth at least 2 times per day. One in four participants (25.6%) was physically attacked at least one time during the past year, and 38.2% of students had involved an accident/injury during the past year. The percentage of students who used a seat belt when riding in a car or other motor vehicle was 30.3%.

Conclusions

Current health behavior among schoolchildren is in moderate level in Mongolia compared to similar Asian countries. The amount of physical violence and injuries were quite high among students. School and society should pay more attention to safety environment.

Nutritional Habits among Roma Schoolchildren in Slovakia

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Background

The main aim of the study was to find out and compare dietary habits of Roma ethnic groups of schoolchildren living in Slovakia who are likely to become less healthy as individuals with increased consumption of processed foods that are energy dense and contain high levels of fat, sugar, and salt. Such products often replace healthy dietary components of the native diet, such as fruits, vegetables, nuts, and grains and have reflection in overweight and obesity.

Material and methods.

A total of 300 Roma children aged 9–11 s were randomly chosen from central school with Roma settlements. A self-reported questionnaire about the children's' eating habits was conducted and compared with majority nonRoma children (257). Boy weight and height have been measure and BMI calculated. Data were analyzed using SPSS statistical software, and the Chi-square test was conducted for variables. The questionnaire was designed to study eating, drinking, and smoking habits and basic socio-economic status of the family.

Results and effects. The most common eating habits encountered were eating with family, having two meals per day including breakfast, together with frequent snacks and fatty food consumption. Irregular meals consumption was reported in 63.3% Roma, the vast majority of them (88.6%) have breakfast only three times per week. Most of the Roma (67.7%) eat two meals per day, while 31.4% of them eat three meals. Milk, diary products, vegetables and fruits were not frequently consumed among Roma and there was statistical difference comparing nonRoma. BMI had significant inverse correlation with the frequency of eating with family ($p = 0.004$). Correlations were also found between BMI and snacks and sweet consumption rate ($p = 0.04$), as well as, between BMI and the frequency of eating dates ($p = 0.013$).

Lessons and conclusions. Our findings suggest the need for strategies and coordinated efforts at all levels to reduce the tendency of overweight, obesity and elevated body fat, and to promote healthy eating habits in Roma children, youth and families. This paper is supported by grants VEGA 1/0451/09 and KEGA 260–002UPJÅ -4/2010.

Prevalence of food allergy among Vilnius city primary schools children

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Aim

The aim of this research was to evaluate the prevalence and pattern of food allergies among primary schoolchildren in Vilnius, Lithuania.

Methods

Vilnius University is a partner in EuroPrevall integrated project - "The prevalence cost and basis of food allergy in Europe", which is s a EU-funded multi-disciplinary research study. By implementing this project, an anonymous questionnaire 3067, 6–12 year old schoolchildren of the 1st-4th grades from primary schools in Vilnius were investigated.

Results

46.6% of 6–12 years schoolchildren had a self-reported illness or trouble caused by eating a food or foods, boys and girls similarly affected. Food allergy was diagnosed by a doctor to 16.5% of schoolchildren. After analyzing children, who had trouble after eating food, stratified by age, we discovered thet the biggest group of such children was among 9-year old (28.1%); and less among 8, 7 and 10-year old (24.6; 22.3 and 19.6% respectively). Children mostly suffered from diarrhoea and vomiting (49.3%). A rash, nettle sting like rash or itchy skin was also a frequent symptom (47.2%). Other common symptoms were headaches (18.3%) and runny or stuffy nose (17.6%). Fruits (24.6%) and mostly citrus fruits (7.8%) were the most common foods that caused clinical symptoms. Other important problematic foods were milk and dairy (18.3%), chocolate (11.5%), egg (7.1%).

Conlusions

According to the results of our research, almost half of the children of the primary schools in Vilnius, had a self-reported illness or trouble caused by eating a food or foods. This shows us, that food allergy might be a serious problem among schoolchildren in Vilnius; therefore it is essential to continue research food allergies, in order to find out tools and information necessary for policy makers, regulators, clinicians and allergic consumers, together with the food industry to effectively manage food allergies and the allergens that cause them.

Annually repeated monitoring of health behaviour among 15 year old school children as a tool to target health promoting practises at schools in a Danish municipality 2007–2010

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To be able to optimize and target health promotion efforts for school children and exploit the resources we need updated knowledge about the current health behaviour among the children.

Since 2007, all students in 9th grade in seven municipalities in Denmark have been invited to participate in an anonymous survey of health behaviour, health and wellbeing.

A questionnaire was developed by the medical advisors/ school doctors in seven Danish municipalities. Some of the questions are the same as in international studies of health behaviour in School Children. Other questions are adjusted according to local needs and may change from year to year. The response rate is high as more than 90% of all students answer the questionnaire. The questionnaire is a flexible and efficient tool to describe health behaviour and target health promotion for local children.

We present examples of health profile used to target health promotion efforts.

The 2007 profile showed that students at one school had health behaviour which differed significantly from the other schools in the municipality. A large proportion of the students had no exercise, did not eat breakfast, did not thrive at school and a high percentage were smokers. Based on these observations we launched a comprehensive multidisciplinary approach to change this picture. The students were offered breakfast and daily exercise. Smoking at school was already forbidden, but as part of our initiative, permission to leave the school during school hours was revoked. Danish student bring their own lunch to school, but information about healthy lunch packs were given and sweets were prohibited. The following year's health profile showed considerable improvements in health behaviour at this school.

Is antisocial behaviour among Roma and non-Roma adolescents in Slovakia related to accidents and injuries prevalence?

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Background

Roma adolescents were found to report more accidents and injuries during the past year compared with non-Roma adolescents. Roma adolescents were also frequently mentioned in the public opinion as behaving delinquently and aggressively. Delinquency and aggression might influence the prevalence of accidents and injuries. The aim of our study is to assess whether the excess occurrence of accidents and injuries among Roma adolescents is associated with more self-reported delinquent behaviour and aggression than among non-Roma.

Method

In a cross-sectional study among Roma (N = 324; mean age = 14.50, SD = 1.03; interview) and non-Roma adolescents (N = 513; mean age = 14.85, SD = 0.59; questionnaire) we obtained data on injuries (burns, cuts, fractures) during the previous 12 months, delinquent behaviour, physical aggression and hostility. The effect of delinquency and aggressive behaviours on occurrence of injuries was assessed using multivariate logistic regression, adjusted for gender and ethnicity on the total sample because of the not-significant interactions of ethnicity with antisocial behaviours.

Findings

Roma did not differ in burns and fractures, reported less delinquent and aggressive behaviour but they reported more cuts and hostility compared with non-Roma adolescents. Crude odds ratios revealed that delinquency was associated with burns, cuts and fractures (odds ratio (OR) from 1.06 to 1.08, $p < 0.01$), physical aggression with cuts and fractures (OR = 2.71, from 1.04 to 1.07, $p < 0.001$) and hostility with cuts only (OR = 1.08, 95% CI = 1.04–1.12, $p < 0.001$). Adjustment for gender, ethnicity and other antisocial behaviours showed that burns were associated with delinquency (OR = 1.08, 95% CI = 1.04–1.12, $p < 0.001$) and cuts with hostility, gender and Roma ethnicity. Fractures were not associated with antisocial behaviours but with male gender.

Conclusion

The occurrence of burns and cuts among adolescents is to a certain degree predicted by delinquent behaviours even after adjustment for gender and ethnicity. Roma do not differ from non-Roma in the association of injuries with antisocial behaviours. We recommend exploring other variables with the potential to explain a larger part of the variance.

Lifestyle health behaviour surveyed in Polish teenagers and parental perception (2011)

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Background

A healthy lifestyle when young is vital to ensure adequate public health in adulthood. This large survey identifies problem areas for both youngsters and their parents thus providing a target for remedial action.

Methods

A major questionnaire study was recently performed throughout Poland on 9320 teenage middle-high school pupils, (aged 12–17 years), and 6950 parents concerning health behaviour based on the USA equivalent ‘Youth Behavioural Risk Factor Surveillance System’, (YBRFSS), carried out by trained SANEPID staff. The survey was anonymous and voluntary with full backing from parents, schools and education authorities including bioethical approval.

Results

9% of pupils admitted to smoking of which 18% did so at school. Main reasons being; peer acceptance (56.5%), spending free time (32%), reaction to stress (31.5%) and spiting parents (11.4%). Also 23% pupils admitted to drinking alcohol, beer being most popular, where girls often matched boys. Parental awareness of their sibling’s drinking was apparently feeble with only 2% admitting that their offspring drank. A direct relationship was nonetheless found between excessive parental drinking and that of their children as well as with lowered teenager self-assessment linked to risky behaviour. Answers regarding physical activity between teenagers and parents however agreed. Only 3% of pupils admitted to taking drugs; with parents being totally unaware. Teenage diets were also found to be high in processed carbohydrates and animal fats but low in fish, vegetables, fruit and dairy products; often being a reflection of traditional family habits of food consumption. Eating away from home was minimal.

Conclusions

Recommendations thus made were; more parental awareness of how offspring free time is spent and more time devoted to upbringing is necessary, child education should include raising self-esteem/confidence and families require educating in healthier lifestyles and diet.

Socioeconomic differences in adolescents’ breakfast eating, fruit and vegetable consumption and physical activity in Ghana

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Background

Few studies have investigated the association between adolescents’ socioeconomic status (SES) and health behaviours in developing countries. We investigated socioeconomic differences in breakfast eating, fruit and vegetable consumption and physical activity among Ghanaian adolescents.

Methods

A school-based cross-sectional survey of a representative sample of 12–18-year-old adolescents (N = 1,195) was conducted in 2008 in southern Ghana, West Africa. Logistic regression analysis was applied to study the associations between food choices, physical activity and the socioeconomic indicators.

Setting

Three administrative regions in southern Ghana, West Africa.

Results

Of all adolescents, 31% took breakfast less than four days in a week, over half (56%) and 48%, respectively rarely ate fruit and vegetables. Younger adolescents (12–15 year olds) consumed more fruits and vegetables than older ones (16–18 year-olds). Boys were more likely to participate in physical activity than girls. Father’s higher educational level and greater material affluence were associated with more physical activity. Compared with low school performance, higher school performance was the most statistically significant predictor of frequent fruit and vegetable intake. Parental education was the statistically most significant predictor of breakfast eating so that those with higher parental educational level ate breakfast more frequently compared to adolescents with lower parental educational levels.

Conclusions
Health education programmes are needed to increase awareness and improve the food habits and physical activity in order to prevent malnutrition and degenerative diseases adolescents. Socioeconomic differences should be taken into account in developing interventions.

Sexual behavior and condom use among schoolchildren in Mongolia

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Background
The first nationwide Mongolia GSHS assessed the health behavior of schoolchildren in Mongolia, including sexual and preventive behaviors to provide the baseline data on health of adolescents and enable for the development of national preventive measures related to the health of schoolchildren. Methodology: The Mongolia GSHS employed a two-stage cluster sample design to produce a representative sample of students aged from 12 to 18 years. In total, 60 schools from Mongolia were selected for the survey. Overall, 5238 students (52,5% female; 47,5% male) completed the questionnaires. Students were divided into three age groups: 3.8% are 12 years old or younger, 57% are 13 to 15 years old, and 39.2% are 16 years or older. Results: In Mongolia, 13,4% of surveyed schoolchildren ever had sexual intercourse. By age, about 6% of schoolchildren under 12 years old, 7% of 13–15 years old and 23 % of 16 years or older have had sexual intercourse. The percentage of students who had sexual intercourse increased profoundly with increasing grade levels and differed by gender. Sexual intercourse was reported by 16,7% of males in the 9th grade vs. 7,5% of females, 30,7 % of males in the 10th grade vs. 7% of females and increased to 50,8 % of males in the 11/12th grade vs. 12,4 % of females. Overall 43,3% of students (50,6 % female; 39,3 % male, $p < 0.03$), who had sexual intercourse, did not use a condom. About 64 % had been taught about the prevention of HIV/AIDS and 45,3% of students had been taught about the signs and symptoms of HIV/AIDS in their classes during the latest academic year. 22,3% of schoolchildren had discussed about HIV/AIDS with their parents or guardians. Conclusion: Males were significantly more likely to report having had sexual intercourse than females (20,5 % vs. 6,9 %) and more female than male schoolchildren reported not to have used a condom (50,6 % vs. 39,3 %). There was difference significant between female and male. As HIV is increasing in Mongolia, the results indicate that sexual school health education has an important role for the welfare system in Mongolia and the promotion of condom use as preventive measures for HIV, STIs and abortions especially in school health education and for female students should be intensified.

7.Q. Lifestyle 2

Inverse association of the obesity predisposing FTO genotype with alcohol consumption and risk of alcohol addiction

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The A allele of the rs9939609 (FTO gene) is a risk factor for obesity, which effect probably occurs through a central modulation of food preferences. We speculated that FTO genotype could also influence alcohol consumption.

Objective
To investigate whether the FTOrs9939609 A allele is associated with measures of alcohol consumption.

Design, setting and participants
We typed rs9939609 in a cohort of 6,584 subjects representative of Polish adult population coming from a Polish National Multicenter Health Survey (WOBASZ), and in two cohorts of alcohol-dependent patients ($N = 145$ and $N = 148$). Alcohol drinking habits were obtained from a questionnaire.

Main outcome measure
Mean amount of ethanol consumed, pattern of consumption of alcoholic beverages (frequency, amount at a time, kind of beverage) and alcohol addiction.

Results
In WOBASZ cohort the FTO AA genotype was strongly associated with higher BMI (mean difference 0.72 kg/m2, $P = 0.00001$). Among those drinking alcohol, the AA genotype was associated with lower total ethanol consumption (sex, age and BMI adjusted difference: 0.21 g/day, $P = 0.012$) and distinct drinking habits with relatively low frequency of drinks but larger volume consumed a time ($P = 0.023$ for a multiple logistic regression model adjusted for sex, age and BMI). The AA genotype had a particularly low frequency ($OR = 0.46$, $P = 0.0004$ and $OR = 0.47$, $P = 0.0007$, sex/age/BMI adjusted) among those who drank small amounts of distilled spirits (≤ 100 ml at a time) but frequently (≥ 1–2 times/week). A statistically significant decrease of the AA genotype vs. WOBASZ population was also found among alcohol-dependent individuals ($OR = 0.64$, $P = 0.005$).

Conclusion
The FTO AA genotype, independently from affecting BMI, shifts ethanol consumption towards lower frequency/larger volume pattern, decreases total amount consumed and protects from alcohol dependence. This effect of FTO may offer a new explanation of the ‘‘alcohol paradox’’ i.e. epidemiological observations associating moderate alcohol use with low BMI.

Integration of quantitative risk assessment in the health impact assessment of the recently aggravated Hungarian anti-smoking policy

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Health impact assessments (HIA) dominantly apply only qualitative evaluation, although a comprehensive HIA ideally integrates both qualitative and quantitative evidence and methods, since quantification has several advantages when using assessment results in the decision making process. In the frame of the Risk Assessment from Policy to Impact Dimension EU project, quantitative assessment of several health outcomes has been integrated in the HIA of the recently prepared anti-smoking policy of Hungary, which had the primary goal of protecting non-smokers from environmental tobacco smoke exposure that is proved to be an effective measure for the reduction of smoking related morbidity and mortality that pose critically high burden on the Hungarian population.

A comprehensive, prospective HIA was carried out on the proposed amendment of Act No XLII of 1999 on the protection of non-smokers to introduce smoking ban in closed public places, workplaces and public transport vehicles. Full chain approach was used to identify basic rules for prioritizing the major impact pathways with special attention to the feasibility of quantifying exposure and outcome. Exposure assessment relied on international experiences, while outcome assessment calculated measures of disease burden, like attributable death and disability adjusted life years, for a baseline and a predicted situation after the proposed changes take place.

The major impact of the proposal was identified to decreases prevalence of active and passive smoking resulting in considerable positive effect on several diseases, most importantly lung cancer, chronic pulmonary diseases, coronary heart diseases and stroke. For these diseases, health outcomes could be quantified as close to 1700 lives and 22000 life years saved annually in total in the 10 million population of Hungary.

As demonstrated by the results, providing smoke-free public places has an unambiguous positive impact on the health of the public that has been confirmed by the quantified health gain. The demonstrated methodology offers a practicable example for applying quantitative risk assessment integrated in health impact assessments.

Does a population-based multi-factorial lifestyle intervention increase social inequality in dietary habits? The Inter99 study. A randomized controlled trial

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Background

Individuals with low socioeconomic position (SEP) have in general less healthy dietary habits than individuals with high SEP. Individualised lifestyle interventions have been found to be moderately effective in improving dietary habits in participants. However, it is discussed, but unclear from the scientific literature, if the social inequality in dietary quality will actually increase by this kind of intervention. The objective of this study was to investigate whether the effect of an individualised multi-factorial lifestyle intervention on dietary habits differs across socioeconomic groups.

Methods

Subjects were participants in the Danish Inter99 study. In total, 13,016 were invited and 6,091 were included in the intervention group at baseline. Of the 5,264 drawn for the control group, 3,324 completed questionnaires at baseline. Multilevel regression analyses with repeated measurements and logistic link and normally distributed random intercepts were used to investigate if the effect of the intervention on dietary habits differed according to socioeconomic position (SEP). The analysis was performed for men and women separately. Dietary habits were measured by a validated food frequency questionnaire. SEP was measured as length of education and employment status. The intervention effects across SEP groups were investigated by including an interaction term between intervention group, time and SEP.

Results

The effect of the intervention differed significantly between socioeconomic groups in men ($p = 0.02$) and thus the overall dietary habits improved more among men with low SEP than among men with high SEP ($p = 0.02$) during the five years of intervention. For women, the long-term effect of the intervention did not seem to depend on SEP.

Conclusions

The results indicate that individual-oriented dietary interventions based on tailored information, motivation and support and with a program for maintenance may decrease or hinder further widening of the social inequalities in health due to unhealthy dietary habits among socially disadvantaged men in the general population.

A review of resource utilization of lifestyle interventions for type 2 diabetes prevention among persons with prediabetes

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Background and aim

In recent decades it has been shown that intensive lifestyle interventions (diet and physical activity) can postpone or prevent the onset of type 2 diabetes among people identified as having prediabetes defined as impaired glucose tolerance (IGT) and/or impaired fasting glucose (IFG) (according to relevant ADA or WHO criteria at the given time). A systematic literature review was conducted on lifestyle interventions aiming at postponing or preventing type 2 diabetes among people with prediabetes. In contrast to previous reviews, it focused on the resources utilized on the lifestyle interventions themselves, rather than the outcomes. This is essential in order to design feasible and effective interventions for 'real life' settings.

Methods

The systematic review was conducted searching five databases based on search terms related to prediabetes and the relevant lifestyle interventions (diet and physical activity). The lifestyle interventions were analysed in order to describe intervention content, resource utilization including approximate hours spent and other resources used.

Results

Out of a total of 1197 articles, 57 were included describing 26 different trials. 23/26 of the trials included a combination of dietary and physical activity interventions, and 23/26 found significant effects either on weight, Body Mass Index, waist circumference, fasting glucose, glucose at 2 hours as part of glucose tolerance test or cumulative diabetes incidence. Generally, the modalities and resource utilization of the lifestyle interventions were not very precisely described. The trials varied a great deal in the amount of resources applied both in the initial start up training and the subsequent maintenance in order to monitor and ensure adherence. However, in most cases the resource consumption was rather intensive.

Conclusion

There is a need for further effectiveness and efficiency studies exploring feasible lifestyle interventions for persons with prediabetes in real life settings and health economical expertise should be involved to a larger extent. Future studies should further explore how to achieve tangible results using fewer resources and they should convey more details on the human and financial resources applied.

Barriers to leisure time physical activity

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Background

Physical activity is unevenly distributed in population: low socio-economic position (SEP) is associated with low levels of leisure time physical activity (LTPA). Physical inactivity is a risk factor for overweight and many non-communicable diseases and contributes to socio-economic health differences. In order to be able to reduce health inequalities, it is important to know which factors hinder LTPA and whether they follow a socio-economic gradient. This study examined the associations of barriers to LTPA with age, SEP, family type, health behaviors and Body Mass Index (BMI) among working aged men and women.

Methods

A cross-sectional random population sample of the National FINRISK 2002 study was used. Study population was limited to 25–64-year-old non-retirees, who self-assessed their physical activity level as insufficient (N 2721, 58% women). Response rate was 62%. Four types of barriers were included as dependent variables into analyses: shortage of time, expenses of LTPA, insufficient motivation and lack of company. Explanatory variables comprised of SEP (education and income), employment status, family type, health behaviours (smoking and physical activity) and BMI. Logistic regression analysis was used to investigate the age-adjusted independent and fully-adjusted associations of explanatory variables with each barrier separately for men and women.

Results

Shortage of time was associated in men and women with younger age, having a family, higher SEP, being a non-smoker, being physically active and in women not being obese. Expenses of exercise were more prevalent in both genders in the youngest age group, those with a low SEP, daily smokers, and in women among those, who were not living with a spouse and children. In men motivational barrier was associated with being middle-aged, being single, higher SEP, and being obese and in women with being middle-aged, having no children and being in the labour market. Lack of company as a barrier was in men associated only with younger age and being obese whereas in women it was associated with younger age, lower SEP and being less physically active.

Conclusions

It is essential to direct tailored social and health policy measures to different population groups to enable them to participate in LTPA.

Changes in physical fitness lifestyle health behaviour due to the 'Keep Fit' campaign in Poland advocating proper diet and physical exercise (2006–2011)

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Background

As a result of the disturbing worldwide trends seen over the last decade, (& more), in decreasing levels of physical exercise in youth coupled with unhealthy diets, urgent action has been undertaken by all the major international public health bodies as well as those from individual countries. Many remedial campaigns have been launched and this study describes one such programme 'Keep Fit' from Poland and its current outcomes.

Methods

A major questionnaire study, (n = 3 million), has been conducted every 3 years since 2006 by the Chief Sanitary Inspectorate (CSI) on the healthstyle behaviour adopted by a youngsters, (aged 12–17 years), in Poland; this being part of a national monitoring/education programme entitled 'Keep Fit', concerning appropriate diet, encouraging a healthy lifestyle and physical activity throughout their school years. A random sample concerning the latter, was taken, (n = 12000 volunteer pupils), for which parents had been included in the last 3 years. The design was based on the USA equivalent 'Youth Behavioural Risk Factor Surveillance System', (YBRFSS), and carried out by trained SANEPID staff directed by the CSI who also selected suitable dates.

Results

Comparisons between pupils participating in the 'Keep Fit' programme (52%) and those not, (48%), were thus made. The former group showed significantly more pupils engaging in both school and extra-curricular sport activities. Also more children from urban areas, (25%), in the 'Keep Fit programme', undertook extracurricular sport activities compared to non-participants (25%). In all, 2% more children participants from both urban and rural areas performed active sports (40%) than non-participants (38%). The most recent comparison, (between 2009–11), which is still being analysed shows that this gap is widening especially in recreational sports (68% & 58% respectively). BMI measurements demonstrated lowered values in this group than for non-keep-fit participants.

Conclusions

We conclude that adoption of the 'keep fit' programme, has resulted in a significant decrease in child/adolescent BMI and obesity even though it has being in place for just 6 years.

Trends in school-aged children physical activity from 1994 to 2010 in Lithuania

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Background

There is little epidemiologic research on long-term monitoring of physical activity among young population in Lithuania in context of changing socioeconomic environment. The objective of the present study was analyze trends in physical activity among school-aged children of Lithuania from 1994 to 2010.

Methods

Five countrywide surveys in 1994, 1998, 2002, 2006 and 2010 were carried out among 11-, 13-and 15-year-old children according to the methodology and principles of a World Health Organization cross-national study on Health Behaviour in School-aged Children (HBSC). In total, 27,130 pupils were surveyed. Anonymous questionnaire was used to collect data. Physical activity of pupils was assessed by taking into account times per week and hours per week spent in exercising and sports.

Results

In average, only half (45.2%) of boy and one fifth (20.2%) of girls were in moderate to vigorous physical activity over period 1994–2010. Urban pupils in comparison to rural peers (OR = 1.24, 95% CI: 1.16–1.33 among boys and OR = 1.30, 95% CI: 1.20–1.42 among girls), as well as children from high wealthy families in comparison to children from low wealthy families (OR = 1.56, 95% CI: 1.41–1.72 among boys and OR = 1.59, 95% CI: 1.41–1.59 among girls) had higher odds for moderate to vigorous physical activity. Living in intact families versus living in broken family was slightly protective against low physical activity. The proportion of boys who were in moderate to vigorous physical activity since 1998 decreased continuously from 49.8% to 39.5% ($P < 0.001$) in 2010, while among girls physical activity was unchangeable over period 1994 to 2006 but has decreased in 2010 (the relevant proportion decreased from 21.0% in 2006 to 17.7% in 2010; $P = 0.001$). However, the decrease of physical activity among adolescent population was not related with changes of studied social determinants.

Conclusions

In Lithuania, the remarkable decrease in physical activity of school-aged children over the last decade is a burning public health problem.

Efficacy of Group Adaptive Physical exercise program and Therapeutic Education sessions for patients with stroke: results from a nonrandomized controlled trial

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Background

Stroke is the third leading cause of death in developed countries and the first cause of long-term disability in elderly people. The burden of stroke is high and likely to increase in future decades as population demographics change.

Despite advances in medical care of stroke, prevention remains one of the best approach to reduce the burden.

Even though substantial evidence exists that physical activity can improve cardiovascular health, no good quality data exist for stroke patients and some research questions remain.

The purpose of this study is to determine whether a Group Adaptive Physical Exercise program (EFG), associated to Therapeutic Patient Education (ET), is efficacious in improving function and quality of life in patients with residual disability after post-stroke rehabilitation.

Methods

Study design: nonrandomized controlled trial.

Study participants: Patients with stroke who have completed individual rehabilitation, recruited 3 to 18 months from the index event;150 patients receive the EFG intervention (Bologna, Italy) and 150 comprise the control group (Reggio Emilia, Italy).

Intervention: Sixteen 1-hour exercise sessions twice a week plus 4 education sessions (EFG-group). Controls receive only usual care.

Outcome measures: 4-month change in gait velocity (6-Minute Timed Walk -6MTW), balance (Berg Balance Scale-BBS), function (Short Physical Performance Battery-SPPB and Motricity Index-MI);12-month change in Modified Barthel Index, quality of life (SF 12), Geriatric Depression Scale and Caregivers Strain Index.

Results

Preliminary results indicate that, at the 4 months follow-up, patients in the EFG-group exhibit a significantly higher improvement in gait velocity, balance and SPPB compared to the control group ($p < 0.01$): 6MTW + 53.9 metres (EFG-group) versus -11.1 (controls), BBS + 5.5 (EFG-group) versus -1.9 (controls), SPPB + 0.7 (EFG-group) versus -0.2 (controls).

Conclusions

The EFG program appears to be efficacious in improving function in post-stroke patients and should be viewed as an important component of a comprehensive stroke rehabilitation program.

7.R. Substance abuse

Socioeconomic differences in alcohol and drug use among adolescents, evidence from a developing country

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Background

Evidence concerning substance use as well as its social stratification among adolescents in developing countries is scarce. Socioeconomic differences in experimental alcohol use, drunkenness, marijuana use and other drug uses among adolescents in Ghana was investigated using multiple socioeconomic indicators.

Methods

A school-based cross-sectional survey of a sample representative of 12–18-year-olds (N = 1,195, response rate = 89.7%) was conducted in Ghana in 2008. Logistic regression analysis was applied to model the associations between substance use and familial socioeconomic status and individual anticipated future social position (measured by school performance and educational plans after graduation).

Results

Use of marijuana and drugs were associated with lower material affluence while experimental alcohol use was associated with higher material affluence. Living in non-nuclear family was predictive of other drug uses and drunkenness. Other drug uses was associated with lower paternal education and occupation while drunkenness was associated with lower paternal education. Individual anticipated future social position measured by plans after graduation was the strongest predictor of experimental alcohol use, drunkenness, marijuana and other drug uses.

Conclusions

Similar to some Western countries, in a developing country too socioeconomic differences exist in substance use among adolescents. Interventions are need to prevent adolescence substance use especially among those in danger of discontinuing schooling and those in less affluence families.

Licit and illicit drug use among female sex workers in bar and club prostitution in Belgium: a quantitative and qualitative study (2009–2010)

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Background

Female sex workers (SW) are exposed to specific health risks, which increase with the use of licit drugs, such as alcohol, and illicit drugs, such as cannabis and cocaine. Not only SW run higher risk for negative health outcomes, but also their clients and private partners. SW in bar and club prostitution (drinks are served and services are provided in a separate room) are more than other SW exposed to drugs, in particular alcohol: the principal income is not based on sexual services, but on the level of alcohol consumption with clients. This study depicts the extent and nature of the drug use among female SW in bar and club prostitution in Belgium. Potential physical and mental problems due to their drug use are described and the need for specific preventive and curative drug related healthcare for SW is discussed.

Methods

A cross-sectional study was carried out using a quantitative survey among 120 female SW working in bar or club prostitution and five focus groups with experts in the field. The study was performed in five different cities in Belgium using snowball sampling and privileged ac-cess interviewers.

Results

Of all bar and club SW (120), 88.3% (106) used alcohol the past 30 days. On a workday they drank on average 6.6 units and 46.2% (49) admits frequent alcohol consumption (i.e. at least four times a week). The past 30 days, 20.8% (25) used cannabis of which 56.0% (14) fre-quently. 18.3% (22) used the past 30 days cocaine and 59.1% (13) of those at least once a week. Under the influence of drugs, more unsafe sex behaviour was reported as well as longer working days. The bar and club owners often encourage, force drug use or even supply the drugs. Of those SW who used drugs more than once (115), 13.9% (16) had already searched for help regarding the drug use issue. Others mention lack of motivation or information to look for help.

Conclusions

The prevalence of drug use among bar and club SW and the influence of drug use on sex work, illustrate the need for drug and SW related healthcare. A tailored programme is re-quired, only then appropriate care can be provided. Special attention should be paid to the use of alcohol and the position of SW towards bar and club owners, since they seem to have a key position.

Oral health of opiate drug abusers under addiction treatment in Tehran, Iran

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Background

Drug abuse is one of the major health problems in Iran and about two million people have been reported to use illegal drugs annually. Among a range of the health consequences related to addiction are various oral diseases requiring serious attention. The present study investigated oral health status and dental service utilization of opiate drug abusers attending an addiction treatment center in Tehran, Iran.

Methods

A comprehensive structured survey and a clinical study among patients under methadone maintenance therapy was carried out at an addiction treatment center in the Southern region of Tehran in 2011. All voluntary patients at the center with a monthly turnover of about 75 were asked to participate in the study. In addition to their socio-demographic characteristics and addiction history the patients were asked about their perceived oral health and use of dental services. The clinical oral examinations using WHO criteria together with the CPI index were carried out by a trained dentist utilizing a mobile dental unit. Chi-square test served for statistical analyses.

Results

Totally, 54 patients (50 males and four females; mean age of 40 years, SD = 9.3) participated. Among the participants, 17% had elementary, 39% moderate and 44% diploma or higher education. The main drug of abuse was opium (54%) followed by crack (35%) and methamphetamine (7%). Mean duration of addiction was 12.6 years (SD = 7.4). Among the participants, 62% reported their oral health as poor or very poor. Almost half (46%) of the patients had not visited the dentist during the last year and 85% reported that their last visit to dentist had been because of a problem. No significant difference in perceived oral health was found between users of opium and crack (p = 0.09). Among all patients, the mean DMFT was 20.5 (SD = 8), D = 5, M = 14.3 and F = 1.2, while 22% were edentulous. For 77% of the patients, the Max CPI index was either 3 or 4.

Conclusion

High oral treatment need among Iranian opiate drug abusers under methadone maintenance therapy was observed. The addicts' poor perceived oral health and low use of oral health services call for more emphasis and integration of oral health care in the treatment centers.

Methadone Maintenance Treatment in Poland 1997–2011

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One of the principles of the National Programme for Countreacting Drug Addiction is to limit the range of health damages trough improving educational programmes, exchange the needles and syringes and substitution treatment. Methadone Maintenance Treatment is a key component of a comprehensive treatment and prevention strategy to address opioid dependence and its consequences. The principal effects of methadone maintenance are to relieve narcotic craving, suppress the abstinence syndrome, and block the euphoric effects associated with opiates. Substitution treatment is recognized as effective part of biomedical preventions and one of the main tools of HIV/AIDS, HCV epidemic control among IDU's. MMT admitted as essential choice for IDU if ones fail rehabilitation programs. Patients generally receive psycho-social support. Therapeutic actions are supposed to prevent pathological behavior especially the crime - generating one, prostitution and return to using drugs. Methadone maintenance treatment improves physical and mental health, social functioning, quality of life, and pregnancy outcomes. For pregnant women who are dependent on opioids, receiving methadone maintenance treatment, combined with adequate prenatal care, decreases obstetrical and fetal complications Consequently, methadone maintenance treatment has the potential to benefit, not only people receiving treatment, but also those who are involved in delivering treatment, as well as the wider community and society as a whole. In Poland MMT programmes are since 1997. Actually in Poland is registered about 2100 drug users in 21 programmes of MMT. It's only 8% of needs in this kind of treatment. Statistic data is available.

Who is responsible for the prevention of substance use? A cross-national comparison of parental perceptions to prevent adolescents' substance use

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Background

Studies indicate that parents can play a central role in preventing substance use. However, few studies have concentrated on parental perceptions on parental measures and the role of the government to prevent adolescents' substance use. We examined whether differences in alcohol and drug policies also lead to different perceptions on parental measures among parents in The Netherlands and Norway. The research question was threefold: 1) Do Dutch and Norwegian parents have different views on parental measures to prevent adolescents from substance use? 2) What predict the parental perceptions in The Netherlands and Norway? 3) How do parents view their own responsibility versus the government's responsibility to prevent adolescents from substance use?

Methods

Data derived from a broader cross-sectional internet survey conducted in The Netherlands and Norway. A subsample of Dutch (N = 2,017) and Norwegian parents (N = 844) was selected. T-test and multiple regression analyses were used for analyzing and exploring the parental perceptions.

Results

Norwegian parents were slightly more in favor of taking parental measures as setting the right example, setting clear rules regarding underage substance use, discussing view on substance use and not serving alcoholic drinks to underage children. The parental perceptions on alcohol and drug measures seem to be predicted by different factors for both countries. Small significant differences were found between Dutch and Norwegian parents in their views on their own versus the government's responsibility to prevent their children from alcohol and drug use. Importance of parental responsibility was emphasized by both groups.

Conclusions

Both Dutch and Norwegian parents consider it to be important to provide measures to prevent children from alcohol and drugs use. Parents believe that parental measures should be taken and feel responsible for doing so, which implies that there is willingness to be involved within interventions. Policy makers and the public health arena should therefore focus on the involvement of parents to prevent adolescents from substance use.

Health Stations as user interfaces project: improving the care of citizens with substance abuse problems

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Issue/problem

The Helsinki Health Station project is a part of the Key to the Mind project and it constitutes part of the Kaste program headed and funded by the Ministry of Social Affairs and Health. The aim of the Health Station project is to develop multidisciplinary work in primary care by integrating substance abuse workers and social services advisors to Health Stations (n = 26) in the City of Helsinki.

Description

It is known that alcohol consumption is related to a number of health problems, and there is often need for advice about the social services available. The aim is to increase collaboration between professionals and thus make it easier for people to get help. In 2009, 37% of the population (total population of 584 000) visited GPs and 39% visited public health nurses at Health Stations. In the City of Helsinki the health services are provided by the Health Centre and substance abuse services by the Social Services Department, which can be seen as different user interfaces. Although these departments cooperate, patients with both mental health and substance abuse problems do not get sufficient care. As the project is run by both the organisations, integration of these services is expected.

Results (effects/changes)

The project was piloted in autumn 2009 at two Health Stations in eastern Helsinki with one substance abuse worker and one social services advisor. The area has a higher prevalence of both social and health problems compared to the average. It was found that this new way of working is necessary and it benefits both the patients and the staff. Based on the pilot study, the project is now being implemented to all Health Stations. In the future there will be a multidisciplinary team consisting of mental health, substance abuse and social work professionals.

Lessons

Patient data (incl. sociodemographical status, previous treatments for substance abuse or mental illnesses, AUDIT etc.) is currently being collected on an internet-based questionnaire. The workers collect the same information from all the patients they meet throughout the project. Information about the patients'care pathway will also be collected. The results of the survey will be published in Eupha kongress in November 2011.

A Research Strategy Case Study of Alcohol and Drug Prevention by Non-Governmental Organizations

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Background

Alcohol and drug prevention is high on the public health agenda in many countries. In Sweden in 2002 an innovative project portfolio including an integrated research and competence-building strategy for non-governmental organizations (NGOs) was designed by the National Board of Health and Welfare (NBHW).

Methods

The embedded case study includes 135 projects in 69 organizations and 14 in-depth process or effect studies. The data in the case study has been compiled using multiple methods - administrative data; interviews, questionnaires, focus group discussions and seminars; and documentation of implementation; consultations with the NBHW and the NGOs; and a literature review. Annual reports have been submitted each year and three bi-national conferences Reflections on preventions have been held.

Results

A broad range of organizations have been included in the NBHW project portfolio. A minority of the project were run by Alcohol or drug organizations, while a majority has children or adolescents as target groups. In order to develop a trustful partnership between practitioners, national agencies and researchers a series of measures were developed and implemented: meeting with project leaders, project dialogues and consultations, competence strengthening, support to documentation, in-depth studies and national conferences. A common element was that the projects were program-driven and not research-driven interventions. The role of researchers as technical advisors was suitable for the fostering of a trustful partnership for research and development. The independence of the NGOs was regarded as important for the momentum in the project implementation. The research strategy also includes elements of participatory research.

Conclusions

This research strategy case study shows that it is possible to integrate research into alcohol and drug prevention programs run by NGOs, and thereby contribute to a more evidence-based practice. A core element is developing a trustful partnership between the researchers and the organizations. Moreover, the funding agency must acknowledge the importance of knowledge development and allocating resources to a research group that is capable of cooperating with practitioners and NGOs.

Needs of children of drug abusers in Europe

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Research funded by the European Union/ Public Health Programme, Public Health Executive Agency Ref 20073021

Background.

Children of drug users are more likely to experience harm as a consequence of alcohol or drug use. Across Europe there are hundreds of thousands of children and adolescents being cared for by family members because of the alcohol and drug problems of their parents.

Methods

A descriptive qualitative study was conducted in 7 European countries (UK, Belgium, Sweden, Romania, Spain, Italy and Lithuania) during 2009. A random sample of 183 fulltime kinship carers of children and adolescents of parents with drug abuse problems were face-to-face interviewed using an investigator-developed, open-ended tool. Methodological triangulation was achieved by using 2 methods: interviews and focus groups. Transcriptions were evaluated using conceptual content analysis

Results

Many of the children have been prenatally exposed to drugs and to dysfunctional parenting, neglect, or abuse. Those children have emotional, behavioural, or physical problems and special needs. Some children were exposed to hostile environments where time is spent in dealing, prostitution and criminal activities to help support the parent's habit. When a parent was incarcerated that affected its children concept of self-worth. Some of the carers interviewed for this project said they felt as if they were unable to understand the general education that the children were receiving. Many carers expressed concern about the children they were caring for being vulnerable to drug and alcohol problems. They talked about wanting to protect the children from this and many expressed a desire to be better informed about drug and alcohol issues as carers. Kinship carers understand the children they are looking after are vulnerable, but they also worry about whether that vulnerability leads them to take risks such us alcohol and drug use that they as carers feel very uncomfortable about.

Conclusions

Schools, social work and mental health care services should be more responsive to the needs of children in kinship carer because parents drug use. Carers from across the project have expressed a number of information needs. They said they would like to have information on drugs and alcohol.

7.S. Smoking

National estimates of local smoking prevalence: who to believe?

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Background

Smoking prevalence is an important population health indicator and has significant implications for health policy makers. In England, local prevalence estimates of smoking are calculated using the Integrated Household Survey (IHS) results. These estimates are derived from six different Office for National Statistics surveys, with different methodologies. Methods include individual or household (including proxy) interviews (face to face and telephone). The sample was obtained from postcode address files with different age exclusion criteria ranging from <16 to <20 years.

Health planners at NHS Bury collect data on population health, including smoking prevalence, using a cross sectional postal survey (Bury Health Survey [BHS]). Using the general practice databases, the questionnaire was sent to 5% (n = 137,565) of the population (>17 years). In 2010, the BHS had 3,022 respondents compared to the 1,224 IHS had.

We aim to compare point prevalence estimates of smoking in the NHS Bury area calculated using data collected at national and local level.

Methodology

The point prevalence estimate of smoking was obtained for the NHS Bury area from IHS and compared to the BHS estimate. Current smoking status was determined using responses to a validated question included in the BHS. To compensate for under/over-representation of groups, responses were weighted by age and gender of the underlying population of each ward area. Weighted responses were used to calculate ward-level rates of smoking. These were then applied to the overall population to provide a point prevalence estimate of smoking, including 95% confidence intervals (CI).

Results

The 2010 IHS point prevalence estimate of smoking in Bury was 24.4% (95% CI 22–26.8%). The 2010 BHS estimate was 18.6% (95% CI 17.3–19.3%). This 5.8% discrepancy was discussed with other NHS agencies who advised on using the HIS estimate. However, the BHS estimate was calculated using a more robust methodology including a larger sample and a consistent sampling frame.

Conclusion

Urban area health policy makers should consider monitoring health using locally collected data. Further research is required to determine whether discrepancies are also present for other indicators of population health.

Epidemiology of tobacco use in Greece: results from the Hellas Health III survey (2010)

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Background

Greece has a long tradition of tobacco production and one of the highest adult smoking rates in the world. Recently, a series of legislative measures, smoking bans in public venues and higher taxes in tobacco products have been implemented, in an effort to reduce tobacco consumption. The aim of the present survey was to explore the epidemiology of tobacco use in Greece.

Methods

The national household survey "Hellas Health III" was conducted in October, 2010. A representative sample of the adult Greek population, consisting of 1,000 individuals aged 18 years or more, was selected by means of a three stage, proportional to size sampling design. All individuals were interviewed; effective response rate reached 48.6%. Individuals, who had smoked at least one cigarette during the past 30 days, were classified as smokers.

Results

44.3% of men and 38.1% of women are smokers ($p < 0.05$). The percentage of smokers is high in all socioeconomic and educational levels; no statistically significant differences were found between them. Under the age of 55, the prevalence of smoking is as high as 49.5% and no gender inequalities were observed. 83.3% of male smokers and 91.8% of female smokers smoke manufactured cigarettes, whereas 18.6% of male and 8.7% of female tobacco users smoke hand-rolled cigarettes. Use of other tobacco products was reported by less than 1%. Greek men are also heavier smokers than women (23.2 vs 19.3 cigarettes per day, $p < 0.01$) and they tend to become regular smokers at a younger age than women (mean age: 20.0 vs 22.4 years, $p < 0.05$). One third of the individuals (37% of men and 28% of women), who have smoked at least once in their life, responded that they smoked their first cigarette at the age of 15 or younger.

Conclusions

Smoking is still highly prevalent across the socioeconomic spectrum in Greece. Men smoke more than women and start smoking at a younger age; these differences though are minimal in younger generations. Public health interventions focused on smoking should be systematically implemented in Greece, in order to tackle the tobacco epidemic.

23-year trends in socioeconomic inequality in smoking in Denmark: do age and gender matter?

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Background

The social gradient in smoking is well-documented in Denmark as well as internationally. Monitoring the trend in health inequality is essential when it comes to health promotion and prevention and it is for this purpose indispensable to be aware of potential age and gender differences appearing in the trend. The aim of this study is to describe the trend in socioeconomic inequality in smoking in Denmark in the period 1987–2010 and to examine age and-gender-dependency in the trend.

Method

We use the concentration index (CI) to measure the inequality trend. Educational level was used as indicator of socio-economic status and heavy smoking was defined by smoking more than 15 cigarettes per day. Data from five nationally representative Danish health surveys was used in the study.

Results

The smoking prevalence decreased in the period 1987–2010, from 22% to 12% among men, and from 18% to 8% among women. The largest relative decrease in the prevalence was observed in the in the group with the highest education generating a rising inequality over time. CI rose (nominally) from -0,04 to -0,18 in the male group and from 0,01 to -0,15 in the female group.

The trends in inequality for both men and women are highly age dependent. For men no trend was found for the age-group 25–44 years while a clear increase in inequality was seen in the age group 45–64 years. For women rising inequality was seen in both the age-group 25–44 years and 45–64 years. For both men and women no clear tendency was seen among persons older than 64.

Conclusion

When planning future preventive smoking campaigns it is recommended to assess whether or not to focus on specific age-, gender- and education-groups.

Smoking is the least of their problems?

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Background

Smoking cessation among socially vulnerable people pose a challenge to both public health professionals and social workers. As part of a national intervention project in Denmark, we conducted a survey on attitudes among professionals and socially vulnerable towards smoking cessation.

Methods

A questionnaire with 25 questions relating to smoking patterns and attitudes towards socially vulnerable people and smoking cessation was distributed nation-wide at 76 treatment facilities and activity centres. The study population included a total of 1059 leaders, staff members, and socially vulnerable citizens. This study is followed by a qualitative study based on interviews with the socially vulnerable and members of staff regarding the relationship between the two groups when smoking cessation is introduced at the facilities and centres.

Results

The prevalence of smoking is a much higher among the socially vulnerable, 61% in our survey compared to 21% of the general population in Denmark. However, just as among the general population, 33% of the socially vulnerable express the wish to quit smoking. Among leaders and staff members, only 19% believe that the socially vulnerable wish to quit smoking and as few as 16% of staff members believe that socially vulnerable people are able to quit smoking. Particularly those members of staff who themselves are smokers express attitudes that could potentially run counter to successful implementation of smoking cessation programmes. 54% of smoking staff members express the opinion that smoking together with the socially vulnerable is a tool that can be used purposefully in working with the vulnerable to improve their lives.

Conclusions

Many socially vulnerable express a wish to quit smoking, but structural conditions at treatment centres and activity centres often do not facilitate smoking cessation. One of the most important barriers is attitudes among staff members, in particular staff members who themselves are smokers. This calls for a more professional attitude among staff toward the socially vulnerable regarding smoking cessation, which in turn requires leaders to take responsibility.

Experience of violation/insults during the past three months, social capital and daily smoking: A population-based study

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Background

The objective was to investigate the association between experience of violation/insults during the past three months and daily smoking, taking social capital, economic stress and sociodemographic and socioeconomic characteristics into account.

Methods

The 2008 public health survey in Skåne in southern Sweden is a cross-sectional study with 55% participation rate. A random sample was approached with a postal questionnaire, and 28,198 persons aged 18–80 responded. Logistic regression models investigated associations between experience of violation/insults during the past three months and daily smoking, adjusting for age, country of birth, education, socioeconomic status, trust and economic stress.

Results

12.6% of the men and 14.9% of the women reported daily smoking. The prevalence and odds ratios of daily smoking were higher among middle-aged men and women, men born in countries other than Sweden, men and women with low education, low socioeconomic status, high levels of economic stress and low trust as well as among men and women who had experienced one or several occasions of violation/insults during the past three months, OR 2.14 (95% CI = 1.67–2.73) for men and 1.74 (95% CI = 1.42–2.14) for women who had experienced several occasions of violation/insults during the past three months. After multiple adjustments the odds ratios remained significant, OR 1.37 (95% CI = 1.03–1.83) for men and 1.31 (95% CI = 1.03–1.67) for women.

Conclusions

The group with experience of violation/insults at one or several occasions during the past three months retained significantly higher odds ratios of daily smoking throughout the multiple analyses, a finding which has general policy and health policy implications.

Smoking as risk factor for disorders of lung function among adult population in Arkhangelsk

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Background

Smoking is a major risk factor for chronic obstructive pulmonary disease (COPD), which is characterized by incompletely reversible airflow limitation. However, even pronounced airflow restriction is not always accompanied by symptoms that may lead to considerable delay in seeking medical care.

Aims: Early diagnostics of disorders of lung function testing and identification of risk factors of developing COPD in smoking patients.

Methods

We invited 414 volunteers in Arkhangelsk to test their lung function. The symptoms (cough, sputum, dyspnoea), and smoking status were identified in the first step. The concentration of carbon monoxide in exhaled air was determined by MicroCO analyzer. Lung function tests were carried out on the spirometer MicroLab. A standardized pulmonary function test with bronchodilatator for determination of bronchial obstruction was also performed. Confirmation of the diagnosis of COPD was carried out by pulmonologist on the second step.

Results

Mean age was 42.1 ± 13.6 years (62.3% males). Altogether, 89% of the participants were current smokers and 11% were ex-smokers. The average smoking history was 21.1 pack-years (males: 25 pack-years, females 14.8 pack-years). Potential risk of COPD was found in 68.1% of the patients (smoking > 10 pack-years). High risk of developing COPD (smoking > 25 pack-years) was diagnosed in 127 persons (30.7%). The high level of carbon monoxide in exhaled air was detected in 25.5%. About a quarter (24.6%) had not clinical symptoms such as cough, sputum and dyspnoea. Obstructive ventilation disorders were identified in 41.1%. In men, symptoms of bronchial obstruction occurred significantly more frequently than women ($p < 0.001$). The frequency of obstruction increased with age and smoking history ($p < 0.001$). Bronchodilation test was performed in 123 people (72% of all patients with identified disorders of lung function). COPD was detected in 28 patients (6%) [COPD I: 11; COPD II: 13 and COPD III: 4].

Conclusion

COPD can be diagnosed at any stage. Early diagnostics of lung function disorders in smoking patients is a good opportunity to identify those individuals who have a risk of developing COPD and to influence of the disease before it becomes a major problem.

Impact of the 2002 Delaware Smoking Ordinance on Heart Attack and Asthma

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Introduction

In the United States, smoking is the leading cause of death-having a mortality rate of approximately 435,000 people in 2000-accounting for 8.1% of all US deaths recorded that year.

Methods

This study aimed to analyze the Delaware Hospital Discharge Database and identify state and non-state residents discharged with AMI or asthma for the years 1999 to 2004. Statistical data analysis compared the incidence of AMI or asthma for each group before (1999–2002) and after (2003–2004) the comprehensive amendment of the The Delaware Clean Indoor Air Act of 1994.

Results

Pre-ordinance and post-ordinance quarterly rates of AMI for Delaware residents were 451 (se = 21) and 430 (se = 21) respectively, representing a 4.7% reduction. Over the same time period, there was negligible change in the incidence of AMI for non-Delaware residents. After adjusting for population growth, the Risk Ratio (RR) for asthma in Delaware residents post-ordinance was 0.95 (95% CI, 0.90 to 0.999), which represented a significant reduction ($p = 0.046$). By comparison, non-Delaware residents had an increased RR for asthma post-ordinance of 1.62 (95% CI, 1.46 to 1.86; $p < 0.0001$).

Conclusion

Delaware's comprehensive non-smoking ordinance effectively was associated with a statistically significant decrease in the incidence of AMI and asthma in Delaware residents when compared to non-Delaware residents.

Implementing smoke-free policy in educational institutions in Armenia, 2009

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Background

Due to high rates of tobacco use and insufficient enforcement of tobacco control policy a large burden of disease and premature death are attributable to smoking and secondhand smoke exposure. Qualitative research was used to explore opinions, beliefs, and practices related to tobacco control policies among students, faculty and administrative staff of the Armenian State Pedagogical University and Yerevan State Medical University to help develop intervention procedures.

Methods

Focus group discussions (FGDs) were conducted with students, faculty and staff in May-June 2009. All FGD, moderated by a trained facilitator, were audio taped and transcribed. The analysis was based on the following domains: non-smokers and smokers' rights, impact of smoking ban on the image of universities, enforcement of smoke-free policy, obstacles for successful anti-smoking interventions, and recommendations for effective implementation of anti-smoking policy in universities.

Results

57 students, faculty and administrative staff participated in 8 FGDs including current, ex-smokers and non-smokers. Participants indicated that one of the primary obstacles to

establish smoke-free environment in universities is lack of clear policy enforcement mechanisms, including absence of penalties for violating the policy and absence of a person/unit responsible for policy implementation. Participants also emphasized that existence of double standards (tobacco control policy is differently applied to students and faculty/staff) is another obstacle for successful implementation of smoke-free policy in universities. The presentation will also discuss the use of additional intervention strategies including passive smoke monitoring, observation and survey results.

Conclusions

The study made the following recommendations for more effective policy implementation in universities: strong support from the administration; introduction of clear enforcement mechanisms in student and employee contracts; equal enforcement among students, faculty and staff; and involving all the members of the university in policy development and enforcement to have a sense of ownership and commitment.

7.T. Violence and mental health

How significant is the impact of injury severity on depression? Evidence from a cross-sectional survey

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Occupational injuries continue to rank among the leading causes of death and burden of disease and occur in all regions and countries, affecting people in all ages and income groups. Many injuries to rural workers occur as a result of farm related activities. While such injuries can result in considerable loss, little data is available on the prevalence and potential causes of injuries in small rural farms in Romania. Depression is found to be not only a consequence of injury but also a risk factor, even if there are not too many studies that tackle this subject. A number of 406 rural inhabitants participated in the survey, randomly chosen from the rural region of the Cluj County, Romania. Data was collected in March 2011. Depression was measured using Patient Health Questionnaire 9(PHQ9) applied to the injured population. Participants were asked to detail the last injury they have suffered due to farming or rural household activities in the last 12 months. 18.5% (N = 75) suffered an injury due to farming. 30.8% (N = 24) appreciated the gravity of the injury as being severe, while 7.7% (N = 6) suffered from extremely severe injury. A bivariate analysis of the depression-injury severity relationship was realized using standard tests for (ordinal) qualitative variables, like Chi-square or Kendall-tau b. Additionally, a multivariate analysis was conducted in order to isolate the effect of certain injury severity indicators on (ex-post injury) depression, from the effect of other covariates (as socio-demographics, time since accident, etc.). There is a strong relationship between the constructs of self-assessed severity and the ones of restrictivity or disability, but the study shows weak evidence between injury severity and depression by the bivariate analysis. The logit econometric analysis shows that we cannot assume that there is a statistically significant influence of injury severity on the rural inhabitant depression at an (injury) ex-post moment given in time. Despite its limitations, this study presents the first Romanian data that examined rural adult unintentional injuries and their relationship with depression. These injuries as well as depression clearly represent a burden to society and to the health care system and should be a priority for prevention.

Bullying in School Context

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Background

School violence is a phenomenon of great current that generates social, educational level, family and society in general. This has increased the concern of professional education and health by encouraging the production of knowledge that facilitates the design of intervention programs, training and information, targeting these behaviors within the school and family. The present study, we sought identify the existence of practices of bullying among students in the 4th year of the 1st cycle of basic education, describing the profile associated with the victim and offender and characterize the influence of a set of socio-demographic, family and school context underlying these practices.

Methods

We studied 201 children, to attend the 4th year of primary education, of rural schools and urban districts of Coimbra and Leiria. As measuring instruments,auto-complete, and measured for this population, are used: the Questionnaire ‘Bullying: The Aggression among children in Space School, ‘the’ Scale Signaling Environment Natural Child ‘and a ‘Socio-demogáfica sheet.’

Results

The data suggest that 26.90% of children are engaged in bullying behaviors (as victims or aggressors), and forms of more common to verbal aggression and physical and preferred sites of assaults the recreation (91.30%). In most cases children reveal assaults on their parents (33.33%) but not to their teachers (30.35%) recognize that although the latter involved in managing these situations. The gender, age, failures, attendance at kindergarten, the number brothers and position in modynamic instability refractory did not show a significant effect associated with the practice of bullying. Since the family environment of children relief a highly significant effect on the practices of bullying.

Conclusions

The results suggest some guidelines to consider in planning and implementing strategies to prevent this phenomenon, where Educators, psychologists and teachers can have an important role either with children or their families.

Psycho-social predictors of victimhood from bullying among Israeli school students

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Background

The phenomenon of bullying at schools constitutes a severe problem that influences dramatically the ability of students to develop educationally and socially. The attempt to understand its reasons are vital in order to confront and prevent violence in schools. According to recent surveys, more than half of the students in Israeli schools do not feel safe while at, on their way to or back from school. In spite of its severe and long lasting effects the bullying phenomenon has not received proper treatment in Israel.

Objectives: To map the various types and sub-groups distributions of bullying victimhood among students; To examine the correlation between potential social factors related to children growth and the probability of being a victim of bullying

Methods

This study is part of a multinational study on Health Behaviors in School-Aged Children sponsored by the WHO and based on a secondary analysis of the Israeli survey conducted in 2002 which included 2,532 students (6th,8th,10th grade).

Results

about 41% of students were victims of bullying. The multivariate logistic regression found various variables as risk factors for being victims of bullying at school. According to the socialization theory, these factors were divided into different levels: Family (disconnected from parents), school (students with more negative school perception), peers (spent less with friends and felt more socially rejected) and macro level, (students who are not satisfied from their life or those who reported more negative health perception, experienced more changes in the life style following terrorist events or who were exposed to terrorists events).

Conclusions

The current results reinforce the claim that bullying in schools is a complex phenomenon, influenced by many ecological systems. These results have important implication for public health and educational interventions.

The relationship between the traumatic events of childhood and mental illness in Romania

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Background

In the last decades more attention was paid to the traumatic events of childhood as risk factor for developing mental disorders in adulthood.

Methods

Cross sectional study conducted from 2005–2007 relied on face to face household interview using the Composite International Diagnostic Interview (CIDI), resulting in 2357 subjects. Were assessed mental disorders and 11 traumatic events of childhood, Pearson correlation was applied. Were estimated the effects (odds-ratios OR) of childhood adversities on lifetime risk of DSM-IV/CIDI disorders in bivariate, multivariate additive, and interactive survival models, based on discrete-time survival models with person-year the unit of analysis controlling for age-at-interview, gender.

Results

26.3% of respondents experienced a traumatic event in their childhood. Among the most reported adversities were parent death (12%), other parent loss (2%), divorce (3.2%), family violence (4%), physical abuse (3.6%), economic problems (3.1%). Less than 2% reported parent mental disorders (1.4%), physical illness (2%) and parent crime (1.3%).

Among those who suffered traumatic events, 28% reported over two traumatic events.

Among those who reported economic problems, parent drug use, mental illness or physical abuse, over 60% had more than two traumatic events.

Pearson coefficient showed correlation between parental death and economic problems, neglect and physical abuse, physical abuse and domestic violence, drug consumption and parent mental health.

The most predictive traumatic events for anxiety disorders were: parent mental disorder OR 4.9 CI (2.9–8.4), physical illness OR = 3.6 (1.5–8.8), other parent loss OR 2.5 (1.2–5.1) and family violence.

For externalized disorders were other parent loss OR 8.6 (2–36.7), family/domestic violence 8.1 (3.4–19), parent divorce OR 4.1 (2.0–8.3), substance use OR 7.4 (1.2–44.8), economic problems OR 3.5 (1.2–10.3).

For mood disorders as well as for substances use the most predictive traumatic events were physical illness OR 4.3 (1.4–12.9) and other parent loss OR 3.4 (1.4–7.9) and respectively 5.8 (1.9–17).

Conclusions

Clarifying the relationship between traumatic events and mental disorders can help to develop appropriate intervention strategies.

Mental Health and suicidality of School Children in Mongolia

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Background

Suicide is a leading cause of mortality for young people; WHO experts estimate that 60% of suicides can be accounted to Asia. Older Data from a WHO report for Mongolia showed that the suicide rate in Mongolia was twice as high as the world average. For the first time the Mongolia Global School Health Survey (GSHS) assessed nationwide the health situation of school-children in Mongolia related to health behavior, mental health and school health education. Methodology: Based on a two-stage cluster sample design in total 60 schools from Ulaanbaatar City and all 21 Aimags of the country were selected to participate in the survey. A representative sample of students aged 12–18 (n = 5238; 52,5 % female, 47,5% male) completed a standardized questionnaire consisting of 84 questions including mental health, suicidality, loneliness and participation in school health education. Results: During the past year 19,3% of students considered attempting suicide, 12.4% made a plan to commit suicide and 8,6% actually tried to commit suicide one or more times. Female students had consistently higher levels of suicidality indicators than male students. For instance, 22,9% of female students seriously considered suicide in the past one year; this indicator is significantly by 7,7 % higher than for male students ($p < 0,0001$). Interestingly, this difference can be almost entirely accounted to urban female students; 30,3 % of female urban school-children had seriously considered suicide. Nearly one in ten students in Mongolia experienced ‘‘usually’’ or ‘‘always’’ loneliness during the past year (9,4%). About two in five students (38.0%) had a class or lecture about stress and stress management since the beginning of the academic year, irrespective of gender; the percentage declined with increasing grade level, especially after 8th grade. Conclusions: Mongolian secondary school children and especially female students show higher levels of suicidal tendencies compared to other Asian and Western countries. The results call for urgent actions of secondary schools and the welfare system in Mongolia related to mental health and suicide prevention, especially for females, including school health education, awareness campaigns, counseling and other special services for high-risk groups.

Violence against women in Russia: summary of the existing evidence

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Background

There is no official statistics or registration system of crimes between spouses or partners in Russia. However, the estimates of spousal violence and spousal homicide are among the highest in Europe. High levels of alcohol consumption, social inequalities and traditional gender roles in contemporary Russia are considered as predisposing factors for violence against women (VAW). Sporadic publications in Russian and limited evidence in English make the topic one of the most under-researched problems in contemporary Russia.

Methods

A systematic review of published literature in English and Russian. The search was performed using ''violence'', ''women'' and ''Russia'' and their Russian equivalents as searching terms in PubMed and Russian e-library. Altogether, 11 quantitative studies from 1990–2010 were identified. Methodological approaches introduced by the World Health Organization were used as a ''gold standard'' for assessment of the quality of the studies.

Results

The prevalence of self-reported physical violence varied between 8% and 41%. The prevalence of self-reported economic violence reported by women varied from 7 to 53%. The highest prevalence was reported for psychological violence reaching 80%. The highest prevalence of sexual violence among the studies was 23%, and 75% of women reported having sex with their husband or steady partner against their will. Measurements of attitudes toward VAW have shown wide acceptance of violence and prevailing patriarchal views in the Russian society. Most of the studies on risk factors of VAW were of questionable methodological quality. No studies on health consequences of violence against women in Russia were identified. The discrepancies in the prevalence estimates of different forms of VAW in Russia were more likely to be explained by differences in methodology used in the studies than by geographical or temporal variations.

Conclusions

VAW seems to be widespread in Russia, although the attention that it receives from both the officials and research community is far from being sufficient. High quality research is needed to elucidate the magnitude of the problem, risk factors and health and economic costs of VAW with further going aim of combating the problem.

Socio-economic factors influencing domestic violence in Romania

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Background

It is internationally accepted that domestic violence is a major obstacle to development and one of the health inequalities affecting women particularly. Despite the general recognition of domestic violence as a public health and human rights concern, this type of violence continues to have an unjustifiably low priority on the international planning, programming and budgeting agenda. In this context, we have been running a project (financially supported by CNCSIS - UEFISCSU, project PN II - IDEI code 72/2008) aimed to identify socio-economic factors that influence domestic violence in Romania.

Methods

The research included 1200 subjects, aged 18–75, randomly selected to create a balanced structure of the group from the point of view of their gender, residence area (urban or rural), educational level (elementary, post-secondary and high) and age groups. Subjects were asked to answer a questionnaire including 111 items, mainly precoded, as well as free response items. Data were analysed using SPSS software.

Results

Subjects coming from rural families are much poorer ($p < 0.001$) than those living in urban areas: the monthly income is not big enough to get the essentials of life for 71% of them (vs. 36.1% of the urban subjects). In their history, during the childhood, 433 subjects (36.1%) witnessed incidents of domestic violence; 569 subjects (47.4%) were physically abused by their parents or other members of their families. Both situations occurred more frequently ($p < 0.001$, respectively $p = 0.01$) in rural, poor families than in urban ones. As adults, 39% of the women reported they experienced different types of partner abuse, more frequently ($p < 0.001$) in rural families and over the age of 35; however, only 10% of the male subjects (over 50 and living in villages $p < 0.009$) declare ''it is necessary to beat a woman to bring her to her senses''.

Conclusions

The results of the study suggest that domestic violence occurs in all social and economic classes, but women living in poverty are more likely to experience violence. It is evident that poverty and its associated stressors are important contributors to a high prevalence of incidents of domestic violence. More research is needed to fully understand the connections between poverty and violence against women.

Design and Participation in Parents Together, a longitudinal intervention study of a parental support program

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Background

The alcohol drinking among children is a responsibility of adults. It is not possible for parents to protect their children from all risks regardless the best intentions in the world. The Program Parents Together was developed and implemented by a NGO to give the parents the opportunity to cooperate and reach a shared agreement as to how to deal with the question of alcohol and their children. The objectives of the research program are to analyze the effects to the intervention program starting in school year 7 or 8 and to study the intervention mechanisms.

Methods

Schools in different parts of Sweden were recruited to study by the NGO. Seven schools were randomly assigned to be intervention schools, where the program was introduced in school year 7 and 8 during 2008/9. The baseline included class-room distributed questionnaires to the pupils and mailed questionnaires to their parents.

Results

The participation rate in the baseline 2008 was 84 % among pupils ($n = 2010$) and 61 % among parents ($n = 2185$). This has given us 1095 families where both a parent and a child have responded. In 2009 the participation rate was 83 % among pupils ($n = 1976$) and 52 % among parents ($n = 1073$). In the final data collection 2010 the participation rates were 87 % and 44 % respectively. The baseline study showed the need for intervention. One in ten children in year 7 had drunk alcohol several times compared to one in fourth in year 8. The rate of intoxication was three times higher among boys and four times higher among girls in year 8 compared to year 7. The results have been reported back to the schools and presented at the website for the research group within six months after the data collection. If the program started in school year 8 the girls postponed their alcohol debut significantly in the intervention schools compared to the reference schools. The longitudinal approach will offer a possibility to analyze effects, mediating and moderating factor in this cluster randomize study.

Conclusions

Even if the design has a high quality a bottleneck may be the participation in the questionnaires used for assessing the developmental changes and the possible impact of a parental support program.

7.U. Selfrated health and Quality of life

A multilevel analysis of the influence of social cohesion on self-rated health in thirty countries

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Background

Despite the concept of social cohesion has received great attention in the area of health research, most studies defined social cohesion as characteristics related to social attitudes and behaviors (i.e., trust, membership of associations) without recognizing the importance of institutional features of societies which are taken to be necessary for cohesion to exist (i.e., welfare states). This study took a more comprehensive approach to measure social cohesion and examined the influence of social cohesion on self-rated health using data from thirty countries.

Methods

This study focused on populations from Europe, North America, Asia, and the Pacific region. Data were from 2000 world value survey and 2002 European Social survey (N = 51,420). Survey data were aggregated to the country level to represent social cohesion characteristics. Three dimensions were extracted from a factor analysis including liberal attitude, human and social capital, and equality intervention. Liberal attitude was comprised of the indicators of liberal aspiration, value diversity, ethnic tolerance, and democratic attitude. Human and social capital was measured by education expenditure, social trust, trust in civil services, gender employment ratio, and association membership. Equality intervention was represented by social expenditure, importance of government responsibility, and Gini index. The data were analyzed with multilevel binomial regression models.

Results

The results showed that respondents in countries with higher liberal attitude, higher human and social capital, and lower equality intervention were more likely to report good health; however only the effects of liberal attitude were retained after adding individual sociodemographic characteristics. Several interaction effects between social cohesion characteristics and individual sociodemographic characteristics were found. Our results indicated that women, people over age sixty-five, low educated people are more likely to be influenced by social cohesion characteristics than their counterparts.

Conclusions

The findings of this study showed the complexity of measuring the concept of social cohesion. More cross-national studies are needed to understand to the effects of social cohesion in different countries.

Predictors of poor self-rated health in Armenia, 2006

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Background

Self-rated health is an important indirect measure of morbidity and mortality prognosis. Using a set of social, behavioral/ attitudinal, and psychological variables, this study identified the determinants of poor self-rated health (PSRH) in adult female and male populations of Armenia and observed the trends in these during the long-lasting socio-economic transition after the breakup of the Soviet Union.

Methods

We used data from a 2006 nationwide household health survey that utilized a multi-stage probability proportional to size cluster sampling. Both female and male representatives of a household aged 18 and over were eligible to complete the self-administered portion of the survey containing items on self-rated health, socio-demographic characteristics, quality of life, depression, and health-related attitudes and practices. Logistic regression models were fitted with PSRH as the outcome to identify its determinants in women and men.

Results

Overall, 2,309 women and 462 men participated in the survey; 13.6% of women and 11.3% of men reported PSRH. The set of independent predictors of PSRH in women included age, probable (OR = 8.55; 95% CI = 5.37–13.60) and possible (OR = 2.90; 95% CI = 1.68–5.02) depression, unaffordable healthcare (OR = 1.98; 95% CI = 1.32–2.98) and severe poverty (OR = 1.87; 95% CI = 1.26–2.76). In men, the set included age, probable (OR = 5.54; 95% CI = 2.26–13.61) and possible (OR = 3.01; 95% CI = 1.13–8.01) depression, unaffordable healthcare (OR = 3.51; 95% CI = 1.42–8.64) and ever abusing alcohol (OR = 2.71; 95% CI = 1.24–5.90).

Conclusions

Our prior studies of determinants of PSRH among women in one of the 11 marzes of Armenia (Armavir, 2001 and 2004) identified a slightly different set of predictors: age, severe (OR = 4.19; 95% CI = 2.93–5.98) and moderate (OR = 1.76; 95% CI = 1.29–2.39) material deprivation, probable (OR = 2.60; 95% CI = 1.82–3.71) and possible (OR = 1.96, 95% CI = 1.30–2.96) depression, ever smoking, and low education. The findings of this study demonstrated that, although poverty continued to determine PSRH, its predicting strength have decreased, while the role of psychological factors increased. Thus, in addition to social reforms to reduce poverty, measures to improve the psychological health of Armenia's population should be undertaken.

Self-rated health and risk-taking behavior inequalities among ethnic majority and minority population groups of school-aged children in Lithuania

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Background

Socio-economic status, education does not explain all the extent of health and health behavior variations in school-aged children. Other determinants such as ethnicity, migration status, acculturation, integration into the local and school community are recognized also as the important factors for self-rated health and lifestyle. Very few studies have compared self-perceived health and risk-taking behaviours between children in migrant or minority population and the rest of inhabitants in Europe. The aim of this study was to analyze whether ethnic heath inequalities exists and does schooling in national language of country's majority and in Russian language relates to health and risk taking behaviours among the school-aged children population in Lithuania.

Methods

This research was conducted in the framework of Health Behavior in School-aged Children (HBSC) study. Randomly selected students aged 11, 13 and 15 years answered questionnaires in the classroom in Lithuania in 2006. In total, 5632 questionnaire forms were selected by quality criteria for the further analysis.

Results

Russian boys were more likely to evaluate their self-rated health (OR = 0.77, 95% CI 0.45–1.34, $p > 0.05$) and life satisfaction (OR = 0.62 95% CI 0.40–0.96, $p < 0.05$) positively in schools with Russian teaching language. Odd ratios for current smoking (OR = 0.44, 95% CI 0.23–0.81, $p < 0.05$), alcohol related drunkenness (OR = 0.56, 95% CI 0.34–0.91, $p < 0.05$) were significantly lower among Russian boys in the schools with Russian teaching language in comparison with the reference group (boys of majority in schools with teaching language of majority). However, Russian girls did not differ significantly from the majority population girls by self-rated health and perceived life satisfaction evaluation as well as by the risk taking behaviours (smoking, alcohol related drunkenness, use of cannabis, bullying).

Conclusions

Only a minor inequalities were established in health behaviour among Russian minority vs. majority students as well as among students of schools with different schooling language (majority language vs. Russian) in Lithuania. Being a member of Russian minority was not related with poor self-rated health or involvement in risk taking behaviours in school aged children in Lithuania.

Self-rated health, ethnicity and social position in a deprived neighbourhood in Denmark title

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Background

In recent years the close connection between SES and differences in health between ethnic groups have been subject to growing interest among researchers, and some studies have found an association between ethnicity and long term illness and poor health. However, there is limited research-based knowledge about health and illness in ethnic groups in Denmark and about ethnic Danes living in deprived neighbourhoods. The purpose of this study is to investigate associations between self-rated health and ethnicity and social position in a deprived neighbourhood in Denmark in which a relatively largely proportion of the residents are immigrants.

Methods

This study investigates the association between self-rated health used as dependent variable and ethnicity and social position (defined as index for life resources) as the independent variables. The analyses are based on data collected in a survey in a geographically bounded and social deprived neighbourhood, Korskaerparken, located in the municipality of Fredericia in Denmark. The sample consisted of 31% of the residents in Korskaerparken and of these 29 % have an ethnic background other than Danish. The analyses were conducted using logistic regression adjusting for confounding variables.

Results

This study indicates no significant association between ethnicity and having poor/very poor self-rated health. On the other hand the study confirms that a strong and significant association between the number of residents' life resources and their self-rated health does indeed exist. The results clearly suggest that the more life resources an individual has, the lower is the risk of that individual reporting poor health.

Conclusion

The results show a strong association between the residents' number of life resources and their self-rated health. In this study, we were not able to identify any association between ethnicity and self-rated health, i.e. our results suggest that ethnicity does not constitute an explanation to differences in self- rated health.

The presentation build upon an article published in International Journal for Equity in Health 2011.

Beyond the ''self'' in diabetes care: What are the tools and what are the effects?

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Aims

Living with diabetes has serious implications for everyday life and social relationships, especially in relation to social activities such as diet, exercise and clinical care. In order to support long term self-care, programmes of patient education have to relate to the social formation of everyday life and social relationships outside the formal health care setting. This review aims at furthering the knowledge of how to effectively design and implement interventions targeting adult diabetic patients, that involves the social setting of the diabetes patient.

Methods

A systematic search was conducted in relevant databases identifying reviews published between 2000-February 2011. Specific keywords were selected with a main focus on terms related to; diabetes, intervention and social context. 518 results were found and 19 reviews were selected.Two kinds of interventions were identified 1) Family interventions and 2) Interventions directed at peers. Under both kinds of interventions an additional focus on studies targeting specific cultural and marginalised groups were taken.

Results

Family interventions may be supportive as well as constraining on self-care behaviour (diet). The social dynamic in the family plays a significant role and gender makes a difference in percieved family support. There is a strong immediate positive effect on peer face-to-face interventions on glycemic control, quality of life and self-efficacy. There are promising preliminary results of the use of peers as mentors and community health workers on clinical, psychological and behaviour outcome and are especially relevant for interventions targeting minority groups. Adding peer support components to internet based interventions can increase their effectiveness in terms of weight loss, coping and self-efficacy. We need more knowledge about recruitment, education and support of peers.

Conclusion

This review supports the hypothesis that involving the patient's social setting in interventions affects patient self-care. The review shows promising preliminary results, but more research is needed on designing, implementing and evaluating different models of interventions, especially family interventions for adult diabetic patients and the use of peers outside the clinic. Also we need more knowledge about how to create more flexible forms of interventions, where elements can be put together and adapted to family situation of the individual, life circumstances and culture.

Comparison of health-related quality of life between type 1 diabetes girls and boys using child self-report and parent proxy-report

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Background

Pediatric health-related quality of life (HRQL) assessment in chronic diseases gained importance in clinical practice and research. Most research examined the HRQL together in sexes. The aim of our study was to evaluate the HRQL between type 1 diabetes girls (G) and boys (B) using child self-report and parent proxy-report, and to analyse the correlation between HRQL and HbA1c, and between HRQL and diabetes duration (dd).

Methods

216 type 1 diabetes youths took part in this cross-sectional survey from Northern-East Hungary in 2010. There were 107 G (age: 13.27 ± 3.19 yrs, dd: 5.44 ± 2.84 yrs, HbA1c: 8.87 ± 1.40%) and 109 B (age: 13.34 ± 3.09 yrs, dd: 5.04 ± 3.25 yrs, HbA1c: 8.40 ± 1.53%). No patient had diabetes complication. HRQL was evaluated with PedsQL™ 3.0 Diabetes Module using child self-report (CSR) and parent proxy-report (PPR). The questionnaire analyses the diabetes symptoms (Ds), treatment barriers (Tb), treatment adherence, worry and communication. The higher scores indicate better HRQL. T-test and Mann-Whitney U test was employed according to the distribution of normality. Pearson coefficient was used for analysing the correlation between HRQL and HbA1c and HRQL and dd.

Results

B reported significantly better HRQL (G: 67.29 ± 12.06 vs B: 72,53 ± 12.38; p = 0.002). Patients had significantly higher scores in CSR than in PPR in both sexes (PPR of G: 64.22 ± 12.92 vs PPR of B: 68.29 ± 11.56, p = 0.016). B had significantly better results in Ds subscale (G: 57.90 ± 13.69 vs B: 65.18 ± 14.04; p = 0.000) and Tb subscale (G: 66.76 ± 19.53 vs B: 73.70 ± 18.05; p = 0.000). We observed significant differences between the CSR and PPR both in G (CSR: 67.29 ± 12.06 vs PPR: 64.22 ± 12.92; p = 0.000) and B (CSR: 72.53 ± 12.38 vs PPR: 68.29 ± 11.56; p = 0.000). No significant correlation was found between HRQL and HbA1c and HRQL and dd in sexes.

Conclusions

B had better HRQL than G and this is approved by the PPR. The difference in sexes was caused by the perception of Ds and the Tb (pricking fingers or giving insulin shots, embarrassed about having diabetes, arguing with parents about diabetes care, sticking to diabetes care plan). The parents underestimated their children HRQL in both sexes. The HRQL is not affected statistically significantly by the metabolic control and the diabetes duration.

Fatigue and psychological distress in rheumatoid arthritis: the mediation effect of adjustment to disease

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Background

Psychological distress (anxiety, depression) is more common in persons with rheumatoid arthritis (RA) compared with healthy subjects and adds substantially to their diminished quality of life. In RA the specific factors that contribute to distress include pain, functional disability and fatigue, which is an important, but often neglected concomitant of RA. Another variable that may play a significant role is adjustment to disease. The aim of this study was to evaluate the possible mediating effect of adjustment to disease, viewed as a result of the coping process, on the relationship between fatigue and psychological distress in patients with early versus established RA.

Methods

268 consecutive RA patients (age 52 ± 11.6 years, disease duration 10.6 ± 7.2 years, 81.3% females) filled in self-reports on fatigue (SF36-vitality), adjustment to disease (VAS) and distress (GHQ-28). The relationship between fatigue and distress was examined using multiple linear regressions, controlling for relevant socio-demographic (gender, age) and clinical variables (disease duration, disease activity (DAS-28), pain (NHP) and functional disability (HAQ)). The mediating effect was determined by the Sobel test.

Results

In early RA patients (disease duration < 4 years, n = 111) fatigue explained 32% of the total variance in distress, whereas in the established group it was 31%. The full model explained 38% vs 42%, respectively. Additional analyses revealed that adjustment to disease did not play a mediating role in the association between fatigue and distress in early RA, but it yielded a partial mediating effect in the established group (Sobel z-value = -3.55, p < 0.001; indirect effect via adjustment to disease of 22.5%).

Conclusions

Fatigue appears to be the most important variable associated with psychological distress in both early and established patients. In addition, with the progression of RA the significant mediating role of adjustment to disease increases. The outcomes have implication for clinical practice as they provide support for the importance of self-management, coping and adjustment to disease in alleviating symptoms of anxiety and depression in patients with a chronic incapacitating disease, and thus contributing to the improvements in quality of life.

Self-reported quality of life among patients living with ischaemic heart disease in Scandinavia

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Background

Decreased mortality from ischaemic heart disease (IHD) has led to numerous patients living with a chronic heart disease. Recognizing the importance of including health related quality of life (HRQL) in evaluations of treatment options for IHD, an international project group is now developing and validating a core specific HRQL-instrument, HeartQol, including 6249 patients from 21 countries. The instrument is developed using established condition-specific HRQL questionnaires and can be used across countries and diagnosis within IHD. As part of the study data on HRQL are collected in samples of heart patients in participating countries. The aim of this study is to present differences in self-reported HRQL for patients living with angina, MI or heart failure in Norway, Sweden and Denmark.

Methods

Patients were recruited from cardiovascular departments in 2005. 976 patients with angina (n = 335), MI (n = 352) or heart failure (n = 289) in Norway (n = 328), Sweden (n = 295) and Denmark (n = 353) completed a sociodemographic and a clinical questionnaire, SF-36, HADS, MacNew, SAQ and MLHF. Clinical, sociodemographic, and scale characteristics are described with frequencies, means, and standard deviation. Analysis of variance (for continuous variables) with post-hoc analysis controlling for multiple comparisions by Bonferroni and Chi-square (for categorical variables) are used to compare the three cardiac groups.

Results

Characteristics of sef-reported quality of life for Scandinavian patients with IHD will be presented. Self rated health will be compared using SF36 and anxiety and depression using HADS.

HRQL comparisons will be conducted using MacNew, MLHF and SAQ scores.

Conclusion

Illustrating differences across diagnosis and Scandinavian countries in HRQL for a sample of 976 patients will be of inspiration in regard to treatment offers and public health activities for this large group of people living with IHD.

Coping self-efficacy and neuroticism as explanatory variables of anxiety at early and established stages of rheumatoid arthritis

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Background

Anxiety is often an underestimated and untreated comorbidity in Rheumatoid Arthritis (RA) patients. The aim of this study was to explore whether coping self-efficacy and neuroticism were associated with anxiety levels in recently diagnosed and established RA patients.

Methods

Data were collected at outpatient rheumatology clinics in eastern Slovakia. The sample consisted of 102 early patients (RA less than 4yrs; age 53 ± 12.32; 75% women) and 146 established patients (RA 12yrs or more; age 58 ± 10.38; 86% women). Patients completed questionnaires about functional status, the coping self-efficacy scale (CSE), neuroticism and extraversion (EPQR-S), and anxiety (HADS). Additional data were obtained from medical files. The early and established groups were compared using independent t-tests. Hierarchical linear regression models were conducted to explore the associations of neuroticism and coping self-efficacy with anxiety after controlling for relevant variables.

Results

The two explored patient groups did not differ in levels of anxiety. Hierarchical regression models revealed that in the early patient group coping self-efficacy was significantly associated negatively with anxiety ($\beta = -0.40; p < 0.05$) and positively with neuroticism ($\beta = 0.35; p < 0.001$) after socio-demographic and disease-related variables were controlled for. The model accounted for 59% of the variance in anxiety. Hierarchical linear regression revealed a similar pattern in the established patient group, where coping self-efficacy was negatively associated with anxiety ($\beta = -0.23; p < 0.001$) and neuroticism positively ($\beta = 0.46; p < 0.001$). The final model accounted for 32.5% of the variance in anxiety among the patients with established RA.

Conclusions

This study reveals that levels of anxiety in both the beginning phase and established phase of RA are associated with relatively stable personality dimensions such as neuroticism but also shows that self-efficacy in using coping behaviours explained additional variance. Findings suggest that management and intervention programs incorporating the concept of self-efficacy for coping strategies might be beneficial for addressing anxiety, especially during the early phase of the disease.

PARALLEL SESSION 8: ORAL PRESENTATIONS

Saturday, 12 November, 11:30–13:00

8.A. Socio-economic determinants of health

Changes in economic difficulties as determinants of health related functioning

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Background

Economic difficulties constitute a further domain of socio-economic circumstances, which has shown associations with various health outcomes. However, whether changes in economic difficulties influence subsequent health related functioning is inadequately understood. We focused on the persistence and emergence over time in economic difficulties as determinants of poor physical and mental functioning among middle aged women and men.

Methods

Data were derived from the Helsinki Health Study cohort on employees of the City of Helsinki, aged 40–60, 80% women. The baseline survey was collected in 2000–02 (n = 8960, response rate 67%) and the follow up survey in 2007 (n = 7332, response rate 83%). Changes over time in economic difficulties between the surveys were examined using an identical summary variable of difficulties in buying food and clothes and paying bills, classified into none, occasional and frequent. Poor physical and mental functioning was indicated by the lowest quartile of the Short Form 36 scores. Odds ratios (OR) were calculated from logistic regression analysis, adjusting for age, baseline functioning, childhood economic difficulties and several socioeconomic indicators.

Results

Persistent (OR for women 2.83, 2.29–3.49, and men 3.33, 2.10–5.29) and emergent (OR for women 2.39, 1.66–3.45, and men 3.44, 1.44–8.20) frequent economic difficulties were strongly associated with physical functioning compared to those persistently without such difficulties. Adjustments modestly attenuated the associations which nevertheless remained. Persistent (OR for women 3.18, 2.59–3.90, and men 3.14, 2.00–4.95) and emergent frequent economic difficulties (OR for women 2.86, 2.00–4.08) were equally associated with mental functioning, but among men emergent difficulties did not reach statistical significance (OR 2.26, 0.92–5.53).

Conclusions

Persisting and emerging economic difficulties contribute to poor physical and mental functioning over and above other socioeconomic circumstances. Economic difficulties thus provide additional information not captured by conventional socioeconomic circumstances. Preventing economic difficulties is likely to help safeguard both physical and mental functioning.

Quality of life and socioeconomic status among the Lithuanian urban population

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Background

Health-related quality of life (QOL) and health-related welfare are closely associated and clarify the goals and means of public health work. This study aimed to identify the relationship between the overall QOL and socioeconomic characteristics.

Methods

We examined data from a random sample of 1403 Kaunas city men and women aged 35–64 who completed a self-administered questionnaire of WHOQOL-100. We assessed the relationships between theWHOQOL-100 scores and socioeconomic variables, including marital status, education, occupation, income and social activity.

Results

The means for the WHOQOL-100 domains ranged from 51.2 ± 15.1 to 72.0 ± 16.4. The WHOQOL-100 displayed acceptable Cronbach's alfa (0.77–0.91) and test-retest reliability (0.64–0.89). Controlling for different socioeconomic factors significant differences on overall QOL were found in odds ratios (OR) on the marital (OR = 1.69; 95% CI = 1.04–2.77) and social status (OR = 1.66; 95% CI = 1.08–2.54), occupation (RR = 2.13; 95% CI = 1.46–3.12), education (OR = 1.7; 95% CI = 1.03–2.8) and income (OR = 1.79; 95% CI = 1.20–2.68).

Conclusion

In the Lithuanian population socioeconomic factors are strongly associated with scores on the WHOQOL-100. Population health studies would account for these factors when assessing health-related welfare.

Participation in mammography screening among migrants and non-migrants: do household size, socioeconomic position, and use of other healthcare services explain the differences?

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Background

Inequality in uptake of mammography screening according to country of birth has been documented. We used data from the organized mammography screening program in Copenhagen, Denmark (1991–2008) to explore effects of socioeconomic position, household size and use of healthcare services on participation among Danish-born and migrant women.

Methods

The study population includes all women in the target group living in Copenhagen. Data on invitation and participation was linked to the Danish Civil Registration System. Women were divided into users (women having participated in the screening program at least once) and non-users. Independent variables were country of birth, age, education, employment status, household size, use of general practitioner and dentist, and hospitalization. Data was retrieved from Statistics Denmark, the Danish Health Insurance Registry and the National Patient Registry. Logistic regression was used to calculate odds ratios (OR) of non-use versus use of screening. Ratio of OR was used to determine the significance of differences in effects of independent variables.

Results

The crude OR for not participating in mammography screening was 1.38 (95% CI, 1.30–1.46) for women born in other-Western and 1.80 (95% CI, 1.71–1.90) for women born in non-Western countries compared to Danish-born women.

The adjusted OR was 1.14 (95% CI, 1.06–1.21) for other-Western and 1.19 (95% CI, 1.11–1.27) for women born in non-Western countries. Lack of contact with a general practitioner or dental services, and unemployment had a significant negative effect on use of screening. Higher-educated women were significantly less likely to use mammography screening in all groups whilst hospitalization had a significant effect among Danish-born women. Living alone was associated with less use of screening across migrant and non-migrant groups.

Conclusions

Use of mammography screening differed according to country of birth. The importance of determinants related to socio-economic position, household size and use of healthcare services for use of screening differed according to country of birth. This complexity calls for further studies and interventions targeting subgroups of women if equal participation in mammography screening is to be achieved.

Socioeconomic and clinical factors associated with the use of lipid-lowering medication among patients with diabetes

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Background

This study examines changes in lipid-lowering medication use among patients with newly diagnosed diabetes and how CHD diagnosis and socioeconomic factors modify the medication use. Clinical guidelines recommend this medication for patients with diabetes as part of the treatment schedule to prevent adverse cardiac events.

Methods

We performed a nationwide, individual level register study on non-institutionalized newly diagnosed diabetes patients (aged 30–79) with and without CHD in Finland in 1998–2006. We measured lipid-lowering medication use during a year after diabetes diagnosis, and determined medication use for the annual cohorts of patients and examined socioeconomic differences in the use of medication. We analysed data by logistic regression model adjusting for age, study year, previous medication use, co-morbidity, income, patient group, and interaction between income and patient group.

Results

While the overall use of lipid-lowering medication increased rapidly in Finland, the use also increased in our study cohort (N = 148076) from 11% to 39% among diabetes patients without CHD; from 36% to 77% among patients with CHD diagnosed before diabetes; and from 43% to 79% among patients with simultaneous CHD and diabetes diagnoses. In the lowest income fifth, fewer patients were on medication compared to the highest fifth throughout the study period. E.g. in 2006 in the lowest income fifth on medication were 33% and in the highest income fifth 41% among diabetes patients without CHD; the numbers were 69% and 83% among patients with CHD before diabetes; and 69% and 79% among patients with simultaneous diagnoses.

Among men the OR for medication use increased 1.07 (CI 95% 1.06–1.09) for each income fifth in diabetes patients without CHD, 1.15 (CI 95% 1.11–1.19) for patients with CHD diagnosed before diabetes, and 1.13 (CI 95% 1.08–1.19) patients with simultaneous diagnoses. Among women the numbers were 1.04 (CI 95% 1.02–1.05); 1.06 (CI 95% 1.01–1.12); and 1.19 (CI 95% 1.11–1.28).

Conclusions

Lipid-lowering medication use increased by income in all patient groups. Among men, increase in lipid-lowering medication use was especially large in both patient groups with CHD and among women in those with simultaneous diagnosis of diabetes and CHD.

Economic difficulties and subsequent sleep problems: evidence from British and Finnish occupational cohorts

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Background

Cross-sectional studies indicate an association between economic difficulties and sleep problems. However, changes in economic difficulties have not been examined. We examined associations of persistent, emergent, and increasing difficulties with sleep problems at follow-up in two prospective occupational cohorts.

Methods

Data from Finnish (baseline 2000–2002; follow-up 2007; n = 6328) and British (baseline 1997–1999; follow-up 2003–2004; n = 5002) public sector employees were used. Economic difficulties (difficulties buying food and clothes and paying bills), sleep problems (the Jenkins sleep questionnaire), and a variety of covariates were assessed at both time points.

Results

Frequent sleep problems at follow-up were reported by 27% of women and 20% of men in the Finnish cohort: The corresponding figures were 34% and 27% in the British cohort, respectively. Odds for sleep problems were higher among those reporting frequent economic difficulties at baseline and follow-up as compared to those with no economic difficulties. The association remained after multiple adjustments for adulthood and childhood socioeconomic position, in both Finnish (OR 1.75, 95% CI 1.38–2.22) and British (OR 1.73, 95% CI 1.08–2.76) cohorts. Emergent economic difficulties (from no economic difficulties to frequent economic difficulties) were similarly associated with sleep problems, although the association in the British cohort attenuated after adjustments.

Conclusions

Evidence from Finnish and British occupational cohorts suggests relatively strong associations between persistent and increasing economic difficulties and subsequent sleep problems. Secure economic situation might help prevent sleep problems among the middle-aged.

Socio-economic differences in self-reported insomnia and stress in Finland from 1979 to 2002

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Background

Over the decades there has been a global public health intention to reduce socio-economic health differences, including differences in psychological well-being. There are only few studies concerning changes in socio-economic differences in psychological symptoms over time. The aim of this study was to assess trends in socio-economic differences in self-reported insomnia and stress over 24 years time period in Finland.

Methods

The data source is a repeated cross-sectional survey 'Health Behaviour and Health among the Finnish Adult Population' (AVTK) from the years 1979–2002, divided in five study periods. Indicators for socio-economic status included employment status from the survey, and educational level and household income from the Statistic Finland register data. We studied the age group of 25–64 years (N = 71 290; average annual response rate 75%). Outcome measures were single questions of self-reported insomnia and unbearable stress.

Results

The overall prevalence of insomnia was18–19% and for unbearable stress around 2–3%. During the recessionary period 1993–1997 proportion of those reporting unbearable stress slightly increased in both genders. There was no increase in reporting insomnia during that time, however, the prevalence of insomnia increased during the last study period 1998–2002. Socio-economic differences in insomnia and unbearable stress were detected among all SES indicators. Unemployed and retired respondents reported higher odds for insomnia and unbearable stress throughout time. Higher symptoms for lowest educational and household income level remained less consistent. Differences between unemployed and employed respondents narrowed during the high unemployment period 1993–1997 in both insomnia and stress. In general, socio-economic differences in self-reported insomnia and unbearable stress have not changed substantially over the study period 1979–2002.

Conclusions

Self-reported insomnia and unbearable stress were more prevalent in later study periods. However, the socio-economic differences in insomnia and unbearable stress remained mainly unchanged over 24 years time. For the national public health policy, the constant socio-economic differences in the psychological symptoms present an ongoing challenge.

8.B. Workshop: The political economy of health research in Europe

Chair: Chris Birt, United Kingdom
Organiser: Mark McCarthy
Contact: m.mccarthy@ucl.ac.uk

Objectives of the workshop: To present linked activities for public health research in Europe.

Reasons for the workshop/seminar:

EUPHA's four strategy 'pillars' include support for research. The Workshop describes current policy issues for health research in Europe, and showcases three EU-funded projects taking this work forward.

Added value of organising the workshop/seminar?

Research provides evidence for public health practice and policy. The workshop is a forum for conference attenders - researchers, practitioners, managers, policy-makers - to debate the future for public health research in Europe

Building support for health research in Europe

Mark McCarthy

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Background

EUPHA has established a Lead for Research to investigate and promote policies for health research. During 2011, the European Union held a consultation on funding and structures towards the next (2014–2020) phase programme on research and innovation.

Methods

Internet searches, documentary, personal meetings, conference participation. EUPHA contributed to the European Union consultation on funding for research through an Open Event in Brussels in May 2011 (inviting researchers, policy representatives from member states, European Institutions, European civil society health organisations) and presenting a position paper.

Results

The European Union proposes bringing research and policy-support together in the concept of 'innovation'. However, this is presented strongly for its commercial benefits (and 'therefore' the economy) rather than the broader benefits to society. For the health sector, the biotechnology and pharmaceutical industries are heavily engaged in influencing the research agenda, while not-for-profit public health receives little support. While the EU supports much cross-Europe collaborative research, most funding for research in member states comes through national ministries of science and education, which prioritise biosciences in recommendations to the European Commission. Health ministries use public health research, but give little support to its production, and do not seek to influence it through the European Commission's Directorate for Health. National public health associations and civil society organisations rarely engage collectively in influencing either national or European priorities for public health research.

Conclusions

The dominant paradigm of biomedicine and pharmaceuticals research for profit must be challenged. More information should be collected on the benefits and needs of public health research, and organisations should engage with policy-makers to develop the requirement for it. There must be widening of the multidisciplinary research base across universities as well as in schools of public health. Advocacy for public health research is needed in both member states and at European level.

Civil society and social innovation for public health

Cláudia Conceição

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Background

We have previously shown that eastern and southern EU countries have lower publication rates for public health sciences than the European average. STEPS (Strengthening Engagement in Public Health Research), funded competitively from the European Commission's Science in Society programme, investigated the contribution of civil society to health research in the new member states, and the support structures for health research across Europe.

Methods

We chose public health lead organisations in the 12 EU new member states. They then identified CSOs concerned with health in their countries, distributing 472 postal questionnaires in 8 countries, and receiving 128 responses. Telephone questionnaires were also completed with 13 of 16 CSOs that are members of the European Health Forum (a European Commission consultative group). The survey data were compared with framework analysis. Using internet sources and individual responses, the structures of public health research systems were also identified for all 27 EU countries.

Results

The majority of responding CSOs did not themselves wish to do research, but they were interested in collaborations which would enhance the knowledge-base for their practice and advocacy, and to direct research towards areas of greatest relevance to them. In some fields, such as HIV, mental health and diabetes, the link of CSOs with researchers is quite well developed. Research can also raise the status of their work in the eyes of others, and provides a further source of funding. There is no cross-Europe approach to engagement with civil society organisations, and little recognition within the national ministries. Moreover, national research structures differ and do not prioritise social approaches to medical research.

Conclusions

Civil Society Organisations are important partners for health research. Just as EU promotes 'small and medium enterprises' (SMEs) in for-profit research, so CSOs can join the not-for-profit research that serves public and social interests. They must be better integrated into European and national research policies and financing.

Linking food and health in European research policy

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Background

Food is required for life. But poor diets - excess fats and sugars, lack of fresh fruit and vegetables, excess calorie intake overall - in Europe currently contribute to one third of premature disease - cardiovascular, diabetes, cancer, dementia. FAHRE reports on the content and organisation of research for food and health in Europe.

Methods

FAHRE is a 24 month support action funded by the EU's FP7 'Knowledge-based bio-economy' theme. 33 experts provided systematic reports on research structures and activities in EEA countries, and 8 provided reports across research thematic areas. Two analysts compared results across the reports and developed synthesis reports. A consultation event was held in Berlin in February 2011 and further consultation with stakeholders at European and national levels led to a strategy report for the EU.

Results

Food and health research has been extensive in areas such as food safety, in industrial applications for genomics, consumer perceptions and epidemiology. Studies of micro-nutrition interventions have not shown health benefits. But there has been less res Similarly, research with industry has been 'near-product' rather than addressing larger determinants and dietary patterns. Few countries have joint food and health research strategies, and even at the EU level, the links between food research and health research are poor. However, the EU has established a Joint Planning Initiative for food and health research bringing together member states, and the 2012 FP7 programme has a €9 m project call for food and public health intervention research.

Conclusions

There is an opportunity for food and public health research to develop at European level; EU member states can develop their own national programmes; EUPHA member associations and researchers can engage with these initiative; and the would be substantial benefits through improved diets to population health in Europe.

From project to evidence - the difficult path at European level

Margarethe Voss

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Background

Much emphasis has been given to the use of public health evidence for practice, but less is known on how 'evidence' is created. The European public health programme 2003–2008 has funded more than 300 health projects. PHIRE (Public Health Innovation and Research in Europe), funded by the European Commission's Health Directorate, and building on structures within the European Public Health Association (EUPHA), will identify uptake and impact of a sample of projects across EU countries.

Methods

Thematic Sections of EUPHA were invited to participate, and to identify from the Health Directorate's database one of more relevant projects funded 2003–2006 and covering a majority of countries. The Sections created a measurement instrument, collected country information from participant individual members, and made syntheses across EU countries. Data on country national research systems and health research programmes were collected through respondents in EUPHA member public health associations.

Results

The 7 participating project fields cover food and nutrition, public health epidemiology, mental health, chronic disease, urban health, environmental health and injury prevention. Each Section has chosen to review 1 (mental health 2) project. Responses from informants within the sections consolidated into section reports show variations across the countries. Country research systems usually do not have research programmes that follow the themes of the Sections, and it is difficult to link projects to national programmes.

Conclusions

Describing uptake and impacts of public health projects in Europe can enhance dissemination, improve coordination of research between member states, to indicate the value for money in spending on European projects. Greater commitment to collaboration is needed by EUPHA national public health associations to achieve Europe-wide benefits.

8.C. Workshop: Equity in delivering and funding health systems

Chairs: Beatriz Gonzalez Lopez-Valcarcel, Spain
Organiser: EUPHA Section of Public Health Economics
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Reducing health inequalities is becoming one of the paramount priorities for the European Union. For Economics, equity is a treat. Although top economists have contributed to the field, the trade-off between efficiency and equity is not yet well solved. How is Europe dealing with equity? How can fairness be integrated in the studies of economic evaluation? How to measure equity in delivery and funding health systems? How could equity be preserved in the running times of economic downturn? Many important questions still remain open, and will be discussed in this workshop. It is divided in three sections. Section one is about advances and approaches to reduce health inequalities in Europe; section 2 is about monitoring equity in health systems: methods, indicators and evidence; in section 3 we present three specific cases that could be generalized in the discussion: out-of-pocket health expenditures and impoverishment (Turkey); social capital as a determinant of health and inequalities (Croatia) and how to integrate equity in decisions of resource allocation, with an application to elective surgery. The audience will derive final conclusions. The total time of the workshop is two and a half hours.

Advances and approaches to reduce health inequalities in Europe

Jose M Martin-Moreno

JM Martin-Moreno
Director, Programme Management World Health Organization-Regional Office for Europe

A review of advances and approaches to reduce health inequalities in Europe, from the perspective of the WHO, Regional Office for Europe

Monitoring equity in Europe: evidence and suggestions for further research

Rosa Maria Urbanos-Garrido

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Objectives

To review computing methods of equity in the delivery and funding of health care systems, as well as to summarize the empirical evidence in both aspects for European countries. Methods: Critical review of the literature focused on methods used to measure equity; analysis of international comparative evidence for Europe. The Spanish case is used to illustrate the evolution of inequity during the last decades and to highlight some results which are shared by most of EU countries. Results: Direct taxes and, in some cases, social insurance payments, are progressive sources of financing. Indirect taxes and out-of-pocket payments are regressive means of revenue. The empirical studies on horizontal equity show the presence of pro-poor discrimination in the use of primary care. However, inequity tends to favour the better-off in the case of specialised care. These patterns are common to most of EU countries. There is no evidence about how inequalities in the use of medical services affect individuals in terms of health gains. Conclusions: With respect to equity in the finance of health care, the nature of recent reforms points to a decrease in progressivity of European health care systems. Regarding equity in the delivery of health care, we may conclude that rich and poor people are not treated equally. Further research is needed on equity issues related to the quality of care provided.

Out of pocket payments and Impoverishment: an Analysis at the household level in Turkey

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Rationale

Out-of-pocket health expenditure (OOPHE) is any direct outlay by households, including gratitudes and in-kind payments. OOPHE has significant implications on poverty in developing countries. There is a mutual relation between health and poverty because health is identified as a non-income dimension of poverty. In Turkey, OOPHE is the most important source of financing outpatient services, medicines and medical equipment. In order to develop proper policies for equity, the impact of OOPHE on impoverishment should be examined.

Aim

This study aims to examine the differential impact of OOPHE in Turkey whether these expenditures exacerbate impoverishment.

Methodology

Household's OOPHE and other characteristics were derived from the nationally representative (8558 households) Turkish Household Budget Survey 2006. For the year 2006, monthly poverty line for a household with four members (average household size was 4.10 for 2006) was calculated as 549 TL. The impact is examined according to type of settlement (rural/urban), household size and, head of household's education, health security status and type of job.

Findings

In 2006, the share of OOPHE out of total health spending was 19. 3%. The ratio of individuals under the poverty line in the rural is 32% and 9.3% urban areas while 1/5 of the country population had no health insurance. The analysis showed that the share of impoverished households due to OOPHE is 1.5% in the rural areas while this share is 0.3% in the urban residents. OOPHE increases the impoverishment 5% among rural households while this ratio is 3% in the urban areas.

The logistic regression showed that, the rural households are 4.2 times more impoverished due to OOPHE compared to urban households. When the household head has no insurance, the household faces 2.03 times more impoverishment compared to insured households. When the household size is more than four, they are 2.1 times more impoverished due to OOPHE compared to less populated households.

Conclusion

Major limitation of this kind of study is OOP spending does not take into account the fact that households may choose not to seek care rather than become impoverished.

In the absence of insurance, an illness not only reduces welfare directly, it also increases the risk of impoverishment due to high treatment expenditures. It is now widely acknowledged that health care expenditures can drive individuals and households into poverty.

Personality and social capital as measures of health inequalities - Croatian national survey

Vanesa Benkovic

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Introduction

Health inequalities are largerly studied in recent decade. Croatia being a transitional country has various issues that impact health inequalities. Under this umbrella there are not only socioeconomic variables, but personality dimension as well as social capital and the question of accessibility of health services and drugs.

Aim

To explore the impact of economic, societal and psychosocial inequalities on health status and access to health care in citizens of Croatia, aged 25–65 yrs. The purpose is to try to understand the structure of social determinants on health, not only socioeconomic but personality and social capital.

Methods

Authors have performed a national representative (N=1000) survey in Croatia to discover the model of health inequalities and their effect on health. Factor analysis and multiple regression was used to create a model which describes the relations among dimensions that affect health; both structural and psyhosocial.

Results

Personality and social links (social capital) have been found to affect mostly on health, thus confirming the psychosocial theory on health inqualities. Results demonstrate how social determinants, besides usual socioeconomic status and education, explain health inequalities in a post transitional country of Croatia.

Priority setting between elective surgery interventions with waiting lists in Spain: criteria, weights and ranking of interventions

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Issue/problem

Waiting lists are a 'problem' that need multi-faceted approach. The Catalan Health System in Spain (CHS) aims to adopt a comprehensive approach to determine maximum waiting times according to priority and define either general or specific intervention-specific priority setting systems. To do that, the CHS has commissioned a study to determine priorities between elective surgery interventions.

Objective

1/ To obtain measurable criteria and weights for priority setting between elective surgery interventions.
2/ to categorize a number of interventions with waiting lists according to the obtained criteria
3/ to score interventions with waiting lists according to priority

Methods

The criteria and weights are obtained through multidisciplinary range of experts' consensus using qualitative methods. The categorization of the interventions are obtained through literature reviews or statistical analysis. The characteristics of obtained rankings are analyzed by using an index of dissimilarity between scoring systems.

Results

Participant experts include health economists, bioethics experts, clinical practitioners, healthcare managers, researchers in healthcare, and patients representatives. Experts identified by consensus five criteria, which are: quality of life during waiting time, effectiveness of the intervention, duration of waiting time, use of healthcare services during waiting time and risk of complications during the waiting time. Also identified weights for those criteria.
The research team categorized 30 interventions according to the five criteria. A ranked list was identified. Dissimilarity analysis was performed to study 1/ impact of weights, 2/ sensitivity of the scoring method, 3/ matching between expert subgroups, 4/ construct validity and 5/ robustness of the ranking.

Conclusions

The resulting ranked list allows healthcare decision-makers to carry on informed decisions regarding the management of waiting lists by interventions. The criteria and weights are also useful for other healthcare decision-makers regarding decisions where waiting time is a key issue. The fact that waiting list managers were not directly involved with the exercise explains why the volume of the waiting lists did not arose as a resulting criteria.

8.D. Health literacy

Media and politics: Empirical data on their cross-influence in health policy

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Objectives

Despite the central influence of public policies on health and welfare, relatively little is known about actual health care policy-making processes. This presentation will offer preliminary results from a federally funded project aimed at gaining insights into the interrelations among interest-group strategies, media discourses and political debates in health care. The policy debate on health care privatization in Quebec is used as a case study.

Approach

Two sources of data were used: media sources and political debates. Media sources were the six main provincial newspapers in Quebec, two national newspapers and The Canadian Press, as well as transcripts from specific news-related programs of three national television stations and two national radio stations. Political debates were obtained through transcripts of all question periods in the Parliament and debates in the standing committee on health. Sources were systematically searched to identify all relevant data. Multiple search syntaxes were developed and tested to maximize sensitivity and specificity. All data was entered and coded into qualitative analysis software.

Results

Data was analyzed longitudinally from June 2005 to January 1, 2010. Four levels of results will be presented: 1) Descriptive analysis of the interest groups involved, their policy preferences and the rhetoric they employed to support their views. 2) Descriptive analysis of the main policy proposals that structured the debate as well as of the coalition of groups behind those proposals. 3) Graphic longitudinal analysis of the intensity of the debate and of the relative importance and evolution of various policy proposals. 4) Preliminary results on the nature, direction and level of inter-influence between the policy and media agendas.

Conclusion

This presentation provides empirical evidence on current policy-making processes in health care. It shows, unsurprisingly, that policy-making is a circumvoluted process of inter-influence among interest groups, politicians and the media. It also highlights the fact that scientific evidence actually plays a minor (if any) role in policy processes.

Public deliberation about ethical values and the AH1N1 vaccination campaign in Quebec, Canada

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Background

The literature on pandemic planning recognizes the need to engage the public in deliberations about the values and principles usually recognized by national and international pandemic ethics frameworks. Yet, despite this awareness in Canadian public health institutions, few empirical studies have been conducted about the lay representations of the tension existing between efforts to ensure the health and safety of communities and concern for the respect of individuals liberties, between autonomy and solidarity, between social justice and civic duties. An ethically laden pandemic vaccination campaign must address the lay understanding of the role and the meaning of these moral norms.

Methods

The goal of that study is to add to limited number of empirical researches that study lay perceptions of ethical values raised by vaccination campaign. In the autumn 2010, we convened ten focus groups with 100 participants of the public, six in Montreal and six in Quebec City. Each group included between 9 and 11 adults, and lasted approximately 3 hours. Participants were randomly contacted from a phone numbers database and recruited in order to fulfill, for each focus group, four criteria: sex, age, education level, AH1N1 vaccination status. Interviews were recorded, transcribed and coded using NVivo8.

Results

The population recognizes that public health institutions have a duty to protect citizens through massive vaccination campaign. However, it also suggests that these institutions and information campaigns should not put to much emphasis on individual responsibility to protect others. If French Canadians recognise a responsibility toward family members or professional colleagues, they question moral discourse based on global social responsibility and solidarity, on civic virtue of the those accepting vaccination or on stigmatisation of «free riders». Social justice as expressed through prioritization of vulnerable populations is widely acknowledged.

Conclusions

That study confirms the pertinence to add to limited number of empirical researches that study public perception of ethical values. It shows that public is able to engage seriously and constructively in deliberations about ethical issues and principles in public health.

Rigidity in informed consent may hinder health services research - interviews of ethics committee chairpersons in Finland

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Background

Research ethics codes are tailored for patient based intervention research, but ethics committees apply them also for other types of research. The aim is to illustrate problems of informed consent via three vignettes.

Methods

As a part of an interview survey to all chairpersons of the Finnish official medical ethics committees (EC) in mainland Finland in 2010, three imaginary cases with ready alternatives were presented. Chairpersons were asked what they thought their EC would decide, and would the decision correspond to their own ethics. At the time of abstract writing, out of the 24 chairpersons, 16 were interviewed and, 11 had answered the cases. More complete data are presented in the conference.

Results

Case 1 was a cluster-randomized trial without informed consent. Health centers were randomized to give or not a computer aided decision making tool to doctors; patients were asked their experiences afterwards by mailed anonymous questionnaires and patient outcomes were collected from patient records. 7 out of the 11 chairpersons thought that EC would require a changed design, including some kind of informed consent. Case 2 was a project mixing care and research; it randomized patients (without informed consent) to nurse or doctor as a first contact in an emergency room. Half of the chairpersons anticipated that EC would accept the design and half that it would require a change for some kind of informed consent. Case 3 was a trial with an established drug given by ambulance personnel in an emergency situation without informed consent; the design is against the current (interpretation) of the Finnish law. No chairperson anticipated acceptance of the design, but some anticipated requirements for collective solutions (not allowed by the law). EC chairpersons' own ethics values did not always coincidence with the anticipated EC decisions. Explicit criticism of some current rules was also given.

Conclusions

Our results suggest that rigid requirement for informed consent is a hinder for research evaluating care arrangements and practices in pragmatic designs.

Health Literacy Survey Among Elderly People in Kosove

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Background

The available evidence suggests that health literacy (HL) is a good predictor of health outcomes. Therefore, HL has recently become an increasingly important area of public health research in Europe. However, information about transitional countries of Southeast Europe is scant.

Our aim was to assess the level and socio-demographic and socioeconomic correlates of HL among elderly people in Kosove, the newest state in Europe.

Methods

A survey was conducted in Kosove in January-April 2011 including an age- sex- and residence-stratified (urban vs. rural) random sample of 1827 elderly people aged $\geq$65 years (91.6% response). A short version of the Health Literacy Survey in European Union (HLS-EU) questionnaire was administered to all participants tapping the access (5 items), understanding (7 items), appraisal (8 items) and application (5 items) of health knowledge. A summary HL score was calculated for each participant, with higher scores implying higher levels of HL. General linear model was used to assess the association of HL with socio-demographic and socioeconomic characteristics.

Results

In multivariable-adjusted models, a significantly lower HL score was evident among individuals aged 85 + years (mean difference with 65–74 years: -15.48, 95%CI: from −18.73 to −12.22); in women (−4.66, 95%CI: from −7.30 to −2.01); among the least educated individuals (−43.90, 95%CI: from −50.45 to −37.34), and in rural residents (−5.54, 95%CI: from −8.03 to −3.05).

Conclusions

Women and the socioeconomic disadvantaged groups appear to be the least health literate of elderly people in the emerging state of Kosove. A patriarchal-type of society may explain the findings in Kosova elderly women.

Developing medicines adherence policy for Europe: The Ascertaining Barriers to Compliance (ABC) Project Delphi Study

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Issue

Patient nonadherence to prescribed medication is common and widespread: 30–50% of prescribed medicines are not taken as prescribed. Nonadherence can have a negative impact on patient wellbeing and the economic impact on scarce health care resources is significant. Despite much research to understand the causes, consequences and solutions or policy responses to medication nonadherence, numerous gaps in knowledge remain and clear research-based evidence of how to reduce non-adherence on a large scale remains elusive. When there are known to be numerous highly complex and interrelated factors involved, one approach to policy development is to harness expert opinion through consensus building. The paper describes a Delphi study, as part of the FP7 EC funded Ascertaining Barriers to Compliance (ABC) project, to develop consensus regarding medicines adherence policy recommendations for Europe.

Description of the problem

The objectives of the Delphi study were to seek consensus on the causes, consequences and solutions to medication adherence. The study further sought to establish consensus about the relative importance, operational and political feasibility of each potential solution to medication nonadherence. The ABC Delphi Expert Panel, comprising participants from across Europe and elsewhere, were representatives of patient/carers organisations; healthcare providers and professionals; commissioners and policy makers; academics; and industry representatives, participated in the study remotely, anonymously and electronically, through 4 Delphi rounds over a five month period.

Results

A total of 532, 256, and 355 statements were generated about the causes, consequences and solutions to medication non adherence respectively. Analysis of the statements, plus feedback and amendment by the Expert Panel, resulted in 43 separate policy solutions to medication non-adherence agreed by the Panel. These 43 potential solutions were rated by the panel for importance, operational and political feasibility.

Lessons

Consensus about the actions necessary to address nonadherence to medication has been developed for Europe. This study also informs us about the extent to which each potential policy could be implemented.

Knowledge and risk perception about electromagnetic fields in general practitioners in Germany

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General practitioners (GPs) are important communicators about the risks of electromagnetic fields (EMF) because subjects who attribute their health complaints to EMF often get in contact with GPs. The question was asked whether different kinds of knowledge (self-assessed knowledge, correct and incorrect knowledge) and trust in organizations predict risk perception of GPs.

A 7% random sample was drawn from online lists of all the GPs working in Germany. 1,867 doctors received a long version of a self-administered postal questionnaire about knowledge on EMF and health (response 23.3%), 928 doctors received a short version (response 49.1%). In the questionnaire, seven statements on EMF were presented, and the participants had to decide whether the statements were correct or not, or whether they did not know the correct answers. To determine the association between the different kinds of knowledge and risk perception of EMF, a multiple logistic regression analysis of knowledge and trust in information given by the WHO on risk perception was carried out.

37.3% of responders to the short and 57.5% of responders to the long questionnaire assume health risks of EMF. The knowledge of the GPs was rather poor. With regard to the asked seven questions, about 30% of the GPs mentioned that they did not know the right answer. In the logistic regression analysis, two variables turned out to be associated with the perception of EMF risks. Trust in information given by WHO was associated with lower risk perception, and answering more than two knowledge questions incorrectly was associated with higher risk perception. However, GPs giving more than two correct answers did not differ in their perception of EMF risks from GPs with two or less correct answers.

About a third of German GPs associates EMF with health complaints and thus deviates considerably from current scientific knowledge. There is no association between knowledge of different hazards and their own risk perception. Only incorrect knowledge which might be interpreted as misconception and trust in information providing by international organisations were found to predict risk perception. These findings should be considered in public policy recommendations.

8.E. Does policy make you healthier?

Challenges and facilitators for intersectoral health policy in a Danish municipality

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Background

From 2007 the municipalities have taken over the responsibility for public health work outside hospitals in Denmark. This task is new, and municipalities are facing challenges in relation to public health prioritization, intervention planning, and implementation. Most municipalities have developed an intersectoral health policy as a guiding framework for this work. Still, experience shows that it can be hard to integrate health in all policies and to organise collaboration between sectors. The aim of this study was to identify challenges and facilitators in collaboration between different sectors when developing and implementing an intersectoral health policy in Varde Municipality, Denmark. The study is part of a series of case studies on the issue supported by WHO.

Methods

The study was carried out during spring 2011 using the case study method. Approximately 500 pages of documents were analysed and semi-structured interviews were carried out with 9 key informants from different sectors in Varde municipality.

Results

Challenges identified: The policy was perceived as an extra task, the policy was not accompanied by financial benefits, the health workers have a reputation of being self-righteous and more important than other sectors, persons from other sectors find themselves in unknown territory when working with health issues, level of ambitions was not matched between the different sectors, lack of ownership to the policy in other sectors than the Social affairs and Health sector, and lack of clear objectives in the policy. Facilitators identified: Great political support, public involvement through dialogue meeting, use of local media for distributing "good stories", creation of a "fund for health", creation of "health networks", and involvement of research.

Conclusions

The identified challenges and facilitators needs to be considered in future development and implementation of intersectoral health policy to increase the chance of successful and effective implementation of intersectoral action on health.

Neighbourhood deprivation and health behaviour in the Capital Region of Denmark

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Background

Health behaviours are unequally distributed in the population and partly determined by neighbourhood factors. Mechanisms, however, remain poorly understood. This study investigates whether neighbourhood deprivation moderates the associations between social factors and health behaviours.

Methods

Data was derived from the Danish Health profile study 2010 in the Capital Region of Denmark (CRD). Questionnaire data from 49.806 randomly selected adults was used weighted for non-respons (N = 95.150, response rate 52.3%). Data on daily smoking, binge drinking, signs of alcohol abuse (CAGE-C), excess alcohol use (units), physical activity (PA), sedentary lifestyle, diet, education level, affiliation to labour market (ALM), ethnicity, cohabiting status, stress, and mental diseases was included. Data on age, sex and neighbourhood deprivation was obtained from registries. The 29 municipalities in the CRD were assigned to a neighbourhood deprivation index (NDI - values1–4). Logistic regression models were used adjusted for education level, ALM, ethnicity, cohabiting status, stress, and mental diseases.

Results

Neighbourhood deprivation moderated the association between excess alcohol use and ALM ($p < 0.001$), and cohabiting status ($p = 0.013$); and between PA and education ($p < 0.001$) and ALM ($p < 0.001$). The association between excess alcohol use and being unemployed vs. working (OR = 1.46), was stronger in deprived areas (NPI4 OR = 1.66/ NPI1 OR = 1.20). The same tendency was seen for excess alcohol use and being single without children vs. being a couple with children (OR = 1.28; NPI4 OR = 1.53/NPI1 OR = 1.01), for less PA and lower education (OR = 1.96 - no vocational training vs. masters; NPI1 OR = 1.71/NPI4 OR = 3.14), and for less PA and being unemployed vs. working (OR = 1.78; NPI1 OR = 1.51/NPI4 OR = 1.99). The associations between smoking, binge drinking, signs of alcohol abuse, sedentary lifestyle, diet and social factors were not moderated by neighbourhood deprivation.

Conclusions

Neighbourhood deprivation had a significant moderating effect on associations between excess alcohol use, physical activity and social factors. From a public health perspective, this study highlights how neighbourhoods play a significant but complex role in promoting healthy lifestyles.

Promotion of physical activity or reduction of sedentary behaviour - should we address both types of behaviours in future public health recommendations?

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Background

Lack of regular moderate to vigorous physical activity is an established risk factor for chronic disease and public health guidelines recommend that all adults engage in at least 30 minutes of activity per day. Sedentary behaviour is prevalent in modern society and recent evidence suggests that prolonged leisure time sedentary behaviour may be an independent risk factor for cardiovascular disease and mortality, irrespective of physical activity level. Monitoring both types of behaviour at population level is important in order to establish whether they are in fact independent behaviours that should be addressed separately in public health recommendations. The aim of this study was to examine temporal changes in physical activity and sedentary behaviour within the Danish population.

Methods

Two cross sectional population-based surveys of 25 to 79-year-old inhabitants were conducted in The Capital Region of Denmark in 2007 (N = 69.800, response rate 52.3%) and 2010 (N = 77.517, response rate 54.8 %). Information on physical activity and sedentary behaviour was collected from self-report questionnaire and information on socio demographic characteristics was obtained from central registers. Data were weighted for non-response and analysed by multiple regression analyses.

Results

In the entire study population, the proportion of respondents who did not engage in at least 30 minutes of moderate leisure time physical activity decreased from 35% in 2007 to 32% in 2010 ($p < 0,05$). In 2007, 22% of all respondents engaged in at least four hours of sedentary leisure time behaviour per day, whereas this proportion increased to 25% in 2010 ($p < 0,05$). The increase in sedentary leisure time behaviour was most pronounced among respondents who were unemployed or on sick leave (41% in 2007 versus 50% in 2010).

Conclusions

Although a larger proportion of men and women in The Capital Region of Denmark are physically active during their leisure time in 2010 compared to 2007, there has also been an increase in the proportion of adults who spend at least 4 hours of their daily leisure time sitting down. Findings indicate that physical activity and sedentary behaviour should be regarded as two separate behaviours that may require separate intervention strategies.

What motivates children to be physically active? A systematic review of reviews and meta-analysis.

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Background

Physical activity is essential to the healthy development of children and adolescents, and helps to prevent chronic disorders in later life. An important prerequisite for the planning and development of effective interventions is a comprehensive knowledge of factors affecting involvement in physical activity. The identification of correlates of physical activity is therefore highly relevant to public health. The aim of this study is to identify promoting and inhibiting factors associated with the physical activity of children and adolescents.

Methods

The study is based on a systematic literature research carried out in the databases Medline, Cochrane Library, EMBASE, PsycInfo, Springer Link and Thieme connect. Inclusion criteria were: the study (a) is classified as a systematic review or meta-analysis; (b) was published between 2000 and 2009 and (c) deals with children and adolescents aged 3–18. The internal validity of the systematic reviews thus identified was evaluated using a validated quality instrument of the Ludwig Boltzmann Institute of Health Technology Assessment.

Results

On the basis of the defined inclusion criteria and the evaluation of the methodological quality nine systematic reviews and one meta-analysis were selected. Altogether 16 correlates are identified which are consistently associated with physical activity of children and/or adolescents. To these belong sex, age, parental education, socioeconomic status, self-efficacy, goal orientation/motivation, perceived barriers and support from significant others. The correlates of physical activity identified in the reviews can be broken down into demographic/biological factors, psychological/cognitive/emotional factors, behavioral attributes and skills, social/cultural factors and physical environment factors.

Conclusions

The results show that physical activity is determined by numerous biological, psychological, socio-cultural and environmental factors. The findings support the need for studies that include socio-ecological models to promote physical activity. Preventive interventions should pursue a multi-dimensional approach and include correlates from all areas of influence.

Improving cross-national physical activity information in Europe. Design and manual of a new international physical activity questionnaire

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Background

In the framework of the Eurostat grant 10501.2009.007–2009.890, a new physical activity questionnaire was developed to improve physical activity information for Europe. Instrument requirements were that it should be short, simple, valid and applicable for the used in a cross-cultural HIS context. Moreover, the outcome indicators should be public health relevant and easy to understand.

Methods

Cognitive testing of established instruments such as the International Physical Activity Questionnaire - Short Form (IPAQ-SF) and the current Physical Activity Questionnaire of the US National Health Interview Survey (NHIS-PAQ) in a cross-national setting (Germany, Estonia, Belgium and UK) revealed that there is a need to develop a more user-friendly physical activity questionnaire. Based on international expertise in the field of physical activity assessment a new physical activity questionnaire was developed targeting the general adult population 18–64 years of age. The elaborated questions were subsequently cognitive tested and field tested in a cross-cultural setting.

Results

The new Instrument is based on the framework of the Global Physical Activity Questionnaire (GPAQ) and covers three public-health-relevant domains of physical activity such as work-related physical activity, physically active transportation (bicycling and walking), and leisure-time physical activity. In addition, a question on muscle-strengthening physical activity was included in order to enable measuring the compliance with the new WHO physical activity recommendations for the adult population (18–64 years). We will be presenting the new instrument including its analysis manual. Moreover, we give an overview of the results of the cross-cultural cognitive testing and field testing of the new questions.

Conclusions

The new international physical activity questionnaire is an user-friendly approach to assess physical activity information in Europe. It was designed for the implementation in a cross-cultural HIS context. There is a need for further research to examine construct validity and reliability of the new questionnaire.

The Use of Evidence by Public Health Policymakers

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Background

Across Europe, there is support for evidence-based health policy. The UK government's new Public Health White Paper is an opportunity to assess the extent to which a new policy is evidence informed. The White Paper seeks to address health inequalities, target the social determinants of health and incorporate new evidence, specifically insights from behavioural economics. This research reports on a structured assessment of the way evidence has been incorporated into the new policy.

Methods

Two researchers independently identified all instances where a specific intervention was noted. A systematic search for evaluations of cited interventions, relevant systematic reviews and National Institute of Health and Clinical Excellence (NICE) Public Health guidelines followed by quality appraisal was conducted by two reviewers. Topic experts were consulted to ensure relevant evidence had been identified. Framework analysis to assess whether the evidence was supportive of proposed actions and identify important emergent themes was conducted.

Results

51 interventions were highlighted in the White Paper. There was little supportive evidence directly cited. While some policy options are broadly supported by existing evidence, many lacked evidence of effectiveness. There was, however, considerable use of process evaluations reporting implementation and uptake. Several instances of policy are identified that directly contradict the evidence base as well as ignoring known effective interventions. Impacts and outcomes of many interventions are not being evaluated currently.

Conclusions

The Public Health White Paper is notable for variation between the strategic thrust of its ideas and the specific policies or interventions it recommends. In strategic terms, many ideas - tobacco control, for example – are evidence informed. However, specific interventions vary between well-evidenced, evidence-contradicting and completely innovative, and therefore untested. There is considerable scope to improve evaluation of public health interventions. Further country-specific research is needed to allow comparison of how policymakers utilise evidence in different contexts. In addition it seems evident that when policy changes, the evidence base is not necessarily available or considered.

8.F. Workshop: Migration and health in the European Union

Chairs: Bernd Rechel, United Kingdom and Walter Deville, The Netherlands
Organiser: European Observatory on Health Systems and Policies and EUPHA Section on Migrant and Ethnic Minority Health
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Although migrant health in the European Union (EU) has received increasing attention in recent years, knowledge about how health issues faced by migrants differ from those of majority populations is still limited. A major reason for this is the lack of high-quality data on health determinants, health status and health service utilization of migrants in most EU countries. Furthermore, even where data on migrant health are available, they often point in contradictory directions, due to the diversity of migrants in terms of age, gender, country of origin and destination, socio-economic status, and type of migration.

This workshop addresses these issues by presenting findings of a European research project undertaken in 2010–2011 by the European Observatory on Health Systems and Policies, the

EUPHA Section on Migrant and Ethnic Minority Health, and the International Organization for Migration. One of the project outcomes are comprehensive reviews of the health needs of migrants in the European Union and how these can be met most effectively.

The workshop will explore four key areas of migrant health in the European Union: non-communicable disease, communicable disease, occupational health and mental health. The presentations will be short enough to allow for plenary participation and debate.

Differences between migrants and locally born European populations in the risk of non-communicable diseases

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Background

European populations are increasingly diverse in terms of country of origin. Several reports have shown important differences between migrants and locally born populations in the risk of non-communicable disease (NCD). However, a systematic overview of the magnitude and patterns of NCD differences in European countries has so far been lacking. In this presentation we aim to present a general overview of the occurrence of NCD among migrant groups in Europe.

Methods

We reviewed the scientific literature for evidence on the occurrence of NCD in Europe according to country of birth, selecting studies published in the last 15 years. The results of the review were summarised by means of a narrative review.

Results

The risk of NCD is not consistently higher in migrant groups in Europe. Cancers related to ''western'' lifestyles generally occur less often in migrant groups. The incidence, prevalence or mortality rates of many other NCDs were higher in some migrant groups, but lower in others. However, some NCDs generally occur more often among non-western migrants in general, including stomach cancer, cervical cancer, stroke and diabetes mellitus. Asthma and musculoskeletal problems also tended to occur more often in migrant populations, although the evidence on these diseases is still very fragmentary.

Conclusions

We observed a great diversity in risks. This presents particular challenges to the monitoring, reporting and understanding of NCD among migrants. Explanations of these diverse patterns of NCD risk are necessarily complex. An important future avenue of research is to compare the NCD risk of migrants to those living in the countries of origin.

Communicable disease among migrants and screening policies in Europe

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Background

Communicable diseases accounted for 9% of the disease burden in the WHO European region in 2002. Migrants are often perceived as being particularly at risk from communicable disease.

Methods

A literature search was conducted, supplemented by reports of the European Network for HIV/AIDS Surveillance, the European Tuberculosis Surveillance Network and the European Centre for Disease Prevention and Control.

Results

Existing data suggest that tuberculosis (TB), heterosexually transmitted HIV and chronic hepatitis B (CHB) are highly prevalent in migrants in Europe. For example, the proportion of all cases of active TB in people of foreign origin within the WHO European region was over 20% in 2008 and rose to over 70% in Cyprus, Malta, Norway and Sweden. Furthermore, studies from Denmark, Germany, Greece, Italy, The Netherlands, Spain, Sweden, and the UK showed higher prevalence rates of CHB in migrants compared to the non-migrant population. In terms of HIV/AIDS 43% of all heterosexually transmitted HIV infections reported in Western Europe in 2006 occurred among migrants from high-prevalence countries.

Screening strategies in Europe vary regarding target groups, place and time at which migrants are screened, type of screening method and whether screening is a legal requirement for entering the country. At least in Moldova and the Russian Federation immigrants are denied to stay when HIV-positive.

Conclusions

The availability and quality of data on communicable disease among migrants and on screening policies differ substantially throughout Europe. However, migrants seem to be at particular risk of some communicable diseases. In many cases, infection was acquired before migration. Yet, the individual and public health benefits, as well as the cost-effectiveness, of screening for specific infectious diseases remain highly contested or even dubious. The focus should instead be on access to timely and effective curative and preventive interventions.

Mental health of refugees and asylum-seekers

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Background

Comprehensive empirical information on the epidemiology of mental health among refugees and asylum-seekers remains scarce, posing an obstacle to improving the prevention and treatment of mental disorders among this population group. This presentation presents the findings of a systematic overview of current knowledge on the mental health of refugees and asylum-seekers in industrialized countries.

Methods

Systematic literature review of published studies on the mental health of refugees and asylum seekers in industrialized countries.

Results

The available literature suggests that fleeing one's country is a stressful process, with potentially negative impacts on mental health and exposure to risk factors such as violence, exclusion and discrimination. The surge of scientific interest in the mental health impact of political violence began with studies documenting the prevalence of psychiatric disorders among Southeast Asian refugees from the Vietnam war and the Cambodian genocide and continued with the influx of refugees from subsequent conflicts, wars and genocide, such as those in Bosnia, Kosovo and Sudan. Apparently, the mental health status of refugees and asylum-seekers is associated with events preceding the flight to other countries, events accompanying the migration process, and events in the new host country. At the same time it is important to recognize culture-specific symptoms of suffering.

Conclusions

Rates of mental ill health of refugees and asylum-seekers depend on sample size and type of diagnostic measure used. Contextual factors include time since resettlement and living conditions in the host country. There seems to be an overall dose-response relationship between political violence and levels of psychopathology of refugees and asylum-seekers, with the worst effects on mental health in those who have experienced extremely severe and prolonged political violence, such as those who have survived torture, concentration camps or genocide. Both, studies with representative samples and longitudinal studies, are urgently needed to better understand the interplay of past and present factors on the mental health of refugees and asylum-seekers and to develop tailored intervention programmes.

Occupational health in migrant workers in Europe

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Background

The search for jobs and better living conditions is one of the main reasons for migrating to another country. Yet, the global increase in geographical mobility amongst workers has translated into an occupational health challenge in Europe.

Methods

Systematic review of the academic literature on occupational health among migrant workers in Europe published since 1990.

Results

Migrant workers have difficulties finding employment and once they have managed to do so tend to encounter adverse working and employment conditions, such as temporary contracts or informal work arrangements, and the lack of ability to exercise workers' rights and receive benefits. For undocumented migrants, there are difficulties in legalizing their situation or acquiring work permits. Furthermore, migrants are concentrated in manual jobs, which are associated with the highest risks. Despite experiencing relatively good health on arrival, various studies show that migrants, compared to the rest of the population, suffer higher rates of work-related accidents and more severe work-related health problems, poorer self-reported health, and worse indicators of physical, mental and social health. They also face difficulties accessing health services and compensations.

Conclusions

Our knowledge about the occupational health of migrant workers is still scarce, partly due to methodological challenges, such as the definition of migrants, difficulties in accessing this population, and their heterogeneity due to religion, language, social class or country of origin. Cultural and linguistic factors may influence how migrants perceive and respond to questions about health, complicating how this data is interpreted. Moreover many migrants do not access the health system and data samples may provide an incomplete view of their health status. Unravelling the mechanisms linking migrant status, work and health is urgently required to learn more about the needs of migrant workers and to establish appropriate policies and programmes for inequities in occupational health.

8.G. Round table: Innovative approaches in return-to-work intervention research

Chairs: Ute Bültmann, The Netherlands and Maj Britt Dahl Nielsen, Denmark

Organiser: National Research Centre for the Working Environment, Copenhagen, Denmark
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In the past decade, much attention has been paid to improving return-to-work (RTW) because of the high costs associated with sick leave. Research efforts have mainly focused on evaluating the effectiveness of RTW-interventions for workers on sick leave. However, the current RTW research domain lacks knowledge on (1) why some interventions are effective and others are not; (2) how to improve cooperation between key stakeholders; and (3) how to improve sustainable RTW. Following this, new approaches are needed in RTW-intervention research that focuses on these topics.

To improve the knowledge in the domain of RTW research, this workshop presents two research projects from Denmark and two from The Netherlands focusing on new theoretical and methodological approaches to designing and evaluating RTW interventions. The aim of the workshop is, not only, to improve knowledge but also to facilitate a debate on future venues for RTW research and practice.

First, results from a process and effect evaluation from a coordinated and tailored RTW intervention for employees with mental health problems are presented. The presentation demonstrates the importance of conducting systematic process evaluations to explain unexpected effects and serves as an input for a discussion on combining process and effect-evaluations. This is followed by the second presentation of selected results from a comprehensive process evaluation from a national RTW-project. The presentation focuses on one of the key intervention elements - an intensive three weeks course to enhance the cooperation between key RTW-actors.

The third presentation focuses on the challenge of enhancing sustainable RTW. In this presentation the theoretical and empirical underpinnings of a new intervention developed to prevent recurrent sick leave among workers with common mental disorders is explained.

Finally, attention is given to enhancing RTW and self-efficacy among employees with mental health problems. This presentation explains the mechanisms of a successful intervention based on work-focused cognitive behavioral therapy administered by psychologists.

Using process evaluations to explain unexpected results of return to work interventions

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Background

Interventions to promote return-to-work (RTW) are often complex and to understand the success and failure of such interventions researchers need to make use of systematic process evaluations. We evaluated a coordinated and tailored RTW-intervention for employees with mental health problems in Denmark. The intervention was as a joint collaboration between a municipal social insurance department responsible for recruiting participants and a private company offering a multidisciplinary work disability screening and RTW-action plan. The effect-evaluation revealed that the intervention was not effective in promoting a faster RTW. In this paper we present results of the process evaluation which may explain this unexpected effect.

Methods

The evaluation was conducted by researchers not involved in the development and implementation of the intervention. The process evaluation draws on comprehensive data from observations of the work disability screenings (n=3), a two-waved survey among participants (n=76), data from RTW-plans (n=71), three group interviews with the multidisciplinary team, three group interviews with municipal social insurance officers (SIOs), and ten single interviews with participants.

Results

We identified the following implementation problems, which negatively affected the intervention: 1) the waiting time from referral to screening was longer than expected (40% of participants waited more than 3 weeks); 2) the SIOs, responsible for care-as-usual, had different expectations of RTW from those of the multidisciplinary team; 3) interviews showed that some participants postponed their RTW after consulting with the rehabilitation team; 4) the current financial crisis resulted in many participants losing their job, which impeded workplace-based RTW-efforts; 5) the multidisciplinary team found that the participants had more severe mental health problems than expected.

Conclusions

This study demonstrates the importance of conducting systematic process-evaluations to enhance our understanding of why some interventions work and others do not, and identify barriers and facilitators for implementation. Our results points to important pitfalls in implementing RTW-interventions, such as waiting lists, and differing goals and expectations for RTW among stakeholders.

This abstract is part of the workshop ‘‘Innovative approaches in return to work-intervention research’’.

Implementation of a national coordinated and multidisciplinary return-to-work program

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Background

In 2008 the Danish government decided to implement a national return-to-work (RTW) program to investigate if an earlier contact, interdisciplinary assessment and improved coordination leads to a safer, faster and more stable RTW. In Denmark, the municipalities are responsible for disbursing sickness benefits and promoting RTW. In 2010 13 municipalities implemented the program, while nine municipalities functioned as comparison groups. We expect that about 10.000 sick-listed citizens will participate in the program. One of the key program elements is the establishment of multidisciplinary RTW-teams coordinated by social insurance officers (SIOs). The aim of this presentation is to describe the implementation and present selected results from the process evaluation.

Methods

In an intensive three-week course including lectures and group work, the teams were introduced to several assessment tools, guidelines and the new organizational structure. The aim was to promote interdisciplinary teamwork and develop RTW plans for sick-listed citizens. After the course all participants were asked to rate their satisfaction with the course and how well the course prepared them for their new task in a questionnaire. Additionally, group interviews were conducted.

Results

Seventy eight SIOs, 33 psychologists and 33 physio/ergo-therapists participated in the entire course, while 26 physicians and 15 psychiatrists participated in selected parts of the course. More than 90% answered the questionnaire and 99% of the SIOs, 93% of the psychologists and 90% of the therapists were to some or to a high degree satisfied with the course. Almost 85% of the SIOs, 50% of the therapists and 43% of the psychologists answered that the course to a high degree made them more familiar with their new roles in the project. Nearly 86% of the SIOs answered that their competencies regarding coordinating the multidisciplinary teams were strengthened to some or to a high degree. The group interviews confirmed the generally positive results from the questionnaires.

Conclusions

To our knowledge this is one of the largest RTW-programs. Although outcome results are not available before 2012, the results from the process evaluation are encouraging: the intensive intervention course was for the most part positively received by the participants and prepared them for their tasks.

This abstract is part of the workshop ‘‘Innovative approaches in return to work-intervention research’’.

Sustainable return to work: A new approach to prevent recurrent sick leave

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Background

In response to the high number of workers on sick leave because of common mental disorders (CMDs), interventions have been developed to improve return to work (RTW). However, only a few studies have looked beyond RTW. A Dutch study showed that one out of five employees that had been on sick leave because of CMDs experienced recurrent sick leave due to a CMD after full RTW for 28 days. To enhance sustainable RTW, interventions are needed that go beyond RTW. In The Netherlands, occupational physicians (OPs) are responsible for guiding workers with CMDs to RTW. Therefore, OPs can also play an important role in enhancing sustainable RTW. Following this, the aim of this study was to develop an intervention, provided by OPs, to prevent recurrent sick leave among workers who returned to work after sick leave because of CMDs.

Methods

The literature was reviewed regarding theories on coping behaviour, evaluations of interventions for RTW of workers with CMDs and outcomes of focus groups with stakeholders on the topic of RTW. Furthermore, two focus groups were organised with OPs and human resource managers to discuss how workers with CMDs are best supported at work.

Results

Based on the findings from the literature review and focus groups, a problem-solving intervention was developed in which the OP guides the worker after RTW and involves the supervisor of the worker. The intervention consists of the following five steps: (1) listing bottlenecks and opportunities at work; (2) brainstorming on solutions; (3) writing down solutions and the support needed; (4) discussing solutions with the supervisor and making an action plan; (5) evaluating the implementation of solutions.

Conclusions

To our knowledge, this is the first intervention developed to improve sustainable RTW in workers who returned to work after sick leave due to CMDs. Currently, comprehensive outcome (effectiveness, cost-benefit) and process evaluations are conducted by the authors in a cluster-randomised controlled trial. This intervention could contribute to a sustainable RTW of workers with CMDs, guideline development for OPs and cost-reduction of lost productivity.

This abstract is part of the workshop ‘‘Innovative approaches in return to work-intervention research’’ as we present a new intervention for sustainable RTW.

Return to work interventions for employees with common mental disorders: the role of self-efficacy

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Background

Common mental disorders (CMDs) have negative consequences on work participation. Regarding the associated individual suffering and societal costs, it is important that successful return-to-work (RTW) interventions are available.

To enhance the results of interventions, a better understanding of the RTW-process is necessary. Work related self-efficacy (SE) might play a key role within this process. SE has proved to be an important predictor of work resumption in other populations like unemployed schizophrenic patients and sick listed workers with physical complaints. Although many workers with mental health problems are treated by psychologists, no work-focused treatment for psychologists was developed or evaluated in The Netherlands yet. Recently, an intervention was developed to enhance SE and RTW for employees with CMDs. The aim of this presentation is to give insight in the mechanisms and effectiveness of this intervention.

Method

The study compares a work-focused cognitive behavioral therapy (CBT) performed by psychologists for employees on sick leave with CMDs with care as usual (CAU). The aim is to increase RTW and to enhance the level of work related SE. In a quasi-experimental design, 12 month follow-up data of 168 employees (79 in CAU and 89 in CBT) were collected.

Results

The intervention aims at enhancing work-related SE of the client by facilitation and stimulation of work related success experiences, as for example, work related SE is enhanced in the CBT intervention by directing therapeutic elements as gradual exposure (e.g. increasing task complexity) and cognitive restructuring towards work.

The study on the CBT intervention showed that full RTW occurred 55 days earlier in the CBT group. Most importantly, SE proved to be a robust predictor of actual return to work within 3 months.

Conclusions

These results show that by focusing more and earlier on work-related aspects, psychologists can substantially speed up functional recovery in work within a regular therapy setting. The CBT intervention has the potential to improve RTW for employees on sick leave. Stimulating work focused SE can be a promising way to manage mental work disability. More studies are needed to confirm these results. New treatment protocols can be designed to improve their ability to enhance SE targeted at returning to work.

This abstract is part of the workshop ''Innovative approaches in return to work-intervention research''.

8.H. Social inequalities in chronic diseases

The changing relationship between income and mortality in Finland 1988–2007

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Independent effect of income on mortality has been reported in various studies. However, no studies have concentrated in the possible change of the income-mortality relationship over time. The aim of this study was to examine whether the relationship between income and mortality has changed during the recent decades in Finland and does the change in the social composition of the lowest income quintile observed during the study period explain the increased disparity?

Statistics Finland provided the register data linked with mortality records. It is a nationally representative 11% sample of all persons aged 35–64 residing in Finland in 1988–2007. Household taxable income was used as the income indicator. Poisson regression was used to assess the change in mortality disparity between income quintiles between periods 1988–91, 1996–99, 2004–07. Educational level, social class, employment status and living alone were added to the model to assess the contribution of these socioeconomic factors to the change in the disparity.

The age-adjusted mortality did not decrease in the lowest income quintile as in other quintiles among both men and women. This led to increasing disparity as the incidence rate ratio (IRR, highest quintile as the reference category) of the lowest quintile increased from 2.82 to 5.12 among men and from 2.21 to 4.14 among women. The curvilinear nature of the relationship between income and age-adjusted mortality strengthened. When other socioeconomic variables were controlled the differences between income groups were strongly attenuated but the increasing disparity remained as IRR of the lowest quintile increased in from 1.24 to 1.82 among men and from 1.09 to 1.73 among women. The shape of the relationship between income and mortality was different depending on the period. The relationship during the last period was somewhat linear among both men and women.

The socioeconomic characteristics do not explain totally the increasing mortality disparity between income quintiles. This is relevant when monitoring and planning the programs aiming to reduce health inequalities. The observation of changing shape of the income-mortality relationship emphasizes the temporal perspective in the discussion concerning the nature of the income-mortality relationship.

Excess mortality of depression in Finland in 1998–2007 - variation according to cause of death and social factors

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Background

The excess mortality of depression is widely acknowledged but the mechanisms behind it are not well known. Alcohol use disorders are often comorbid with depression; however, no data on alcohol-related mortality in depression exists. Also, few studies have assessed whether excess mortality of depression varies according to social factors.

Methods

We used large longitudinal register data to assess the alcohol-related and non-alcohol-related excess mortality of depression for suicide, all external causes, and all internal causes. Our data consisted of a 14% population-based sample of Finnish men and women aged 40–64 years in 1997 with a ten-year mortality follow-up. Our measures of depression were based on registered purchases of antidepressants and psychiatric hospital care for unipolar depression. The data included 13,658 depressed outpatients and 897 depressed inpatients, compared with 215,140 non-depressed individuals. Data on socioeconomic and living arrangement factors came from the registers of Statistics Finland, and included education, home ownership, employment status and union status.

Results

Depressed out- and inpatients had significant excess mortality for suicide, external and internal causes. Alcohol-related causes accounted for half of the excess deaths among depressed men and a third among women. Excess mortality varied little by social factors, particularly in non-alcohol-related causes. Where variation was significant, the relative excess mortality of depression was larger among those with higher education, home owners, the employed and the partnered. The absolute excess was, however, larger among the less privileged.

Conclusions

Alcohol seems to play a significant role in the excess mortality of the depressed, particularly among men. The screening and treatment of comorbid substance use disorders in depression should be a priority in the care of depressed out- and inpatients.

Socioeconomic status is inversely related to prognosis after acute myocardial infarction, especially in men: results from a Dutch nationwide study

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Background

Previous studies have shown an inverse association between socioeconomic status (SES) and risk of death and readmission after a first acute myocardial infarction (AMI). However, the majority of studies are limited by a short follow-up period, lack of socioeconomic status data on an individual level and/or an insufficient number of cases. Studies that distinguish between gender and age are sparse.

Methods

Through linkage of several Dutch national registers a nationwide cohort of patients hospitalized for the first AMI between January 1st 1997 and December 31st 2007 was constructed. SES was defined as the average disposable income over the follow-up period. For every SES tertile, age- and sex- specific mortality risks and rehospitalization risks were quantified for 28-days, 1-year and 5-year periods. Cox's proportional hazard models were used to estimate differences between SES tertiles in short- and long- term mortality and rehospitalization, adjusted for potential confounders (age, sex, comorbidity, ethnicity, province and degree of urbanization).

Results

We identified 68.199 patients with a first admission for AMI between January 1st 1997 and December 31st 2007. Mortality after AMI doubled in patients in the lowest SES tertile compared to patients in the highest SES tertile (28-day mortality: 13,7% vs. 7,3%, 1 year mortality: 20,8% vs. 10,6%, 5-year mortality: 34,2% vs. 16,5%). The inverse associations between SES and mortality after a first admission for AMI increased over time (28-day Hazard Ratio (HR) 1.30; 95% Confidence Interval (CI) 1.22–1.38, 1-year HR 1.33; 95% CI 1.26–1.39, 5-year HR 1.41; 95% CI 1.36–1.47), and were stronger for men than for women (5-years HR men 1.50; 95% CI 1.43–1.58, 5-year HR women 1.24; 95% CI 1.16–1.33).

Conclusions

The results from our nationwide study showed a significantly higher risk for both short- and long-term mortality after a first admission for AMI in patients with a lower socioeconomic status in The Netherlands. The associations between SES and mortality risks were substantially stronger for men than for women. Results can be used in developing secondary prevention programmes after AMI.

The burden of type 2 diabetes attributable to lower educational levels in Sweden

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Background

Type 2 diabetes is associated with low socioeconomic position (SEP) in high-income countries. Despite the important role of SEP as a risk factor for many diseases, including diabetes, no such indicator was included in the Comparative Risk Assessment (CRA) module of the global burden of disease (GBD) study. We there for aimed to investigate the burden of type 2 diabetes in Sweden, attributable to lower educational levels as a measure of SEP using the methods applied in the CRA.

Methodology

To include lower educational levels as a risk factor for type 2 diabetes, we used relevant data from a recent systematic review and meta-analysis. We collected Swedish data on distribution of educational levels, with comparable criteria for educational levels as identified in the systematic review. Population attributable fractions (PAF) were estimated and applied to the burden of diabetes estimates from the Swedish burden of disease database.

Results

Type 2 diabetes incidence was associated with middle and low educational level in men (RR = 1.16, 95% CI: 0.93–1.44) and (RR = 1.52, 95% CI: 1.28–1.82) compared to high educational level in high income countries. For women corresponding estimates were, (RR: 1.18, 95% CI: 1.07–2.74) and (RR = 1.71, 95% CI: 1.07–2.74). In the Swedish population 26% of men have a low educational level, 45% middle and 27% high, and for women, the distribution is 25%, 41% and 32%, respectively. The PAF showed that lower educational levels in Sweden contributed to 17% of the burden of type 2 diabetes in men and 20% in women.

Conclusions

There is a considerable burden of type 2 diabetes attributed to lower educational levels in Sweden, and SEP should be further considered as a risk factor to be incorporated in the CRA.

Socioeconomic position and change in purchase of prescribed painkillers after hysterectomy on benign indication

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Background

Chronic pain is a frequent symptom in gynaecologic disorders and is the primary indicator for surgery in 10% of all hysterectomies performed on benign indication in Denmark. This study examines whether socioeconomic position (SEP) measured as level of education is associated with patients purchase of prescribed painkillers by comparing the purchase before and after hysterectomy.

Methods

We performed a registry-based follow-up study including all Danish women (n = 13,420) with a hysterectomy on benign indication from 1st of January 2004 to 31st of December 2006 and linked this information to the national Danish Drug Prescription Database. Purchase of prescription painkillers was calculated for the 6-month period prior to the surgery and for the 6-month period 6 month after surgery. Changes were estimated by difference in purchase rate in painkillers. Furthermore, the proportion of patients with an increased purchase of painkillers and the proportion of patients who ceased buying painkillers after surgery were estimated.

Results

Thirty percent of women with higher education and 45% of women with short education had a purchase of painkillers before hysterectomy. After the operation 51% of the women with higher education ceased buying painkillers while only 44% of the women with short education ceased buying painkillers. Fifteen percent of the women with higher education increased the purchase of painkillers after hysterectomy while 24% of the women with short education increased their purchase.

Conclusions

This study indicates that the largest reduction in purchase of prescription painkillers after hysterectomy is found in women with higher education. Furthermore, a larger proportion of women with higher education completely stopped buying prescribed painkillers after hysterectomy than women with short education.

Childhood adversity as a risk for cancer. Findings from the 1958 British Birth Cohort Study

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Background

Strong evidence for socio-economic inequalities in cancer survival and mortality has been shown for many cancers and across populations. The objective is to analyse whether Adverse Childhood Experiences (ACE) are associated with an increased risk of cancer in the National child development study (NCDS).

Methods

The NCDS is a prospective birth cohort study with follow-up data collected at eight points over 50 years. It included all live births during one week in March 1958 (n = 18 558) in England, Wales and Scotland. Self-reported cancer incidence was based on 533 participants reporting ever having cancer at some point and 6080 reporting never having cancer. Cumulative childhood adversity was measured by counting the reports of: 1) the child being in care, 2) physical neglect, 3) the child's or family's contact with the prison/ probation service, 4) parental separation due to divorce, death or other, 5) family experience of mental illness and 6) family experience of substance abuse (0, 1 to 6) in order to test for a dose-response relationship with self-reported cancer. Household socioeconomic characteristics and information about the pregnancy and birth were extracted as potential confounders. Stepwise multivariate logistic regression models were carried out to account for the chronological sequencing of exposures. Analyses were run using multiply-imputed data to account for missing data in the cohort.

Results

Cancer was reported by 7% of respondents who had no ACE versus 10% among respondents reporting one adversity, and 15% reporting two adversities ($p < 0.001$ trend). The odds of reporting a cancer increased by 40% for every unit increase in the ACE measure after adjusting for potential confounders. Overcrowding in the household was also significantly associated with increased odds of reporting cancer. There was a strong association between sex and cancer, likely due to the large proportion of cervical and breast cancers identified thus far in the cohort.

Conclusion

In the NCDS, ACE was found to be positively and independently associated with cancer incidence, with a dose-effect relationship, suggesting that exposure to adversity in childhood ought to be considered as a risk factor for cancer in later life.

8.I. Methodological challenges

Comparison of computer-assisted personal interviewing and self-administered questionnaires: Effect on representativeness and health indicators. Denmark 2010

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Background

The National Institute of Public Health, University of Southern Denmark has carried out national representative health interview surveys among the adult Danish population (16 years or older) in 1987, 1994, 2000 and 2005. The data have been collected via face-to-face interviews. However, in 2010 data were collected via self-administered questionnaires. As a result, time and mode effects are confounded, and it is difficult to decide if a change over time is real or the result of a change of survey mode. The purpose of this study is to disentangle the effect played by time and mode by comparing the two modes with regard to response rates, representativeness and prevalence estimates. Different types of health indicators will be explored. Methods: A small face-to-face interview survey (IS) (n = 1,500) was carried out in addition to the 2010-self-administered-survey (SAS) (n = 25,000). Both surveys used the same questionnaire, were based on mutually exclusive random samples and were carried out in the same time period. Multiple logistic regression analyses were used to compare the results from the two surveys. The models were adjusted for gender, age, marital status and ethnicity. Results: The response rate was higher in the IS (76%) compared with the SAS (62%), whereas the non-response patterns were similar. Furthermore, the findings indicate considerable variation in estimates according to survey mode; e.g. the odds ratio (OR) for daily smoking were lower in the SAS compared to the IS (OR = 0.77; 95% CI = 0.65–0.90) and OR for having experienced any pain or discomfort during the last 14 day were higher in the SAS compared to the IS (OR = 2.74; 95% CI = 2.26–3.31). In addition, respondents in the SAS tend to report poorer social relations than respondents in the IS. Last, for some indicators the estimates were equivalent according to survey mode; e.g. overweight (OR = 0.95; 95% CI = 0.82–1.09) and heavy drinking (OR = 1.22; 95% CI = 0.96–1.56). Conclusions: Survey mode has an effect on response rate and for some indicators also prevalence estimates. The results have important implications for research methodology, the validity of the results, and for the soundness of policy developed from evidence using survey data. All surveys-users need to be aware of these effects.

Scraping the Barrel: An experiment in wording final reminders for surveys

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Background and Methods

Maximising response is a perennial concern for survey researchers. Sending multiple reminders is an established technique for increasing response rate to mail surveys.

However, at some point researchers have to decide that the next reminder will be the last. We experimented with different wordings of final reminder letters to find out which motivated most non-respondents to react to a final reminder. We compared letters which set a deadline to letters which told recipients we had noted their non-response, and to letters which did both.

Results

We counted the forms that were returned by each of the three groups. The response rate from a letter telling recipients that non-response was being monitored was more than twice as high (30/1052, 2.9%) as from a letter which only set a deadline (19/1376, 1.3%). It is highly unlikely that the apparent difference in response rates between the two groups arose simply by chance ($\chi 2 = 6.5$ at 1df, $p = .011$). The response rate from a letter telling recipients both that a deadline was approaching and that non-response was being monitored fell between these two rates (30/1370, 2.2%).

Conclusion

We conclude that sending non-respondents to previous rounds a letter telling them only that their non-response is being monitored is a more effective method of eliciting a response than telling them only that they are 12 days from a deadline. This may represent a positive impact on the response rate when respondents are told they are being monitored, combined with a negative impact from setting a deadline.

Creating health and wellbeing indicators for Glasgow

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Issue

How to create a set of health and wellbeing (HWB) indicators for Glasgow to help understand health in the wider city context and to encourage thinking about possible futures for the city.

Background

Glasgow's City Strategy Action plan (2007), which included a commitment to research into well-being and quality of life indicators, and Glasgow's Health Commission report (2009), which made 20 recommendations for what needed to change for the city to have a healthier future, provided the main impetus for developing HWB indicators. The Glasgow Centre for Population Health (GCPH) has previously described health in the city via community profiles, the Miniature Glasgow film and comparisons to European regions and cities.

Aims

- create an accessible resource to inform a wide audience about the wellbeing of Glasgow's population across a range of domains (e.g. health, poverty, education, environment, etc)
- allow progress to be monitored highlighting trends, inequalities and making city comparisons
- encourage civic engagement and debate regarding the cross-cutting issues that face the city

Description of results: Over 2010, GCPH led a process to initially reach a consensus on having a set of HWB indicators for Glasgow and to then create the indicators set. This work was carried out via a series of multi-agency seminars and by a project group involving key city partners, culminating in the presentation of these indicators across 12 domains on a new website, Understanding Glasgow, launched in February 2011.

Results: Glasgow has a new information resource. The work has been described as an initiative in 'democratising information' and has been complemented as being 'one-stop shop' for information about Glasgow. The indicators have been used at a number of events and are contributing to thinking about a more sustainable and resilient Glasgow.

Lessons

Support from partners across the city has been vital. The challenge now is to develop this resource, adding children's indicators and further European comparisons, and to use the indicators as a focus for debate and engagement about the future of the city in the 21st Century. Comparative public health information has been made easily accessible. Other cities could learn from and join this initiative.

Measuring socioeconomic inequity in health care

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Background

Equitable access to health care is a commonly accepted principle of health policy broadly. Several studies have addressed socioeconomic differences in the use of health services as well as in mortality amenable to health care interventions. This study examines what is the impact of certain methodological and data handling choices on the results of inequity analyses using data on amenable mortality as an example.

Methods

We studied socioeconomic inequity in amenable mortality measured with the concentration index (CI). Our data came from the 1992–2003 Finnish cause of death registers individually linked to socioeconomic indicators from the employment databases. We tested how the number of categories (5 to 20) in income indicator changes the results, and evaluated the impact of (direct) age-standardization on the inequity results with two different socioeconomic indicators (disposable family income and education).

Results

The number of categories in income indicator has a notable effect; in our data the average CI in the follow-up in men was −0.27 with 20 categories indicating significant inequity favoring the better-off and the estimates were on average 15% smaller with 5 categories indicating less inequity. In women the results were −0.22 and 23% respectively.

The crude CIs with 20 income categories were on average 22% (men) and 24% (women) smaller compared to standardized estimates. When education was used as an indicator, the average crude CI in men was −0.15 and with standardization −0.11. In women the indices were −0.16 and −0.08.

With 5 classes and crude CIs, the results on income inequity were 25% (men) and 27% (women) smaller compared to analyses with 20 categories and standardization.

Conclusions

Measuring equity in health care plays a significant role in the health services research. In this study the effect of certain basic methodological choices and details of data handling in using an inequity measure was assessed. The reduction of the number of categories in income indicator made inequity indices systematically smaller in amenable mortality. The standardization had also a notable effect on the results, although the influences had opposite directions in different indicators.

Comparison of Bayesian and non-Bayesian methods to estimate the standardized mortality ratio exemplified by death due to lung cancer

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Background

Cancer has a mortality of 22% in Denmark in 2008. Of these, lung cancer accounts for 22% of death due to cancer.

The aim of the study was to evaluate spatial differences in standardized mortality ratio (SMR) due to lung cancer.

Material and Methods

Data were aggregated at municipality level with in total 98 municipalities. A total death of 37,492 was included in the study, of which lung cancer was the cause of death for 1,868. Only humans aged $\geq$35 year were included in the study. Standardization with age, gender and socio-economic status has been performed.

Differences in SMR due to lung cancer were evaluated using different estimation methods. Initially, simple standard SMR estimator was used. However, SMR is very sensitive to small sample sizes and in case of no death in a region, SMR is invalid. Therefore, alternative model based methods were used including empirical Bayes estimators and full Bayesian estimators.

Results

The mean incidence of death due to lung cancer was 114 per 100.000. The SMR ranged from 0.56 to 1.90 except in one municipality, where no death due to lung cancer was seen.

The analyses showed that SMR due to lung cancer is significantly higher than expected in southern part of Zealand and some municipalities in Jutland. The SMR is significantly lower than expected along the western cost of Jutland and in northern part of Zealand.

The SMR of death due to lung cancer was significantly higher than expected in 17% of the municipalities and less than expected in 27% of the municipalities. Big differences in SMR were seen depending on the selected model.

Discussion and Conclusion

The full Bayesian model produced a smoother map compared to the other estimators although only minor differences were seen. In the present data set only one municipality has no death due to lung cancer.

Cancer is the cause of death for 22% of all deaths with lung cancer counting for 22% of death due to cancer. Geographical differences were seen in SMR due to lung cancer.

Using statistics and practice to address inequalities in access to healthy diets in Sandwell England 2011

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Issue/Problem

Unhealthy diets are linked to multiple health effects including obesity. This is also a social equity issue as poor people have poorer diets and access to a good diet is differentially limited by availability and cost. Mapping this inequality effectively provides intelligence to focus interventions on the most vulnerable. However, previous access indicators have used 'one off' data collections and have largely focussed on a single aspect of availability. The large number of potential index components makes data collection and analysis unwieldy. Local authorities inspect food premises for food safety but very few people die from food poisoning in Sandwell whereas many hundreds die annually from diet related diseases. These inspections could be used to collect data on healthy food access as well as food hygiene standards. A composite access indicator has been developed in Sandwell and data are being routinely collected by the local regulator in a pilot. This paper describes the methodological and public health practice challenges encountered and addressed.

Methods

Principal components analysis has been used to reduce the number of variables for the composite access indicator. Composite indices require the standardisation and combination of each variable. A skewed variable distribution distorts relative differences. Transformation is required for symmetrical and smooth distributions before standardisation. The effectiveness of the transformation method was measured by the analysis of distribution skewness and kurtosis. Local authorities routinely inspect food premises to monitor compliance with hygiene standards and this was identified as a source of routine and real time data on the availability of fresh fruit and vegetables.

Results

The number of variables for calculating the index was reduced to three without compromising its value. The resulting index was mapped and populations in poorly served areas identified and characterised. The local authority agreed to pilot their enforcement officers collecting data on a routine basis.

Lessons

It is possible to create an effective and representative composite food access index using a small number of variables. Enforcement colleagues are open to changing practice if the public health benefits are clear.

8.K. Benefits of surveillance

Interactive atlases of health and socially determined health inequalities at sub national level in Europe based on publicly available EUROSTAT data

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Background

EUROSTAT databases contain a vast amount of publicly available data at sub national (NUTS 2) level. However, these data are seldom used for the assessment of socially determined health inequalities, because data from different EUROSTAT tables needs to be processed and presented in a user friendly way. Therefore, one goal of a Joint WHO Europe / European Commission project was to develop an easy to use, interactive atlas of inequalities in health systems performance at sub national level.

Methods

Publicly available health status, health care resources and selected socio economic and demographic data from 280 regions were extracted from EUROSTAT databases and imported into a customized database. A number of additional indicators like mortality amenable to health care and age standardized hospitalization rates were calculated. The following variables were used as indicators of socio economic status of regions: disposable income, percentage of population with high and low education, unemployment and long term unemployment rate and infant mortality rate. Regions were grouped into 5 groups according to aforementioned socio economic stratifiers, and absolute and relative measures of inequalities were calculated.

Results

To assess the magnitude and distribution of health inequalities and their relation with stratifiers, a number of interactive atlases containing the above data were developed and made publicly available together with additional documentation at http://data.euro.who.int/equity. Three types of atlases have been developed: regional comparison atlas, facilitating comparison of a limited number of key indicators between 2–3 regions, correlation map atlas, facilitating investigation of association between two variables among nearly 280 European regions, and a 6 atlases of inequalities in amenable mortality and 6 atlases of inequalities in child health. The atlases contain more than 7000 indicators altogether.

Conclusion

Interactive atlases of socially determined inequalities in health at sub national level have been developed and made freely available to the broad public. Preliminary feedback from policy and research community indicates high interest in this resource, particularly in view of the ability to examine associations between indicators.

Mortality Among Status Aboriginals in Alberta, Canada, 2000–2008

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Background

Aboriginal populations within Canada tend to have poorer health status than non-Aboriginal populations. The purpose of this study was to compare mortality rates and causes between Aboriginal and non-Aboriginal populations.

Methods

The province of Alberta maintains a publicly funded, universally available health care system. As part of this system, a population registry is maintained in which status Aboriginals are identified. This registry was linked to the Alberta Vital Statistics death registration file. Cause of death was coded using the International Classification of Diseases, 10th revision. Data were extracted for the years 2000 through to 2008. Life expectancy, infant mortality, and age and sex-specific mortality rates were calculated for Aboriginal and non-Aboriginal populations. In addition, mortality ratio ratios (MRR) were computed.

Results

Overall, Aboriginals had lower life expectancy at birth for all years examined with little change in value. There was no significant increase in life expectancy among Aboriginals. In 2008 there was a 13 year difference in life expectancy (67.9 versus 81.0). Infant mortality was higher among Aboriginals. In 2008, the infant mortality was 13.1 per 1,000 life births for First Nations compared to 5.7 among non-First Nations.

When examining cause of death First Nations had a higher overall MRR (1.93, 95% CI, 1.92, 1.94). First Nations were more likely to die from: infectious disease (MRR = 4.0, 95% CI, 3.9, 4.1), cancer (MRR = 1.2, 95% CI, 1.2, 1.3), endocrine disorders (MRR = 3.9, 95% CI, 3.8, 4.0), mental disorders (MRR = 1.7, 95% CI, 1.7, 1.8), circulatory disorders (MRR = 1.6, 95% CI, 1.5, 1.6), respiratory disease (MRR = 2.6, 95% CI, 2.5, 2.6), and injuries (MRR = 4.1, 95% CI, 4.0, 4.1). Within the injury category, First Nations were 8.2 (95% CI, 7.9, 8.6) times more likely to die as a result of an assault. Self-harm and unintentional injury were 3.2 and 3.8 times higher, respectively.

Conclusions

Life expectancy is significantly lower and infant mortality significantly higher among Aboriginal peoples than non-Aboriginals. Injuries represent a significant cause of death, particularly related to self-harm and assault.

The performance of mandatory and sentinel surveillance systems for communicable diseases: lessons to learn from the Italian experience

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Background

The surveillance of Communicable Diseases (CDs) is a keystone Public Health activity. According to the European Commission, most CDs have to be reported to the European Centre for Disease Prevention and Control. In order to gain in accurateness, sentinel surveillance systems have been established. This work is aimed at comparing the performance of the Italian mandatory and sentinel systems through two case studies: measles and hepatitis B (HBV).

Methods

Both measles and HBV notifications are mandatorily collected in the Italian Surveillance System for CDs; furthermore two voluntary surveillance systems are working since 2000 and 1985 respectively. Measles system relies on an average of 300 (minimum-maximum: 180–380) primary care pediatricians per year (SPES) while HBV one (SEIEVA) collects data on acute hepatitis from local health authorities covering approximately 60% of the population of the country; both systems are regarded as representative of the Italian Regions. Incidence data per 100,000 inhabitants, from 2005 to 2008, were collected from sentinel systems; on the other hand, for the mandatory one, we computed them dividing notifications by resident population reported by the National Institute of Statistics. Data were stratified by age groups: 0, 1–4; 5–9 and 10–14 for measles and 0–14, 15–24 and ≥ 25 for HBV.

Results

On the whole, considering the four years period, incidence data reported by SPES were 15% to over 100% higher than those obtained by the mandatory system with slight differences between age groups; interestingly, incidence data from the two systems were closer during 2008 when an outbreak took place. On the other hand, SEIEVA yielded incidence data from 26% to 12% lower than those coming from the mandatory system, except for 2008 when the overall incidence datum from SEIEVA was higher. Also the comparison of SEIEVA and the mandatory system showed some differences between age groups being the gap narrower for ≥ 25 years old.

Conclusions

These preliminary results suggest that sentinel surveillance systems can improve CDs monitoring and that the integration of different data sources is important to have a comprehensive view of the problem. Furthermore, personal commitment could be enhanced to achieve a better surveillance.

Population based registers as a source for post-approval drug research: a case study on antipsychotics use in Finland

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Objective

The aim of the study was to study risk of rehospitalization, all-cause discontinuation of the initial medication, and total mortality among patients using either oral or depot antipsychotics.

Methods

A register-based linkage study utilizing data on hospitalisations, deaths, and antipsychotic prescriptions obtained from nationwide health care registers in Finland. A larger study population of 33,318 patients consists of all patients who had at least one hospitalization due to schizophrenia-related illness (ICD-10 codes F20-F25) during 2000–2007. Data on medications, hospitalizations and mortality was collected. The risk for rehospitalization and drug therapy discontinuation was studied in a subcohort of 2,588 patients who had a strictly defined schizophrenia diagnosis (F20) during their first hospitalization.

Results

About 58% of patients collected a prescription for an antipsychotic within 30 days after discharge from the hospital and 46% continued their initial treatment for at least 30 days. Differences in risk of rehospitalization and treatment discontinuation were obtained between the various antipsychotic treatments. Depot injections were associated with a 59% (95% CI 39%-73%) lower risk for treatment discontinuation and a 64% (95% CI 25%-83%) lower risk for rehospitalisation than their oral equivalents.

Conclusions

Population based registers provide a useful way to investigate the adherence and comparative effectiveness of antipsychotics in a real-world setting. Results indicate that nonadherence with antipsychotic medications is a major issue and occurs very early on, perhaps contributing to a relatively poor long-term prognosis in schizophrenia. Use of depot antipsychotics was associated with a significantly lower risk of treatment discontinuation and rehospitalization than use of the equivalent oral formulations. Use of any antipsychotic was associated with lower mortality.

Evaluation of the European syndromic surveillance approach SIDARTHa

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Background

The European Commission co-funded project SIDARTHa (Grant Agreement No. 2007208) developed and tested a syndromic surveillance system based on routinely collected emergency medical data. It aims to improve timeliness, flexibility and cost-effectiveness of European health threat detection. The pilot system which is established in four countries at the regional/local level was evaluated regarding performance indicators such as usefulness, timeliness, sensitivity, specificity and flexibility.

Methods

Data for evaluation was gathered by (i) using case studies for quantitative assessment of the system's performance during the H1N1 pandemic 2009 and the volcanic ash plume 2010, (ii) simulations for testing the usefulness of different detection algorithms, and (iii) a half-standardised survey among external public health experts attending the last two European Public Health Conferences and the final conference of the SIDARTHa project (n = 53).

Results

The evaluation showed a variety in results depending on region, data source, syndrome, detection algorithm and reference data. For Influenza for example sensitivity ranges between 20–75% and specificity between 76–100% in Belgium, Spain and Austria. Timeliness ranged between 1–20 days for reporting of the event compared to sentinel or laboratory-based reference data. During the volcanic ash plume, SIDARTHa showed its flexibility for ad-hoc surveillance in creating new indicators and timeliness in providing reassurance of no public health impact. Case studies and simulations proved better validity of cumulative sum based algorithms compared to moving averages. The performance of the space-time permutation model depends on the clustering nature of a disease, e.g., gastrointestinal problems. External public health experts rated SIDARTHa useful for timely surveillance at the local/regional level especially for influenza and heat-/cold related illnesses. Concerns were raised regarding proof of sensitivity, data harmonisation and data security.

Conclusions

The evaluation of the SIDARTHa approach suggests advantages regarding timeliness and flexibility especially for influenza and ad-hoc surveillance. An in-depth and long-term evaluation to cover also indicators such as acceptability, stability and costs is anticipated.

Monitoring patient safety during generalized introduction of DRGs for hospital reimbursement in Switzerland

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Background

Diagnosis Related Groups (DRGs) will be universally introduced as a prospective reimbursement system in Swiss inpatient hospital care in 2012, raising controversy and concerns about possible compromise of patient safety. Monitoring the effects of the generalization of DRG-based hospital reimbursement is essential.

Objectives

To validate Patient Safety Indicators (PSIs) based on ICD-10 codes in Switzerland and to evaluate trends in PSIs for Swiss hospitals for the years 2008–2013.

Methods

We selected potentially relevant PSIs and evaluated the content and construct validity of existing PSIs from the Agency for Healthcare Research and Quality (AHRQ) and proposed refined PSI algorithms. In a second phase, we will calculate rates for the selected original and refined PSIs for the years 2008 to 2013. We will assess criterion validity of these PSIs by performing comparisons with medical charts; convergent validity will be assessed via comparisons to other reference standards (e.g., nosocomial infection surveillance data); predictive and discriminant validity will be examined by exploring appropriate statistical models The final phase of this project will examine trends in PSIs for Swiss hospitals for the years 2008–2013 and assess the potential impact of the nationwide implementation of DRGs.

Results (expected)

7 PSIs were selected for this study: decubitus ulcer (PSI #3), bloodstream infection-related to vascular catheter (PSI #7), postoperative physiological and metabolism disorders (PSI #10), postoperative pulmonary embolism and deep vein thrombosis (PSI #12), postoperative sepsis (PSI #13), obstetrical trauma, with (PSI #18) and without instrument (PSI #19). We developed ICD-10 code algorithms for each PSI, according to original AHRQ PSIs and for refined PSIs based on our literature review and ICD-10 code specificities in Switzerland. We will then examine the feasibility of calculating PSIs using Swiss ICD-10 data and compare results with studies from OECD countries.

Comment

We hypothesize that PSIs may be used as indicators of healthcare safety if some preconditions are achieved; accounting for patient- and provider-related effects; or denominator adjustments for actual 'patient exposure' to healthcare procedures or devices.

8.L. Workshop: Application of e-tools in public health capacity strengthening: training, advocacy and communication

Chairs: Alena Petrakova, ECDC, Helmut Brand, The Netherlands, and Karl Ekdahl, ECDC
Organiser: ASPHER Working Group on Public Health Advocacy and Communication (in collaboration with ECDC)
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The key objective of this round table is to discuss application of e-tools in public health capacity strengthening, based on presentations of selected real-world examples by various organisations driving the trend forward. Application of e-tools in training, advocacy and communication activities is important in this time of limited financial and human resources. Has public health been successful in the use of e-tools? Where do the gaps lie and what must we focus on to proceed in the most efficient and synergic way? Is our mindset ready for this change? Three short case studies will be presented and followed by discussion amongst experts with the participation of the audience. Further development of e-tools and their role in capacity-strengthening within the realm of public health will be discussed.

Round table structure:
1. Welcome and Introduction (Alena Petrakova)
2. Vladimir Prikazsky, ECDC: Field Epidemiology Manual Wiki
3. Robert Otok, ASPHER: ASPHER online resource centre for public health education & training
4. Dineke Zeegers, EUPHA: EUPHApedia
5. Follow up discussion facilitated by Professors Helmut Brand and Karl Ekdahl:

Discussion will involve the HEIDI EU project team members to explore areas for collaboration /interaction. Heidi - Health in Europe: Information and Data Interface - is a comprehensive search tool for European health information and data. It contains information about health status, determinants, diseases, health systems, trends, institutional and policy aspects. Heidi wiki can be browsed by everyone with internet access.

Discussion will also examine the following aspects of presented approaches/examples (FEM wiki, ASPHER resource centre, EUPHApedia):
(a) Success factors
(b) Synergies
(c) Sustainability
(d) Added values

6. Conclusions and recommendations

Field Epidemiology Manual wiki (FEM wiki)

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The European centre for Disease Prevention and Control (ECDC) launched recently a new online collaborative platform, ‘Field Epidemiology Manual Wiki (FEM wiki), to develop and share knowledge and training material on field epidemiology. Its content is expert reviewed and continues to be enriched on a regular basis, based on a Wikipedia model of knowledge management.

The purpose of the ‘Field epidemiology manual’ (FEM) is to serve as reference, core structure for training needs in intervention epidemiology. It originates from EPIET Lecture Notes and will be constructed in wiki format to stimulate natural growing of resource of training material. It will be a source of core knowledge for starting field work reflecting the core competencies of intervention epidemiologists. The whole FEM and the separate articles could be used in courses and training programs. The FEM is intended to be complemented by further articles and other training material and also translated into languages by native speaking epidemiologist

Live presentation and short description of this e-tool will be provided.

ASPHER online resource centre for public health education & training

Robert Otok

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Back in 2009, the ASPHER 2015 project - a strategic planning process - established goals and priorities for the association through the year 2015 using a modified Delphi technique. Twenty-six percent of all respondents participating in the last round of the survey said they would be highly interested in joining a workforce dedicated to work on e-tools for the dissemination of information - training materials, research results, communication in public health education and advocacy - with large schools composing twenty percent of those interested.

The association subsequently received support from the European Commission in 2011 to develop an online platform that would facilitate interaction between the schools of public health and public health experts.

The ASPHER online resource centre for public health education and training - Community@ASPHER - is a unique initiative of its kind in Europe. Integrated within the ASPHER website it fosters the creation of an online community of public health experts and greater collection of public health education and training materials. The tool incorporates a multidimensional search facility and a networking mode allowing members to categorise themselves into institutions, countries, and projects, and to create, invite and participate in a specific group/event initiatives. All experts can join Community@ASPHER, though a special status is given to representatives from ASPHER member schools and those affiliated with them.

Live presentation and short description of this e-tool will be provided.

EUPHApedia - Building knowledge and capacity together

Dineke Zeegers Paget

D Zeegers Paget
European Public Health Association, Utrecht, The Netherlands

In February 2011, EUPHA announced the launch of the pilot phase of EUPHApedia. EUPHApedia is a search engine for all public health issues, whereby EUPHA actively invites its members to upload their experiences in the system. In the pilot phase of this new tool (until November 2011), EUPHApedia will only be accessible for EUPHA members.

All members can search EUPHApedia which consists of 2 search engines:

1. Repository search: This search engine is for all uploaded documents, including abstracts from annual conferences (already in the system: 1998, 1999, 2000, 2003, 2004). This search engine will also include the information uploaded by EUPHA members.

2. External search: This search engine is linked to a number of websites, such as our EJPH, WHO/EURO, European Commission, projects such as EUPHIX (European Public Health Information Exchange), and all EUPHA institutional members.

Uploading documents in EUPHApedia is very easy: you can either upload a document or copy/paste a summary of the document.

Live presentation and short description of this e-tool will be provided.

8.M. Work and Health 2

Long term trends in local labour markets and health: evidence from England

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Background

Although the socioeconomic ‘ife-history’ of local areas is likely to influence health, few studies have assessed whether this is so. The objectives of this study are to examine: 1) whether trends in local labour markets have relevance for mortality and morbidity outcomes in England, independently of individuals’ characteristics and migration status; and 2) whether these trends are stronger predictors of health than economic conditions prevailing at the time health data is collected.

Methods

Latent class growth models were used to group local areas having followed similar ‘trajectories’ of change in employment rates since 1981. Over the period, some areas have experienced continuously high, or improving, employment rates, whereas others are persistently experiencing low, or declining, employment rates. These area groupings were linked to a sample of 209,800 individuals from the ONS Longitudinal Study (LS). Associations between area employment trends and risk of all-cause mortality 2001–2007 and risk of reporting a limiting long term illness (LLTI) in 2001 were measured using logistic regression with robust standard errors clustered in local areas. Models were adjusted for individuals’ socio-demographic variables measured in 1981.

Results

Compared to areas with higher employment rates over the period, risk of mortality is higher in area groups characterised by persistently low employment rates (OR: 1.18; 95%CI: 1.10, 1.27) and by declining employment rates (OR: 1.13; 95%CI: 1.00, 1.27). Associations between area employment trends and LLTI are stronger than those observed for all cause mortality, with higher risks of morbidity observed in areas with consistently low employment rates (OR: 1.72; 95%CI: 1.57, 1.89). Non-movers have higher risk of mortality, and morbidity risks are higher among non-movers always living in areas with struggling local labour markets. Poor health outcomes are associated with long run disadvantage even more strongly than with current socioeconomic conditions.

Conclusions

Trends in local labour markets since 1981 are significantly associated with health outcomes. Priority areas for tackling poor health and health inequalities can not be simply identified by only considering current socioeconomic conditions.

The contribution of health professionals to the genesis of occupational health standards: the impact of the code of ethic in case of asbestos in The Netherlands

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Background

ln The Netherlands, as in other Western countries, there is a great time lag between the evidence of the carcinogenicity of asbestos (1949) and the launching of first legislation that reduces the occupational exposure (1971) and finally the complete ban of the production and application of asbestos (1993). So there was a serious health risk while effective protective regulations were lacking. This implied a serious ethical dilemma for occupational health professionals: according to their code of ethics they ought to contribute to a safe and healthy working environment while companies are not strictly obliged to do so.

This study explores retrospectively the viewpoints of health and safety professionals with respect to asbestos between 1930 and 1990. We focus on the impact of the code of ethics in the statements and behaviour of the professionals.

Methods

Systematic content analysis was carried out on the publications on asbestosis, pneumoconiosis and mesothelioma in the three main journals of health and safety experts in The Netherlands in the period 1930–1990.

Results

The associations of safety and health professionals did not promulgate any position on the prevention of harm due to asbestos. Nor did the uncertainty about the health impact of asbestos obviously cause an ethical dilemma for individual professionals. Professionals were usually involved in discussions on diagnostic methods of asbestos exposure in the human body (X-ray or detection in sputum), the existence of safe limits, the scientific basis of risk assessment and effective prevention strategies. Only a single professional and the physicians of the Labour Inspectorate advocated for preventive action.

Conclusions

As a group professionals did not make a position with respect to the prevention of health risk of asbestos because the interests and political views of members were too divers. The absolute claim of the ethical code to promote healthy working environment is not reflected in the behaviour and should be put in perspective because of their credibility.

Violence at work and psychotropics-use

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Background

An increasing number of European employees work in service professions. As service workers are at high risk of exposure to work-related violence, it is therefore important to establish the mental health consequences of such exposure.

Several studies have shown associations between work-related violence and emotional outcomes such as feelings of anger, fear, and depressed mood. The relation with clinically significant mental health problems, however, is less documented. Most studies have used small occupation specific samples, limiting their generalizability. To expand existing knowledge, we examined the association between work-related violence and use of psychotropics (antidepressants, anxiolytics, hypnotics) in a large cross occupational sample of Danish employees (n = 15,527).

Methods

We synthesized data from three existing work environment studies (the Copenhagen Psychosocial Questionnaire Study, the Danish Work Environment Cohort Study, and the PUMA-study) with self-reported data on work-related violence. This data was linked with psychotropics-purchases using a national registry containing purchases of prescription medications at Danish pharmacies since 1995. Excluding all respondents with prior use of psychotropics, and applying a 3.7 year follow up, we examined risk of purchasing: 1) antidepressants, 2) antidepressants and anxiolytics, 3) anxiolytics, 4) hypnotics. Data were analysed by logistic regressions, adjusting for confounding by gender, age, cohabitation, education, and income.

Results

Preliminary results show increased risk of entering treatment with antidepressants (OR = 1.46; 95%CI: 1.15–1.86) and antidepressants combined with anxiolytics (OR = 1.79; 95% CI: 1.16–2.76) for employees exposed work-related violence. No increased risk is seen for anxiolytics-use only (OR = 1.04; 95%CI: 0.74–1.45) or hypnotics only (OR = 1.08; 95%CI: 0.77–1.50). Final results will be presented at the conference.

Conclusions

Employees exposed to work-related violence were more likely to enter antidepressant-treatment, either alone or in combination with anxiolytics. The findings suggest that preventing work-related violence may help reduce levels of clinically significant mental health problems in the employed population.

Burnout within the Nursing Profession in North of Portugal in 2009

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Background

Burnout is a process of response to chronic occupational stress, presenting negative consequences in individual, professional, familiar and social levels. The nurses are exposed to a high level of chronic stress, which can cause burnout. It's important to access the levels of burnout and their antecedents in different contexts and also some studies state that nurses in hospitals have higher levels of burnout, than those of health centers. Propose of this study is to analyze the level of burnout in nurses and to identify the determinants and contribute to proper foundation of the prevention strategies.

Methods

In this study were applied the Nursing Burnout Questionnaire (NBQ), an instrument for the specific assessment of burnout in nursing; comprises several scales focused on the evaluation of the most relevant variables in the burnout process. It is an assessment instrument used within the framework of a theoretical model that considers burnout as a process of transaction between the characteristics of the job context specific to nursing, the characteristics of the individual and the type of coping people use, and the dimensions of the syndrome (emotional exhaustion, depersonalization and reduced personal accomplishment) and finally the effects on health.

Results

The sample is constituted of nurses who worked in the selected institutions, being the final sample made up of 1033 nurses, 173 (16,8%) were males and 860 (83,3%) females; age of the participants ranged from 20 to 63 years, being the mean of ages 37,7 (sd = 9,3) years. In this sample, the antecedent factors of burnout assessed by the NBC are related to burnout syndrome (r = 0,47), being this relation statistically significant (p < 0,01). The means of the burnout syndrome were significantly higher in the nurses who worked in the hospital than in the ones who worked in the Health center. Burnout was related to physiological and psychological consequences, (r = 0,52) and (r = 0,53) respectively, being this relation statistically significant (p < 0,01).

Conclusions

in order to prevent health problems it is necessary to identify the factors that lead to burnout in nurses. The results of this study can contribute to the planning of prevention programs of burnout syndrome services directed to the nurses.

Farm Work Exposure of Older Male Farmers in Saskatchewan

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Background

The average age of farmers in North America is increasing each year. Research has determined that older farmers work long hours on the farm and there is little accommodation made for health issues and that older farmers are a high risk group for injurious death. We had the unique opportunity to examine work patterns and how they change across the lifespan in a large cohort of farm operations.

Methods

As part of a cohort study to examine determinants of injury on Saskatchewan farms, 5 502 farm people associated with 2 386 Saskatchewan farms were surveyed by mail questionnaire during the winter of 2007. A sub-sample of 2 751 male farmers aged 25 and older were used in this project. The primary dependent variable was the proportion of work time devoted to specific farm tasks which was related to advancing age.

Results

The weekly hours of work declined approximately 34% as farmers aged over the lifespan. The proportion of time spent operating machinery such as tractors and combines increased by about 40% in the older age groups. For each of the four seasons, there was a weak but significant positive correlation (range r = .06 to .12; p, < .05) between age and reported use of older equipment.

Conclusions

Exposure to potentially dangerous farm equipment does not decrease as much as would be expected based on an equal linear reduction in all work tasks as overall work quantity decreases with age. Older farmers remain relatively active in the workplace, therefore prevention efforts should focus on safe machinery operation. In addition, consideration should be given to assigning them to the newest machinery available to increase passive protection.

Multiple roles, health and sickness absence - A five year follow-up study on women in Sweden

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Background

Labour force participation among women in Sweden is high and many women are combining a professional role with a role as partner and parent. The effect of multiple social roles on women's health is thus an important public health issue. Multiple social roles and health is also likely to be influenced by cultural and social contexts and welfare support. Two contrasting hypotheses have been put forward; 'role strain' i.e. increased demands and conflicts with stress as a result and 'role enhancement' i.e. increased access to benefits with positive influence on health. However, few prospective studies have been performed and the aim of this study was to analyse longitudinal associations between changes in number of social roles over a five year follow-up in relation to self-rated physical health, psychological wellbeing, psychiatric disorder and long-term sickness absence.

Methods

Data was derived from a population-based longitudinal cohort. Women with an occupational role (gainfully employed or students) born in 1935, 1945, 1955, 1965, 1970 and 1975 (N = 532) were interviewed with a five year follow-up. Occupational, partner and parental roles were assessed. Self-rated information on physical health, psychological wellbeing and long term sickness absence was used, while information on psychiatric disorder was based on structured diagnostic questions at the interviews according to the Diagnostic and Statistical Manual of Mental Disorders DSM-III-R and DSM-IV. Analyses were performed by multivariate logistic regression.

Results

An increased number of social roles was associated with lower odds for poor psychological well-being, OR 0.43 (CI 0.26–0.72), and for psychiatric disorders, OR 0.67 (0.45–0.99) at follow-up when adjusted for age, socio-economic position, alcohol dependence and abuse and health at baseline. No significant associations were found in relation to poor physical self-rated health and long-term sickness absence and changes in social roles.

Conclusions

This study contributed to the knowledge on longitudinal associations between multiple roles and health. The result indicated that an increased number of social roles were positive in relation to women's mental health and gave to some extent support for the role enhancement hypothesis.

8.N. Ferenc Bojan Young Investigator Award

A 26-year Finnish follow-up study on adult outcomes of binge drinking trajectories from adolescence to middle age

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Background

Few studies have examined the patterns and consequences of drinking trajectories from adolescence through early adulthood until middle age. In this study we identified different binge drinking trajectories from ages 16 to 42 years and examined their association with (health, social, occupational and economic) disadvantage in middle age.

Methods

Participants of a Finnish cohort study in 1983 at 16 years (N = 2194) were followed up using postal questionnaires when aged 22 (N = 1656), 32 (N = 1471) and 42 (N = 1335). Binge drinking was assessed with questions of frequency of intoxication (16 and 22 years) and having six or more drinks in a row (32 and 42 years). Latent class growth analysis was used to determine groups of binge drinking trajectories from adolescence to middle age. Logistic regression was used to examine whether different binge drinking trajectories predicted several dimensions of disadvantage at the age of 42 after socio-demographics and disadvantage at age 16 were adjusted for.

Results

Preliminarily six distinct trajectories of binge drinking were identified: steady low (20%), moderate increase (36%), moderate decrease (16%), rapid decrease (5%), rapid increase (10%), and steady high (13%). Steady high and rapid increase binge drinking trajectories established an increased risk for several forms of disadvantage at age 42, particularly poor health, such as depression (OR 2.6, 95% CI = 1.51–4.64; OR 2.0, 95% CI = 1.08–3.68, respectively). Moderately decreasing trajectory induced a reduced risk for social (e.g. being single or divorced) and economic (e.g. having lower income) disadvantage, especially among men. For example men who reduced their binge drinking from high to moderate level were more likely married than single or divorced (OR 5.8, CI 95% = 1.82–18.55) and had higher income (OR 5.8, CI 95% = 2.21–15.25) at the age of 42.

Conclusions

The results suggest that distinct trajectories of binge drinking are differently related to disadvantage in middle age. Reducing high frequency binge drinking from adolescence to adulthood may protect from several dimensions of disadvantage in middle age.

The association of occupational social class with subsequent disability retirement: the contribution of health behaviours and working conditions

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Background

A low socioeconomic position is associated with poorer health, incapacity for work, and subsequent early retirement due to disability, but the underlying mechanisms through which socioeconomic position influences disability retirement are not yet established. We examined the associations between occupational social class and disability retirement due to all causes, musculoskeletal diseases, and mental disorders and the contribution of health behaviours and working conditions to these associations.

Methods

We used data from the Helsinki Health Study cohort baseline surveys in 2000–2002 on middle-aged employees of the City of Helsinki (N = 6516). The cohort was followed up until the end of 2010 for disability retirement. Retirement data were obtained from the registers of the Finnish Centre for Pensions and social class and covariates from the baseline surveys. Social class was categorized into managers and professionals, semi-professionals, routine non-manual employees and manual workers. Cox regression analysis was used to calculate hazard ratios (HR) and their 95% confidence intervals (CI).

Results

The risk of disability retirement was generally higher among those in lower social classes with a strong gradient in all causes, an even stronger gradient in musculoskeletal diseases, and a weaker non-linear association in mental disorders. These associations were largely mediated through physical work load among both women and men and hazardous exposures particularly among men. In mental disorders in addition to physical working conditions also job control mediated the association. Strenuous desktop work and job demands widened the social class differences particularly among men and in mental disorders. The contribution of health behaviours to the association between social class and disability retirement was modest.

Conclusions

Improvements particularly in the physical working conditions but also in job control of those in lower social classes are likely to reduce socioeconomic differences in disability retirement. Focusing on employees in lower social classes would not only reduce social inequalities in employee health and work ability but also lead to longer working careers on the whole.

The role of work-related factors on early retirement in 11 European countries

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Background

With the ageing population there is a need to increase work participation. The longitudinal 'Survey on Health and Ageing in Europe' (SHARE-study) makes it possible to identify possible predictors of early retirement. The hypothesis is that reduced self-perceived health and poor working conditions might predict early retirement.

Methods

The SHARE-study contains data from 4,612 workers in 11 European countries aged 50–59 year with paid employment at baseline and information on work status during the four-year follow-up. Univariate and multivariate logistic regression analyses were used to study the individual, health-related and work-related determinants of early retirement. Population attributional fractions were calculated to estimate the proportional reduction in early retirement that would occur if exposure to the risk factor was eliminated.

Results

During the follow-up period 13% of the workers exited the workforce due to early retirement. A low educational level (OR = 1.41, 95%CI: 1.10–1.79), excessive alcohol consumption (OR = 1.37, 95%CI: 1.07–1.76), and a reduced self-perceived health (OR 1.28, 95%CI: 1.00–1.64) were the most important predictors for early retirement. Almost 10% of early retirement may be attributed to a lack of job control.

Conclusions

A low educational level and a poor health are important determinants of early retirement. A lack of job control also plays an important role. Therefore, preventive interventions aimed to prevent health problems by focusing on lifestyle and working conditions might contribute to the prevention of early exit from work, especially among workers with a low educational level.

Alcohol drinking and disability retirement - a follow-up study among middle-aged employees

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Background

As age structure is changing and people live older there is a pressure to lengthen work careers and as a part of this development to prevent disability retirement. During the past few decades the trend of alcohol consumption has been upward in Finland and alcohol use has become an increasingly important factor compromising employee health. In this study we aim to examine the associations between alcohol drinking and disability retirement. Another aim is to find out whether the associations are different between all-cause disability retirement and the main causes of disability retirement i.e. mental and musculoskeletal diagnoses.

Methods

The data on alcohol drinking derives from the questionnaire data collected among 40- to 60-year-old employees of the City of Helsinki in 2000–02. The data on disability retirement and their diagnoses comes from the Finnish Centre for Pensions. The study includes 6272 participants (78% women) who were followed up until the end of 2008 yielding a mean follow-up time of 6,8 years. Problem drinking was measured using the CAGE-scale and drinking over 16 portions per week was classified as heavy drinking. The analyses were made using Cox regression. The models are adjusted for age, gender, marital status and socioeconomic position.

Results

The association between average drinking and all-cause disability retirement was U-shaped: Both non-drinkers (HR 1.64, 95% confidence interval 1.16–2.33) and heavy drinkers (HR 1.52, CI 1.01–2.28) had an elevated risk of disability retirement compared with moderate drinkers. Problem drinking was associated with all-cause disability retirement (HR 1.43, CI 1.15–1.78). Associations were stronger concerning disability retirement due to mental reasons: The risk of heavy drinkers compared with moderate drinkers was more than doubled (HR 2.52, CI 1.23–5.14) as was the risk of problem drinkers (HR 2.18, CI 1.49–3.19). Heavy and problem drinking were not associated with disability retirement due to musculoskeletal reasons.

Conclusions

Heavy drinking and problem drinking increase the amount of all-cause disability retirement and disability retirement due to mental reasons. Decreasing unhealthy drinking habits among employees might decrease especially early retirement due to poor mental health.

Culturally Competent Interventions in Type 2 Diabetes Mellitus Management A way to decrease health inequalities among ethnic minority groups? A systematic literature review

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Background Culturally Competent Interventions aim at reducing ethnic health inequalities. However previous studies reported adverse effects of these interventions as increasing prejudice and stereotyping. It remains thus unclear whether culturally competent interventions could really reduce ethnic health inequalities.

Objective We assessed whether studies reporting culturally competent interventions targeting Type 2 Diabetes Mellitus are consistent with the perspective of reducing inequalities in health.

Method We reviewed the literature published from 2005 to 2010. Using the recommendations of Tugwell et al (2010) we extracted from the studies the underlying explanatory model of inequalities, the definitions of the ethnicity and the socioeconomic status of the groups, the design of the studies, the outcomes of interest, and the process and context evaluation of each intervention.

Results Thirty-seven studies met inclusion criteria. Eight studies did not report an explanatory model of inequalities. Authors reported social stratification due to income and education as explanatory model of inequalities in 11 studies while 4 studies reported ethnicity and 6 studies racism as underlying model. In the definition of the disadvantaged, 6 studies did not report data on the socioeconomic grouping of the patients. Twenty-five studies reported only one characteristic of the ethnic identity of the patients although ethnicity is recognised as a multidimensional concept. Only 3 studies had a design comparing ethnic minorities with non-minority group. Outcomes of interest disregarded the quality of life because it focused on clinical outputs. Most common intervention process (n = 34) aimed at modifying individual behavioural risk factors.

Discussion Methodological and conceptual weaknesses in the design of the studies limited comparisons of the interventions' effects between the retrieved studies. Without improvement of the methodological rigor of the studies and a targeting of the structural sources of inequalities, these culturally competent interventions are unable to evidence the reduction of health inequalities among ethnic minorities having T2DM.

The relationship between neighbourhood resources and the risk of poor self-rated health: a hierarchical event history analysis

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Background

Persons in resource-poor neighbourhoods have worse health than similar persons in better-off neighbourhoods. Cross-sectional studies, however, do not allow inferring a causal effect on health of certain neighbourhood exposures. The association could, for instance, be due to a non-random selection of persons into different neighbourhoods. To get a better insight into the causality of the neighbourhood-health-relationship we longitudinally study the transition from good to poor self-rated health status (SHR) and whether the risk for poor SHR is higher for persons in resource-poor neighbourhoods.

Methods

Data were drawn from the German Socio-Economic Panel Study (GSOEP), an annual panel of more than 20,000 households. Health was assessed as a dichotomous variable based on the SRH. All GSOEP respondents who had good SRH in 2004 were selected and followed over the years 2005 to 2008. Neighbourhood resources were measured on the basis of two additive indices (built environment: disturbance by noise, air pollution and lack of green space; social environment: level of crime, relationship of neighbours to each other). The influence of the built and social environment on the risk of poor SRH was estimated using hierarchical event history models with random household as well as regional effects in MLwiN v2.22. Demographic as well as socio-economic characteristics (e.g. age, sex, education, income, average purchasing power of the neighbourhood) were controlled for.

Results

Between 2005 and 2008, 3,356 of the 15,063 persons under risk experienced a transition to poor SRH. In regression models adjusting for age and sex the risk of poor SHR increased significantly with a worse built environment (Odds Ratio (OR): 1.03; 95% CI: 1.01–1.05) as well as social environment (OR: 1.10; 95% CI: 1.06–1.15). Controlling for socioeconomic characteristics of individuals, households and areas lowered the association, however, the independent association between the neighbourhood environment and the risk of poor SRH remained.

Conclusions

The built and social neighbourhood environments play - alongside individual and household resources - a role in the origin of poor SRH.