Effekt av det å være i arbeid på bruk av helsetjenester

Notat fra Kunnskapssenteret
Systematisk litteratursøk med sortering
September 2015

kunnskapssenteret

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Nasjonalt kunnskapssenter for helsetjenesten fremskaffer og formidler kunnskap om effekt av metoder, virkemidler og tiltak og om kvalitet innen alle deler av helsetjenesten. Målet er å bidra til gode beslutninger slik at brukerne får best mulig helsetjenester. Kunnskapssenteret er formelt et forvaltningsorgan under Helsedirektoratet, men har ingen myndighetsfunksjoner og kan ikke instrueres i faglige spørsmål.

Nasjonalt kunnskapssenter for helsetjenesten
Oslo, september 2015

Hovedfunn

Nasjonalt kunnskapssenter for helsetjenesten ved Seksjon for velferdstjenester fikk i oppdrag av NAV og Helsedirektoratet å utføre et systematisk litteratursøk med påfølgende sortering av mulig relevante publikasjoner. Oppdraget var å finne forskning om effekter av det å være i arbeid på bruk av helsetjenester, sammenliknet med det å ikke være i arbeid.

Metode

Vi utarbeidet søkestrategi for et systematisk litteratursøk. Det ble søkt i samfunnsvitenskaplige og medisinske databaser. Søket ble utført i juli 2015. To forskere gikk uavhengig av hverandere gjennom identifiserte referanser og vurderte relevans i forhold til inklusjonskriteriene.

Resultater

- Litteratursøket gav 7471 referanser etter dublettsjekk
- Vi identifiserte totalt 15 relevante referanser: én mulig systematisk oversikt og 14 primærstudier
- Den mulig systematiske oversikten oppsummerte studier med utvalg hentet fra personer med schizofrenilidelse
- Fire av de 14 primærstudiene inkluderte utvalg fra den generelle befolkningen, mens 10 studier inkluderte utvalg fra ulike pasientgrupper
- De 10 primærstudiene med pasientutvalg fordelte seg slik med hensyn til type utfallsmål:
  - sju studier målte bruk av psykiske helsetjenester (behov for ny behandling)
  - tre studier målte bruk av somatiske helsetjenester (oppfølging av anbefalt behandling)

I dette systematiske litteratursøket med sortering har vi ikke lest artiklene i fulltekst og dermed ikke vurdert studienes metodiske kvalitet eller sammenstilt resultatene. Basert på lesing av sammendragene ser vi likevel noen mønstre. Generelt kan det se ut til at det å være i arbeid/komme i arbeid etter arbeidsløshet muligens gir lavere bruk av helsetjenester sammenliknet med det å ikke være/komme i arbeid. Arbeid blant personer med anbefalt somatisk helsehjelp ser ut til muligens å gi økt bruk av slik helsehjelp. Vi understreker at vi ikke kan dra sikre konklusjoner angående studienes resultater siden vi kun har lest sammendragene.

Tittel:
Effekt av det å være i arbeid på bruk av helsetjenester

Publikasjonstype:

Systematisk litteratursøk med sortering

Systematisk litteratursøk med sortering er resultatet av å
- søke etter relevant litteratur ifølge en søkestrategi og
- eventuelt sortere denne litteraturen i grupper presentert med referanser og vanligvis sammendrag

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Svarer ikke på alt:

- Ingen kritisk vurdering av studienes kvalitet
- Ingen analyse eller sammenfatning av studiene
- Ingen anbefalinger

Hvem står bak denne publikasjonen?

Kunnskapssenteret har gjennomført oppdraget etter forespørsel fra NAV og Helsedirektoratet

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Når ble litteratursøket utført?

Søk etter studier ble avsluttet juli 2015

Key messages

The Norwegian Knowledge Centre for the Health Services was commissioned by the Norwegian Labour and Welfare Administration and the Norwegian Directorate of Health to conduct a systematic literature search with a subsequent categorization of relevant publications. The commission was to identify research on the effects of employment on the use of health services.

Methods

We developed a search strategy for a systematic literature search. In July 2015, the search was carried out in social and medical scientific databases. Two researchers independently screened all identified references to assess inclusion according to predefined criteria.

Results

- The literature search resultet in 7471 references, after duplicates were removed
- In total, we identified 15 relevant references: one potential systematic review and 14 primary studies
- The potential systematic review summarized studies with samples from people with a schizophrenic disorder
- Four of the 14 primary studies included samples from the general population, while 10 studies included samples from various patient groups
- The 10 primary studies with general population samples were categorized into two groups of outcomes:
  - seven studies measured use of mental health services (need for new treatment)
  - three studies measured use of somatic health services (compliance with recommended treatment)

In this systematic literature search with categorization we have not read the articles in full and hence neither critically evaluated the studies nor synthesized the results. Based on a reading of the abstracts, we can nevertheless see some patterns. In general, being employed/becoming employed might lead to less use of health services compared to being/remaining unemployed. Employment among individuals with recommended somatic health follow-up might give higher use of these health services. It is necessary to highlight that we are unable to draw any conclusions about the studies' results since we only evaluated the abstracts.

Title:
Effects of employment on the use of health services

Type of publication:

Systematic reference list

A systematic reference list is the result of a search for relevant literature according to a specific search strategy. The references resulting from the search are then grouped and presented with their abstracts.

Doesn't answer everything:

- No critical evaluation of study quality
- No analysis or synthesis of the studies
- No recommendations

Publisher:

Norwegian Knowledge Centre for the Health Services

Updated:

Last search for studies:
July 2015

Innhold

Forord

Seksjon for velferdstjenester, Nasjonalt kunnskapssenter for helsetjenesten fikk i oppdrag fra NAV og Helsedirektoratet å oppsummere tilgjengelig forskning om effekter på bruk av helsetjenester av det å være i arbeid, eventuelt komme i arbeid på nytt, sammenliknet med det å ikke være i arbeid. Oppdraget bestod i å gjøre et systematisk litteratursøk med sortering. Dette kan eventuelt være grunnlag for en senere utarbeidelse av en full systematisk oversikt.

Dette systematiske litteratursøket med sortering kan ses i sammenheng med et tilsvarende systematisk litteratursøk med sortering, på helseeffekter av arbeid, som Kunnskapssenteret ferdigstilte i august 2015 (1). Det var en oppdatering av en systematisk oversikt av van der Noordt og kolleger på temaet helseeffekter av arbeid (2). Vi har også tidligere presentert van der Noordt og kollegers systematisk oversikt i en egen omtale (3).

Prosjektgruppen har bestått av:

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Takk til Anne Malerbakken og Jose Francisco Meneses for lesing av abstrakt.

Gro Jamtvedt	Rigmor Berg	Heid Nøkleby
Avdelingsdirektør	*Seksjonsleder*	*Prosjektleder*

Innledning

Problemstilling

I dette prosjektet søkte vi etter litteratur som kunne belyse effekter på bruk av helsetjenester av det å være i arbeid, eventuelt ha kommet i arbeid på nytt, sammenliknet med det å ikke være i arbeid. Gir (overgang til) lønnet arbeid blant personer som har vært uten jobb endring i bruk av helsetjenester?

Bruk av helsetjenester omfatter både fysisk og psykisk helse og alle typer tjenester: foreskrivning/bruk av medikamenter; poliklinisk behandling (inkludert psykologisk behandling, fysioterapi, kiropraktor, ruspoliklinikk); besøk hos fastlege; innleggelse i spesialisthelsetjenesten (somatikk, psykisk helsevern, rusmiddelbehandling).

Bakgrunn

Oppdraget ble gitt av NAV og Helsedirektoratet. Målet var å utvide et tidligere publisert systematisk litteratursøk med sortering (1) med nye utfallsmål. Det forrige systematiske litteratursøket med sortering var en oppdatering av en systematisk oversikt gitt ut i 2014 av van der Noordt og kolleger (2). Oversikten av van der Noordt et al har Kunnskapssenteret tidligere publisert en egen omtale av (3).

Med utgangspunkt i problemstillingen skulle relevante studier identifiseres og sorteres. Vi søkte i elektroniske kilder, men ikke etter grå litteratur eller liknende. Søket var begrenset til litteratur som var publisert i aktuelle databaser frem til juli 2015.

Styrker og svakheter ved litteratursøk med sortering

Ved litteratursøk med sortering gjennomfører vi systematiske litteratursøk for en gitt problemstilling. Resultatene fra søket blir i sin helhet overlevert oppdragsgiver, eller vi kan gjennomgå søkeresultatet før overleveringen og sortere ut ikke-relevante artikler. Dette gjøres basert på tittel og eventuelt sammendrag. Artiklene innhentes ikke i fulltekst. Det gjør at vi kan ha inkludert titler som ville vist seg ikke å være relevante ved gjennomlesning av fulltekst. Vi benytter kun databaser for identifisering av litteratur og kan derfor ha gått glipp av potensielt relevante studier. Andre måter å identifisere studier på, som søk i referanselister, kontakt med eksperter på fagfeltet

og upublisert litteratur, er ikke utført i dette oppdraget. Vi gjennomfører ingen kvalitetsvurdering av artiklene.

Ved en full forskningsoppsummering ville vi ha innhentet artiklene i fulltekst for endelig vurdering opp mot inklusjonskritene. Inkluderte studier ville så blitt kvalitetsvurdert i henhold til våre sjekklister og resultater sammenstilt og diskutert.

Metode

Litteratursøk

Søkestrategien ble utarbeidet av spesialbibliotekar Lien Nguyen med støtte fra Karianne Thune Hammerstrøm. Vi søkte systematisk etter litteratur i følgende databaser:

- EMBASE
- MEDLINE
- PsycINFO
- Web of Science Core Collection; Indexes: SCI-EXPANDED, SSCI.

Den fullstendige søkestrategien er gjengitt i Vedlegg 1. Søket bestod av emneord og tekstord som omfattet arbeid og bruk av helsetjenester, og ble avgrenset med et filter for studiedesign.

Søket ble dublettsjekket med søket for søsternotatet (om effekt av arbeid på fysisk og psykisk helse, referanse 1). Det søket ble også lest for å identifisere referanser til dette notatet om bruk av helsetjenester. Vi ble stående igjen med et sett på 7471 referanser. Søket ble avsluttet i juli 2015.

Inklusjons- og eksklusjonskriterier

Populasjon:	Voksne/personer i yrkesaktiv alder
Tiltak:	Vanlig lønnet arbeid, heltid eller deltid (ikke arbeidsmarkedstiltak)
Sammenlikning:	Å ikke være i arbeid
Utfall:	Bruk av helsetjenester
Studiedesign	Observasjonsstudier (kohortstudier, longitudinelle studier) med oppfølging, systematiske oversikter
Språk:	Ingen begrensning

Vi inkluderte studier med utvalg hentet fra både den generelle befolkningen og fra ulike pasientgrupper. Vi ekskluderte studier som ikke var longitudinelle (hadde flere måletidspunkter), som ikke vurderte effekt av arbeid versus ikke-arbeid, samt studier som ikke målte bruk av helsetjenester direkte.

Artikkelutvelging

To forskere gikk gjennom alle titler og sammendrag for å vurdere relevans i henhold til inklusjonskriteriene. Vurderingene gjorde de uavhengig av hverandre og sammenlignet i etterkant. Der det var uenighet om vurderingene, ble inklusjon eller eksklusjon avgjort ved konsensus, eventuelt konsultasjon med en tredjeperson.

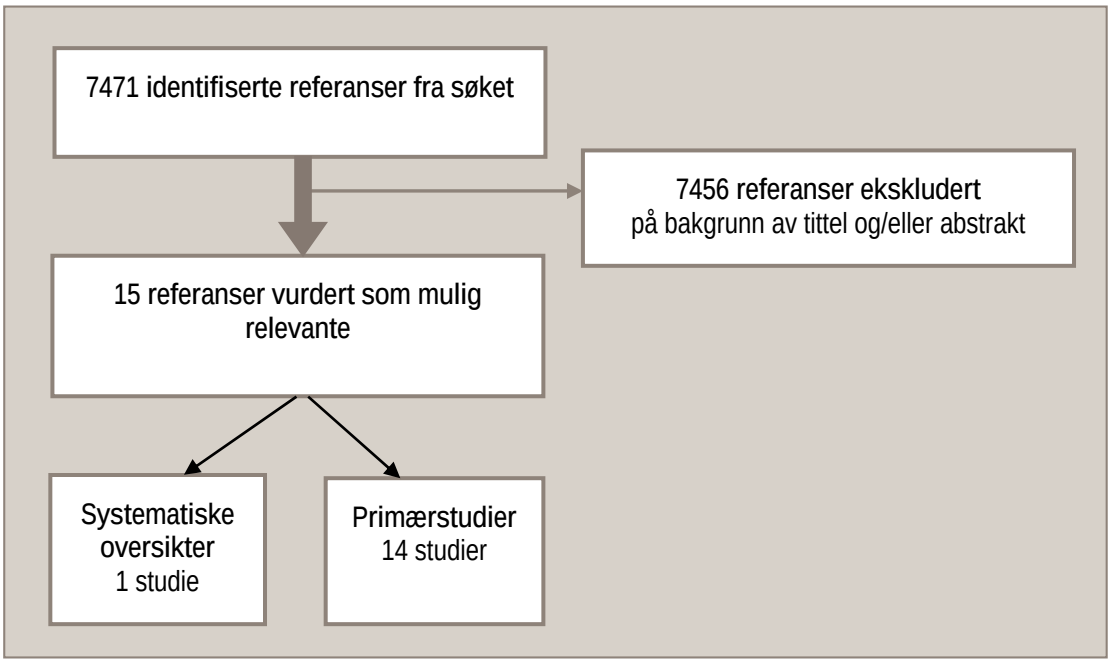
Utvelging av litteratur ble kun gjort basert på tittel og sammendrag. Vi bestilte ikke fulltekst av artiklene.

Resultat

Resultat av søk

Søket resulterte i 7471 referanser etter dublettkontroll (figur 1). Vi vurderte 15 av de identifiserte referansene til å være mulig relevante i henhold til inklusjonskriteriene.

Hovedårsakene til eksklusjon var utfallsmål (ikke bruk av helsetjenester); studiedesign (ikke longitudinelt design); og «intervensjon», dvs. at arbeid ikke var sammenlignet med ikke-arbeid, eller at arbeid ikke var intervensjon men utfallsmål. En del studier hadde relevante betingelser men ble ekskludert på grunn av ikke gjennomført longitudinelt design, dvs. at særlig arbeid ikke var målt på to tidspunkt. Andre studier oppfylte kravene til forskningsdesign, men utfallsmålet – bruk av helsetjenester – var knyttet til et barn (ofte vaksine eller helsestasjonkontroll) mens arbeid/ikke-arbeid var knyttet til mor. Disse studiene ble ekskludert. Derimot åpnet vi for å inkludere studier der utfallsmålet var bruk av helsetjenester (f.eks. legebesøk, oppfølging hos jordmor) der mor var gravid. Ingen slike studier ble imidlertid identifisert.



Figur 1. Flytskjema over identifisert litteratur

Resultat av sorteringen

Vi sorterte de mulig relevante studiene i fire kategorier, først ut fra studietype og populasjon, deretter ut fra utfallsmål (tabell 1).

I tabellene 2-4 presenterer vi studiene fordelt i kategoriene og alfabetisk etter førsteforfatter. Vi oppgir forfattere, tittel på publikasjonen, publikasjonssted og sammendrag av artikkelen slik det fremkommer i de elektroniske databasene. I tillegg har vi kort oversatt forfatternes konklusjoner til norsk.

Tabell 1: *Antall inkluderte studier sortert etter type studie og populasjon*

Kategori		Antall referanser: 15
Systematiske oversikter		
Pasientgrupper	1	Tabell 2
Primærstudier		
Generell befolkning	4	Tabell 3
Pasientgrupper		
- Psykisk helsehjelp	7	Tabell 4a
- Somatisk helsehjelp	3	Tabell 4b

Identifiserte referanser

I arbeidet med å identifisere studier leste vi kun titler og sammendrag og vurderte ikke studiene i fulltekst. Det var derfor av og til vanskelig å si sikkert om studiedesignet faktisk var longitudinelt, med måling av de samme personene på minst to tidspunkt, samt måling av både arbeid og bruk av helsetjenester på (minst) to tidspunkt. Etter diskusjon har vi endt opp med den inkluderte listen. For disse studiene vurderte vi det som høyst sannsynlig at inklusjonskriteriene var tilfredsstilt.

For noen av studiene var det var ikke mulig å oppnå en klar forståelse for hvorvidt de møtte inklusjonskriteriene. Tilgjengelig informasjon i tittel og abstrakt var for begrenset eller uklar. I de tilfellene der vi etter diskusjon fremdeles var i tvil om hvorvidt studien oppfylte alle inklusjonskriteriene, valgte vi å presentere dem i et vedlegg (vedlegg 2). Totalt sju referanser er listet i vedlegget.

Vi nevner at to av de inkluderte studiene også var inkludert i søsternotatet (*Helseeffekter av arbeid*, (1)). Dette gjelder Luciano et al (2014) og Johansson et al (2012). Abstraktene som gjengis i tabellene nedenfor vil derfor være de samme, men resultatene vi tar med i den norske oversettelsen vil være noe ulike.

Systematiske oversikter

Vi fant én mulig systematisk oversikt som oppsummerer studier av arbeid og bruk av helsetjenester. Oversikten er «mulig» systematisk fordi vi ikke vet om den faktisk tilfredsstiller kriteriene for systematiske oversikter, slik det for eksempel er formulert i Kunnskapssenterets håndbok, *Slik oppsummerer vi forskning* (4).

Primærstudier

Vi fant 14 primærstudier som møtte inklusjonskriteriene: fire studier som har utvalg fra den generelle befolkningen og 10 studier som har utvalg fra pasientgrupper. Blant de 10 primærstudiene med pasientutvalg var det seks som hadde bruk av psykiske helsetjenester som utfallsmål. Disse studiene målte arbeid/ikke-arbeid sett i forhold til behov for ny behandling. Tre av de 10 primærstudiene hadde bruk av somatiske helsetjenester som utfallsmål. Disse målte arbeid/ikke-arbeid sett i forhold til oppfølging av anbefalt behandling.

Mulige funn

I dette systematiske litteratursøket med sortering har vi ikke lest artiklene i fulltekst, og vi har dermed ikke vurdert studienes metodiske kvalitet eller sammenstilt resultatene. Mulige funn er derfor kun basert på lesing av sammendragene. Med dette forbehold kan vi se noen mønstre. Personer som kommer i arbeid etter arbeidsløshet kan se ut til å ha lavere bruk av helsetjenester sammenliknet med de som ikke kommer i arbeid. Arbeid blant personer med psykiske lidelser kan se ut til å gi mindre behov for ny psykisk helsehjelp. Arbeid blant personer med anbefalt somatisk helsehjelp kan se ut til å gi økt bruk av slik helsehjelp. Vi understreker at vi ikke kan dra sikre konklusjoner angående studienes resultater siden vi kun har lest sammendragene til studiene.

Ved en full systematisk oversikt vil vi lese mulig relevante artikler i fulltekst og lettere kunne vurdere om de besvarer vår problemstilling. Vi vil vi få mer informasjon om både studienes kvalitet og resultater. Dette kan gi bedre grunnlag for å vurdere effektene av arbeid versus ikke-arbeid på bruk av ulike typer helsetjenester for ulike populasjoner.

Liste over inkluderte studier

Tabellene fra neste side og utover (tabell 2-4) lister de inkluderte studiene med referanser, sammendrag og forfatternes konklusjoner oversatt til norsk. Vi har i den norske oversettelsen bare tatt med resultater som omfatter bruk av helsetjenester, ikke andre utfallsmål.

Tabell 2: Mulige systematiske forskningsoversikter (n=1)

Referanse	Sammendrag	Forfatternes konklusjon
Luciano A, Bond GR, Drake RE. (2014) Does employment alter the course and outcome of schizophrenia and other severe mental illnesses? A systematic review of longitudinal research. Schizophrenia Research 159(2-3):312-321.	This review synthesized prospective evidence to assess whether achieving employment alters the course of schizophrenia-spectrum disorder. Method: Researchers identified relevant analyses for review via PubMed, expert referral, and reference review and systematically applied two levels of screening to 1484 citations using seven a priori criteria. Results: A total of 12 analyses representing eight cohorts, or 6844 participants, compared illness course over time by employment status in majority schizophrenia-spectrum samples. Employment was consistently associated with reductions in outpatient psychiatric treatment (2 of 2 studies) as well as improved self-esteem (2 of 2 studies). Employment was inconsistently associated with positive outcomes in several other areas, including symptom severity, psychiatric hospitalization, life satisfaction, and global wellbeing. Employment was consistently unrelated to worsening outcomes. Discussion: Achieving employment does not cause harm among people with schizophrenia-spectrum disorder and other severe mental illnesses. Further detailed mechanistic analyses of adequately powered long-term follow-up studies using granular descriptions of employment are needed to clarify the nature of associations between employment and hypothesized benefit.	12 studier (8 kohorter) var inkludert i forskningsoversikten. Studiepopulasjonen var personer med schizofrenilidelser. 2 av 2 studier viste at arbeid gav reduksjon i bruk av poliklinisk psykiatrisk behandling. Andre studier viste også nedgang i antall innleggelser på psykiatrisk sykehus. Ingen studier viste negative effekter av arbeid på helse/bruk av helsetjenester.

Tabell 3: Primærstudier der utvalg er hentet fra den generelle befolkningen (n=4)

Referanse	Sammendrag	Forfatternes konklusjon
Beale N, Nethercott S. (1987) [The health of industrial employees four years after compulsory redundancy]. Journal of the Royal College of General Practitioners	A controlled, longitudinal study of the health of workers made redundant when a meat products factory closed has been performed using morbidity data extracted from the records of a group general practice. Increases in consultation rates and the number of visits to hospital outpatient departments in the group made redundant are contrasted with opposite trends in a control group who remained securely employed. As in earlier findings, the	Studien følger et utvalg industriarbeidere over en periode etter nedleggelse av kjøttfabrikken de jobbet ved. De som fikk nytt arbeid i løpet av

Referanse	Sammendrag	Forfatternes konklusjon
37(302):390-394.	increases in morbidity in the study group began when they learned that their jobs were in jeopardy. The subsequent employment history of those made redundant was obtained by questionnaire. In the four years after redundancy, 50 of the 76 men in-the study group found new full-time jobs. The other 26 men remained out of work for most of this time or were made redundant once again. This 'jobless' group consulted their general practitioners 57% more often about 13% more illnesses, were referred to hospital outpatient departments 63% more often and visited hospital 208% more frequently than when enjoying secure employment. During an intervening two-year period of job insecurity, there were increases of 45%, 9%, 25% and 28% respectively, for this jobless group. The implications of these findings for primary care, for the National Health Service and for future research are discussed in the present context of high levels of unemployment.	disse fire årene, hadde færre lege- og sykehusbesøk sammenlignet med de som fortsatt var uten arbeid.
Johansson B, Helgesson M, Lundberg I, Nordquist T, Leijon O, Lindberg P, et al. (2012) Work and health among immigrants and native Swedes 1990-2008: a register-based study on hospitalization for common potentially work-related disorders, disability pension and mortality. Bmc Public Health 12(10).	There are many immigrants in the Swedish workforce, but knowledge of their general and work-related health is limited. The aim of this register-based study was to explore whether documented migrant residents in Sweden have a different health status regarding receipt of a disability pension, mortality and hospitalization for lung, heart, psychiatric, and musculoskeletal disorders compared with the native population, and if there were variations in relation to sex, geographical origin, position on the labor market, and time since first immigration. Methods: Thhugois study included migrants to Sweden since 1960 who were 28-47 years old in 1990, and included 243 860 individuals. The comparison group comprised a random sample of 859 653 native Swedes. These cohorts were followed from 1991 to 2008 in national registers. The immigrants were divided into four groups based on geographic origin. Hazard ratios for men and women from different geographic origins and with different employment status were analyzed separately for the six outcomes, with adjustment for age, education level, and income. The influence of length of residence in Sweden was analyzed separately. Results: Nordic immigrants had increased risks for all investigated outcomes while most other groups had equal or lower risks for those outcomes than the Swedes. The lowest HRs were found in the EU 15+ group (from western Europe, North America, Australia and New Zealand). All groups, except Nordic immigrants, had lower risk of mortality, but all had higher risk of disability pension receipt compared with native Swedes. Unemployed non-Nordic men displayed equal or lower HRs for most outcomes, except disability pension receipt, compared with unemployed Swedish men. A longer time since first immigration improved the health status of men, while women showed opposite results. Conclusions: Employment status and length of residence are important factors for health. The contradictory results of low mortality and high disability pension risks need more attention. There is great potential to increase the knowledge in this field in Sweden, because of the high quality registers.	Studien sammenligner innvandrere og etniske svensker når det gjelder arbeidstilknytningens innvirkning på ulike helseutfall, inkludert sykehusinnleggelser for lunge-, hjerte-, muskelskjelett- eller psykiatriske lidelser. Resultatene viser sammenhenger mellom arbeidstilknytning (og oppholdstid) og sykehusinnleggelser, men med ulike utslag for innvandrere og etniske svensker.

Referanse	Sammendrag	Forfatternes konklusjon
Studnicka M, Studnicka-Benke A, Wogerbauer G, Rastetter D, Wenda R, Gathmann P, et al. (1991) Psychological health, self-reported physical health and health service use. Risk differential observed after one year of unemployment. Social Psychiatry & Psychiatric Epidemiology 26(2):86-91.	One year after the closure of a furniture factory the health consequences of long-term unemployment were studied among the 215 former employees and an interviewer-administered questionnaire was used to measure psychological health, self-perceived physical health and health service use. Those remaining unemployed 12 months after the closure were found to be 8 times more likely to report poor psychological health than were the re-employed (Odds ratio (OR): 8.5; 95% CI: 4.2-17.0). Self-reported physical ill-health was generally thought be respondents to be due to former work (56 percent of all disorders were related by subjects to former work history) and was also found to be associated with current employment status (OR 5.6; 95% CI: 2.7-11.5). Health services were over-utilized by the unemployed (OR 2.2; 95% CI: 1.2-4.1) and this differential was demonstrated to be even greater for the older and those reporting more diseases. Given the increasing proportion of long term unemployed in many Western countries this health service over-utilization will impose a substantial burden on public health expenditures unless other means of psychological and social support are provided.	Studien fulgte en gruppe arbeidere etter nedleggelsen av en møbelfabrikk. De som i løpet av det neste året fikk ny jobb, brukte færre helsetjenester enn de som forble arbeidsledige. For de eldste og sykeste var effekten av arbeid enda større.
Virtanen P. (1993) Unemployment, re-employment and the use of primary health care services. Scandinavian Journal of Primary Health Care 11(4):228-233.	Objective: To examine the association between re-employment and the use of primary health care services. Design: A cohort study of employed teenagers and a 'natural experiment' among adult long-term unemployed with an intervention group of re-employed, a control group of not re-employed, and a matched control group of permanently employed. Setting: An industrial town (pop. 25,000) in southwestern Finland. Participants: 84 teenage and 143 adult long-term unemployed and 82 permanently employed individuals. Main outcome measure: Frequency of primary health care visits. Results: Primary health care visits increased during re-employment among both teenage and adult re-employed (n = 82), but not in a control group of 61 long-term unemployed who were not employed under the re-employment scheme. A comparison with persons in regular wage employment indicated that visits increased from a low to a normal level. Conclusion: To explain the results, reference is made to the need for sickness absence certificates and to epidemiological factors. The findings also raise serious questions with regard to the ability of the health care system to reach, let alone help, unemployed citizens.	Studien sammenlignet unge og voksne, henholdsvis uten arbeid, i stabilt arbeid og i arbeid på nytt etter arbeidsledighet. Resultatene viste at bruk av primærhelsetjenester økte blant både unge og voksne som fikk arbeid på nytt etter ledighet, sammenlignet med de langtidsledige. Bruken gikk fra et lavt til et normalt nivå.

Tabell 4a: Primærstudier der utvalg er hentet fra pasientgrupper – psykisk helsehjelp (behov for ny behandling) (n=7)

Referanse	Sammendrag	Forfatternes konklusjon
Aldama E, Arino J, Ballesteros J, Gutierrez M. (1994) [Factors associated with utilization of hospital emergency services by alcoholic patients in a follow-up study of 18 months]. Medicina Clinica 102(18):694-698.	This paper assesses the use of hospital emergency services by alcoholics in clinical treatment for a period of 18 months and looks for possible sociodemographic and clinical explanatory variables associated with use of those services. Methods: A prospective study of a cohort of male alcoholics (n = 137) which began medical treatment because their alcoholism in outpatient or inpatient facilities. Information was assembled by means of a structured interview on sociodemographic and clinical variables, including the Michigan Alcoholism Screening Test (MAST) and the General Health Questionnaire (GHQ-60). Results: Sixty-five percent of alcoholics (n = 88) attended the emergency services at least once during the 18 months of follow-up, and 25% (n = 34) did use them more than three times. The politomous logistic regression models point to the age (OR = 0.95; 95% CI = 0.92-0.98); MAST score (OR = 1.1; 95% CI = 1.0-1.2); and employment status (unemployed vs. employed, OR = 2.1; 95% CI = 1.0-4.4) as the main predictors for heavy attendance of emergency service. Conclusions: The relevance in this study of age, employment status, and alcohol-related problems experienced (MAST), as well as taking into account that 36% of attended emergencies were because drunkenness or demanding disintoxication treatment, point to the non-sanitary problems which emergency services might be looking after, at least for some alcoholics whom do not seem to adhere to regular treatment programs.	Studien fulgte en gruppe menn fra oppstart i poliklinisk- eller døgnbehandling for alkohollidelser og 18 mnd etterpå. Resultatene viste at de mennene som var i arbeid hadde lavere bruk av akutthjelp på sykehus.
Bush PW, Drake RE, Xie H, McHugo GJ, Haslett WR. (2009) The long-term impact of employment on mental health service use and costs for persons with severe mental illness. Psychiatric Services 60(8):1024-1031.	Stable employment promotes recovery for persons with severe mental illness by enhancing income and quality of life, but its impact on mental health costs has been unclear. This study examined service cost over ten years among participants in a co-occurring disorders study. Methods: Latent-class growth analysis of competitive employment identified trajectory groups. The authors calculated annual costs of outpatient services and institutional stays for 187 participants and examined group differences in ten-year utilization and cost. Results: A steady-work group (N=51) included individuals whose work hours increased rapidly and then stabilized to average 5,060 hours per person over ten years. A late-work group (N=57) and a no-work group (N=79) did not differ significantly in utilization or cost outcomes, so they were combined into a minimum-work group (N=136). More education, a bipolar disorder diagnosis (versus schizophrenia or schizoaffective disorder), work in the past year, and lower scores on the expanded Brief Psychiatric Rating Scale predicted membership in the steady-work group. These variables were controlled for in the outcomes analysis. Use of outpatient services for the steady-work group declined at a significantly greater rate than it did for the minimum-work group, while institutional (hospital, jail, or prison) stays declined for both groups without a significant difference. The average cost per	Studien fulgte et utvalg med alvorlige psykiske lidelser i 10 år. Resultatene viste at de med stabilt arbeid over tid hadde en langt raskere nedgang i bruk av poliklinisk behandling. Nedgangen i antall innleggelser var tilnærmet lik for de med og de uten stabilt arbeid.

Referanse	Sammendrag	Forfatternes konklusjon
	participant for outpatient services and institutional stays for the minimum-work group exceeded that of the steady-work group by $166,350 over ten years. Conclusions: Highly significant reductions in service use were associated with steady employment. Given supported employment's well-established contributions to recovery, evidence of long-term reductions in the cost of mental health services should lead policy makers and insurers to promote wider implementation.	
Drake RE, Xie H, Bond GR, McHugo GJ, Caton CLM. (2013) Early psychosis and employment. Schizophrenia Research 146(1-3):111-117.	Employment may be an important factor in helping patients with early psychosis to recover rapidly and to avoid involvement in disability and welfare programs. Methods: This study followed 351 patients with early psychoses, either primary psychoses or substance-induced psychoses, for two years to examine their patterns of competitive employment in relation to service use, psychosocial outcomes, and disability and welfare payments. Results: Workers differed from non-workers at baseline and over two years. At baseline, they had better educational and employment histories, were more likely to have substance-induced psychoses rather than primary psychoses, were less likely to have drug dependence, had fewer negative symptoms, and had better psychosocial adjustment. Over two years, baseline psychosocial differences persisted, and the workers used fewer medications, mental health services, and disability or welfare payments. Conclusions: Employment predicts less service use and fewer disability claims among early psychosis patients. Thus, greater attention to supported employment early in the course of illness may reduce federal insurance costs and disability payments.	Studien fulgte en gruppe pasienter med nylig utviklet psykose i to år. Funnene viste at de som var i arbeid hadde mindre bruk av medisiner og av psykisk helsehjelp, sammenliknet med de som ikke var i arbeid.
Fasoli DR, Glickman ME, Eisen SV. (2010) Predisposing characteristics, enabling resources and need as predictors of utilization and clinical outcomes for veterans receiving mental health services. Medical Care 48(4):288-295.	Though demand for mental health services (MHS) among US veterans is increasing, MHS utilization per veteran is decreasing. With health and social service needs competing for limited resources, it is important to understand the association between patient factors, MHS utilization, and clinical outcomes. Objectives: We use a framework based on Andersen's behavioral model of health service utilization to examine predisposing characteristics, enabling resources, and clinical need as predictors of MHS utilization and clinical outcomes. Methods: This was a prospective observational study of veterans receiving inpatient or outpatient MHS through Veterans Administration programs. Clinician ratings (Global Assessment of Functioning [GAF]) and self-report assessments (Behavior and Symptom Identification Scale-24) were completed for 421 veterans at enrollment and 3 months later. Linear and logistic regression analyses were conducted to examine: (1) predisposing characteristics, enabling resources, and need as predictors of MHS inpatient, residential, and outpatient utilization and (2) the association between individual characteristics, utilization, and clinical outcomes. Results: Being older, female, having greater clinical need, lack of enabling resources (employment, stable housing, and social support), and easy access to treatment significantly predicted greater MHS utilization at 3-month follow-up. Less clinical	Studien fulgte et utvalg amerikanske krigsveteraner som mottok psykisk helsehjelp, poliklinisk eller ved innleggelse. Funnene viste at de som var i arbeid rapporterte mindre bruk av begge former for psykisk helsehjelp, sammenliknet med de som var uten arbeid.

Referanse	Sammendrag	Forfatternes konklusjon
	need and no inpatient psychiatric hospitalization predicted better GAF and Behavior and Symptom Identification Scale-24 scores. White race and residential treatment also predicted better GAF scores. Neither enabling resources, nor number of outpatient mental health visits predicted clinical outcomes. Conclusions: This application of Andersen's behavioral model of health service utilization confirmed associations between some predisposing characteristics, need, and enabling resources on MHS utilization but only predisposing characteristics, need, and utilization were associated with clinical outcomes.	
Frick U, Frick H, Langguth B, Landgrebe M, Hubner-Liebermann B, Hajak G. (2013) The Revolving Door Phenomenon Revisited: Time to Readmission in 17'415 Patients with 37'697 Hospitalisations at a German Psychiatric Hospital. Plos One 8(10):9.	Despite the recurring nature of the disease process in many psychiatric patients, individual careers and time to readmission rarely have been analysed by statistical models that incorporate sequence and velocity of recurrent hospitalisations. This study aims at comparing four statistical models specifically designed for recurrent event history analysis and evaluating the potential impact of predictor variables from different sources (patient, treatment process, social environment). Method: The so called Andersen-Gil counting process model, two variants of the conditional models of Prentice, Williams, and Peterson (gap time model, conditional probability model), and the so called frailty model were applied to a dataset of 17'415 patients observed during a 12 years period starting from 1996 and leading to 37'697 psychiatric hospitalisations. Potential prognostic factors stem from a standardized patient documentation form. Results: Estimated regression coefficients over different models were highly similar, but the frailty model best represented the sequentiality of individual treatment careers and differing velocities of disease progression. It also avoided otherwise likely misinterpretations of the impact of gender, partnership, historical time and length of stay. A widespread notion of psychiatric diseases as inevitably chronic and worsening could be rejected. Time in community was found to increase over historical time for all patients. Most important protective factors beyond diagnosis were employment, partnership, and sheltered living situation. Risky conditions were urban living and a concurrent substance use disorder. Conclusion: Prognostic factors for course of diseases should be determined only by statistical models capable of adequately incorporating the recurrent nature of psychiatric illnesses.	Studien undersøkte et stort antall psykiatriske pasienter med henblikk på reinnleggelser over en 12-årsperiode. Resultatene viste at én av de mest beskyttende faktorer mot ny innleggelse var å være i arbeid.
Nieminen H. (1986) Life circumstances and the use of mental health services. A five year follow-up. Social Psychiatry 21(3):123-128.	The study is concerned with the connection between life circumstances, as examined from the viewpoint of the social support theory, and the use of mental health services. The material comprises 200 successive psychiatric patients from a mental health centre and a central mental hospital in Finland. The follow-up period was five years. The results of the analysis of the use of mental health services according to marital status, employment status and changes in social relationships were in keeping with social support theory. In the out-patient material economic security and employment at the out-set of the study were the most important variables in predicting	Studien fulgte 200 pasienter i fem år etter psykiatrisk behandling. For utvalget som hadde vært i poliklinisk behandling, var arbeid (ved oppstart av studien) blant de

Referanse	Sammendrag	Forfatternes konklusjon
	whether or not the patient used mental health services for more than one year. The strongest correlation in the in-patient material was between age and rehospitalization.	viktigste prediktorene for bruk av psykisk helsehjelp utover ett år. For utvalget som hadde vært innlagt, var alder viktigste prediktor.
Tansella M, Micciolo R, Biggeri A, Bisoffi G, Balestrieri M. (1995) Episodes of care for first-ever psychiatric patients. A long-term case-register evaluation in a mainly urban area. British Journal of Psychiatry 167(2):220-227.	Psychiatric case registers (PCRs) are particularly useful for studying patterns of care over time. Methods of 'survival analysis' have rarely been used for assessing such data. Method: A longitudinal study was conducted over 10 years (1 January 1982 to 31 December 1991) on 1423 first-ever psychiatric patients, using the PCR of South Verona, Italy. The product-limit method, the log-rank test, the Cox regression model and the Poisson regression analysis were used to analyse episodes of care and relapses. Results: The duration of the episodes of care increased consistently from the first to the fifth episode. The probability of opening a new episode of care after the first one increased consistently from the second to the sixth episode. The only variable significantly associated with the length of the first episode of care was diagnosis (highest probability of having longer episodes for schizophrenic patients), while the length of the breaks following the first episode of care was associated with diagnosis, sex and occupational status (highest probability of opening a second episode of care for schizophrenic subjects and those with alcohol and personality disorders, for males, and for unemployed patients). The probability of opening a new episode of care decreased with time since last contact and increased with number of previous contacts. Conclusions: The community psychiatric service in South Verona is fulfilling its original aim, that is, to give priority to the continuity of care for patients with chronic and severe mental illnesses. Survival analyses proved to be useful methods for assessing episodes of care.	Studien fulgte et utvalg psykiatriske pasienter i 10 år etter første innleggelse. Resultatene viste at de med arbeid hadde lavere risiko for ny innleggelse, sammenliknet med de uten arbeid. Det å være i arbeid versus ikke-arbeid hadde ikke noe å si for lengden på første innleggelse.

Tabell 4b: Primærstudier der utvalg er hentet fra pasientgrupper – somatisk helsehjelp (oppfølging av anbefalt behandling) (n=3)

Referanse	Sammendrag	Forfatternes konklusjon
Aktan-Collan K, Mecklin JP, Jarvinen H, Nystrom-Lahti M, Peltomaki P, Soderling I, et al. (2000) Predictive genetic testing for hereditary non-polyposis colorectal cancer: uptake and long-term satisfaction. International Journal of Cancer 89(1):44-50.	The aim of this prospective study was to assess the uptake of predictive genetic testing for hereditary non-polyposis colorectal cancer (HNPCC) and its associations with sociodemographic and other factors, and long-term satisfaction with taking the test. The test was offered to all high-risk members (n = 446) of 36 Finnish HNPCC families in which the mutation was known. The procedure comprised an educational counselling session, a period for reflection, and a test disclosure session. Data were collected by questionnaires sent before the educational counselling and 1 month and 1 year after the test disclosure. Of those eligible, 85% (n = 381) completed the first questionnaire study. Non-participation was more common among men living alone who had not participated in the clinical cancer surveillance programme. Of the 347 subjects who attended counselling, 334 (75% of all subjects) were actually tested. After logistic-regression analysis, the only significant factor predicting test acceptance proved to be employment status: those employed were more likely than others to accept the test (odds ratio = 2.25; 95% confidence intervals, 1.09 to 4.6 1). At follow-up, over 90% of the subjects were fully satisfied with the decision to take the test. In conclusion, acceptance of the test was considerably higher than in previously reported studies. We attribute this to our careful face-to-face individualized counselling, our health care system, and to attitudes of the Finnish population, which are generally favourable towards health care and disease prevention.	Studien undersøkte et utvalg som fikk tilbud om undervisning og genetisk testing. Alle i utvalget hadde familiemedlemmer med en genmutasjon som gir økt risiko for kreft. Funnene viste at de som var i arbeid i større grad takket ja til testingen, sammenliknet med de som ikke var i arbeid.
Evenson KR, Rosamond WD, Luepker RV. (1998) Predictors of outpatient cardiac rehabilitation utilization: The Minnesota heart survey registry. Journal of Cardiopulmonary Rehabilitation 18(3):192-198.	A significant proportion of eligible patients do not participate in cardiac rehabilitation. The purpose of this study was to document patterns of outpatient cardiac rehabilitation use and identify factors predicting its use. Methods. The Acute Myocardial Infarction Registry of the Minnesota Heart Survey enrolled 3,841 patients admitted on suspicion of acute myocardial infarction (MI) to the coronary care units at six Minneapolis-St. Paul metropolitan hospitals. Participants were contacted 1 year after index hospitalization and asked if they participated in cardiac rehabilitation since discharge. Results. Among those discharged with a MI, 47% participated in outpatient cardiac rehabilitation or an exercise program at an exercise facility, home, or both during the 1-year follow-up period. Among those discharged with angina, 21% attended cardiac rehabilitation. Usage increased when cardiac revascularization procedures were performed during the index hospitalization. Women with an angina or MI diagnosis were significantly less likely to use cardiac rehabilitation than men. Older patients were also less likely to use rehabilitation, with gender difference persisting across age strata. As education increased, cardiac rehabilitation utilization increased. Those not employed were less likely to use cardiac rehabilitation services. The	Studien fulgte opp et utvalg pasienter innlagt for hjertesykdom, for å undersøke hvem som deltok i det videre rehabiliteringsprogrammet. Resultatene viste at de som hadde arbeid i større grad enn de uten arbeid deltok i rehabiliteringsprogrammet.

Referanse	Sammendrag	Forfatternes konklusjon
	strongest independent predictors of cardiac rehabilitation utilization were age and revascularization procedures (coronary artery bypass grafting or coronary angioplasty), simultaneously adjusting for demographic information, and cardiovascular disease risk factors. Conclusions. These data suggest that there is a disparity in cardiac rehabilitation utilization with lower rates among women, older individuals, those with less education, and the unemployed.	
Sharp L, Cotton S, Thornton A, Gray N, Cruickshank M, Whynes D, et al. Who defaults from colposcopy? A multi-centre, population-based, prospective cohort study of predictors of non-attendance for follow-up among women with low-grade abnormal cervical cytology. European Journal of Obstetrics & Gynecology and Reproductive Biology 2012;165(2):318-325.	The success of cervical screening relies on women with abnormal cervical cytology attending for follow-up by colposcopy and related procedures. Failure to attend for colposcopy, however, is a common problem in many countries. The objective of this study was to identify factors associated with non-attendance at an initial colposcopy examination among women with low-grade abnormal cervical cytology. Study design: A cohort study was conducted within one arm of a multi-centre, population-based randomised controlled trial nested within the UK NHS Cervical Screening Programmes. The trial recruited women aged 20-59 years with recent low-grade cervical cytology; women randomised to immediate referral for colposcopy were included in the current analysis (n = 2213). At trial recruitment, women completed a socio-demographic and lifestyle questionnaire; 1693 women in the colposcopy arm were also invited to complete a psychosocial questionnaire, including the Hospital Anxiety and Depression Scale. Women were sent up to two colposcopy appointments. A telephone number was provided to reschedule if necessary. Defaulters were defined as those who failed to attend after two appointments. Logistic regression methods were used to compute multivariate odds ratios (OR) to identify variables significantly associated with default. Results: 148 women defaulted (6.7%, 95%CI 5.7-7.8%). In multivariate analysis, risk of default was significantly raised in those not in paid employment (OR = 2.70, 95%CI 1.64-4.43) and current smokers (OR = 1.62, 95%CI 1.12-2.34). Default risk deceased with increasing age and level of post-school education/training and was lower in women with children (OR = 0.59, 95%CI 0.35-0.98). Among the subgroup invited to complete psychosocial questionnaires, women who were not worried about having cervical cancer were significantly more likely to default (multivariate OR = 1.56, 95%CI 1.04-2.35).. Anxiety and depression were not significantly associated with default. Conclusions: Women at highest risk of default from colposcopy are younger, not in paid employment, smoke, lack post-school education, have not had children and are not worried about having cervical cancer. Findings such as these could inform the development of tools to predict the likelihood that an individual woman will default from follow-up. Interventions to minimise default also deserve consideration, but a better understanding of reasons for default is needed to inform intervention development.	Studien fulgte opp en gruppe kvinner med mulig celleforandring i livmorhalsen. Kvinnene som møtte til kontrollundersøkelse (kolposkopi) var i større grad i betalt arbeid, sammenliknet med de som ikke møtte opp (etter to innkallinger).

Referanser

1) Nøkleby H, Berg R, Nguyen L, Blaasvær N, Kurtze N. Helseeffekter av arbeid. Notat 2015. Oslo: Nasjonalt kunnskapssenter for helsetjenesten.
2) van der Noordt M, IJzelenberg H, Droomers M, Proper KI. Health effects of employment: a systematic review of prospective studies. Occup Environ Med. 2014 Feb 71(10):730-736. doi:10.1136/oemed-2014-102143
3) Nøkleby H. Sammenheng mellom arbeid og helse: omtale av andres forskning [internett]. Oslo: Nasjonalt kunnskapssenter for helsetjenesten; [hentet 2015-07-12]. Tilgjengelig fra http://www.kunnskapssenteret.no/publikasjoner/Sammenheng+mellom+arbeid+og+god+helse
4) Nasjonalt kunnskapssenter for helsetjenesten. Slik oppsummerer vi forskning. Håndbok, 2013.

Vedlegg 1 - Søkestrategi

Database: Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily, Ovid MEDLINE(R) and Ovid OLDMEDLINE(R) <1946 to Present>

Dato: 02.07.2015

Treff: 1784

1 employment/ or "return to work"/ or work

2 (employment or employee* or re-employ* or reemploy* or "return to work" or "part-time" or rtw or "back to work" or (labo* adj1 participat*) or ((work* or occupational*) adj1 status*)).tw.

3 1 or 2

4 exp Health Services/sn, ut [Statistics & Numerical Data, Utilization]

5 Health services research/ or Delivery of health care/

6 (health adj1 (care or service*) adj1 (utili* or consum* or "use" or deliver*)).tw.

7 ((utili* or consum* or "use" or deliver*) adj2 health adj (care or service*)).tw.

8 or/4-7

9 3 and 8

10 Observational study/

11 exp Epidemiologic studies/

12 ((repeated adj measur*) or (time adj series) or cohort* or observation stud* or observational* or controlled or ((control* or compar*) adj (group* or area* or site*)) or (systematic* adj1 review*) or meta-anal* or metaanal* or "associated factor*" or nonexperimental or non-experimental).ti,ab.

13 or/10-12

14 9 and 13

15 (news or letter or editorial or comment).pt.

16 14 not 15

17 remove duplicates from 16

Database: Embase 1974 to 2015 July 01

Dato: 02.07.2015

Treff: 1250

1 Employment/ or Employment status/ or Parttime employment/ or Return to work/ or Work/
2 (employment or employee* or re-employ* or reemploy* or "return to work" or "part-time" or rtw or "back to work" or (labo* adj1 participat*) or ((work* or occupational*) adj1 status*)).tw.
3 1 or 2
4 Health care delivery/ or Health care utilization/ or Health service utilization/
5 (health adj1 (care or service*) adj1 (consum* or "use" or deliver*)).tw.
6 ((utili* or consum* or "use" or deliver*) adj2 health adj (care or service*)).tw.
7 or/4-6
8 3 and 7
9 Observational study/ or Cohort analysis/ or Longitudinal study/ or Comparative study/ or Controlled study/ or Panel study/ or Control group/ or Correlational study/ or Exploratory research/ or Parallel design/ or Pretest posttest control group design/ or Pretest posttest design/ or Quantitative study/
10 ((repeated adj measur*) or (time adj series) or cohort* or observation stud* or observational* or controlled or ((control* or compar*) adj (group* or area* or site*)) or (systematic* adj1 review*) or meta-anal* or metaanal* or "associated factor*" or nonexperimental or non-experimental or panel stud* or "panel data" or "comparative stud*" or "correlational stud*" or "paralell design").ti,ab.
11 ("Case control" or ((pretest* or pre-test*) and (posttest* or post-test*))).tw.
12 or/9-11
13 8 and 12
14 (news or letter or editorial or comment).pt.
15 13 not 14
16 remove duplicates from 15

Database: PsycINFO 1806 to June Week 4 2015

Dato: 02.07.2015

Treff: 184

1 employment status/ or occupational status/ or personell/ or reemployment/
2 (employment or employee* or re-employ* or reemploy* or "return to work" or "part-time" or rtw or "back to work" or (labo* adj1 participat*) or ((work* or occupational*) adj1 status*)).tw.
3 1 or 2
4 mental care services/ or health care delivery/ or health care utilization/ or mental health services/
5 ((health adj1 (care or service*) adj1 (consum* or "use" or deliver*)) or "health service* research").tw.
6 ((utili* or consum* or "use" or deliver*) adj2 health adj (care or service*)).tw.
7 or/4-6
8 3 and 7

9 Observation methods/ or Cohort analysis/ or Longitudinal studies/ or Meta analysis/ or Quantative methods/ or Experiment Controls/ or Pretesting/ or Post-testing/ or Time series/

10 ((repeated adj measur*) or (time adj series) or cohort* or observation stud* or observational* or controlled or ((control* or compar*) adj (group* or area* or site*)) or (systematic* adj1 review*) or meta-anal* or metaanal* or "associated factor*" or nonexperimental or non-experimental or panel stud* or "panel data" or "comparative stud*" or "correlational stud*" or "paralell design").ti,ab.

11 (Case control or ((pretest* or pre-test*) and (posttest* or post-test*))).tw.

12 or/9-11

13 8 and 12

14 (news or letter or editorial or comment).pt.

15 13 not 14

16 remove duplicates from 15

Database: Web of Science Core Collection: Science Citation Index Expanded (SCI-EXPANDED) --1975-present & Social Sciences Citation Index (SSCI) --1975-present

Dato: 06. 07. 2015

Treff: 894

1 TS=(Employment* or "return to work" or "rtw" or "back to work" or "part-time" or "re-employ*" or "reemploy*" or "occupational status*" or "work* status*" or (labo$r NEAR/0 participat*) or “employee*” or "workers health" or "worker*" or "work and health")

#2 TS=("health care service*" or "healthcare service*" or "health care utili*" or "healthcare utili*" or "health service* utili*" or "health service* research*" or "healthcare research*" or "health care research"* or "use of health service*" or "use of health care" or "use of healthcare" or "utili* of health service*" or "utili* of health care" or "utili* of healthcare" or "health service* use" or "health care use" or "healthcare use" or "health service")

3 TS=(("repeated" NEAR/0 "measur*") or ("time" NEAR/0 "series") or "cohort*" or "observation stud*" or "observational*" or "controlled" or (("control*" or "compar*") NEAR/0 ("group*" or "area*" or "site*")) or ("systematic" NEAR/1 "review*") or "meta-anal*" or "metaanal*" or "associated factor*" or "nonexperimenta"l or "non-experimental" or "panel stud*" or "panel data" or "comparative stud*" or "correlational stud*" or "paralell design" or "longitudinal" or "epidemiologic stud*" or "follow-up")

#4 #3 AND #2 AND #1

Vedlegg 2 - Usikre referanser

Følgende sju referanser kan *muligens* være aktuelle:

1. **Schmutte T, Dunn CL, Sledge WH. Predicting time to readmission in patients with recent histories of recurrent psychiatric hospitalization: a matched-control survival analysis. Journal of Nervous & Mental Disease 2010;198(12):860-863.**
   The most robust predictor of future psychiatric hospitalization is the number of previous admissions. About half of psychiatric inpatients with histories of repeated hospitalizations are readmitted within 12 months. This study sought to determine which patient characteristics predicted time-to-readmission within 12 months after controlling for the number of previous hospitalizations in 75 adults with recent histories of recurrent admissions and 75 matched controls. Results revealed multiple clinical and demographic between-group differences at index hospitalization. However, the only predictors of shorter time-to-readmission in multivariate Cox proportional hazards were unemployment (hazards ratio = 9.26) and residential living status (hazards ratio = 2.05) after controlling for prior hospitalizations (hazard ratio = 1.24). Unemployment and residential living status were not proxies of psychosis or moderated by illness severity or comorbid substance use. Results suggest that early psychiatric readmission may be more influenced by residential and employment status than by severe mental illness.

2. **Hermann S, Friedrich S, Haug U, Rohrmann S, Becker N, Kaaks R. Association between socioeconomic and demographic characteristics and utilization of colonoscopy in the EPIC-Heidelberg cohort. European Journal of Cancer Prevention 2015;24(2):81-88.**
   We aimed to describe the utilization of colonoscopy and its association with sociodemographic characteristics within the European Prospective Investigation into Cancer and Nutrition (EPIC)-Heidelberg cohort study. We included 15 014 study participants (43% men) of the EPIC-Heidelberg cohort recruited between 1994 and 1998. At baseline recruitment, as well as in the 3-yearly follow-up surveys, study participants completed questionnaires on lifestyle, socioeconomic background variables, health status, and use of medications and medical services, including colonoscopy examinations. The present analyses focused on participants who completed the question on colonoscopy examination in all follow-up rounds. Our results show that by the end of the fourth follow-up round, more than half of all participants of the EPIC-Heidelberg cohort had had a colonoscopy. Colonoscopy was associated with some socioeconomic and demographic characteristics: a positive association with vocational training level as well as overall socioeconomic status level [International Standard Classification of Education (ISCED) classification]. A negative association was found for household size and employment status. Colonoscopy usage increased steeply within the subgroup of participants older than 55 years of age and decreased again within the subgroup of participants older than 75 years of age. Organized colorectal

cancer screening should include a written invitation system, to overcome the problem of sociodemographic-related differential awareness of and attendance at colonoscopy examinations. Also, the high proportion of prescreened individuals should be taken into account to avoid unnecessary re-examinations.

3. **Lamkaddem M, Spreeuwenberg PM, Deville WL, Foets M, Groenewegen PP. Changes in health and primary health care use of Moroccan and Turkish migrants between 2001 and 2005: a longitudinal study. BMC Public Health 2008;8:40.**
   Social environment and health status are related, and changes affecting social relations may also affect the general health state of a group. During the past few years, several events have affected the relationships between Muslim immigrants and the non-immigrant population in many countries. This study investigates whether the health status of the Moroccan and Turkish immigrants in the Netherlands has changed in four years, whether changes in health status have had any influence on primary health care use, and which socio-demographic factors might explain this relationship. Methods: A cohort of 108 Turkish and 102 Moroccan respondents were interviewed in 2001 and in 2005. The questionnaire included the SF-36 and the GP contact frequency (in the past two months). Interviews were conducted in the language preferred by the respondents. Data were analysed using multivariate linear regression. Results: The mental health of the Moroccan group improved between 2001 and 2005. Physical health remained unchanged for both groups. The number of GP contacts decreased with half a contact/2 months among the Turkish group. Significant predictors of physical health change were: age, educational level. For mental health change, these were: ethnicity, age, civil status, work situation in 2001, change in work situation. For change in GP contacts: ethnicity, age and change in mental and physical health. Conclusion: Changes in health status concerned the mental health component. Changes in health status were paired with changes in health care utilization. Among the Turkish group, an unexpected decrease in GP contacts was noticed, whilst showing a generally unchanged health status. Further research taking perceived quality of care into account might help shedding some light on this outcome.

4. **Malla AK, Norman RM, Scholten D. Predictors of service use and social conditions in patients with psychotic disorders. Canadian Journal of Psychiatry - Revue Canadienne de Psychiatrie 2000;45(3):269-273.**
   Objective: To determine independent predictors of outcome on 3 separate dimensions--namely, relapse and service use, employment, and living conditions--in patients with psychotic disorders. Method: One hundred and thirty-four patients, most with a diagnosis of schizophrenia or schizoaffective disorder (94%), were treated and followed up in a comprehensive treatment program with inpatient and community treatment components. Complete data on several predictor and outcome variables were available on 93 patients. Relationships between predictor variables and each dimension of outcome were analyzed using Spearman correlation and multiple regression analysis. Results: Results showed that the use of inpatient resources (days in hospital) during the follow-up period was predicted by days in hospital prior to entry into the program, as was employment status. Although substance abuse was related to employment status, it did not have any predictive value. Better living conditions were predicted by being female and having a later age of onset. Conclusions: Use of inpatient resources and social dimensions of outcome in schizophrenia may be predicted by different patient- or illness-related variables. These relationships are likely to be modified by the nature and content of treatment received.

5. **Miles-Doan R, Brewster KL. The impact of type of employment on women's use of prenatal-care services and family planning in urban Cebu, the Philippines. Studies in Family Planning 1998;29(1):69-78.**
This study re-evaluates the relationship of urban women's employment to their health-service and contraceptive use, drawing on data from the Cebu Longitudinal Health and Nutrition Survey. Multivariate analyses reveal significant differences across types of work for the likelihood of both obtaining timely prenatal care and practicing contraception at one year postpartum. Wage workers in white-collar jobs are significantly more likely than those not employed for pay to have obtained prenatal care and are substantially more likely to have adopted a contraceptive method in the year following childbirth. Women who are self-employed also are significantly more likely than those not employed for pay to be using contraceptives. Blue-collar wage work and piecework employment have no relationship to either dependent variable. These findings suggest that work-related autonomy encourages women to exercise control in other areas of their lives.

6. **Schalock RL, Touchstone F, Nelson G, Weber L, Sheehan M, Stull C. A multivariate analysis of mental hospital recidivism. Journal of Mental Health Administration 1995;22(4):358-367.**
This study identifies health problems, instrumental activities of daily living, employment status, and number of previous admissions as significant factors of recidivism to a mental health residential facility. The study, conducted over a 5-year period, includes measures on 32 predictor variables collected either on admission, on discharge, or 12-15 months following discharge or on readmission. The study's results are interpreted in light of current changes in the mental health service delivery system including the interactive role of physical and mental illnesses, expanding access to community-based generic services, focusing on functional skills and their development or remediation, and the changing criteria for measuring mental health effectiveness.

7. **Sung JF, Alema-Mensah E, Blumenthal DS. Inner-city African American women who failed to receive cancer screening following a culturally-appropriate intervention: the role of health insurance. Cancer Detection & Prevention 2002;26(1):28-32.**
Culturally-appropriate health promotion programs are thought to be more effective among minority groups than those designed for the population at large. We investigated factors associated with failure to obtain cervical and breast cancer screening among inner-city African American women who received a culturally-appropriate educational intervention. Women who completed the intervention, but did not obtain a Pap smear, a clinical breast examination, and/or a mammogram at follow-up were compared with those who did obtain these tests. Women with private health insurance were more likely to be screened following the intervention than those covered by Medicaid or Medicare or those who were not insured ($P < 0.001$). Post-intervention screening was not associated with age, education, income, employment, or marital status. The effectiveness of a culturally-appropriate intervention is likely to be reduced if women's ability to respond is limited by inadequate insurance coverage.