







SUPPLEMENT ARTICLE

Pilot test of the NOURISHING policy index—Assessing governmental nutrition policies in five European countries

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Summary

The NOURISHING database is a repository of more than 1000 verified nutrition and diet-related governmental policy actions currently in effect globally. The database is a unique and rich data source on governmental policy actions with a potential for developing tools that capture the overall policy efforts in a country, identify policy gaps, and enable cross-national comparisons. Policy actions from a sample of five European countries have been benchmarked against aspirational standards using the NOURISHING benchmarking tool. This paper presents the results of the pilot testing from the benchmarking process for the construction of the NOURISHING policy index. The development of the index was guided by existing tools for developing composite indicators. The findings from the pilot test indicate that the NOURISHING policy index can identify both policy gaps and cross-national policy differences. These results demonstrate that the policy index merits testing on a larger sample to identify potential refinements.

KEYWORDS

government actions, NCD's, nutrition policy, obesity, public nutrition

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1 | BACKGROUND

Suboptimal diets are a key contributor to obesity and noncommunicable diseases (NCDs) among children and adults. The Global Burden of Disease project estimates that 8% of the burden of disease is attributed to dietary factors and suggests that improved population nutrition has the potential to prevent one in five premature deaths globally.^{1,2} International recommendations support efforts to implement comprehensive policies targeting the complex issues associated with population nutrition and related inequalities.^{3–8} Policies targeting young people are recommended particularly, as food habits^{9,10} and obesity¹¹ during childhood and adolescence are likely to track into adulthood and consequently may cause long-term effects on public health. However, an overview of the status of implemented nutrition policies at national level across Europe is not easily accessible.

Government nutrition *policy action* is defined as an individual action put in place by any level of government to promote healthy nutrition and diet, which includes laws and regulations, programmatic interventions, guidelines, and public information campaigns to achieve public nutrition objectives.¹ The term *policy action* is understood to be narrower than *policy*, which may include elements of ideas, decision making processes and principles.³ However, the range of implemented policy actions, as well as the quality of their design, remains under-researched and underutilized from a comparative perspective. This underlines the need for providing policymakers, advocacy groups, and researchers across Europe with tools to easily enable overviews of implemented national policies and at the same time facilitate international comparisons. Attention should be devoted to policy-relevant and international feasible metrics, which can be used to define, assess, and monitor nutrition policies and their associations with a populations' nutritional status.

Governments are encouraged to apply a systems thinking when implementing, monitoring, and evaluating policy actions.^{4,5} The systems thinking draws on the assumption that effective action to improve public health requires a comprehensive approach and should consist of a suite of policies within an overarching strategy.⁶ This contrasts with approaches focusing on single nutrition policies or interventions, which address individual behavior.^{7–9} While these are all necessary, they are considered insufficient to tackle the overall public health challenges related to obesity and NCDs and to achieve improvements in public nutrition when implemented on their own.

One way to assess the totality of implemented policy actions through a systems lens is to develop indicators measuring a multitude of policy actions and reflect them in a single score.^{10–12} Such indicators have emerged as a tool to consolidate information and provide overviews of policies within a wide range of policy fields, for example, family, alcohol, migration, and climate,^{13–16} and are considered useful tools to assess complex policy areas and compare progress across countries as well as holding national governments accountable for their action or inaction. Further, such indicators can enable international comparisons and may provide learnings on policy design and variation in implemented policies. A nutrition policy index could be used to identify policy implementation gaps, serve as a guideline to

prioritize policy actions, to facilitate cross-national comparisons, and to monitor and evaluate national government actions related to the environmental context in which dietary-related obesity and NCDs exist and develop.

Within the policy field of public nutrition, the Government Healthy Food Environment Policy Index - Food-EPI¹⁷ is a well-established policy index on governmental policies and infrastructure and best practice indicators on policies for a healthier diet. Food-EPI scores are established through an iterative process involving national expert panels led by national teams to assess the levels of government policy implementation on food environments against international best practices.¹⁸ Food-EPI has been designed to allow countries worldwide to score their respective nutrition policy landscape across key policy issues. Since 2014, the Food-EPI has been applied in 38 countries worldwide.^{19,20} The clear advantage of the Food-EPI is that it is based on a thorough process and involvement of national stakeholders and experts, which provides an in-depth and reliable evaluation of implemented policies, as defined by the Food-EPI protocol.²¹ Furthermore, the Food-EPI leads to the formulation of concrete policy and infrastructure support recommendations for governments to improve the healthiness of food environments. However, the procedures are time and resource intensive and may limit how often the tool will be used, particularly for repeated assessments to measure change.

The NOURISHING policy framework was designed in 2013 with the purpose of operationalizing a comprehensive set of policy actions to effectively promote healthy diets.¹ Each of the NOURISHING framework policy domains (food environment, food systems, and behavior change communication) and the 10 associated policy areas have been identified through a review of existing policy frameworks, proposed and implemented national policies, and the evidence of their effects.¹ The accompanying NOURISHING database²² is a repository of more than 1000 nutrition and diet-related governmental policy actions and contains information on verified policy actions at national level that are currently in effect globally. The numbers of policy actions in the database are continually growing as more policies are identified and verified through national government and country experts. The NOURISHING benchmarking tool²³ was developed to assess the quality of the design of implemented policy actions with reference to aspirational standards that were set through expert consultations and is organized around the NOURISHING policy framework.¹ The proposed NOURISHING policy index will be based on data outputs from benchmarked policies, which will be used to create aggregate measures of the policy areas in the NOURISHING policy framework. In short, the policy index will be based on elements from the benchmarking tool, where the results are transformed into numbers and scores for a given country. While the benchmarking tool produces qualitative assessments of specific policy areas and benchmarks, the policy index incorporates these assessments into single values. Figure 1 illustrates the relations between the four NOURISHING elements.

The NOURISHING benchmarking tool is based on theoretic attributes, rather than practical examples of policies currently viewed as

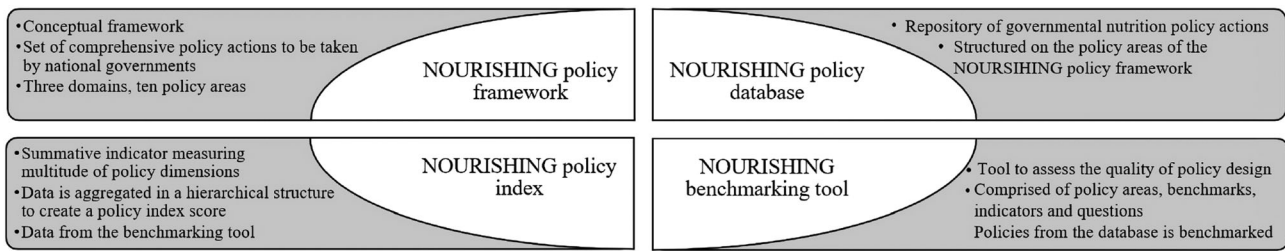


FIGURE 1 Illustration of the relations between the NOURISHING policy framework, policy database, benchmarking tool, and policy index.

best practice. These attributes were developed based on evidence on what constitutes good policy design in nutrition policies, even if no country has yet adopted such practices. This approach is defined as an aspirational approach and holds countries to a high standard, starting from the premise that current practice is likely to be inadequate (see Vlad et al²³ for detailed descriptions). This contrasts to the best practice criteria applied by Food-EPI.¹⁷ Given the importance of healthy nutrition during childhood and adolescence in determining future public nutrition and trends in obesity and NCDs, some benchmarks address policies that specifically target adolescence (e.g., educational settings, restriction of marketing to young people). As the proposed NOURISHING policy index builds on existing NOURISHING resources, it will be less resource demanding to use compared to existing tools.

The NOURISHING policy index was developed as part of the EU-funded project *Confronting Obesity: Co-creating Policy with Youth (CO-CREATE)* project.²⁴ The present study aims to describe the conceptual and methodological construction of the NOURISHING policy index and to pilot test the index by using data on benchmarked policy actions from five European countries participating in the CO-CREATE project.

2 | MATERIAL AND METHOD

The NOURISHING policy index was developed in line with the structure of the NOURISHING framework and the NOURISHING benchmarking tool.^{1,23} The NOURISHING policy index is built around the 10 policy areas in the NOURISHING framework and is based on results from 41 benchmarks. The benchmarks include one indicator on the presence of a policy action and an associated set of policy attributes valuing the quality of the policy design.²³ For each country examined, the benchmarks provided 198 possible scores; 41 binary yes/no indicators of policy action presence and 157 possible associated attributes (scored if the policy action was presence). As an example, the first policy benchmark “Nutrient lists on back of packet” consists of five items: one indicator on the presence of a policy action and four associated attributes (see Table 1). The indicator measures whether the national government support the setting of back-of-pack nutrition standards (yes/no), while the associated four attributes assess the quality of the policy design. All indicators and attributes are presented in Table S1. The NOURISHING benchmarking tool includes policy action attributes related to monitoring, evaluation, funding, and

enforcement of policies. However, as described by Vlad and colleagues,²³ information on these attributes is often difficult to obtain. On this basis, these attributes were not included in the NOURISHING policy index.

For countries in the European Union (EU), jurisdiction for some benchmarks lies with the EU. For example, policies regarding back-of-pack labeling, nutrition, and health claims have been adopted at EU-level. In these cases, the countries were credited for having policy actions in place, as implementation is mandatory at the country level within the framework of the EU. For other cases, for example, the EU fruit and vegetable scheme or other policies such as front-of-pack labeling, which are voluntary to implement, each country was checked to see whether it had adopted the policy action.

There are currently 548 EU and 470 global verified policy actions in the NOURISHING database. The pilot test of the NOURISHING policy index was based on results from benchmarked policies in the five CO-CREATE countries (Netherlands, Norway, Poland, Portugal, and the United Kingdom (only UK-level policies)). The NOURISHING policy index was developed by The Norwegian Institute of Public Health and World Cancer Research Fund International (WCRFI). WCRFI led the benchmarking process,²³ and the benchmark scores were used to calculate the policy index.

2.1 | Calculation of policy index scores

A standardized policy index score (0–100) was set for each of the 10 policy areas in the NOURISHING framework and calculated in two subsequent steps. In the first step, the score for each benchmark was calculated by combining scores of the indicator for policy action presence (“no” = 0, “yes” = 50) and scores on the quality attributes of the policy action design (score on a 0–50 scale). The quality attributes had from two to seven response categories and were considered as ordinal variables. The attribute scores within each benchmark were set to 0 for the lowest quality and to 50 for the highest, while the scores in between were set depending on the number of response categories for each attribute respectively (e.g., attribute with two response categories: scores were set to 0/50, with three response categories: scores were set to 0/25/50). A complete overview of the scoring values for the attributes for all the benchmarks is presented in

*Policies implemented by the governments of England, Northern Ireland, Scotland, and Wales are not benchmarked and consequently not used in the policy index.

TABLE 1 Structure of the NOURISHING framework and corresponding number of indicators per benchmark

Policy domain	Policy area	Benchmark	Number of indicators of policy presence	Number of policy attributes	
FOOD ENVIRONMENT	Nutrition label standards and regulations on the use of claims and implied claims on food	Nutrient lists on back of packet	1	4	
		Front of pack labels	1	4	
		Calorie, nutrient labeling or warning labels on menus and displays in out of home restaurants	1	5	
		Rules on nutrient claims	1	4	
		Rules on health claims (i.e., nutrient function and disease risk reduction claims)	1	4	
	Offer healthy food and set standards in public institutions and other specific settings	Food and drink available in schools, including restrictions on unhealthy foods	1	4	
		Measures relating to sugar sweetened beverage provision in schools	1	5	
		Fruit and vegetables initiatives in schools	1	3	
		Food and drink available in immediate vicinity of schools	1	5	
		Unhealthy food in out-of-education locations	1	4	
		Use economic tools to address food affordability and purchase incentives	Health-related food taxes or tariffs	1	4
			Income related subsidies or initiatives to increase affordability and accessibility of healthy food	1	4
	Targeted subsidies or initiatives to increase affordability and accessibility of healthy food		1	4	
	Restrict food advertising and other forms of commercial promotion	Marketing to young people through advertising	1	7	
		Direct marketing to young people	1	3	
		Marketing through sponsorship to young people	1	9	
		Marketing to young people through point-of-sale measures	1	3	
		Marketing to young people through product placement and branding	1	3	
		Marketing to young people through product design and packaging	1	3	
	Improve nutritional quality of the whole food supply	Marketing in/or around schools	1	6	
		Limits or removal of specific nutrients in food products	1	6	
	Set incentives and rules to create a healthy retail and food service environment	Planning restrictions regarding food service outlets around schools	1	4	
		Planning restrictions on food service outlets	1	4	
		Initiatives to increase the availability of healthier food in stores and food service outlets	1	3	

TABLE 1 (Continued)

Policy domain	Policy area	Benchmark	Number of indicators of policy presence	Number of policy attributes
FOOD SYSTEM	Harness food supply chain and actions across sectors to ensure coherence with health	Measures to support food producers to increase healthy food and decrease unhealthy food in the supply chain	1	3
		Measures to support food manufacturers to increase healthy food and decrease unhealthy food in the supply chain	1	3
		Measures to support food retailers to increase healthy food and decrease unhealthy food in the supply chain	1	3
		Governance structures for multisectoral/stakeholder engagement	1	4
		Nutrition standards for public procurement	1	5
		Supporting urban agriculture in health and planning policies	1	6
		Community food production	1	6
		BEHAVIOUR CHANGE COMMUNICATION	Inform people about food and nutrition through public awareness	Development and communication of food-based dietary guidelines
Public awareness, mass media and informational campaigns and social marketing on healthy eating	1			2
Nutrition advice and counseling in health care settings	Nutrition advice and counseling in primary care		1	2
	Nutrition advice and counseling in school health care setting		1	2
Give nutrition education and skills	Nutrition education in curricula		1	3
	Training for educators		1	2
	Training for health professionals		1	3
	Cooking skills		1	2
	Training in schools in growing food		1	2
	Training for caterers		1	2

Table S1. The final benchmark score was calculated by summing up the score of the policy action presence to the average of the quality attributes scores. In the second step, arithmetic means of the benchmark scores within each policy area were used to calculate the final policy index score for the respective policy area.

WCRFI provided the dataset with benchmarked policy actions from the five CO-CREATE countries. R (version 4.1.0) and Excel (version 2018) were used to analyze and present the data. The results were presented as policy index scores for each of the 10 policy areas in the NOURISHING framework. Since the scores are crude measures, they were categorized into four levels: Poor quality ($> 0 < 25$), Low quality ($\geq 25 < 50$), Moderate quality ($\geq 50 < 75$) and High quality

($\geq 75 \leq 100$). A score of 0 indicates that there are no policy actions in place within the respective policy area.

3 | RESULTS

In total, the NOURISHING database²² included 131 policy actions for the five countries, ranging from 17 (UK national level only) to 35 (Norway and Portugal). As shown in Table 2, the distribution of the NOURISHING policy index scores by policy area indicate cross-country differences in presence of policy actions as well as in the quality of policy design. Overall, few countries achieved scores

TABLE 2 NOURISHING policy index scores and category by country and policy area

NOURISHING policy area	UK	NLD	NOR	POL	PRT
N - Nutrition label standards and regulations on the use of claims and implied claims on food	Moderate 67	Low 48	Moderate 66	Moderate 65	Low 48
O - Offer healthy food and set standards in public institutions and other specific settings	Poor 19	Moderate 52	Moderate 66	Low 31	Moderate 73
U - Use economic tools to address food affordability and purchase incentives	Poor 24	- -	Poor 21	Poor 21	Poor 19
R - Restrict food advertising and other forms of commercial promotion	Low 45	Poor 11	Moderate 64	Poor 9	Poor 22
I - Improve nutritional quality of the whole food supply	High 97	High 92	High 98	Moderate 63	High 84
S - Set incentives and rules to create a healthy retail and food service environment	High 76	Poor 25	Poor 20	- -	Low 48
H - Harness supply chain and actions across sectors to ensure coherence with health	- -	Poor 8	- -	- -	Poor 10
I - Inform people about food and nutrition through public awareness	High 75	High 94	Moderate 69	Moderate 69	High 81
N - Nutrition advice and counseling in healthcare settings	- -	High 87	High 74	- -	Low 37
G - Give nutrition education and skills	- -	Moderate 53	Low 47	Low 28	- -

associated with high quality policy design. A large extent of the countries achieved scores associated with lack of implemented policy actions or did not have the required quality to achieve higher scores. The scores diverged across countries and policy areas. Table 2 presents the policy index scores for each of the 10 policy areas per country by scoring values (numbers) and by category (poor/low/moderate/high). A full overview of scores prior to aggregation is shown in Table S2.

Figure 2 presents the results visually with the cut-off points for each category (red, below 25 = poor; orange, 25–49 = low; yellow, 50–74 = moderate; and green, 75–100 = high quality policy actions) and show how each country performs in the 10 policy areas. The results show that the policy areas with the highest scores across the five countries were the policy areas “Improve nutritional quality of the whole food supply” and “Inform people about food and nutrition through public awareness.” Interpretation of the index scores for these policy areas suggest that the policies in the five countries examined are of moderate or high quality. On the contrary, the scores for the policy areas “Harness food supply chain and actions across sectors to ensure coherence with health” and “Use economic tools to address food affordability and purchase incentives” gained low or no scores, suggesting that policy actions are absent or of low quality. Comparing results for the five countries, the Netherlands, Norway, and Portugal were identified with present policy actions in nine out of 10 policies areas, whereas Poland and the United Kingdom were identified with present policies in seven out of 10 areas. For some policy areas, there were substantial cross-country differences, that is, policy area

“Nutrition advice and counseling in health care settings” in which the Netherlands and Norway were assessed with scores in the category “high” while the United Kingdom (not including constituent country specific policies) and Poland were identified as not having any policies in place.

4 | DISCUSSION

The NOURISHING policy index reflects the presence and quality of policy action design within the food environment, food systems, and behavior change communication domains. These are set against aspirational standards, based on benchmarking 10 evidence-informed policy areas across these three policy domains. The results from the presented pilot test showed that the NOURISHING policy index identifies strengths and limitations in national policy environments, gaps within a country and cross-country variation in implemented policy actions and policy action designs. The advantage of the NOURISHING policy index is the ability to communicate single scores that reflect the multidimensionality of governmental nutrition policy actions.

Improving or maintaining a population's dietary habits may be achieved by addressing the policy areas and benchmarks in which a country has few or no nutrition policy actions implemented. The present findings suggest that in the five countries examined, there are numbers of poor or absent policy actions, indicating that there is potential for improvements and further policy development in the respective countries. The findings are relevant for both governmental bodies and



FIGURE 2 Policy index scores by policy area and country. Colors signify the cut-offs for further categorization (high, moderate, low and poor). Letters in the left column represents the 10 policy areas in the NOURISHING framework.

advocacy groups to explore the needs for new policy initiatives targeting the identified policy areas, in terms of improvements in existing areas, and by filling gaps where there is an absence of policy actions.

Four out of five countries received the score “high” or “moderate” for the policy area “Improve nutritional quality of the whole food supply.” The finding suggests that policy actions within this policy area have been prioritized by policymakers in the respective countries. By contrast, all five countries received a score of “poor” or “low” score in the two policy areas “Use economic tools to address food affordability and purchase incentives” and “Harness supply chain and actions across sectors to ensure coherence with health.” These findings suggest that policies within this policy area may have been under prioritized by governments in the respective countries. Furthermore, no country scored highly on the policy area “Offer healthy food and set standards in public institutions and other specific settings” and “Restrict food advertising and other forms of commercial promotion,” in which benchmarks of policy actions targeting children and adolescents are included.

The identification of policy areas where countries have few or no policy actions present will be of interest not only to the respective countries' governmental bodies but also for international organizations like the World Health Organization (WHO) and the EU, as well as for advocacy groups that aim to promote policy actions to support healthy diets.²⁵ The findings may stimulate governments or international agencies to innovate as well as to implementing multiple rules and regulations to create healthy food environments and systems instead of the often current practice of implementing voluntary or individual-level policies.

4.1 | Applicability

In the upcoming months, 27 European countries will be benchmarked by WCRFI. Benchmarked policies will thus be available for policy index calculation and may provide the respective countries with overviews of implemented policies as well as provide scores for international comparisons. As part of the CO-CREATE project,²⁴ results from benchmarking and policy index scores for the 27 countries will be publicly communicated through WCRFI's websites and online seminars. These results may be communicated as numbers/scores or transformed into further refined categories on “country cards” or presented as fact sheets or policy reports.

The policy index may serve as a tool to explore links between systematically implemented policy actions and public nutrition and health gain. Available data on a population's food habits, weight status and NCDs may be analyzed in the future against the NOURISHING policy index scores. For children and adolescents, internationally comparable data on prevalence and trends in the younger population are available through the Health Behaviour in School-age Children (HBSC)²⁶ study, which collect nationally representative data among adolescents aged 11, 13, and 15 years every fourth year, and the WHO European Child Obesity Surveillance Initiative (COSI)²⁷ which measure prevalence and trends in weight status and food habits among children aged 6–9 years.

To further explore the applicability of the NOURISHING index, potential user groups, such as policymakers, researchers, and advocacy groups will be invited to evaluate whether the policy index is expedient and easy to use. This process requires transparency, which

is achieved by providing comprehensive descriptions of the procedures behind policy scans, benchmarking tool, and index calculation on websites and papers published in open access journals.^{1,23}

4.2 | Reliability and validity

A critical question, however, is related to the reliability and validity of the policy index scores. Combining multiple indicators without critical assessments and validation may lead to misleading or overly simplistic policy measures. The reliability of the policy index is mainly related to the benchmarking tool and processes, which are described elsewhere.²³ There are no direct methods for assessing the external validity of the index. The nearest available comparison for policy assessment is the Food-EPI. However, Food-EPI measures a range of different policy aspects assessed against best practice criteria.¹⁷ Furthermore, the Food-EPI covers policy aspects that are not covered by the NOURISHING policy index, for example, Infrastructure Support part (including the domains: Leadership, Governance, Funding, Monitoring, Platforms for Interaction, Health-in-all Policies). However, when comparing the Food-EPI indicators with the NOURISHING index benchmarks (see Table S3) and the Food-EPI country reports with the results for the NOURISHING index (see Table S4), the tools have similarities and communicate similar overall results. When it comes to internal validity, we assess that arithmetic mean of the benchmarks scores within each policy domain provides a realistic balance between the different benchmarks.

The policy index score was based on a 50/50 ratio between policy presence (score 0/50) and policy attributes (score 0–50). This ratio was chosen to ensure that countries were credited for having a policy in place but also the quality of the policy design reflected by the policy attributes at the same time. This rationale for a 50/50 ratio will be discussed with researchers, policymakers and advocacy groups and alternative ratios will be considered for potential improvements of the policy index.

4.3 | Strengths and limitations

An advantage of the NOURISHING policy index is that it builds on existing NOURISHING resources. Compared to the Food-EPI, the NOURISHING policy index is less time-consuming and requires less resources from the countries involved. However, it should be mentioned that the Food-EPI leads to the formulation of concrete actions for governments to improve the healthiness of food environments, which is not covered by the NOURISHING policy index. Another strength of the current study is that one institution benchmarked policies from all countries examined, which may ensure a standardized benchmarking process.²³

Although building on existing resources is a clear strength, it also entails important limitations. Due to skewed distribution of policy attributes, it was not possible to construct a meaningful overall policy index score to reflect all policy areas in one overall, single score. Thus,

several scores (one score for each of the policy areas) must be considered when aiming to review a country's overall implemented policies and the quality of their design. Moreover, multiple policy attributes were scored 0 due to missing information (information not available or lack of detailed information from the country contract) in the NOURISHING policy database. This may have impacted the policy index scores for the countries examined. This limitation may potentially be country-specific and may be considered differently if the five countries examined were replaced with other countries and will be further explored as more countries will be benchmarked and included in policy index calculations.

In the current study, policy areas, benchmarks, indicators, and attributes were not weighted. However, the index includes benchmarks and indicators related to a range of policy actions and does not distinguish between policy actions related to, for example, structural, universal measures, which have been shown to be more effective than measures related to information and communication.⁶ This was because the tool was built in the premise that action should be taken in all policy areas and that governments should adopt a comprehensive approach.

4.4 | The way forward

In the further process of developing the policy index, weighting may be considered as a possible refinement with regard to policy action attributes, which were not evenly distributed across the benchmarks. It is important to acknowledge that this may cause issues in implicit weighting by giving areas with few indicators relative higher impact on a final aggregated score. For example, in the policy area “Improve nutritional quality of the whole food supply,” the benchmark consisted of one benchmark and six associated attributes. The low number of policy attributes influenced the policy index score and explains why all countries examined received a high score in this area. In contrast, policy area “Restrict food advertising and other forms of commercial promotion” has seven benchmarks and 22 policy quality attributes. In this case, each item has a relatively less impact on the total score. Consequently, the countries are more likely to achieve a high policy index in the latter than in the former. Nevertheless, as noted in previous studies, simplicity may be a better guide to policy action development than getting lost in the complexities.²⁸ Furthermore, it is widely recognized that in all modeling, there is trade-off between precision and complexity. While complex models may be more accurate, simple models may be more general but may suffer a lack of detail that causes systematic bias in predictions.²⁹ Moreover, adding details to a model does not guarantee an increase in validity and reliability unless the added processes are essential, well understood, and reliably estimated.³⁰ This underlines the need for the NOURISHING policy index to be further subjected to conceptual clarity and policy relevance testing, as well as testing of its validity and assessments. When a larger data sample is available in the NOURISHING database, uncertainty and sensitivity analyses should be applied as suggested by OECD.¹⁰ Uncertainty analysis can be used to uncover how changes to the final scores are

affected by changing, for example, the weighting or aggregation procedures. Sensitivity analysis may indicate how much of the variance can be explained by such uncertainties.³¹ This work is important to achieve an optimal balance between model complexity, validity, and model error, which are essential in the progress and development of the final NOURISHING policy index.

5 | CONCLUSION

The pilot test of the NOURISHING policy index demonstrates that it has a potential to capture overall nutrition policy efforts and policy gaps within a country. Furthermore, it enables cross-national comparisons of the policy environments between countries. The NOURISHING policy index offers insight into the nutrition policy landscape that may be relevant and useful for researchers, policy makers and advocacy groups. The further development of the NOURISHING policy index would be to apply the index on a larger sample and consider possible refinements related to, for example, weighting, sensitivity analysis, and user-friendliness.

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CONFLICT OF INTEREST

No conflict of interest statement.

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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