



EVIDENCE-INFORMED DECISION-MAKING FOR BETTER NUTRITION POLICIES AND PROGRAMMES: HALFWAY THROUGH THE GATE

Nutrition Research Facility - May 2022

Key insights

The Nutrition Research Facility conducted a literature review on **the concept of evidence-informed policies applied to the field of nutrition**, that concludes to the following messages:

- 1. In the last three decades, the scope of nutrition science has broadened to a multi-sectoral and transdisciplinary approach for a systemic understanding of malnutrition**
- 2. This complexity adds to the obstacles to evidence-informed decision-making in nutrition:**
 - The diversification of types and sources of evidence due to the broadening of the nutrition scope makes it more difficult to assess the quality of evidence.
 - There is no accepted generic approach to assess quality of evidence from multi-disciplinary research such as nutrition.
 - There is a lack of understanding between researchers and decision-makers of their respective needs and operating modes.
 - There is a lack of infrastructure and opportunities for their fruitful mutual engagement.
 - Social sciences are insufficiently included in nutrition science to allow for a better understanding of policy processes.
- 3. There are nevertheless promising pathways to overcome these obstacles:**
 - More resources could be mobilised to further build interaction capacity for scientists and decision-makers.
 - Multi-stakeholder platforms for their mutual engagement exist and need to be strengthened.
 - An increased use of scientific transdisciplinary approaches should be promoted.
 - Monitoring and evaluation of policies and programmes has to be more widely funded and implemented.

The normative use of scientific evidence in policymaking emerges from a 1960's political movement advocating that this strategy will maximise the efficiency of policies and use of resources by enabling an optimal cost/benefit ratio. By acknowledging the need to combine scientific evidence with information on the environment and context in which the decision-making is occurring, the concept progressively evolved from "evidence-based" to "evidence-informed" decision-making. These environmental and contextual factors include personal judgment of decision-makers (defined here as policymakers and other stakeholders responsible for the design and implementation of policies and programmes), values and beliefs of the various stakeholders; pragmatism and contingency (e.g. availability of resources, back-up

plans); power struggles between stakeholders (e.g. between agencies or ministries); as well as the inclusion of sources of evidence that do not emerge from research, such as the lived experiences of the targeted communities or groups (see Figure 1).

Based on a literature review*, this brief looks at the evolution throughout the last decades of nutrition science and the perception of its findings; highlights the persistent obstacles to the design and implementation of evidence-informed nutrition policies and programmes; and identifies promising action tracks to overcome those.

*Nutrition Research Facility. 2021. Research protocol and analysis on the concept of evidence-informed policies. https://www.nutrition-research-facility.eu/IMG/pdf/pr2_annex_8_d1.3_final_approved.pdf

Figure 1. Policymaking is influenced by an array of factors beyond scientific evidence



Source: World Health Organisation, 2008, on behalf of the European Observatory on Health Systems and Policies

The scope of determinants considered in strategies to address malnutrition has widen

The nutrition science's arena experienced several debates and controversies on best approaches to address global malnutrition. Throughout the 20th century, the field was mainly nutrient-focused due to a chemical, physiological and medical framing of nutrition. In the 90s, the consideration of the underlying determinants of malnutrition rose, particularly poverty reduction to improve access to sufficient, healthy and nutritious diets. In parallel, the nutrient-focused approach fostered the development of micronutrient supplementation and food fortification on the market. In the 2000s, research on nutrition-related non-communicable diseases (NCDs) accelerated and new study designs were developed, bringing discordance among results which exacerbated the controversies within the nutrition scientific community. Although the nutrition community's focus had broadened to consider the "triple burden" of malnutrition – hence the coexistence of undernutrition (including micronutrient deficiencies), overweight-obesity and diet-related NCDs – the nutrient-lens remained dominant. This further fed debates on the need for more attention towards underlying determinants of malnutrition (addressed through "nutrition-sensitive" interventions, in contrast of "nutrition-specific" interventions that target direct determinants of malnutrition) for achieving a sustainable improvement of malnutrition.

To address the need for increased implementation of "nutrition-sensitive" strategies, the nutrition scope has evolved towards a "public nutrition" framework. Through a transdisciplinary scientific approach, "public nutrition" aims to consider all factors related to the relationship between individuals and their foods and diets – hence the biological, environmental, social, cultural and psychosocial dimensions – and to understand malnutrition through a food systems lens. This approach aims to reach a structural and long-term improvement of food security and nutritional status by addressing the root causes of malnutrition rather than only treating its symptoms. This approach is consistent with the "evidence-informed decision-making" conceptual scope that aims to consider all factors influencing decision-making.

Defining "evidence" in the field of nutrition is not as straightforward as it seems

The definition of "evidence" does not meet a consensus among the health community, as there are ongoing debates and controversies on what should be recognised as "quality evidence". The term is often referred to as an information that has been found credible or reliable by having been tested with adequate quality appraisal methods. Nonetheless, in medicine, there is a commonly accepted hierarchy depending on the type, source and method of evidence production. Systematic reviews* and more specifically systematic meta-analyses* are recognised as the most reliable methods for evidence production, especially when based on experimental studies such as randomised control trials* (RCTs). The latter are considered as a "gold standard" for clinical science, in contrast with observational studies*, which are often regarded as less reliant because more subject to bias. However, when applied to the field of nutrition, RCTs have a number of limitations; this is why this method cannot be the main reference in quality nutrition research. These limitations include the difficulty to integrate in RCT studies factors such as the complexity of what "eating" entails and the many interacting physiological and behavioural components that influence individuals' nutritional status. In addition, there is a potentially high time lag between a nutrition intervention and its observable effects (for instance, in the case of NCDs), while such protocols have a relatively high cost, as well as a long follow-up period that lead to important drop-out rates. For this reason, the GRADE* approach adopted by the World Health Organisation in 2007, which regards evidence emerging from experimental RCTs as stronger compared to ones emerging from observational studies, is ill-adapted to nutrition science.

To address these issues, tools specific to nutrition research were developed, such as the NutriGRADE* grading system and the STROBE-nut* guidance to improve transparency in the reporting of observational studies. Although these are promising instruments for improving the confidence in nutrition research findings, they are still poorly adopted by the scientific community.

***Definitions**

- **Systematic reviews** involve extracting data, their critical evaluation and their synthesis on a given research problem with a reproducible protocol that can be applied to different types of studies (e.g. meta-analysis).
- A **meta-analysis** statistically combines results of a series of independent quantitative studies of different nature (e.g. RCTs) on a given research problem, with a reproducible protocol to provide precise effects of results.
- **Randomised Control Trials (RCTs)** are experimental studies of two groups of randomly assigned subjects that respond to specific inclusion criteria, where one group is receiving the tested intervention and the other group is receiving an alternative intervention, with a follow-up to assess any differences between outcomes and evaluate the effectiveness of the intervention.

- **Observational studies** are empirical investigations of the effect of a risk factor or intervention without controlling who is subject to it or not. They include for instance cohort studies (an approach that recruits and follows over time participants who share a common characteristic, such as a particular occupation or demographic similarity) and case control studies (a retrospective approach that defines two groups at the start: one with the outcome and one without the outcome and looks back to assess differences in the rates of exposure).
- The **GRADE** (Grading of Recommendations Assessment, Development and Evaluation) approach is a standardised methodology that categorises evidence into “high”, “moderate”, “low” and “very low” levels of quality; and classifies recommendations into either “strong” or “weak” levels of quality. A strong recommendation is one where the evaluating panel is confident that desirable effects of adherence outweigh potential undesirable effects. A weak recommendation is when there is a lack of high-quality evidence to support the recommendation, imprecise estimation of risk and benefits or uncertainty regarding outcome variation between studied groups or individuals and where costs may outweigh benefits.
- **NutriGRADE** is an adaptation of GRADE for nutrition research and evaluates the quality of RCT studies and cohort study meta-analysis, while taking into account specific requirements of nutrition research.
- **STROBE-nut** is an adaptation to nutrition research of the STROBE (STrengthening the Reporting of OBservational studies in Epidemiology) checklist for reporting observational studies.

A number of obstacles still hamper evidence-informed decision-making in nutrition policies

Beyond the question of identifying “quality evidence” from the broad scope of nutrition research, how to make such evidence available and usable by decision-makers is another issue that faces many challenges. Firstly, the scientific and policy spheres are often built around different representations, rules, values, interests and norms, which leads to a lack of mutual understanding. In addition, the controversies and debates that accompany the evolution of nutrition science led to a lack of trust in nutrition findings by decision-makers and the public opinion. This phenomenon particularly affects nutrition science due to the interpersonal relationship individuals have with their food and diet. It can be exacerbated by the sharing of oversimplified scientific messages, distortion of research conclusions, public claims of “self-appointed experts” who may not base their recommendations on reliable sources of information, as well as questioning of food multinationals’ involvement in the definition of strategies addressing malnutrition. Ultimately, this mistrust can have an impact on political engagement, either due to the influence of public opinion or direct interpretation of decision-makers.

Secondly, both scientific and policy spheres have different operating modes. Research often builds over the long term, while policy tends to operate within limited timeframes punctuated by the regular turnover of elected decision-makers, with an aim for short-term outcomes and high visibility. In fact, until recently, policy responses in low- and middle-income countries with a high prevalence of malnutrition have focused predominantly on palliating its consequences rather than on structural improvements through nutrition-sensitive strategies.

Due to these different framing of best-approaches, the opportunities for mutual engagement between research and policy can be impaired. This results in research priorities that are not aligned with the needs of decision-makers and lack of context-specific research, as well as its under-sourcing (which contributes to the perceived weaker reliability of nutrition evidence). In addition, there is insufficient funding and lack of understanding of the benefits of monitoring and evaluation of policies and programmes, although they are essential for improving and strengthening the impact of evidence-informed policies and programmes. Moreover, scientific findings’ accessibility to decision-makers needs to be improved through appropriate formats and channels; and policymakers’ capacity to identify, analyse and interpret scientific outputs should be further supported. To answer both of these needs, initiatives such as the Scaling Up Nutrition (SUN) Movement, National Information Platforms for Nutrition (NIPN) or the Nutrition Research Facility (NRF) contribute to bridge the gap between policy and research.

Finally, the implementation of evidence-informed nutrition policies and programmes is limited by the scarcity of resources and the lack of multi-sectoral integration and cooperation among ministries; as well as by power asymmetries. The latter can lead to donors having an important influence in the definition of national nutrition priorities that can differ from decision-makers’ initial targets; or food and beverage multinationals having an influence in the design of policies impacting their activities (significant examples are the policies targeting the marketing of energy-dense/nutrient-poor foods or of breast-milk substitutes).

**The Scaling Up Nutrition Movement:
a multi-stakeholder platform**

In March 2010, a policy brief entitled “Scaling Up Nutrition: A Framework for Action” was published and endorsed by over 80 institutions following a call led by the World Health Organisation. This laid the ground of the Scaling Up Nutrition (SUN) Movement and the subsequent creation of SUN platforms in many countries (65 as of 2022) to stimulate political interest and multi-stakeholder engagement towards nutrition. Such platforms offer a space for action at national level, with a common approach at a global level, following a 4-step process: (i) reunite the different stakeholders in a common action space; (ii) ensure a coherent policy and legal framework; (iii) align actions around common results; and (iv) track resource mobilisation. SUN platforms offer a relevant arena for science-policy dialogue on nutrition.

There are avenues to strengthen the use of evidence in nutrition policies and programmes

Nevertheless, there are a number of avenues to overcome these obstacles. Firstly, by building the capacity and means of the research community to better address policy evidence needs. For instance, practices such as the registration of studies or meta-methods and replication initiatives should be encouraged to improve trust in evidence emerging from quantitative methods; and such knowledge should be combined with qualitative evidence to support a transdisciplinary approach. In addition, to improve the policy-relevance of research, priority-setting steps should be more inclusive by associating an array of research users (including the targeted communities and groups) for more context-specific studies. Nutrition research also needs to further integrate social sciences to better

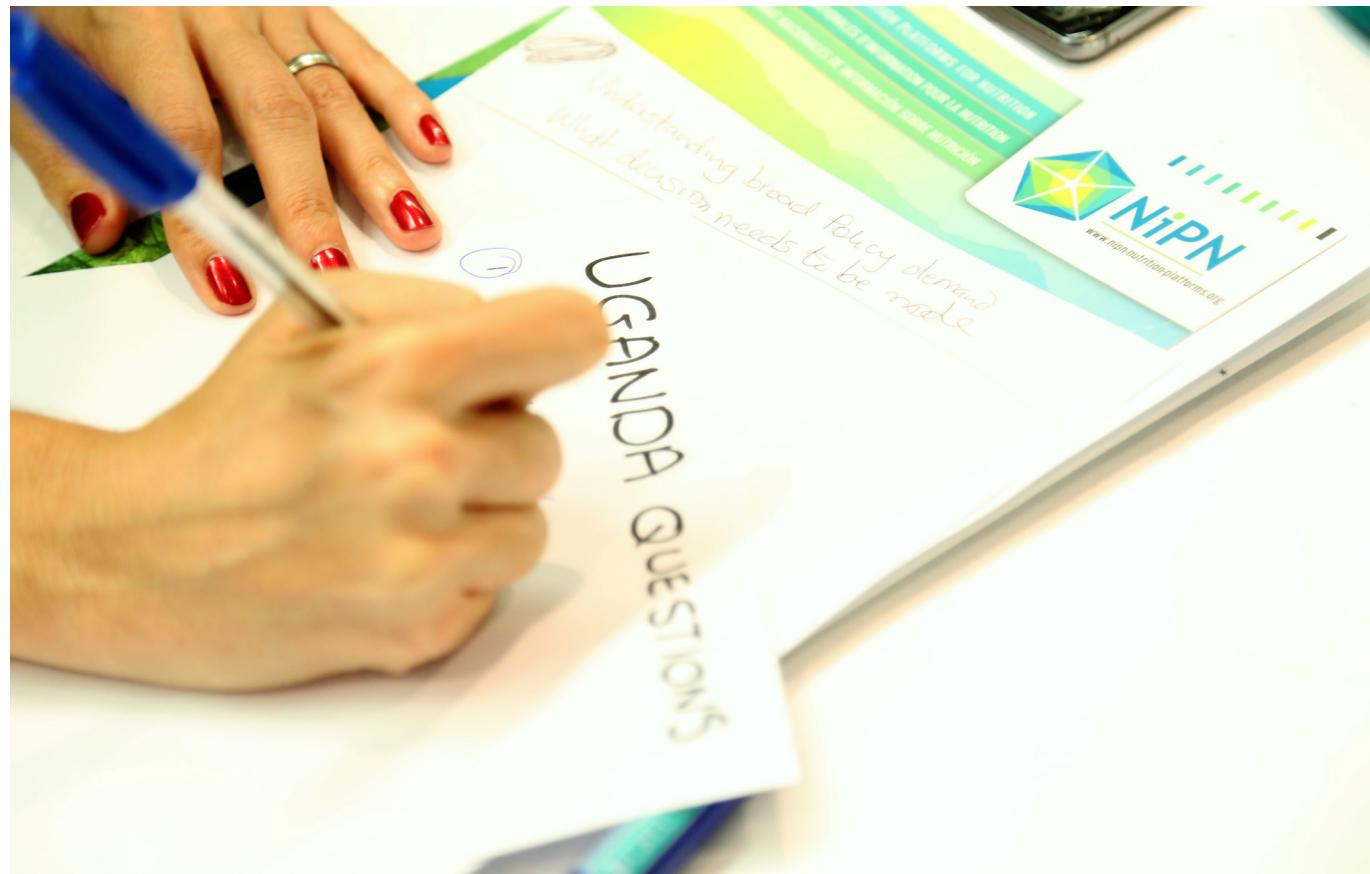
understand the policy context, how to translate scientific findings into recommendations for decision-makers and how to support them to express their priority research needs. The monitoring and evaluation of policies and programmes should attract more funding and capacity efforts for optimising their impact on the long run. Training modules to build research capacity in better addressing these policy evidence needs and transdisciplinary strategies should be included in undergraduate and postgraduate curricula, continuous learning of professionals and e-learning courses. Finally, funding, assessment and awarding of rigorous research could promote and highlight quality research while making it more visible for policymaking use.

A second area of improvement is to build the capacity of public policymaking institutions to better understand the scientific approach and rhythm; and how to optimally use scientific evidence in the design and analysis of policies and programmes. One important aspect is to develop long-term nutrition policy frameworks able to integrate knowledge that takes time to be generated and that also emerges from monitoring and evaluation.

To foster fruitful exchanges between researchers and decision-makers, there needs to be dedicated science-policy arenas to structure the dialogue at the national or sub-national level. Such platforms should be multi-sectoral, multi-stakeholder and multi-disciplinary to facilitate an inclusive policy alignment across various ministries while acknowledging and mitigating the risks related to power struggles among actors. These arenas should also facilitate both the definition of research priorities based on policy needs and the dissemination and use of scientific outputs. National multi-sectoral coordination bodies, as well as platforms such as SUN or NIPN, can play this knowledge-brokering role.

At last, achieving policy-relevant research and evidence-informed policies and programmes requires strong engagement from different stakeholders to enable sufficient investment, support of capacity building at all levels and establishing optimal infrastructures for relevant interactions. Ultimately, it stresses the need to maintain the global awareness raised by the United Nations (UN) Decade of Action on Nutrition (2016-2025), the SUN Movement and the International Year of Nutrition (2021), in which the UN Food System Summit and the Tokyo Nutrition for Growth (N4G) Summit took place, to continue drawing strong attention to nutrition from policymakers, scientists, donors and civil society organisations.

Initiatives such as the Scaling Up Nutrition (SUN) Movement, National Information Platforms for Nutrition (NIPN) or the Nutrition Research Facility (NRF) aim to strengthen evidence-based policymaking in nutrition



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