

Better nutrition, better lives: Countries' positioning to fight all forms of malnutrition

Janine Giuberti Coutinho,1 Denise Costa Coitinho Delmuè,2 and Elisabetta Recine1

Suggested citation Coutinho JG, Delmuè DCC, Recine E. Better nutrition, better lives: countries' positioning to fight all forms of malnutrition. Rev Panam Salud Publica. 2020;44:e126. https://doi.org/10.26633/RPSP.2020.126

ABSTRACT

Objective. To identify how countries have positioned themselves to fight against all forms of malnutrition. Methods. Qualitative, exploratory, and descriptive study of the statements of 91 out of the 127 (71.7%) countries that issued declarations in the Second International Conference on Nutrition.

Results. According to the analysis of the official statements from the Conference, countries still responded to nutrition issues in a traditional way. Food systems were part of the narrative and mentioned as part of the problem and solution, but little thought was given to their determinants.

Conclusions. The Decade of Action on Nutrition is spurred on by the urgent need to coordinate global endeavors in the fight against malnutrition and could aggregate efforts in prioritizing actions to address the determinants rather than the biological outcomes of malnutrition-which requires commitments-; and strengthening the countries' ability to implement robust regulatory measures. These measures could be empowered through efforts across different levels, making use of multilateral spaces, and through strengthening civil society participation, including developing better mechanisms for the recognition and control of conflicts of interest across different political spaces.

Keywords

Food and nutrition security; nutrition policy; malnutrition; stakeholder participation.

Malnutrition can be defined as inadequate dietary intake relative to the dietary needs, and it can manifest in different forms: undernutrition, micronutrient deficiencies, and overweight and obesity (1).

One in nine people in world is hungry and one in three is overweight or obese. Among children under 5 years, 149.0 million are stunted and 40.1 million are overweight. Also, there are 677.6 million obese adults (2). This is the face of malnutrition worldwide, which leads to health consequences including development of noncommunicable diseases, and to an unsustainable load on health care services (1–5).

Some of these health and nutrition conditions are interlinked. For example, the prevalence of obesity among stunted children is 3% and moderate food insecurity is associated with higher obesity prevalence among vulnerable population. Further, malnutrition is determined by nutrition and socioeconomic inequalities and by the layout of food systems—the way

foods and foodstuffs are produced, processed, sold, and consumed (3-7).

The relationship between access to and the consumption of ultra-processed products, accompanied by the rise of obesity and noncommunicable chronic disease rates, is an example of how large corporations control the supply and demand of these goods, driving up their consumption through powerful marketing strategies (3-7). The rise in production and consumption of ultra-processed products is striking and has been especially high in low-income and middle-income countries, precisely where obesity rates have climbed the most from 1980 to 2015 (2, 6).

Faced with the need for a global and coordinated response to all forms of malnutrition, the Food and Agriculture Organization of the United Nations (FAO) and the World Health Organization (WHO) hosted the Second International Conference on Nutrition (ICN2) in 2014, with "Better nutrition, better



This is an open access article distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivs 3.0 IGO License, which permits use, distribution, and reproduction in any medium, provided the original work is properly cited. No modifications or commercial use of this article are permitted. In any reproduction of this article there should not be any suggestion that PAHO or this article endorse any specific organization or products. The use of the PAHO logo is not permitted. This notice should be preserved along with the article's original URL.

University of Brasilia, Brasília, Brazil 🖂 Janine Giuberti Coutinho, janinegc@ yahoo.com

² Independent consultant, Geneva, Switzerland

lives" as its theme (8). It brought together more than 170 countries, 150 representatives from civil society, and others from the private sector and United Nations (UN) agencies. On the agenda were the multiple challenges caused by malnutrition and their close ties to the world's food systems, reaffirming the right to adequate food, made possible by many different actors (8).

The Rome Declaration, approved by ICN2, recommended the adoption of a Decade of Action on Nutrition to strengthen global endeavors and coordination in the fight against malnutrition (9). In 2016, the General Assembly of the United Nations, reaffirming its commitment to the 2030 Agenda for Sustainable Development (10), proclaimed the Decade of Action (11). It is a joint effort from the FAO, WHO, and UN Member States, in collaboration with the World Food Programme (WFP), the International Fund for Agricultural Development (IFAD), and the United Nations Children's Fund (UNICEF). The resolution which proclaimed the Decade was based on the Rome Declaration (9) and its Framework for Action (12).

This study is an exploratory analysis of the statements of 91 countries that participated in the ICN2 in order to identify how these countries positioned themselves to fight against all forms of malnutrition: the agenda, actors, strategies, and challenges.

The knowledge gained from this analysis may contribute to the implementation of nutrition commitments more closely aligned to the challenges and difficulties raised by the countries themselves.

MATERIALS AND METHODS

This is a qualitative, exploratory, and descriptive study whose documental basis is comprised of the statements of 91 out of the 127 (71.7%) countries that issued declarations in the ICN2. The statements, delivered by countries' high-level representatives, are available at the official webpage of the ICN2: www.fao.org/about/meetings/icn2/en/.

According to Minayo (13), qualitative studies explore motives, aspirations, values, and attitudes, as well as other factors which cannot be quantified, usually of a social nature. They are also used to analyze policy intentions on a given topic.

The analysis of all 91 statements was performed through content analysis (14) utilizing a technique known as "analysis of co-occurring lexemes within the simple statements of a text," using the software package that takes its name from the acronym for this technique in French: Alceste® (*Analyse des Lexèmes Co-occurents dans les Énoncés Simples d'un Texte*). This technique allows an exploration of the experiences, thoughts, and perceptions behind the country statements at the ICN2.

Alceste software was developed to analyze discourses and narrative structures. The technique investigates the distribution of vocabularies in a text, and identifies the speech patterns and ways of speaking and reflecting. It has been applied in the fields of political science, sociology, and psychology. As Alceste integrates statistical methods through hierarchical classification (chi-square test), it associates quantitative and qualitative methods of text analysis (15).

The software carries out a sequence of analytical steps. The first is to lemmatize words by reducing them to roots (uninflected units). The second step is the conversion of the corpus, which is the countries' statements, into Initial Context Units

(ICUs). It compares the ICUs by vocabulary and classifies this into different groups (word classes). The criterion for this is the co-occurrence of the roots of the words, which are hierarchized into trees, or dendrograms.

Based on the analysis of word occurrence frequencies, different themes and ideas are identified within the text (16). These categories then have their vocabulary undergo a descriptive analysis structured around two criteria: the retention of words with an occurrence frequency greater than 6; and the retention of words with a *phi* coefficient greater than 0.2 (17).

Ideally, only one corpus would be produced that integrates all statements. However, given the differences in use of language, it was preferred to proceed with an analysis of six corpora based on language and geopolitical characteristics. These corpora were: (1) English-speaking Africa (English); (2) North America (English); (3) Latin America (Spanish); (4) Asia (English); (5) Europe (English); and (6) Oceania (English). For each of these groupings, which each represent a single analysis file, the most common language spoken or used in writing was selected for the analysis. Countries whose statements were written in an official UN language other than English or Spanish were not included.¹

Brazil and Mexico had their statements translated into the predominant language in their corpora so that the criteria for our analysis could be upheld. The situation of Mexico was slightly unusual in that although it shares certain cultural and socioeconomic aspects with Latin America, geopolitically and economically it is closely aligned with North America; thus, we deemed it worthwhile to translate its statement into English and incorporate it in our analysis of the North America group.

RESULTS

The main results of the analysis of 91 statements divided into six corpora are presented in Tables 1 and 2. Table 1 summarizes the countries' routes to fight malnutrition and how they expressed their concerns, perspectives, and goals. Table 2 presents the dendrograms, word classes, and ICUs classification based on the countries' statements. The dendrograms provide the content analyses and consist of classes of words based on their frequency and co-occurrence, and also reflect the plurality of the texts.

Finally, Table 3 summarizes basic information on the corpora and the number of country statements they include, each of which represents one ICU. Other than North America and Oceania, each corpus contained at least 10 000 words of text, the recommended minimum number for the Alceste technique.

The information for analysis was grouped by geographical region, considering the requirements of the Alceste technique and its limitation to analyze only one language per corpus. Nevertheless, this does not mean that the analysis assumes that the public policies were regional.

Examples include Portuguese (Guinea-Bissau), Russian (Armenia, Belarus, Kazakhstan), Arabic (Bahrain, Iraq, Lebanon, Oman, Saudi Arabia, Yemen), Chinese (China), and French (Afghanistan, Benin, Burkina Faso, Burundi, Cameroon, Chad, Cote d'Ivoire, Democratic Republic of Congo, Djibouti, France, Gabon, Guinea, Madagascar, Mali, Mauritania, Morocco, Niger, Switzerland, and Tunisia). Although Spain delivered its statement in Spanish, it was not included in the Europe corpus in our analysis, as most other statements from Europe were in English.

TABLE 1. Analysis framework of routes countries claim to be taking in the fight against malnutrition, their future concerns, perspectives, and goals, by corpus

| Corpus | Contents on routes countries claim to be taking in the fight against malnutrition, future concerns, perspectives, and goals |
|---------------|---|
| Africa | The first class of words described the nutritional problems, with greater focus on micronutrient deficiency as well as hunger and malnutrition. The other three classes presented the responses to the nutrition situation—agriculture, fishing, health, food trade, consumption, and social protection. The statements highlighted an appreciation of the coherence and coordination on the food and nutrition agenda: "implementation of coherent and coordinated actions and policies to improve food and nutritional security," complemented by " the need to mobilize the resources needed to improve" and " good governance and strong collaboration with partners such as UN agencies, civil society, and the private sector" |
| North America | This was the smallest corpus (three countries). It generated seven classes of words, five of them related to the statements of the United States of America (USA) and Canada, and two related to Mexico. There was a theme of political position and commitment (Mexico) in the fight against hunger and poverty to achieve food and nutritional security (nationally and globally). On the other hand, the word classes related to the other two countries presented the epidemiological/nutritional situation and actions in public policies, such as the reduction of infant morbidity and mortality, the First 1 000 Days initiative, and strategies aimed at eliminating deficiencies of vitamins and minerals. Canada and the USA built a healthy food system discourse supporting the private sector. Classes 6 and 7 emphasized the importance of establishing public–private partnerships (PPPs), including budgets for tackling hunger in the world. Class 7 specifically portrayed the importance of the private sector in reaching the post-2015 targets. |
| Latin America | The Latin American corpus generated five classes of words. The first presented actions carried out from the food security perspective. Class 2 highlighted the importance of international commitments for the eradication of hunger and the guarantee of the right to adequate food (focused on the regulatory agenda); the need to place nutrition on the political agenda (including parliamentary work); and the importance of political alliances at the subregional, regional, and global levels to jointly confront the economic and political power of the food industries. Class 3 described actions carried out, but with a very different content from class 1. The nutritional problems were presented in classes 4 and 5, from different perspectives. Class 4 related to eating practices, and class 5 focused on describing the prevalence of malnutrition, overweight, and others. The importance of social participation was mentioned. |
| Asia | The first class of words highlighted the impact of climate change and how it has been affecting the production, access to, and availability of food. It also recognized the food culture in a positive perspective of promotion and protection of healthy eating habits. Class 2 emphasized countries' positions to the global nutrition agenda and the ICN2 documents. It highlighted the Asian economic bloc as a political-strategic space for integration and alignment of actions. Classes 3 and 4 presented the efforts to address the burden of diseases focused on micronutrient deficiency and obesity. Class 5 emphasized the importance of mobilizing the public and private sectors to achieve national and global goals. It also recognized the importance of the international community to support countries to achieve results. Finally, class 6 showed the importance of developing national nutrition plans and multisectoral public policies to ensure food and nutritional security. The statements warned of the need to strengthen leadership in agendas related to agriculture and nutrition. |
| Europe | The first class (with the most words) described nutrition actions from a health promotion perspective. These actions were not just health-related, but also included a set of public policies within the scope of the food system, such as stimulating local production and family farming, facilitating access to healthy food, and holding local fairs and markets. The statements highlighted the focus on children's health by offering locally produced food in public facilities (daycare centers, schools, conducting educational campaigns, and focusing on the development of the local economy). The regulation of food advertising for children was an issue mentioned. Class 2 emphasized the need to focus on the multiple burden of malnutrition. Classes 3 and 4 presented the importance of high-level nutrition at the global level and the role of the UN, partners, and donors. |
| Oceania | The analysis produced six classes of words. The concepts of "food sovereignty" and "food system" were emphasized in the first class of words. For this region, the main concern was the increased imports of processed products to the detriment of locally produced traditional foods. There were apprehensions about the strong dependence on imported products and, consequently, changes in food preferences and practices in these countries. Class 2 described the necessity of strengthening regulatory actions and the right to choose healthy food. The discourses ranged from the development of international standards developed by the Codex Alimentarius, to consumer support for healthier informed choices—food labeling and food fortification were examples presented. Classes 3 and 4 met the epidemiological and nutritional profile of countries, emphasizing obesity, its associated diseases, and their relationship with increased consumption of imported products. Class 4 identified how countries are facing nutrition problems. Finally, classes 5 and 6 bring together the countries' positions on the international level. |

Source: Prepared by the authors based on study data.

Note: It was possible to identify the countries in the North America corpus as it is composed of just three countries—Canada, Mexico, and United States of America—with a lower number of Initial Context Units than the other corpora

In general, the countries' statements recognized the challenges they faced, presenting the nutrition status of the country's population (prevalence of stunting, wasting, overweight/obesity, and micronutrient deficiencies), and the actions that were being implemented. All six corpora presented the importance of support for the international and countries' commitments.

Despite the countries recognizing the food and nutrition problems they face, little was mentioned about the "all forms of malnutrition" determinants. The term "food system" was often used in the statements, but rarely described as a determinant of (mal)nutrition, except in the Oceania corpus. Although the role of the food system in malnutrition was mentioned in the Asia, Europe, and Oceania corpora, the context in which it was brought up varied.

The Asia corpus produced six classes of words. The first class of word is focused on the impact of climate change and how this has been affecting the production, access to, and availability of food. The Europe corpus focused on food systems through a lens of promoting health through public policies, including nutrition in agriculture policies that were being implemented.

The statements go beyond the health sector and include several food system policies, such the importance of more sustainable small-scale agriculture systems and of broadening access to healthy foodstuffs in local markets.

Another common topic in the analysis was that of regulatory measures, both when directed at the marketing and retail of foodstuffs (Latin America, Asia) and at the promotion and protection of healthy eating habits (Europe, Oceania).

In the Latin America statements, the regulatory agenda was addressed with an emphasis on the need for different social sectors, including civil society and the international community, to join forces toward its inception. These countries pointed out dialogue with the parliamentarian network on a global scale as a viable strategy for elevating nutrition to a political level and facing the challenges of enforcing food regulations. The final declaration of the Inter-Parliamentary Union at the ICN2 reinforces the need to develop and improve legislation for nutrition labels on food products, for the promotion and protection of breastfeeding, and for the regulation of food marketing, among others (18).

TABLE 2. Analysis framework of classes of word, Initial Context Units (ICUs) classification based on the countries' statements

| Africa 1800,0 % Classe 1 | | and determinants (country level) | ns policies being s implemented at country level | what should be done to fight malnutrition | partnership and social participation | of measuring the results | international bodies and the countries' commitments | acknowledgments |
|---------------------------------|---|-------------------------------------|--|---|--|-----------------------------|---|-------------------------|
| 1800,0 % Classe 1 | | 18% cl. 1 51 ICUs | 65% cl. 2 182 ICUs | ' | | · | 8% cl. 3 23 ICUs | 9% cl. 4 26 ICUs |
| North America | 800,0 % 900,0 % 6000 Classe 3 Classe 4 Clas | 6000,0 % Classe 2 27% cl. 1 44 ICUs | 19% cl. 4 32 ICUs | 12% + 7% (19%) cl. 2 + 3 20 + 12 IGUs | 17% cl. 6 28 ICUs | 9% cl. 7 16 ICUs | 9% cl. 5 16 ICUs | |
| 1900,0 % 900,0 % CI. 4 CI. 5 | 6 1700,0 % 900,0 % 700,0 % 1200,0 % 2700,0 % CI. 6 CI. 7 CI. 3 CI. 2 CI. 1 | % | | | | | | |
| | | 9 % cl. 1 32 IGUS | 45% cl. 3 125 ICUs | 8% + 12% (20%) cl. 4 + 5 22 ICUs | 1 | | 26% cl. 2 72 ICUs | |
| 4500,0 % Cl. 3 Asia | 4500,0% 800,0% 1200,0% 2600,0% 900,0% CI. 3 CI. 4 CI. 5 CI. 2 CI. 1 2300,0% 900,0% 1600,0% 1900,0% 1300,0% 2000,0% CI. 5 CI. 6 CI. 1 CI. 2 CI. 3 CI. 4 | 16% ci. 1 35 ICUs | 13% + 20% (33%) cr. 3 + 4 29 + 44 lCUs | | 23% ci. 5 51 ICUs | | 9% ci. 6 19 lcus | 19% cl. 2 43 ICUs |

TABLE 2. Analysis framework of classes of word, Initial Context Units (ICUs) classification based on the countries' statements (continued)

| Corpus | Dendr | ograms generatec | Dendrograms generated by Alceste© software | ware | Description of nutrition problems and determinants (country level) | Actions and policies being implemented at country level | Guidance about what should be done to fight malnutrition | Public-private Importance partnership of measuring and social the results participation | | Support to the international bodies and the countries' commitments | Countries' acknowledgments |
|---------|------------------------------|-----------------------|--|------------------------|--|---|---|---|---|--|-------------------------------|
| Europe | | • | | | | 68% cl. 1 169 ICUs | 10% cl. 2 24 ICUs | | · | 13% cl. 3 33 lCUs | 9% cl. 4 22 IGUs |
| | 6800,0 % Classe 1 | 1000,0 % Classe 2 | 1300,0 % Classe 3 | 900,0 % Classe 4 | | | | | | | |
| Oceania | | | | | 19% + 24% + 14% (57%) cl. 1 + 3 + 4 18 + 22 + 14 IGUs | 12% cl. 2 12 IGUs | ı | 1 | | 19% + 12% (31%) cl. 5 + 6 18 + 12 ICUs | |
| | 1900,0 % 1900,0 °CI. 1 CI. 5 | 0 % 1200,0 % CI. 6 | (1900,0 % 1900,0 % 1200,0 % 1200,0 % 2400,0 % CI.1 CI.5 CI.6 CI.2 CI.3 |)% 1400,0 % 3 Cl. 4 | | | | | | | |

Note: cl., class; ICUs, Initial Context Units Source: Prepared by the authors based on study data.

TABLE 3. Basic statistics on countries' statements, by region

| Corpus | Country statements (Initial Context Units – ICUs) | Corpus word count | Corpus page count |
|----------------------------|--|-------------------|-------------------|
| Africa (English) | 24 | 15 116 | 28 |
| North America (English) | 3 | 1 722 | 4 |
| Latin America (Spanish) | 17 | 14 465 | 26 |
| Asia (English) | 20 | 12 658 | 20 |
| Europe (English) | 22 | 14 301 | 22 |
| Oceania (English) | 5 | 3 177 | 6 |

Source: Prepared by the authors based on study data.

The statements from Asia and Latin America shed light on the strategic role of trading blocs, such as the Association of Southeast Asian Nations (ASEAN) and the Mercosur, in enforcing difficult nutrition policies such as the regulation of food marketing practices.

The statements from Oceania, however, took a different view and expressed criticism of the establishment of indiscriminate market relations and the dependency on imported foodstuffs to the detriment of local food systems. Correlations between the influx of ultra-processed goods and growing obesity rates were keenly noted. They also pointed out a need to perfect international Codex Alimentarius standards, both to ease market relations and to allow consumers to make more informed purchasing decisions. Other regions made no mention of such issues regarding the influence of market relations on global nutrition.

Another tendency was to address nutrition issues in a curative way, mainly using nutritional supplements and food fortification with micronutrients. In three corpora (Africa, North America, and Asia) a predominantly technical and biological approach toward tackling malnutrition was noticed.

The last major subject discussed was the importance of public–private partnerships (PPPs) in attaining global goals for nutrition and the support to the international and the countries' commitments, as endorsement of the Global Nutrition Targets in the World Health Assembly and other conferences, like the ICN2. Eliminating all forms of malnutrition worldwide incurs heavy budgetary constraints, and these partnerships can often help alleviate those.

It is important to highlight that the method does not allow the identification or summarization of how many countries had mentioned the term "food system" or others. Nevertheless, it explores motives, aspirations, and concerns in the fight against all forms of malnutrition.

DISCUSSION

This analysis of multiple countries and their views on the actors, agenda, policies, and initiatives to fight against all forms of malnutrition in a setting as notable as the ICN2 may play a strategic part in the Decade of Action on Nutrition.

A pragmatic overview reveals two key concepts that were widely put forward: "food systems" and "the fight against all forms of malnutrition." This section sheds light on issues related to both concepts.

In general, the statements mentioned investment policies for production and supply of nutrition-sensitive food systems, as well the perfecting of regulatory measures aimed at promoting and protecting healthy eating habits. The narratives present countries as fighting "all forms of malnutrition" through curative policies, with the exception of the Europe corpus. These two key concepts are integrated, as "all forms of malnutrition" can be determined by unsustainable "food systems" (1, 2, 5).

The Asia corpus addressed an aspect of nutritional problems as a result of climate change hampering local food production. Intensive food production practices quickly degrade the soil and lead to heavy carbon emissions, which expedite climate change (5, 19, 20). The Lancet Commission report on the Global Syndemic² demonstrated that food and agriculture, transportation, urban design, and land use are the major systems drivers of all forms of malnutrition and climate change. Moreover, obesity, undernutrition, and climate change interact with each other and have common systems drivers (5).

Although the statements of the Asia region recognized the relationship between climate change and nutrition issues, no mention could be found of the challenges to strengthen sustainable food systems, based on the diversification of food production, family agriculture, and agroecology. Agroecological systems not only contribute to stabilizing regional and global climate, but they also produce a variety of foods and foodstuffs which can improve nutrient supply (19–21). The UN Special Rapporteur on the right to food (22, 23) and civil society (24) at the ICN2 meeting expounded policies to strengthen smallholders and family farmers and ensure fair working conditions. The literature evidence shows that beyond climate change, food systems have steadily shifted due to transnational investments related to free trade agreements and intensive use of food marketing practices (4, 25–31).

This heavy investment can be seen in the tangible growth of the sales of these products around the globe. From 2000 to 2015, the sales of ultra-processed food and beverages in the upper-middle income countries grew by more than a half (5, 6). Developing countries provide tempting markets for transnational companies to expand their business practices (4–6, 30).

There is evidence linking policies that facilitate transnational commerce and the ensuing increase of foreign investment with poor eating habits and proliferation of obesity and noncommunicable chronic diseases (4–6, 25). There is a correlation between market policies that promote foreign direct investment and an increase in the supply and promotion of breast-milk substitutes (32, 33). They also relate rising retail of processed foodstuffs to growing numbers of overweight: every additional 20 kg per capita of ultra-processed foodstuffs sold yearly leads to an increase of 0.28 points in body mass index (BMI) (5).

Food supplies that rely on imported foodstuffs can weaken the local production and can cause countries to become dependent on others for their food. Market relations that fail to safeguard local food systems contribute to the proliferation of nutritional ailments and hamper countries' efforts toward achieving food sovereignty (4, 30).

"Trade and investment for improved nutrition" is a key pillar of the Decade of Action (34). One of the Framework's recommendations is to ensure that commercial agreements do not harm countries' rights to adequate nutrition (12), which can be challenging to health and nutrition outcomes and is rarely considered at the time of negotiations.

 $^{^{\}rm 2}$ The interrelation of three pandemics: obesity, undernutrition, and climate change (5).

When it comes to regulatory measures directed at the promotion and protection of healthy eating habits, a visible trend between statements (outside of those from North America) was to advocate the regulation of marketing and retailing of unhealthy foodstuffs in school cafeterias. These statements, however, did not bring up fiscal measures such as the enforcement of taxes on sugary beverages, despite recent experiences with these policies in Mexico and different states of the United States showing promising results (35).

When mentions of regulatory measures for the safeguard of healthy eating habits were made in the analyzed statements, they often noted two key factors: how necessary and relevant these measures were; and how much resistance from large companies stood in the way of their implementation. Despite overwhelming evidence linking food marketing to increased intake of unhealthy foodstuffs (26, 28, 32), policies that address this issue can prove challenging to enact due to economic and commercial interests (6, 29–31). Studies indicate a need for such measures to be implemented through governmental legislation, since voluntary and self-regulating agreements have proved to be of limited effectiveness (36, 37).

Recommendations for the regulation of food marketing, as well as regulatory measures for labeling policies and economic incentives and deterrents such as sugary beverage taxes, are all described in the ICN2 Framework for Action (12). However, the regulations for the promotion of healthy eating are still underrepresented in the documentation on the Decade of Action on Nutrition (34) and are limited to fiscal measures pertaining to trade and investment policies. This gap in official documentation can be considered a setback given the rising overweight and obesity rates in countries and the need for a restructuring of food systems. The Decade is an opportunity to foster international cooperation aimed at developing wide-spanning policies to tackle these challenges.

The last major subject to be frequently discussed in the countries' statements was the importance of PPPs in attaining global goals for nutrition. Eliminating all forms of malnutrition incurs budgetary constraints, and PPPs can often help alleviate these. Countries have adopted this practice over the last three decades, forming strategic alliances at the national, regional, and global levels.

The heterogeneity among nutrition actors—which range from non-profit initiatives to civil society to governments to multinational corporations—each with diverging interests and priorities, makes it apparent that relations between governments and the private sector must be clearly defined. Institutional relationships and policies must adhere to previously established criteria, and the results born from these partnerships must be closely monitored and evaluated.

Furthermore, additional efforts must be made to develop legitimate governance structures that allow for the representation of vulnerable populations. Effective participation from civil society in global governance for nutrition is paramount in securing this representation and preventing governments from losing track of priorities, such as food and nutrition security and sovereignty. Regulatory actions must align themselves with public interests if they are to properly safeguard countries' fundamental rights.

Several countries and the UN itself are friendly to PPPs if their performance is monitored and their expected results are detailed from the outset. Civil society, however, adopted a more cautious stance, and urged governments to safeguard their political sovereignty from inappropriate business relations with powerful economic actors such as transnational corporations. It also called for the enactment of rules and regulations to avoid conflict of interest in public–private relations (38).

The countries' statements did not address the handling of PPPs to avoid such conflicts and ensure their citizens' rights to health and adequate food. Little mention was made of civil society's role in this process, even in countries whose populations were most affected by malnutrition.

The Committee on World Food Security (CFS) (39) has become a key player in the restructuring of global governance for nutrition. The Committee represents the most inclusive international and intergovernmental platform currently available (40).

The Decade of Action on Nutrition's last pillar advocates for the strengthening of governance structures for nutrition and of public and private accountability. Thus, a successful Decade requires commitments to perfect global governance for nutrition, despite this topic receiving little attention in the ICN2 countries' statements.

Conclusion

The analysis provides countries' insights based on their own collective pre-Decade starting-point toward setting stronger and more sustained commitments and results for "Better nutrition, better lives." The statements also provide insights on the need for translation into deeper institutional commitments regarding the determinants of malnutrition, focused on the food systems drivers—country driven, in a global and regional coordinated approach. Moreover, this analysis can promote multilateral and bilateral development cooperation for the implementation of the Decade's framework.

Some countries' statements have already suggested meaningful agenda items for such an event: Increase agroecological and sustainable food production; Foster family farming; Strengthen policies that promote local markets and fairs, bringing production and consumption closer together; Protect market relations; Provide disincentives against the import of ultra-processed foods; Ensure that trade agreements do not infringe on citizens' rights to adequate food; Implement regulatory measures on food marketing; and, Enforce taxes on sugary beverages and similar products.

Despite the importance of analyzing countries' statements, this study is not without limitations. The analysis covered 91 of the 127 countries that issued statements in the ICN2. It did not cover those written in French, Arabic, Chinese, or Russian.

Another limitation is the fact that the analysis was divided by geographical region, which does not necessarily mean that the countries included in each region share common opinions. Moreover, the statements may not accurately represent the whole extent of countries' policies.

Finally, this manuscript has been revised during the COVID-19 pandemic. The world's population—especially the most vulnerable—is being exposed to food insecurity, and undernutrition is rising. The COVID-19 crisis has further deepened social inequalities worldwide.

Author contributions. JGC conceived the original idea and designed the study, organized, analyzed, and interpreted the data, and drafted the paper. ER contributed to the study's conception and revised the content critically. DCCD contributed

to the revised content critically. All authors reviewed and approved the final version.

Conflicts of interest. None declared

Disclaimer. Authors hold sole responsibility for the views expressed in the manuscript, which may not necessarily reflect the opinion or policy of the *RPSP/PAJPH* and/or PAHO.

REFERENCES

- 1. HLPE. Nutrition and food systems. A report by the High-Level Panel of Experts on Food Security and Nutrition of the Committee of World Food Security, Rome. September 2017 (Document I7846EN/1/09.17).
- 2020 Global Nutrition Report: Action on equity to end malnutrition. Bristol: Development Initiatives; 2020. Available from: https://globalnutritionreport.org/reports/2020-global-nutrition-report/.
- NCD Risk Factor Collaboration (NCD-Risc). Trends in adult bodymass index in 200 countries from 1975 to 2014: a pooled analysis of 1698 population-based measurement studies with 19.2 million participants. Lancet. 2016;387(10026):1377–96. Published online: 2 Apr 2016. https://doi.org/10.1016/S0140-6736(16)30054-X
- 4. Stuckler D, Nestle M. Big food, food systems, and global health. PLoS Med. 2012;9(6):e1001242. Published online: 19 Jun 2012. https://doi.org/10.1371/journal.pmed.1001242
- Swinburn BA, Kraak VI, Allender S, Atkins VJ, Baker PI, Bogard JR, et al. The Global Syndemic of obesity, undernutrition, and climate change: The Lancet Commission report. Lancet. 2019;393(10173): 791–846. Published online 27 Jan 2019. https://doi.org/10.1016/S0140-6736(18)32822-8
- Organización Panamericana de la Salud. Alimentos y bebidas ultraprocesados en América Latina: tendencias, efecto sobre la obesidad e implicaciones para las políticas públicas. Washington, DC: OPS; 2015. Available from: https://iris.paho.org/bitstream/ handle/10665.2/7698/9789275318645_esp.pdf
- 7. Global Panel on Agriculture and Food Systems for Nutrition. Food systems and diets: facing challenges of the 21st century. London: The Global Panel; 2016.
- 8. Food and Agriculture Organization [Internet]. Rome: FAO; 2014. ICN2 Second International Conference on Nutrition: better nutrition better lives. Available from: http://www.fao.org/about/meetings/icn2/en/.
- Food and Agriculture Organization; World Health Organization. Second International Conference on Nutrition. Conference Outcome Document: Rome Declaration on Nutrition. Rome: FAO; 2014. (Document ICN2 2014/2). Available from: http://www.fao.org/3/a-ml542e.pdf
- United Nations, Sustainable Development Knowledge Platform [Internet]. New York; United Nations; c2017. Transforming our world: the 2030 Agenda for Sustainable Development. Available from: http://sustainabledevelopment.un.org/post2015/transforming ourworld (Accessed April 2018).
- 11. United Nations, General Assembly. Resolution adopted by the General Assembly on 1 April 2016. United Nations Decade of Action on Nutrition (2016–2025). New York: United Nations; 15 April 2016. (Document A/RES/70/259). Available from: https://www.un.org/en/ga/search/view_doc.asp?symbol=A/RES/70/259
- 12. Food and Agriculture Organization; World Health Organization. Second International Conference on Nutrition. Conference Outcome Document: Framework for Action. Rome: FAO; 2014. (Document ICN2 2014/3 Corr.1) Available from: http://www.fao.org/3/a-mm215e.pdf
- Minayo CSM. O desafio do conhecimento: pesquisa qualitativa em saúde. 12th ed. São Paulo/Rio de Janeiro: Hucitec – Abrasco; 2010
- Bardin L. Análise de conteúdo. 2nd ed. Lisboa: Edições 70 LDA/ Almedina Brasil; 2004.
- 15. Popping R. Computer-assisted text analysis. London: Sage; 2004.
- 16. Hohl K, Tsirogianni S, Gerber M, Biquelet A; London School of Economics and Political Science; Methodology Institute. Workshop

- in Applied Analysis Software MY591: Introduction to Alceste. London: LSE; 2011. [Training guide]. 17. Moreira ASP, Camargo BV, Nóbrega SM. Perspectivas teórico-
- Moreira ASP, Camargo BV, Nóbrega SM. Perspectivas teóricometodológicas em representações sociais. João Pessoa: University Press of Federal University of Paraíba; 2005.
- 18. Inter-Parliamentary Union. Parliaments for better nutrition: Final statement. Second International Conference on Nutrition. Rome: Inter-Parliamentary Union; 21 November 2014. Available from: http://www.fao.org/fileadmin/user_upload/icn2/media/statements/doc/211114-PARLIAMENTARIAN.pdf
- 19. Gómez MI, Barrett CB, Raney T, Pinstrup-Andersen P, Meerman J, Croppenstedt A, et al. Post-Green Revolution food systems and the triple burden of malnutrition. ESA Working Paper No. 13-02. Rome: Agricultural Development Economics Division, Food and Agriculture Organization of the United Nations; 2013. Available from: http://www.fao.org/fileadmin/templates/esa/Papers_and_documents/WP_13-02_Gomez_et_al.pdf
- 20. Jones AD, Ejeta G. A new global agenda for nutrition and health: the importance of agriculture and food systems. Bull World Health Organ. 2015;94:228–9. Published online: 3 Feb 2016. https://doi.org/10.2471/BLT.15.164509
- 21. Windfuhr M, Jonsén J; FIAN. Food sovereignty: towards democracy in localized food systems. Rugby, UK: ITDG Publishing; 2005. Available from: http://www.ukabc.org/foodsovpaper.htm
- United Nations General Assembly, Human Rights Council. Twentyfifth session. Report of the Special Rapporteur on the right to food, Olivier De Schutter. Final report: The transformative potential of the right to food. New York: United Nations; 24 January 2014. (Document A/HRC/25/57).
- 23. World Health Organization; Convention on Biological Diversity. Connecting global priorities: biodiversity and human health: a state of knowledge review. Geneva: WHO; 2015. Available from: https://www.who.int/globalchange/publications/biodiversity-human-health/en/.
- 24. Food and Agriculture Organization; World Health Organization. Public Interest Civil Society Organizations' and Social Movements' Forum Declaration to the Second International Conference on Nutrition (ICN2). Rome: FAO; 21 November 2014. Available from: http://www.fao.org/3/a-at641e.pdf
- 25. Thow AM. Trade liberalisation and the nutrition transition: mapping the pathways for public health nutritionists. Public Health Nutr. 2009;12(11):2150–8. Published online: 12 May 2009. https://doi.org/10.1017/S1368980009005680
- 26. United Nations System Standing Committee on Nutrition. Enhancing coherence between trade policy and nutrition action: implementing the Framework for Action of the Second International Conference on Nutrition. Rome: UNSCN; 2016.
- 27. Thow AM, Hawkes C. The implications of trade liberalization for diet and health: a case study from Central America. Global Health. 2009;5:5. Published online: 28 June 2009. https://doi.org/10.1186/1744-8603-5-5
- Stuckler D, McKee M, Ebrahim S, Basu S. Manufacturing epidemics: the role of global producers in increased consumption of unhealthy commodities including processed foods, alcohol, and tobacco. PLoS Med. 2012;9(6):e1001235. Published online: 26 June 2012. https:// doi.org/10.1371/journal.pmed.1001235
- 29. Hawkes C, Chopra M, Friel S. Globalization, trade, and the nutrition transition. In: Labonté R, Schrecker T, Packer C, Runnels V, editors. Globalization and health: pathways, evidence and policy. 1st ed. New York: Routledge; 2010. p. 235–63.

- 30. Rayner G, Hawkes C, Lang T, Bello W. Trade liberalization and the diet transition: a public health response. Health Promot Int. 2006;21(Suppl 1):67–74. Published online: 21 Dec 2006. https://doi.org/10.1093/heapro/dal053
- 31. Moodie R, Stuckler D, Monteiro C, Sheron N, Neal B, Thamarangsi T, et al. Profits and pandemics: prevention of harmful effects of tobacco, alcohol, and ultra-processed food and drink industries. Lancet. 381(9867):670–9. Published online: 12 Feb 2013. https://doi.org/10.1016/S0140-6736(12)62089-3
- Galtry J. Strengthening the human rights framework to protect breastfeeding: a focus on CEDAW. Int Breastfeed J. 2015;10:29. Published online: 18 Nov 2015. https://doi.org/10.1186/s13006-015-0054-5
- 33. Smith J, Galtry J, Salmon L. Confronting the formula feeding epidemic in a new era of trade and investment liberalisation. J Aust Polit Econ. 2014;73:13234.
- 34. World Health Organization; Food and Agriculture Organization. United Nations Decade of Action on Nutrition 2016–2025: Work programme. Geneva: WHO; 5 May 2017. Available from: https://www.fao.org/3/a-bs726e.pdf
- 35. Pan American Health Organization. Taxes on sugar-sweetened beverages as a public health strategy: the experience of Mexico. Mexico DF: PAHO; 2015. Available from: http://iris.paho.org/xmlui/bitstream/handle/123456789/18391/9789275118719_eng.pdf
- 36. Lumley J, Martin J, Antonopoulos N. Exposing the charade: the failure to protect children from unhealthy food advertising. Melbourne:

- Obesity Policy Coalition; 2012. Available from: https://www.opc.org.au/downloads/submissions/exposing-the-charade.pdf
- 37. Hawkes C, Harris JL. An analysis of the content of food industry pledges on marketing to children. Public Health Nutr. 2011;14(8): 1403–14. Published online: 10 May 2011. https://doi.org/10.1017/S1368980011000607
- 38. Committee on World Food Security. Thirty-sixth session. Proposal for an International Food Security and Nutrition Civil Society Mechanism for Relations with CFS. September 2010. Rome: FAO; 2010. (Document CFS:2010/9).
- 39. Food and Agriculture Organization [Internet]. Rome: FAO; c2009. Committee on World Food Security. Available from: http://www.fao.org/cfs/home/en/. (Accessed December 2014).
- 40. Duncan J, Barling D. Renewal through participation in global food security governance: implementing the International Food Security and Nutrition Civil Society Mechanism to the Committee on World Food Security. Int J Sociol Agric Food. 2012;19(2):143–61.

Manuscript received on 8 November 2019. Revised version accepted for publication on 25 June 2020.

Mejor nutrición, mejores vidas: la posición de los países para luchar contra todas las formas de malnutrición

RESUMEN

Objetivo. Identificar la posición de los países para luchar contra todas las formas de malnutrición.

Métodos. Estudio cualitativo, exploratorio y descriptivo de las declaraciones de 91 de los 127 (71,7%) países que emitieron declaraciones en la Segunda Conferencia Internacional sobre Nutrición.

Resultados. Según el análisis de las declaraciones oficiales en la Conferencia, los países siguieron respondiendo a problemas relacionados con la nutrición de manera tradicional. Se mencionaron los sistemas alimentarios como parte del problema y la solución, pero se prestaba poca atención a sus determinantes.

Conclusiones. El Decenio de Acción sobre la Nutrición se ve impulsado por la urgente necesidad de coordinar los esfuerzos mundiales en la lucha contra la malnutrición y podría aunar los esfuerzos dirigidos a priorizar las acciones para abordar los determinantes de la malnutrición en lugar de sus resultados biológicos –lo que requiere compromisos–; y a fortalecer la capacidad de los países para aplicar medidas regulatorias sólidas. Esas medidas podrían potenciarse mediante esfuerzos a distintos niveles, aprovechando los entornos multilaterales, y mediante el fortalecimiento de la participación de la sociedad civil, incluida la elaboración de mejores mecanismos para el reconocimiento y el control de los conflictos de intereses en distintos espacios políticos.

Palabras clave

Seguridad alimentaria y nutricional; política nutricional; desnutrición; participación de los interesados.