

Advancing research, policy and practice to promote resilient and sustainable food and health systems in the year of action on nutrition: Proceedings of the 7th annual International Summit on Nutrition and Health

Marjorie Rafaela Lima do Vale,¹ Jørgen T Johnsen,¹ Celia Laur,^{1,2}
Breanna Lepre,^{1,5} Sumantra Ray,^{1,3,4}

In 2012, the World Health Assembly (WHA) endorsed global targets to reduce malnutrition in all its forms by 2025. The specific six nutrition targets aim to reduce low birth weight, stunting, wasting and anaemia in women of reproductive age; stop the rise of overweight in children under five years of age; and increase exclusive breastfeeding.¹ In the following year, global targets for nutrition-related non-communicable diseases (NCDs) were further established, including halting the rise of diabetes and obesity in all age groups.² Unfortunately, the world is off course to meet these targets with the exception of exclusive breastfeeding.³ On top of this, the Covid-19 pandemic has put enormous pressures on already strained food and healthcare systems contributing to increases in food insecurity and malnutrition worldwide.⁴ Malnutrition imposes high economic and social costs on individuals, families, and countries⁵; and effectively implementing preventative and curative actions to curb alarmingly high rates of malnutrition is still urgently needed.

To discuss the impact of food and healthcare systems on human nutrition and on planetary health, the NNEdPro Global Institute for Food, Nutrition and Health and the International Academy of Nutrition Educators (IANE), in collaboration with BMJ Nutrition, Prevention and Health (BMJ NPH) hosted

the 7th International Summit on Nutrition and Health. The NNEdPro Global Institute is an award-winning interdisciplinary think-tank, training academy and knowledge network established in 2008. Headquartered in Cambridge, UK with 12 regional networks across six continents, the NNEdPro Global Institute is committed to ending all forms of malnutrition through research, education and advocacy.⁶ The Summit is an annual scientific event that brings together professionals, educators, students and researchers from around the globe to showcase leading research and build alliances to implement innovative solutions which address complex nutrition and health challenges.⁷

The 7th annual International Summit on Nutrition and Health took place virtually from July 5th to 24th, 2021. The summit was designed to complement the United Nations Food Systems Summit 2021 (UNFSS), the

Nutrition for Growth Summit 2021 (N4G) and the Year of Action on Nutrition. The theme of the 7th Summit was “Advancing research, policy and practice to promote resilient and sustainable food and health systems in the Year of Action on Nutrition”. Plenary sessions, panel discussions, and abstracts presentations covered three sub-themes, as follows⁷:

- Identifying emerging and complex challenges in food and health systems.
- Promoting resilient and sustainable food and health systems.
- Building competencies and capacity for effective communication and implementation of nutrition research.

A visual summary of the topic is presented in Figure 1, while the Oral Presentations provide further details on the topics discussed.

Food and health systems transformation

While our food systems have the potential to provide safe and accessible foods to meet the nutritional demands and cultural preferences of individuals, the health systems play an important role in screening and treating individuals who are malnourished or ill and referring them to relevant services. However, recent estimates show that food and health systems are failing to meet these goals, with billions of people not having access to adequate food,⁴ and around one third of individuals across the world not having access to essential nutrition services without experiencing financial hardships.⁸

Food and health systems transformation is needed. New systems must be able to

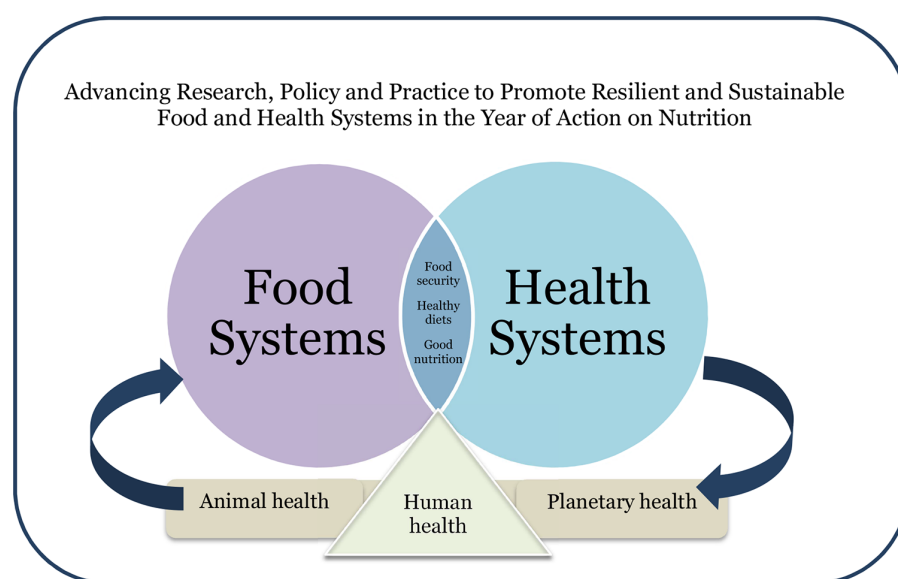


Figure 1. Interconnection between food and healthcare systems through policies, programmes and services that promote food security, healthy diets and good nutrition and their bi-directional relationship with animal, human, and planetary health.

¹NNEdPro Global Institute for Food, Nutrition and Health, Cambridge, UK

²Women's College Hospital Institute for Health System Solutions and Virtual Care, Toronto, Ontario, Canada

³School of Humanities and Social Sciences, University of Cambridge, Cambridge, UK

⁴School of Biomedical Sciences, Ulster University at Coleraine, Coleraine, UK

⁵School of Medical, Indigenous and Health Sciences, University of Wollongong, Wollongong, NSW, Australia

Correspondence to Marjorie Rafaela Lima do Vale & Sumantra Ray, NNEdPro Global Institute for Food, Nutrition and Health, Cambridge, UK; m.limadovale@nnedpro.org.uk, s.ray@nnedpro.org.uk

provide adequate resources and services for current and future generations, while supporting workers' safety, inclusivity and livelihood. For instance, two thirds of those in extreme poverty are employed by the agricultural sector.⁹ In addition, high risks of occupational injury are observed among food systems workers, including those involved in agriculture, fishing and food manufacturing, with some of these being associated with chemicals and pesticide exposures, zoonotic diseases and vehicle or machinery-related incidents.¹⁰

Considering these challenges, the 7th Summit speakers discussed several factors that can contribute to food and health systems transformation. One significant aspect of the discussion was the need to address the gaps in data availability and accessibility regarding food and health systems. Timely and quality data, at the appropriate level of disaggregation, are fundamental to understand where investments are needed and to improve access to lifesaving interventions. For example, it has been estimated that about 20% of countries do not have data available on sustainable development goals (SDGs) two (i.e., zero hunger) or three (i.e., health and wellbeing).¹¹ One of the solutions proposed during UNFSS to address this gap in data availability, integration and utility was the creation of a Global Food Systems Data Consortium with support from subject matter experts and inclusive processes.¹² At N4G, the need for better data and more integrated mechanisms to track progress were presented as a cross-cutting area to support food systems resilience, integration of nutrition services in health systems and addressing issues related to poor diets and malnutrition.¹³ Resolving current data gaps and increasing the access and utility of available data play an important role in facilitating more equitable and data-driven solutions.

Education, capacity and power for food and health systems actors

All actors across food and health systems need to possess adequate knowledge, capacities and power to act. Without this, achieving sustainable food and health systems is not possible. One of the solutions discussed during the Food Systems Summit to support food systems actors' capacity and agency includes the delivery of innovative and tailored learning and education opportunities, particularly for marginalised and vulnerable actors in food systems.¹³ The need to promote the participation of women, young people, Indigenous Peoples, migrant workers, small-scale producers and those working within food and health systems that suffer from any form of

marginalisation was also highlighted at our Summit event. Promoting their leadership, voice in decision-making spaces and agency is imperative for food and health systems transformation.¹⁴ It is also important to consider consumers, and the relevance of providing accessible information and education to encourage more healthful consumer choices.¹⁵ One of the initiatives discussed at our Summit event was the FAO E-learning Academy, which provides learning opportunities to policymakers, project/programme designers and implementers.¹⁶ There were also more focused discussions on the need to enhance nutrition knowledge and skills among health workers for effective screening and management of malnutrition in community and hospital settings. Building the nutrition knowledge and skills of food and health professionals is a recommended and necessary action to create an enabling environment that promotes good nutrition for all.¹⁷

Harnessing digital technologies to improve food and health systems outcomes

Digital technologies, including tools that collect, store, analyse and share information digitally can optimise food and health systems and processes. The importance of innovative digital technologies in supporting food systems responsiveness and sustainability was highlighted during the Covid-19 pandemic. For example, in the data space, use of satellite and mobile phone data as well as remote household surveys were used during the pandemic to collect timely disaggregated data and support epidemiological surveillance and interruption of community transmission.¹¹ Digital technologies such as social media platforms were also largely used to promote communication between public health agencies and the public and teleconferencing platforms were used to support the continuation of educational and health services.¹⁸ Digital technologies also played an important role in facilitating access to basic supplies, including food, hygiene and medications. Despite such potential, adoption of digital technologies varies across and within countries, with lower adoption being observed in low-income countries. The use of digital technologies also poses challenges in terms of ethics, data security, privacy and governance, which need to be addressed to ensure broad benefits.¹⁹ For this reason, the topic for the 2022 Summit will be "Empowering Global Nutrition with Digital Technology".

Urgent food and health systems transformation is critical to ensure adequate food and nutrition security, health, and wellbeing for all. Presentations and discussions at the 2021 NNEdPro 7th Summit highlight

the need to address gaps in data availability and accessibility to increase the utility of existing data to inform solutions in the context of food and health systems. This must be accompanied by capacity building for those who engage with food and health systems, including policymakers, programme designers and implementers, and healthcare professionals and education for consumers to encourage healthy choices. Finally, it is important to centre the voice of minorities in the transformation of food and health systems. Digital technologies are essential to nutrition surveillance, delivery of information, and timely access to essential resources.

Acknowledgements The 2021 Summit organizing committee: Ananya (Ria) Roy, Elaine MacAninch, Prof Eleanor Beck, Helena Trigueiro, James Bradfield, Kai Sento Kargbo, Dr Kathy Martyn, Dr Luke Buckner, Prof Martin Kohlmeier, Matheus Abrantes, Mercedes Tejeda, Nikhita Raja, Mayara de Paula, Melissa Adamski, Pauline Douglas, Shane McAuliffe and Sucheta Mitra

Funding This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient consent for publication Not required.



OPEN ACCESS

Open Access This is an open access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited, appropriate credit is given, any changes made indicated, and the use is non-commercial. See: <http://creativecommons.org/licenses/by-nc/4.0/>.

© Author(s) (or their employer(s)) 2022. Re-use permitted under CC BY-NC. No commercial re-use. See rights and permissions. Published by BMJ.



To cite Lima do Vale MR, Johnsen JT, Laur C, et al. *BMJ Nutrition, Prevention & Health* 2022;5(S2):i-iii. doi:10.1136/bmjnph-2022-summit2022.editorial

BMJ Nutrition, Prevention & Health 2022;5(S2):i-iii. doi:10.1136/bmjnph-2022-summit2022.editorial

REFERENCES

- 1 World Health Organization (WHO). Comprehensive implementation plan on maternal, infant and young child nutrition [Internet]. Geneva, Switzerland: WHO; 2014 [cited 2022 May 3]. Available from: <https://www.who.int/publications/i/item/WHO-NMH-NHD-14.1>

- 2 World Health Organization (WHO). Noncommunicable Diseases Global Monitoring Framework: Indicator Definitions and Specifications [Internet]. Geneva, Switzerland: WHO; 2014 [cited 2022 May 3]. Available from: <https://www.who.int/publications/i/item/ncd-surveillance-global-monitoring-framework>
- 3 Global Nutrition Report. The state of global nutrition [Internet]. Bristol, UK: Development Initiatives; 2021 [cited 2022 April 26]. Available from: <https://globalnutritionreport.org/reports/2021-global-nutrition-report/>
- 4 FAO, IFAD, UNICEF, WFP and WHO. The State of Food Security and Nutrition in the World 2021. Transforming food systems for food security, improved nutrition and affordable healthy diets for all [Internet]. Rome, Italy: FAO; 2021 [cited 2022 April 26]. Available from: <https://www.fao.org/documents/card/en/c/cb4474en>
- 5 Global Panel. The cost of malnutrition. Why policy action is urgent [Internet]. London, UK: Global Panel on Agriculture and Food Systems for Nutrition; 2016. [cited 2022 April 26]. Available from: <https://glopan.org/sites/default/files/pictures/CostOfMalnutrition.pdf>
- 6 About us [Internet]. Cambridge, UK: NNEdPro; n.d. [cited 2022 Apr 26]. Available from: <https://www.nnedpro.org.uk/about-us>
- 7 7th international summit. [Internet]. Cambridge, UK: NNEdPro; n.d. [cited 2022 Apr 26]. Available from: <https://www.nnedpro.org.uk/summit>
- 8 World Health Organization (WHO). World health statistics 2021: monitoring health for the SDGs, sustainable development goals. Geneva, Switzerland: World Health Organization; 2021a [cited 2022 April 26]. Available from: <https://apps.who.int/iris/handle/10665/342703>
- 9 Castaneda Aguilar RA, Doan DT, Newhouse DL, Nguyen MC, Uematsu H, Azevedo JPW. Who are the poor in the developing world?. Policy Research Working Paper Series 7844, 2016. [Internet] Place unknown: The World Bank; 2016. [cited 2022 April 26]. Available from: <https://elibrary.worldbank.org/doi/abs/10.1596/1813-9450-7844>
- 10 IPES-Food. Unravelling the Food–Health Nexus: Addressing practices, political economy, and power relations to build healthier food systems [Internet]. Place unknown: The Global Alliance for the Future of Food and IPES-Food; 2017. [cited 2022 April 26]. Available from: [https://www.ipes-food.org/_img/upload/files/Health_FullReport\(1\).pdf](https://www.ipes-food.org/_img/upload/files/Health_FullReport(1).pdf)
- 11 World Health Organization (WHO). The Sustainable Development Goals Report. Geneva, Switzerland: World Health Organization; 2021 [cited 2022 April 26]. Available from: <https://www.un.org/sustainabledevelopment/progress-report/>
- 12 Launch a Digital Data Cornucopia- A Global Food Systems Data Consortium. [Internet]. Place unknown: Food Systems Summit; 2021. [cited 2022 Apr 26]. Available from: https://foodsystems.community/?attachment=3576&document_type=document&download_document_file=1&document_file=386
- 13 Nutrition for Growth Summit Vision and Roadmap. [Internet]. Place unknown: Nutrition for Growth Summit; 2021 [cited 2022 Apr 26]. Available from: https://nutritionforgrowth.org/wp-content/uploads/2021/04/Vision_Roadmap_4.6.2021.pdf
- 14 Strengthening Capacity in Food Systems [Internet]. Place unknown: Food Systems Summit; 2021. [cited 2022 Apr 26]. Available from: <https://foodsystems.community/game-changing-propositions-solution-clusters/strengthening-capacity-in-food-systems-2/>
- 15 Motivation, Education and Information to Shift Demand for Healthy and Sustainable Food Consumption. [Internet]. Place unknown: Food Systems Summit; 2021. [cited 2022 Apr 26]. Available from: <http://foodsystems.community/game-changing-propositions-solution-clusters/motivation-education-and-information-to-shift-demand-for-healthy-and-sustainable-food-consumption/>
- 16 FAO elearning Academy [Internet]. Place unknown:FAO; n.d. [cited 2022 Apr 26]. Available from: <https://elearning.fao.org/mod/page/view.php?id=4534>
- 17 Budd, J., Miller, B.S., Manning, E.M. et al. Digital technologies in the public-health response to COVID-19. *Nat Med* [Internet]. 2020. [cited 2022 April 26]; 26, 1183–1192. Available from: <https://doi.org/10.1038/s41591-020-1011-4>
- 18 Conference Outcome Document: Framework for Action [Internet]. Rome, Italy: Food and Agriculture Organization of the United Nations; 2014; [cited 2022 April 26]. Available from: <https://www.fao.org/3/mm215e/mm215e.pdf>
- 19 Future of Food. Harnessing Digital Technologies to Improve Food System Outcomes [Internet]. Washington, DC: World Bank Group; 2019. [cited 2022 April 26]. Available from: <https://openknowledge.worldbank.org/bitstream/handle/10986/31565/Future-of-Food-Harnessing-Digital-Technologies-to-Improve-Food-System-Outcomes.pdf?sequence=1&isAllowed=y>