

## Oral presentations

### 1 IDENTIFYING EMERGING AND COMPLEX CHALLENGES IN FOOD AND HEALTH SYSTEMS

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Promoting good nutrition is essential to tackle current and emergent health crisis. For instance, non-communicable diseases (NCDs) are responsible for about 70% of deaths globally, with high intake of sodium, red meat, refined sugars and/or ultra-processed foods and low intake of whole grains, legumes and fruits ranking among the top dietary risks for NCDs related deaths. Diet also play an important role in emergent health crises, as illustrated during the Covid-19 pandemic, where those who are malnourished and/or present underlying NCDs have more severe and deadly outcomes. Despite that, limited progress is being made toward the United Nations Sustainable Development Goals (SDGs) on malnutrition and NCDs.

Nutrition is linked with other modifiable risk factors for chronic diseases such as physical activity, sleep, mental well-being, substance abuse (e.g., alcohol and smoking) and environmental factors. The complexity of foods and their constituents and the multitude of factors involved in the aetiology of NCDs make dissecting the relative contribution of risk factors and interventions on disease onset and progression a challenging task. Understanding the interrelation between traditional risk factors that are established already and lifestyle risk factors will allow us to offer a more holistic approach to human well-being. Rigorous and innovative research that harnesses the power of large datasets and multiple research methods is needed to support the development of coherent theories in nutrition and risk identification and management. It is also necessary to connect this innovative research with the complex needs of individuals and systems. For example, the Covid-19 pandemic has exacerbated food insecurity (i.e., not being able to access foods that are safe and nutritionally appropriate for one's health) in multiple ways, including disruptions at the system level, such as interruptions and delays across food chains and increased food prices or individual level, including job losses and lack of access to food. In the UK, research has shown that ethnic minorities groups, those limited by health problems/disabilities, food sector workers and households with children were at increased risk of experiencing food insecurity. In some parts of Africa, conflicts, displacements, and droughts are additional factors contributing to the high prevalence of food insecurity, further exacerbated during the Covid-19 pandemic. The idea that 'Nobody ever just needs food' highlights that addressing

food insecurity and malnutrition requires multisectoral solutions to resolve underlying causes of the problem.

Public and private sectors play an important role in addressing the burden of malnutrition but goals and responsibilities must be transparent, focused on public benefit, and collaborative. Systems-based approaches where nutrition and health are prioritized should be also employed. While changes in systems, policies and services can be triggered by community demand and advocacy, education and training are necessary to promote capacity for change and sustained impact. Quality data on food, nutrition and health can support this behavioural shift through the identification of problems and gaps. There is a need to establish a data foundation which enables the development of a science-based approach upon which statistically backed actions can be derived. This is particularly difficult with nutrition where much is dependent on observational data and longitudinal cohorts are scarce. Advancing our knowledge through research partnerships and data sharing will allow us to provide convincing evidence to policy makers as well as the public. Ultimately, improving data literacy among relevant stakeholders is also needed to enable accurate interpretation and relevant action. Advancing our knowledge through research partnerships and data sharing will allow us to provide convincing evidence to policymakers as well as patients. Programs such as the NNEDPro's International Knowledge Application Network Hub in Nutrition (iKANN), can facilitate this collaboration, while also curating nutrition data, evidence and training resources.

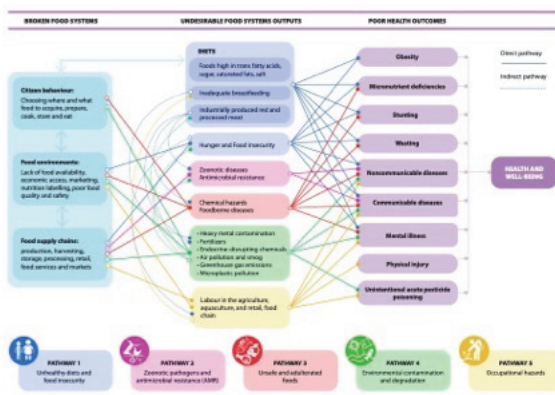
### 2 PROMOTING RESILIENT AND SUSTAINABLE HEALTH AND FOOD SYSTEMS

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Food systems are a complex web of actors and activities involved from farm to fork on aspects of food production, processing, distribution, preparation, consumption and ultimately the management of food waste. Food systems and the choices made by food system actors are contributing to detrimental impacts on animal, human and planetary health including losses in biodiversity, exhaustion of natural resources, zoonoses, foodborne illness and occupational hazards (figure 1). Current food systems are also failing to protect individuals' and communities' food security, good nutrition, and health. Health systems also have an impact on climate change and natural resources degradation. For instance, if health systems were a country it would rank among the top 5 in terms of carbon emissions, with an estimated contribution of 4.4%.

Research has shown that there is an appetite to connect and transform food and health systems. For example, hospital settings can consider the use of locally grown foods, offer plant-based meals, use water and energy-saving kitchens and divert food waste from landfill. Realizing these activities can



**Abstract 2 Figure 1** The five interconnected and interrelated impact pathways through which food systems negatively affect human health. Source: WHO (2021). Executive Summary Food systems delivering better health. WHO: Geneva

be achieved through policy action by making changes in legislation, by ensuring organisational culture and leadership, and by creating networks and champions for environmentally sustainable practices in health system settings. There is also an opportunity to integrate environmental sustainability in health systems teaching and research.

Lessons from fighting the Covid-19 pandemic could be applied towards reducing food and health system impacts on climate, such as i) developing a clear understanding of the problem, of potentially effective solutions and identifying those interests are being prioritised, ii) start tackling the problem from areas making the largest contributions or being affected the most, and iii) knowing that shifting people's behaviour is at the core of any solution. Transformed food and health systems must be contextually relevant, resilient, regenerative, empowering, and with health at their centre. Bold government, community, and business actions that promote interdisciplinarity, collaboration and capacity building are key aspects to be considered.

### 3 DEVELOPING COMPETENCIES AND CAPACITY FOR EFFECTIVE COMMUNICATION AND IMPLEMENTATION OF NUTRITION RESEARCH

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Policies and guidance alone will likely be insufficient to achieve significant changes in nutrition and health outcomes and a global shift in behaviour is needed. Developing workforce capacity to communicate, implement and scale up effective nutrition interventions is crucial. It is important to ensure that frontline workers, who are in contact with thousands of people every day, have the necessary knowledge, skills and competencies to approach nutrition in an informed, integrated and sensitive way. Despite this need, research in the UK has shown that nutrition training for healthcare professionals is limited and medical students and junior doctors lack confidence and feel underprepared to advise patients on nutrition. Gaps in nutrition capacity development for health professionals might not be a problem only in the UK, with a recent literature review showing that only 44% of medical accreditation and curriculum guidance available internationally integrated nutrition as a content area. Limited nutrition education and training represent a missed opportunity for appropriate action on nutrition.

Several initiatives led by organisations in the UK and globally to address this gap were discussed during the 7<sup>th</sup> Summit. The FAO eLearning Academy, for example, offers free multilingual eLearning courses with the aim to prepare professionals to design policies and programmes targeting agriculture, food, nutrition, and health, and transfer the multi- and trans-disciplinary competencies, that are needed. The Nutrition Education Policy in Healthcare Practice (NEPHELP) was another example discussed. NEPHELP delivers workshops that are sensitive to real-world challenges faced by health professionals and promotes the development of nutrition champions that share their learning with others. Culinary Medicine UK also supports medical students and healthcare professionals. It uses a bespoke kitchen as a classroom to teach nutrition through realistic clinical cases and offers opportunities to practice consultation skills. Advocacy in this area has been campaigned by different groups in the UK, including the Nutrition Implementation Coalition, formed by groups such as NNEdPro, Culinary Medicine UK, Nutritank and Education and Research in Medical Nutrition Network (ERimNN). An important step in integrating more nutrition content into medical doctors and allied health professionals' education training would be the inclusion of nutrition as a mandatory requirement in accreditation standards, which could act as an incentive for education institutions. Nutrition should be integrated as a cross-cutting theme aligned with core competencies and roles already considered in current standards for health professionals. The UK achieved an important milestone in this domain in 2021 with the launch of the Association for Nutrition Undergraduate Curriculum in Nutrition for Medical doctors. An assessment of the needs and barriers will be conducted with relevant stakeholders to facilitate the implementation of the new curriculum across universities in the UK. In addition to formal education and training in nutrition, another way of supporting nutrition best practices is through curation of relevant research being produced in many parts of the world and their publication free of cost in channels such as BMJ Nutrition, Prevention and Health Journal.