

## Oral presentations

### 1 PUTTING RESEARCH INTO PRACTICE: KNOWLEDGE TRANSLATION AND IMPLEMENTATION FOR ACTION ON NUTRITION

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The transfer of research evidence into practice has been historically slow, and requires an integration of many elements, including quality evidence, supportive physical and intellectual environments, and facilitation, as discussed at the NNEdPro Sixth International Summit on Nutrition and Health. Examples of applying clinical research into practice focused on the use of group consultations (also known as group clinics or shared medical appointments) to support behaviour change, the role of dietary micronutrients during the COVID-19 pandemic and the potential of Precision Nutrition. An emerging area from early implementation evidence includes group consultations, also known as shared medical appointments, as discussed by Dr Fallows. Group consultations have been shown to improve clinical outcomes for some patient groups (e.g., HbA1c, lipids, BMI), as well as improve self-care and health education, and patient and clinician satisfaction. These groups have been piloted throughout the UK both face-to-face and virtually, with initial findings suggesting they are feasible and acceptable to patients and clinicians. Further work is needed to assess whether these could be cost-effective when scaled-up in National Health Service UK primary care. During the COVID-19 pandemic, there has been increasing emphasis on the central role of nutrition in health, including the role of dietary micronutrients, as discussed by Dr Van Dael and Shane McAuliffe. Nutrition plays an important role in immunity, yet the nutritional status of the most vulnerable population groups is likely to deteriorate further due to the health and socio-economic impacts of the novel coronavirus. Thus, implementation of this evidence into health care practice is key. Precision Nutrition, defined as an 'approach that uses information on individual characteristics to develop targeted nutrition advice, products or services', offers an exciting opportunity to further individualise dietary advice for behaviour change, as discussed by Dr Kohlmeier and Dr Hernandez. Precision nutrition is underpinned by the recognition that individuals differ in many important ways due to identifiable molecular traits and can be utilised to determine personalised weight loss interventions based on genetic variants. Use of implementation science is in line with one of the six cross-cutting pillars of the Nutrition Decade: *Aligned health systems for universal coverage of nutrition actions*. Dr Bell, an Advanced Accredited Practising Dietitian in Australia, provided an overview of key implementation

science models and frameworks. Implementation frameworks such as the Action Research Framework, the Knowledge to Action Cycle, and the Spread and Sustain Framework, are underpinned by knowledge creation, effective education, and culture change. Dr Bell then highlighted how theoretical frameworks have provided guidance for the implementation of real world, complex nutrition interventions, including the Systematised Interdisciplinary Program for Implementation and Evaluation (SIMPLE) in Australia, and the More-2-Eat program in Canada.

### 2 DISSEMINATING EVIDENCE DURING THE COVID-19 PANDEMIC

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Knowledge networks, such as the NNEdPro Nutrition and COVID-19 Taskforce, are central to the rapid creation and dissemination of evidence, as highlighted at the NNEdPro Sixth International Summit on Nutrition and Health. During the COVID-19 pandemic, the Taskforce rapidly collated evidence and widely shared clear and accessible resources globally, via NNEdPro Regional Networks. The impact of the Taskforce on disseminating evidence and encouraging collaboration was made evident, and thus demonstrates the importance of this approach for addressing regional and global nutrition challenges. Scientific journals, such as *BMJ Nutrition, Prevention & Health*, as discussed by Editor-in-Chief, Professor Kohlmeier, also play a significant role in the dissemination of evidence. Once published, research is open access, disseminated widely online, and is encouraged to be used to inform practice. During the COVID-19 pandemic, any article with research findings relevant to the Coronavirus outbreak, were also shared widely with policymakers to increase global uptake. Knowledge networks, and scientific journals such as *BMJ Nutrition Prevention and Health*, are critical to the generation and dissemination of evidence, which is key to its uptake and implementation in policy and practice.

### 3 DEVELOPMENT OF REGIONAL NETWORKS BY THE NNEDPRO GLOBAL CENTRE FOR NUTRITION & HEALTH

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The WHO describes knowledge networks as a mechanism to strengthen collaboration among countries and facilitate and enhance local nutrition action in the Nutrition Decade. In line with this recommendation, the NNEdPro Global Centre convened 12 Regional Networks across six continents to foster collaboration and implement nutrition actions for sustained impact. Each network has a lead who connects the broader

NNEdPro group to the local network to share evidence and encourage collaboration within and between Networks. Each Network is encouraged to understand the needs of their region, locally tailor relevant interventions, and share learnings with other networks. The focus of these networks is on knowledge exchange, capacity building among members, and wider public health impact. An example of these networks in action is the use of the Mobile Teaching Kitchen (MTK) model, which empowers marginalised community members to become culinary health educators. The intervention was originally developed by the Regional Network in India, and adaptations of the MTK intervention are planned across the Swiss, Mexico, Italy & The Mediterranean, and the Brazil Regional Networks. Networks will learn from each other while making adaptation relevant to their local need, resources, and capacity. Knowledge networks underpinned by strong leadership and clear communication strategies are essential to take collaborative action on nutrition and end malnutrition in all its forms.

#### 4 EFFECTIVE COMMUNICATION AND LEADERSHIP IN NUTRITION RESEARCH & EDUCATION

<sup>1,2</sup>Giles Yeo, <sup>3</sup>L Kirsty Pourshahidi, <sup>4</sup>Celia Laur, <sup>4,5,6</sup>Sumantra Ray, <sup>4,5</sup>Pauline Douglas. <sup>1</sup>British Dietetic Association, Great Charles Street Queensway, Birmingham, UK; <sup>2</sup>Institute of Metabolic Science, University of Cambridge, Cambridge, UK; <sup>3</sup>Nutrition Innovation Centre for Food and Health (NICHE), Ulster University, Coleraine, UK; <sup>4</sup>NNEdPro Global Centre for Nutrition and Health, St John's Innovation Centre, Cambridge, UK; <sup>5</sup>School of Biomedical Sciences, Ulster University at Coleraine, Coleraine, UK; <sup>6</sup>School of Humanities and Social Sciences, University of Cambridge, Cambridge, UK

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Effective communication and leadership are needed when developing knowledge networks for nutrition research and education. The need for clear and approachable communication was highlighted by Dr Giles Yeo, who advocated for consensus, which takes time. As a result, nutrition has become a competitive space, contributing to a pseudoscience vacuum for people who want readily available and easy-to-understand information. Evidence-informed knowledge networks, and the individual participants who make up such networks, are key in cutting through the pseudoscience. During the Nutrition Decade, knowledge networks need skilled leaders, as mentioned in Action Area 4, regarding effective leadership to address these challenges and inspire future generations. Dr Kirsty Pourshahidi discussed the many different definitions and styles of leadership, underpinned by concepts of motivation and positive influence. To train these leaders, the *European Nutrition Leadership Platform* (ENLP) was introduced as a dynamic network of around 850 global leaders in food and nutrition with a mission to train, inspire and connect leaders in this space. The ENLP is a prime example of how to train leaders to drive progress in voluntary networks during the Nutrition Decade.

#### 5 DATA-DRIVEN ACTION FOR FOOD SYSTEMS TRANSFORMATION

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Data that is accurate and accessible helps to drive innovation and progress, which was a key theme of discussion at the NNEdPro Sixth International Summit on Nutrition and Health. Data-driven policies and programmes have the potential to reorient food systems and end malnutrition by 2030, according to Andre Laperriere of Global Open Data for Agriculture and Nutrition (GODAN). The COVID-19 pandemic has exacerbated the existing food crisis, affecting production, processing, and distribution within the food system, and highlights the critical need for timely and reliable data to drive decision-making. The pandemic has affected food on the levels of production, transformation, and distribution, which presents an unprecedented opportunity for change. Using data, we can identify and learn from countries who have had the most success in reducing hunger (E.g., Armenia, Brazil, Ghana) and those which have achieved zero hunger while keeping adult overweight and obesity to a minimum (E.g., Republic of Korea, Japan). However, making practice and policy decisions involves a complicated process influenced by logic, current evidence, existing models and authorities, previous experiences, emotions, and cognitive biases, as discussed by Dr Jeffrey Bohn. Causal inference approaches could be one way to address some of these complications by merging nutrition data and scientific evidence to promote better decision-making in the context of nutrition-related communicable diseases targeted by the Nutrition Decade and the Sustainable Development Goals. Although challenges exist in all data science, there are particular challenges in applying mathematical precision in nutrition. Nutrition research considers dynamic processes that evolve and are often influenced by the process of studying them. Additionally, nutrition research occurs against the backdrop of traditional biomedical research where the randomised control trial (RCT) is considered the gold standard in proving causation. While pre-registration of data, protocol and analyses can address some of these primary challenges with research behaviour, to truly understand causation we must consider counterfactuals, which consider the context of the research (models, interventions, characteristics, and cognitive bias) for a more complete understanding. Causal inference tools can be applied to relevant, curated data to identify confounders and subsequent causal linkages. There is a necessity for the quality use of data to identify and strengthen high-impact policies and programmes for action on nutrition.

#### 6 DEVELOPMENT OF THE INTERNATIONAL KNOWLEDGE APPLICATION NETWORK HUB IN NUTRITION (IKANN)

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Research is a cumulative process, and the open flow of information is key to the uptake of evidence into policy and practice. There is growing interest in online knowledge hubs that provide open access to information for public good, and in particular, platforms that have the capability to foster