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 Poursakhahidi discussed the many different definitions and styles of leadership, underpinned by concepts of motivation and 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.

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.

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