

## Abstract Achieving Sustainable Nutrient Adequacy Globally and Locally<sup>†</sup>

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Abstract: Our ability to effectively nourish an increasing global population is one of the key challenges facing humanity. The global food system is incredibly complex: it is the world's largest economic sector; it has multiple inputs and outputs; it is often politicised; it is subject to various social and cultural forces; and it touches every human being on the planet through food. There are a range of voices telling us how we should change the food system. Before we know what to think about changes to make to our diets or food supply, we need to first determine how to think about the food system. Under what scenarios is it possible for the global food system to provide the bioavailable nutrients to feed the global population? What scenarios are *practical* to deliver, for example, in terms of level of change required, cost of that change, or affordability of food? What is the most optimal to deliver a sustainable food system? This talk will focus on several aspects of the work of the Riddet Institute and the Sustainable Nutrition Initiative® that aim to inform the future of food systems and nutrition. At the foundation of this work is the idea that nutrition is integral to a sustainable food system: if we fail to produce and provide the food and nutrients to enable people to survive and thrive, we have failed, regardless of what else we achieve. The presentation will cover the DELTA Model<sup>®</sup>, our tool for assessing the nutritional adequacy of global food system scenarios; NZ nutrient production, trade and availability; global nutrient trade and its impact on nutrition.

Keywords: population nutrition; mathematical modelling; sustainable food systems; human nutrition

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