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MNZH MAKE NEW ZEALAND HEALTHY

Integrate Nutrition across the Educational Curriculum. In brief.

THE PROBLEM: New Zealand's current education system engages with food, health, and wellbeing, but does not provide a coherent, cumulative, or scientifically grounded framework for understanding nutrition as a core component of human biology.

Across primary, intermediate, and secondary schooling, nutrition is largely treated as a matter of behaviour, culture, or personal choice, rather than as a fundamental driver of physiological function. While elements of biological science exist within the curriculum: cells, enzymes, respiration, and homeostasis, these are not systematically connected to food, digestion, nutrient handling, metabolism, brain function, or long-term health outcomes.

This results in a fragmented educational experience. Students may learn about food preparation, cultural food practices, or social influences on eating, and separately learn abstract biological mechanisms, yet are not taught how these domains relate. There is no structured progression linking dietary intake to digestion, absorption, blood glucose regulation, energy stability, or cognitive and emotional function. Nor is there consistent teaching of micronutrients as essential cofactors in metabolic and neurological processes. As a consequence, students are left without a scientific framework to interpret their own lived experience of hunger, energy, fatigue, concentration, or mood.

This gap is increasingly significant in a modern food environment characterised by the widespread availability of ultraprocessed, highly palatable foods and pervasive marketing. At the same time, New Zealand faces rising rates of chronic, non-communicable diseases and mental health challenges among young people, conditions for which nutrition is a major, modifiable determinant. The curriculum's emphasis on neutrality and non-prescriptive teaching, while well-intentioned, has resulted in the absence of a shared, evidence-based foundation of knowledge. Students are therefore expected to navigate a complex and biologically influential environment without the tools required to understand it.

THE SOLUTION: This policy proposes a shift to an iterative, science-based, and developmentally staged framework that integrates nutrition across the educational curriculum from ages 8–18. Learning would build cumulatively from simple concepts of energy and body systems, through digestion, metabolism, and nutrient function, to integrated understanding of brain health, chronic disease risk, and environmental influences. Nutrition would be positioned as a foundational biological input, taught alongside physiology and health education, and revisited with increasing depth across years.

By embedding nutrition within a systems-based understanding of human biology, the curriculum would equip students with the capacity to interpret their own physiological experience, critically evaluate their environment, and apply scientifically grounded reasoning to health decisions. This approach supports both individual wellbeing and broader public health goals.

MNZH POLICY RECOMMENDATIONS

(1) THE SCHOOL CURRICULUM: AN ITERATIVE LEARNING-BASED FRAMEWORK

Learning is cumulative. A staged, age-appropriate health education model (see the example which is provided in Chapter [7]), builds from basic concepts of energy and body systems (ages 8–10), to integrated understanding of metabolism, brain function, and nutrient roles (ages 11–15), culminating in senior students (15–18) applying mechanistic knowledge to analyse food environments, evaluate health issues, and design biologically grounded health interventions.

Introducing physiological and nutritional concepts early, then revisiting them with increasing depth, enables students to move beyond description to causal reasoning. By adolescence, students can connect dietary patterns to metabolic and neurological processes, and critically assess real-world influences on health. This produces scientifically literate individuals capable of evaluating evidence, rather than relying on simplified or behavioural-only explanations. Magnesium and the B group vitamins are included as an example of the possible learning cascade over this ten-year period.

(2) UNDER-GRADUATE HEALTH & BIOMEDICAL STUDIES:

Transition from a curriculum that *describes parts* to one that *explains regulation*. Graduates would still understand pathways and treatments, but would also be equipped to ask, early and routinely, how physiology, nutrient sufficiency, and environmental inputs are shaping the patient's condition, and what can be optimised before, alongside, or instead of intervention.

a) At the level of university leadership: Re-anchor the curriculum around first principles of physiology and system regulation, rather than adding discrete content. The organising foundation would centre on energy regulation, homeostasis, and feedback, with all pathway teaching explicitly framed as instances of these broader processes.

b) Within this structure, position nutrition and nutrient sufficiency as foundational biological inputs, integrated vertically across years and disciplines, so that macronutrients and micronutrient cofactors are consistently recognised as drivers of metabolic, neurological, and endocrine function.

c) Reorganise teaching around systems rather than silos, with co-delivered modules linking biochemistry, physiology, and clinical application in real time. Redesign assessment to reward causal and systems reasoning, requiring students to trace relationships across diet, physiology, and symptoms, thereby aligning incentives with intended learning.

d) Support such an approach with explicit instruction in systems thinking from early stages, and by sustained faculty development to move teaching beyond disciplinary boundaries.

e) Embed clinical translation from the outset, training students to assess physiological state and modifiable inputs before defaulting to intervention.

f) Finally, align institutional signals, examinations, clinical supervision, and teaching materials to reinforce this model, addressing the hidden curriculum and ensuring that integration is not merely stated, but enacted in education and praxis.