



# Nutrition and Physical Activity



## Knowledge Bulletin

Issue 3 ♦ 5 August, 2020

Welcome to the fortnightly Nutrition and Physical Activity Bulletin (which replaces the HIIRC Weight Management website). The Bulletin has a New Zealand focus and provides links to new research, evaluations, guidance, resources and upcoming events on the topics of nutrition, physical activity, obesity, sport and recreation in relation to health and wellbeing.

Key international literature and guidance from similar jurisdictions is also featured.

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If you have any queries and if you would like to submit content for inclusion in the NPA Knowledge Bulletin, please email [npa@researchnz.com](mailto:npa@researchnz.com)

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## Diet and nutrition

### [The effect of food taxes and subsidies on population health and health costs: a modelling study](#)

This study, commissioned by the Health Research Council, assesses the impact of various food taxes on population health in New Zealand.

The results indicate that such interventions are valuable policies to put in place, as they result in significant cost-savings and reductions in the burden of diet-related diseases.

### [New Zealand study into eating patterns and the WHO sugar guidelines](#)

The Sugar Nutrition Resource Centre NZ highlights the findings of an analysis of New Zealanders' sugar consumption in relation to WHO guidelines.

They found that most diet patterns analysed, including the 'traditional' New Zealand diet, did not meet the WHO guidelines.

However, when looking at sugar consumption independent of the overall diet, New Zealanders' consumption of takeaways and alcohol did meet the WHO guidelines, but the analysis failed to acknowledge that these were unhealthy options.

The researchers conclude, therefore, that nutrition interventions should focus on the promotion of New Zealand's dietary guidelines, which focus on the overall diet, rather than compartmentalising aspects of it – in this case sugar.

To read the research paper, click [here](#).

### [Interventions for increasing eating of fruit and vegetables in children aged five years and under](#)

This Cochrane review assesses the efficacy of interventions aimed to increase young children's fruit and vegetable consumption, in an effort to establish positive dietary habits and avert the risks of cardiovascular and other diseases in later life.

They found the evidence limited as to whether child or parent-focused educational or multi-component policy interventions are the most effective. However, this is an ongoing review, with updates included as new evidence comes to light.

### [A sustainable diet for health and the environment in New Zealand](#)

A research project, funded by Healthier Lives, will use epidemiological models to simulate an environmentally sustainable diet that will meet the New Zealand population's nutritional needs. The potential impact will be measured in terms of population health, ethnic health inequities, greenhouse gas emissions and health sector cost savings.

"Major shifts are needed in what we eat if we are to achieve healthy diets that are also good for the environment," says principal investigator Dr Cristina Cleghorn, from the University of Otago, Wellington.

## Physical activity, sport and recreation

### [Telehealth and indigenous populations around the world: a systematic review on current modalities for physical and mental health](#)

This review looks at the evidence-base for using tele-health initiatives to enhance indigenous populations' access to quality health care and education, specifically in relation to physical and mental health outcomes.



The review looked at trials conducted in New Zealand, Canada and the US and concludes that the most promising initiatives include voice contact and culturally appropriate support.

## Obesity and weight management

### [Interventions that prevent or reduce obesity in children from birth to five years of age: A systematic review](#)

This systematic review assesses interventions aiming to reduce childhood obesity rates.

The research indicates that educational interventions promoting healthy diets and physical activity are optimal, as long as they are accessible, culturally relevant and target low-income communities where the incidence is highest.

### [Minimization of bias in measures of gestational weight gain](#)

Measures of Gestational Weight Gain are important to monitor, to try to avoid adverse outcomes for both the mother and baby. However, these are often reliant on the mother's self-reported pre-pregnancy weight, which introduces potential bias to the results and management of measurements.

The solution, reported in this Otago University study, is to objectively measure weight at the first antenatal appointment and monitor this throughout the pregnancy, introducing lifestyle interventions, as necessary.

### [Cross-Country Differences and Similarities in Undernutrition Prevalence and Risk as Measured by SCREEN II in Community-Dwelling Older Adults](#)

This large-scale study assessed the likelihood of malnutrition risk amongst community-dwelling older adults (65+) in New Zealand, the Netherlands and Canada.

Using the Seniors in the Community Risk Evaluation for Eating and Nutrition II (SCREEN II) tool to obtain data, the research concludes that, while undernutrition is prevalent across populations in this age group, the reasons behind this are country-specific and, therefore, require tailored interventions to address the barriers to nutritional health.

## Health promotion

### [Benchmarking Food Environments 2020](#)

This report, by Auckland University's Medical and Health Services, presents the results of the third Healthy Food Environment Policy Index (Food-EPI).

The Food-EPI assesses the progress by the New Zealand Government on implementing recommended food environment policies and priorities to address unhealthy eating leading to obesity and non-communicable diseases and the related inequalities across the population.

### [Prevention in the age of information Public education for better health](#)

This report, produced by IPPR, the Institute for Public Policy Research, the UK's leading independent think tank, describes the importance of policy interventions promoting public education now to reduce the impact of non-communicable diseases across populations.

The focus of the report is on the challenges and opportunities new information environments and technology offer to disseminate information.

## Non-communicable diseases

### [Screening, assessment and management of type 2 diabetes mellitus in children and adolescents: Australasian Paediatric Endocrine Group guidelines](#)

This research fills the gap in relation to type 2 diabetes guidelines for paediatric care, as health professionals have historically had to refer to adult guidelines. They also make specific recommendations for the care of indigenous children and adolescents in Australia and New Zealand.

## [Association of plasma biomarkers of fruit and vegetable intake with incident type 2 diabetes: EPIC-InterAct case-cohort study in eight European countries](#)

In this prospective case cohort study, fruit and vegetable intake, as indicated by higher plasma vitamin C levels and carotenoids, was found to be positively associated with lower incidence of developing type 2 diabetes.

The study confirms the importance of policies promoting high fruit and vegetable intake, particularly in populations more vulnerable to the risk of developing diabetes.

## Tools and resources

### **Manaaki at mahi: Healthy kai to enhance wellbeing at work**

[Health Navigator NZ](#) and the [Health Promotion Agency](#) provide insightful ideas and guidelines as to how to increase the healthfulness of the food we eat at work.

## News

### [‘Healthy’ snack foods big on marketing, small on nutrition](#)

The University of Sydney news, 2 July, 2020

*Confused by excessive buzzwords on your granola bar packaging? Nutrition researchers at the University of Sydney have found that is likely a deliberate ploy.*

Do you buy products at the supermarket based on their health claims? If so, you may want to reconsider doing this in the future.

A University of Sydney [study](#) has found that health food snack products contain significantly more claims and buzzwords than their non-health counterparts, despite being only marginally healthier.

### [Has COVID-19 boosted interest in physical activity?](#)

University of Sydney news, 2 July, 2020

*Surge of online interest in exercise.*

According to an analysis of Google Trends data, led by researchers from the University of Sydney’s Charles Perkins Centre online, interest in exercise has been at an all-time high during the COVID-19 pandemic.

In an editorial, published in the [British Journal of Sports Medicine](#) the research team details what Google trends (analysis of the popularity of search queries in Google Search) can tell us about population level interest in physical activity before and during COVID-19 outbreaks in Australia, the UK and the USA.

### [Metabolites in urine point the way to a more healthful diet](#)

Medical News Today, July 4, 2020

*Research finds a new way to look at the relationship between what we eat and our health.*

It might seem obvious that good nutrition is linked to good health. Still, it has proven difficult to identify specific links between foods and health outcomes. Two new studies from scientists at Imperial College London (ICL), United Kingdom, and various collaborators report insights from the analysis of metabolites in urine.

The researchers have created a 5-minute urine test that can capture a person’s “nutritional fingerprint.”

*“This research reveals this technology can help provide in-depth information on the quality of a person’s diet and whether it is the right type of diet for their individual biological makeup.”*

— Joram Posma, study co-author

## Upcoming events

[New video – watch HVN’s Chief Scientist, Professor Richard Mithen, talk about our Challenge](#)

Watch High-Value Nutrition Chief Scientist, Professor Richard Mithen, talk about the HVN National Science Challenge and the collaboration between scientists and the New Zealand Food & Beverage industry to develop high-value foods for the benefit of consumers in New Zealand and world-wide.

### **Inaugural Lecture Series 2020 - Professor Clare Wall**

**High Value Nutrition Science Leadership Team member Professor Clare Wall** will give her inaugural lecture on Wednesday 19 August at 5.30pm. Promotion to professor at the University of Auckland is a mark of distinction, recognising professional and academic eminence at an international level.

In her inaugural lecture, 'The accidental academic' Professor Wall will share her career journey starting as a clinical dietitian in the UK and then stumbling into academia as a result of a passion for travel and some fortuitous encounters with exceptional people.

**Date: Wednesday 19 August | Time: 5.30pm-7.30pm**

**Venue: Lecture Theatre 505-007, Grafton Campus, Auckland University**

To find out more information about the lecture or register your attendance, please visit the [eventbrite](#) page.

