



Nutrition and Physical Activity



Knowledge Bulletin

Issue 9 ◆ 6 November 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.

You can forward the bulletin to others who may be interested in receiving it. They can register and subscribe [here](#). You can also access other recent issues of the bulletin [here](#).

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Diet and nutrition

Celebrating World Food Day 2020

To celebrate World Food Day last month (October 16), The George Institute asked some of its Australian and international food policy analysts to discuss their work and its impact on population diets and the wider food environment.

“Food is one of our basic needs as a society. But while diet-related health problems are placing an increasing burden on already stretched health systems, the COVID-19 pandemic has also highlighted just how important access to safe nutritious food is. The George Institute’s food policy teamwork in Australia and overseas to reduce death and disease caused by diets high in salt, harmful fats, added sugars and excess energy. The team does multi-disciplinary research with a focus on outputs that will help governments and industries deliver a healthier food environment for all.”



Macronutrient Composition of Donated Human Milk in a New Zealand Population

Donor milk banks provide human milk for sick/pre-term babies to support mothers until their milk supply comes through.

This research analyses the influence of pasteurization on the macronutrient composition of milk held in these banks.

The findings are favourable, indicating that pasteurization has a negligible effect on the donated milk. However, given quality of the milk varies, they highlight the need to monitor its nutritional value and fortify it, if need be.

Physical activity, sport and recreation

CSEP SPECIAL SUPPLEMENT – CANADIAN 24-HOUR MOVEMENT GUIDELINES FOR ADULTS: AN INTEGRATION OF PHYSICAL ACTIVITY, SEDENTARY BEHAVIOUR, AND SLEEP

This compilation of articles, put together by the Healthy Active Living and Obesity Research Institute (HALO), published in the *Applied Physiology, Metabolism Journal* (online only), includes all the papers that were used to inform the new *Canadian 24-Hour Movement Guidelines for Adults*, released October 15, 2020.

Relationships Among Children’s Independent Mobility, Active Transportation, and Physical Activity: A Multisite Cross-Sectional Study

This research examines children’s independent mobility in different contexts, according to urbanization and socioeconomic status.

Active transportation and levels of physical activity were found to be contingent on children’s ability to be independently mobile per se, rather than the environmental or socioeconomic conditions in which they live.

Building cultural inclusion in active recreation and sport – Insights from Muslim women

This report provides insights about the participation of Muslim girls and women in sports and active recreation in Aotearoa.

The report provides the voice of Muslim girls and women from two foundation studies exploring the challenges they face in accessing sporting and active recreational pursuits. The first was produced by researchers from Sport NZ, the University of Waikato and Sport Waikato; and the second, by Perception and Sport Canterbury.

Fieldwork was carried out in Auckland, the Waikato, Wellington and Christchurch with groups of Muslim girls and women, as well as sports facilitators. The conversations held gleaned valuable insights about the key facilitators and barriers that influence participation and experiences in sport and active recreation.

Obesity and weight management

Reframing the early childhood obesity prevention narrative through an equitable nurturing approach

In this article, the researchers discuss child undernutrition and obesity in the context of the World Health Organization (WHO) Nurturing Care Framework, which looks at child development holistically, taking into account the socioeconomic contexts that influence equitable nurturing throughout the life-course.

The shift they make in this narrative, is to look at childhood obesity prevention measures in four key ways: considering the first 2000 days, from conception to five-years as being crucial (rather than the historical focus on the first 1000 days); nurturing child-caregiver connections during this period; recognising inequity, by looking at the wider social factors that impact adversely on these nurturing connections; and co-designing interventions to optimise their impact with marginalised communities.

Interventions to prevent or treat childhood obesity in Māori & Pacific Islanders: a systematic review

This review consolidates and discusses the obesity prevention and treatment interventions targeting Māori and Pasifika children and young people.

The researchers found that, although high-risk priority groups, there was not only limited work specifically targeting these populations, with few taking cultural considerations into account.

The researchers recommend future interventions be co-designed for cultural specificity to be fully incorporated, in order to optimise outcomes.

Weight Can't Wait

A guide for the management of obesity in primary care settings.

The Weight Can't Wait guide fills the gap in obesity management training in the US and provides healthcare professionals with a short, accessible, practical and informative guide to effective obesity care, which may be of value in our own professional contexts.

The guide is separated into three sections that represent the primary care settings in which effective obesity care takes place: pre-encounter, encounter and post-encounter. An additional curated resources list is also available.

Health promotion

Mātauranga – Education

Te Hiringa Hauora/The Health Promotion Agency (NZ) provides advice and resources to education settings to encourage their communities to lead healthier lives.

'Ensuring the places New Zealanders' live, work, learn and play are healthy and safe is a core part of our work.'

Non-communicable diseases

New Zealand may finally get funded access to diabetes drugs which reduce cardiovascular events and progression of kidney disease: an audit of proposed PHARMAC criteria compared with international guidelines

This open access article, published in *The New Zealand Medical Journal*, discusses which groups will be eligible for funded drugs that are known to reduce cardiovascular events and slow the decline in renal function in people with type 2 diabetes, according to PHARMAC's proposed criteria.

The clinical audit found that those most likely to benefit from the treatment will be eligible to access the funded drugs.

Barriers to Diabetes Self-Management in New Zealand Patients with Type 2 Diabetes and Poor Glycaemic Control

This research was conducted by Waikato University researchers and District Health Board members.

The aim was to investigate the barriers to diabetes management, in light of the effective ‘armory of medications’ at hand.

The research found that, although common barriers to disease management were identified, e.g. health literacy and poor relationships with health professionals, efforts to increase patient education (about their condition and ways to manage it, e.g. lifestyle changes) and the provision of locally relevant resources would be a step in the right direction.

Reflecting on the Impact of Cardiovascular Nurses in Australia and New Zealand in the International Year of the Nurse and Midwife

“Nursing is the glue that holds everything together”

While the bicentenary of Florence Nightingale’s birth is an opportune time to celebrate the work of our fantastic nurses and midwives, Covid-19 put an unexpected slant on the celebrations.

This article pays homage to the challenges the pandemic has brought for nursing generally and the particular effort expended by cardiovascular nurses in both their frontline work and in working with the Cardiac Society of Australia and New Zealand (CSANZ) to write the [COVID-19 Cardiovascular Nursing Care Consensus Statement](#).

Ethnic differences in mortality and hospital admission rates between Māori, Pacific, and European New Zealanders with type 2 diabetes between 1994 and 2018: a retrospective, population-based, longitudinal cohort study

This longitudinal, population-based study followed the health outcomes of patients with type 2 diabetes admitted to the primary care audit programme, the Diabetes Care Support Service in Auckland.

The findings support the inequitable health outcomes elsewhere, with Maori and Pacific peoples experiencing poorer health outcomes than their European counterparts, calling for more targeted interventions.

The researchers also want more research looking into biological, as well as societal influencers contributing to these disparities.

For a commentary view on the article, click [here](#).

Tools and resources

Thinking outside the (lunch)box – Getting better nutrition onto kids’ plates

In this BRAVE Flinders Research & Innovation series video, Professor Rebecca Golley and guest panelist Themis Chryssidis, Managing Director of Sprout Cooking School, discuss childhood obesity prevention, nutrition promotion and food-related cultures and behaviours, all in an effort to get better nutrition onto kids’ plates.



Rebecca Golly is Professor of Nutrition and Dietetics, College of Nursing and Health Sciences Theme Lead, Better Lives, [Caring Futures Institute](#).

Rebecca is a nationally recognised expert in childhood obesity and nutrition promotion. She has undertaken postdoctoral research in the UK and with Australian agencies, such as the CSIRO and NHMRC.

Rebecca leads a program of public health nutrition research at Flinders University. She is currently contributing to a national project and new free toolkit: [VegKIT](#) for educators, health professionals and agencies, and is researching the potential efficacy of using digital platforms to disseminate nutritional information.

Lowering your cholesterol: How long does it take?

This paper outlines what cholesterol is; the role it plays in bodily functioning; and ways to maintain safe cholesterol levels.

RESOURCES FOR YOUNG ADULTS

Diabetes NZ has compiled a set of resources to help young people deal with and manage their diabetes in a variety of contexts, including:

- Secondary school
- Going out
- Exercise
- Sex
- Tattoos and body piercing
- Travel
- Emotional wellbeing
- Driving
- Employment
- Puberty

Are New Zealand children meeting the Ministry of Health guidelines for sleep?

This report (June 2020, published August 2020) has been produced for the Ministry of Social Development with funding from the Children and Families Research Fund.

Using data from the *Growing Up in New Zealand (GUiNZ)* longitudinal study of child development in Aotearoa/New Zealand (Morton et al., 2013), this report fills the knowledge gap in assessing whether our children are meeting the Ministry of Health's sleep duration and sleep quality guidelines and the factors that facilitate or act as barriers to achieving healthy sleep patterns in the early years.

Type 2 Diabetes Xplained

This resource provides a synopsis of type 2 diabetes and its management through a variety of interactive stories and videos.

The resources are produced by Medicine X in English, Māori, Samoan and Tongan.

Dr. Kim Chilman-Blair, Founder of Medicine X explains:

"Working as a medical doctor, I realised that far too many people are confused about their diagnoses, their conditions, and their treatments. The language that doctors use, and what everyday people understand can be two totally different things.

We believe everyone should feel informed and empowered, so they can engage with their doctors and be involved in making medical decisions. That's why Medicine X isn't just another boring and complicated fact sheet – we explain medical issues through stories based on real people! It's relatable, simple, and gives you the information you need!

We hope this helps you in your journey!"

News

Otago study shows whole fruit vitamin C boosts 'zest for life'

Otago University media release, 13 October 2020

A study, carried out by Otago University's Department of Psychology (Dunedin) and the Centre for Free Radical Research in Christchurch, examines the effect of consuming whole-fruits laden in Vitamin C (on people's mood, fatigue and wellbeing – or 'zest for life').

Participants with low levels of Vitamin C consumed either kiwifruit, Vitamin C supplements or a placebo, and recorded their feelings over a four-week period.

Results indicate that the greatest impact on Vitamin C levels and sense of wellbeing were felt by those in the ‘kiwifruit’ sample; improving both physical and mental functioning beyond that achieved by those consuming supplements.

The study, [*KiwiC for Vitality: Results of a Randomized Placebo-Controlled Trial Testing the Effects of Kiwifruit or Vitamin C Tablets on Vitality in Adults with Low Vitamin C Levels*](#), has been published in the open access journal, *Nutrients*.

Healthy diet and exercise extends life expectancy among those with multiple health conditions

Liecester Biomedical Research Centre, 22 September 2020

Funded by NIHR Applied Research Collaboration (ARC) East Midlands, the team found that, regardless of other health issues, eating well and exercising helped men live up to 6.3 years longer, while women could prolong their lives by 7.6 years.

The study, published by the journal *PLOS Medicine*, used data from more than 480,000 adults aged between 38 and 73. Of that number, 93,746 people (19.5 per cent) suffered from two or more chronic health conditions, such as hypertension, cancer, diabetes and depression.

Within the study, each individual had their lifestyle factors measured, which included their physical activity, diet, smoking habits and alcohol consumption.



Professor Kamlesh Khunti, senior author and Director of the NIHR ARC East Midlands and Professor of Primary Care Diabetes and Vascular Medicine at the University of Leicester, said: “*Our study has important implications for the public’s health and their future.*

“*Even for those who are ill with more than one health condition we hope our findings have shown that it’s never too late to make vital lifestyle changes which could make a huge impact to both their quality and length of life.*”

Ground-breaking survey uncovers emotional and mental health issues faced by Kiwis with diabetes

Media release on behalf of Diabetes NZ – Goode PR and Scoop, 1 November 2020

As New Zealand begins **Diabetes Action Month**, Kiwis are being asked to **Love Don’t Judge**, as Diabetes NZ sheds light on the emotional burden of a chronic condition that affects quarter of a million of us.

For the first time, a survey of people living with diabetes has uncovered the real impact of Covid-19 on the diabetes community. It also revealed the prevalence of little-known complications of diabetes distress and diabetes burnout, that affect the mental and emotional health of three quarters of New Zealanders with diabetes.

Over 1,000 New Zealanders with Type 1 and Type 2 diabetes took part in the Diabetes & Emotional Health survey last month. It is the first time the emotional burden of diabetes has been surveyed in New Zealand.

This new research from Diabetes New Zealand has found that 81% of Kiwis living with diabetes have experienced diabetes distress, with almost a third of that number experiencing it in the last week.

“Reducing the stress of managing diabetes is important not just for improving mental health but it can also help physiologically, with research showing stress-management practises such as self-compassion can help to lower blood sugar levels. In the case of diabetes, good emotional and mental health has a direct link to better overall diabetes management, including better HbA1c.”

Diabetes NZ CEO, Heather Verry, says the distress related to Covid-19 has been even more acute for the quarter of a million people living with diabetes in New Zealand.

Upcoming events

EXERCISE IS MEDICINE VIRTUAL SYMPOSIUM BY SICKKIDS – NOVEMBER 12, 2020

The Exercise is Medicine Symposium will be hosted online by SickKids on **November 12, 2020 (Thursday) from 9:00 am to 12:30 pm ET**. Registration is now live at <https://web.cvent.com/event/9176a1ed-f264-451d-b50f-6bbd9501a4e9/summary>

This half-day virtual symposium will provide examples of exercise physiology and its application to clinical practice in paediatrics. The program is both theoretical and applied, focusing on the pathophysiology of pediatric chronic conditions and sharing real life examples of exercise as medicine for children in the clinical and community settings.

The Exercise is Medicine Symposium is aimed at researchers, physicians, fellows, residents, medical students, exercise physiologists, kinesiologists, other trainees and allied health care professionals in the fields of paediatrics and exercise medicine. The emphasis of the program is on the application of exercise medicine for children with chronic disease. The symposium will be useful for those caring for children with chronic disease, or those who plan to incorporate exercise counselling and prescription as part of their career.

