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Māori Health Review™

Making Education Easy

Issue 81 – 2019

In this issue:

- *Suggested improvements for NZ's health system*
- *Inequities in rapid access to medical care in NZ*
- *Declining adolescent cannabis use in NZ*
- *Subsequent injuries experienced by Māori: a considerable burden*
- *Patient & system delays in STEMI treatment access in NZ*
- *Inequities for direct admission to a PCI-capable hospital after an OHCA*
- *Prevalence of adult frailty in the hospital setting*
- *Significant child maltreatment disparities persist in NZ*
- *How food insecurity is experienced in Māori households*
- *Influences on Indigenous and Pacific students' health career choices*
- *Taking action on Māori/ Indigenous homelessness*

Abbreviations used in this issue
FMC = first medical contact
OHCA = out-of-hospital cardiac arrest
OR = odds ratio
PCI = percutaneous coronary intervention
STEMI = ST-segment elevation myocardial infarction

Tēnā koutou katoa

Nau mai, haere mai ki a Māori Health Review.
We aim to bring you top Māori and Indigenous health research from Aotearoa and internationally.
Ngā mihi nui ki Manatu Hauora Māori for sponsoring this review, which comes to you every two months.
Ko te manu e kai i te miro nōna te ngahere, Ko te manu kai i te mātauranga, nōna te ao.

Ngā mihi
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New Zealand health system: universalism struggles with persisting inequities

Authors: Goodyear-Smith F, Ashton T

Summary: These researchers discuss the history of New Zealand's health system, which was originally established as a universal, tax-funded national health service. They go on to describe how this universal orientation and strong commitment to social service delivery has contributed to favourable health statistics in this country and the establishment of unique institutions that have arisen in response to the needs of New Zealanders. These include innovative Māori services, a no-fault accident compensation scheme, and the Pharmaceutical Management Agency (PHARMAC), which negotiates with pharmaceutical companies to provide funded access to medicines purchased using public money. Nevertheless, the system is marred by persisting problems with access to care and an inability to deliver the promise of equitable health outcomes for all population groups. Structural changes during the 1990s have failed to deliver the expected efficiency gains and the system's prioritisation of individual-level secondary services and performance targets have obscured the focus that is needed to address issues such as suicide, obesity, and poverty-related diseases through community-based health promotion, preventive activities, and primary care. The researchers reflect upon what changes are needed in order to strengthen the culture and capacity of the system and thereby achieve equity of access and outcomes for all population groups. In particular, the researchers suggest that the healthcare system expands the provision of Māori health services, integrates existing services and structures with new ones, aligns resources with need to achieve pro-equity outcomes, and strengthens population-based approaches to better deal with contemporary drivers of health status.

Comment: A number of readers have specifically requested this paper. As the main author points out, "For a small country, [New Zealand's health] system is complex and fragmented, and this contributes to inequity and inefficiency". Since the publication of this article, we've had the release of the interim report on health (https://systemreview.health.govt.nz/interim-report/) confirming the article's findings. I encourage readers to look at both.

Reference: Lancet. 2019;394(10196):432-42
Abstract

Time spent reading this publication has been approved for CME for Royal New Zealand College of General Practitioners (RNZCGP) General Practice Educational Programme Stage 2 (GPEP2) and the Maintenance of Professional Standards (MOPS) purposes, provided that a Learning Reflection Form is completed. Please **CLICK HERE** to download your CPD MOPS Learning Reflection Form. One form per review read would be required.

Time spent reading this publication has been approved for CNE by The College of Nurses Aotearoa (NZ) for RNs and NPs. For more information on how to claim CNE hours please **CLICK HERE**

Independent commentary by Dr Matire Harwood

Dr Matire Harwood (Ngapuhi) has worked in Hauora Māori, primary health and rehabilitation settings as clinician and researcher since graduating from Auckland Medical School in 1994. She also holds positions on a number of boards, committees and advisory groups including the Health Research Council. Matire lives in Auckland with her whānau including partner Haunui and two young children Te Rangiura and Waimarie.

Geographical and population disparities in timely access to prehospital and advanced level emergency care in New Zealand: a cross-sectional study

Authors: Lilley R et al.

Summary: This investigation into geographical proximity and population access to prehospital emergency medical services (EMS) in New Zealand focused on people living in the smallest geographical units, areas where research suggests there are opportunities to improve survival for residents who experience medical or surgical emergencies. For each geographical unit, the study researchers examined the proportion of the usually resident population with theoretical timely access to advanced-level hospital care within 60 min, to identify disparities in geographical access. Analyses revealed that around 700,000 (~16%) of all New Zealanders do not have timely EMS access to advanced-level hospital care via road or air. These geographically marginalised people tend to live in areas of low-moderate population density. In particular, Indigenous Māori, European New Zealanders, older New Zealanders and those residing in the lower South Island were less likely to have timely access.

Comment: On the one hand, the results confirm what we know about access in terms of geography. However, the authors have quantified the extent of the issue and provide useful information on 'how' to address the inequities at the system-level.

Reference: BMJ Open. 2019;9(7):e026026
Abstract

Declining adolescent cannabis use occurred across all demographic groups and was accompanied by declining use of other psychoactive drugs, New Zealand, 2001–2012

Authors: Ball J et al.

Summary: These researchers examined data from 3 nationally representative New Zealand Youth 2000 surveys (undertaken in 2001, 2007 and 2012), which documented a decline in cannabis use among secondary school students over this period of time. This investigation sought to determine whether changes in adolescent cannabis use occurred across all demographic groups and whether this decline was offset by increasing use of other psychoactive drugs. The decline in adolescent cannabis use was consistent across all main demographic groups (including age, ethnic, sex and socioeconomic groups) and there was no evidence of an accompanying rise in the use of other psychoactive drugs. Ethnic and socioeconomic differences in adolescent cannabis use decreased between 2001 and 2012, with Māori, younger students and students from low decile schools exhibiting the greatest reductions in cannabis use over time.

Comment: My comments: These results made me reflect on a recent conversation with my 13-year-old son and nephew about the possibility of cannabis being legalised – our teens are giving more thought to their health than we may realise:
Nephew: I can't smoke cannabis, I have asthma!
Son: And I can't take drugs, I'm in A-stream at school!
Me: LOL.

Reference: N Z Med J. 2019;132(1500):12-24
Abstract

Subsequent injuries experienced by Māori: results from a 24-month prospective study in New Zealand

Authors: Wyeth E et al.

Summary: It is already established that the burden of injury is disproportionately larger among Māori compared with non-Māori. Moreover, the impact of injury can be exacerbated by subsequent injuries, i.e. injuries that occur after, but not necessarily because of, an earlier or 'sentinel' injury. The Subsequent Injury Study analysed interview, Accident Compensation Corporation (ACC) and hospital discharge data within a 24-month period, to determine the number and timing of subsequent injuries experienced by Māori and reported to the ACC in the 24 months following a sentinel injury, the proportions who experienced subsequent injuries, and the nature of subsequent injuries. Of the 566 Māori in this analysis, two-thirds (62%) experienced ≥1 subsequent injury in the 24 months after the sentinel injury. Subsequent injuries were more common among those who drank moderate or high amounts of alcohol, or in those who had cognitive difficulties, before the sentinel injury. There were fewer subsequent injuries between 0–3 months after a sentinel injury than during later periods. Subsequent injuries were most commonly spine dislocations, sprains and strains.

Comment: As the authors say, it is not just 'an injury' and caring for people with severe injury is very complex. Yet they've identified two simple things we could do better along care-pathways – consider ways to prevent further injury and manage the burden of multiple injuries.

Reference: N Z Med J. 2019;132(1499):23-35
Abstract

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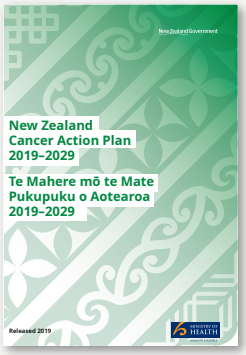
Cancer Action Plan 2019-29



The Draft Cancer Action Plan 2019 -2029 was released for consultation at the beginning of September.

The plan can be downloaded here: **https://www.health.govt.nz/publication/new-zealand-cancer-action-plan-2019-2029**

The Ministry of Health will also be hosting a livestreamed session with Dawn Wilson, Manager of Cancer Services and Professor Diana Sarfati, interim National Director of Cancer Control on the New Zealand Cancer Action Plan 2019 -2029, on Wednesday 2 October 2019, from 7pm until 8pm.

More details can be found here:
https://www.health.govt.nz/cap-livestream

FEEDBACK ON THE PLAN

From 1 September 2019 to 13 October 2019, the Ministry of Health is seeking feedback from New Zealanders about the Cancer Action Plan. There are two surveys open for public consultation:

- The first survey asks for New Zealanders experiences of cancer, whether they have had cancer themselves or supports someone with cancer **https://consult.health.govt.nz/cancer-services/participate-shape-the-future/**
- The second survey asks for specific feedback about the Cancer Action Plan 2019-29 **https://consult.health.govt.nz/cancer-services/cancer-action-plan/**

We invite you to provide feedback on one or both surveys and to participate in the Cancer Action Plan 2019 -29 livestream.

Acute reperfusion for ST-elevation myocardial infarction in New Zealand (2015–2017): patient and system delay (ANZACS-QI 29)

Authors: Kerr A et al.

Summary: These researchers analysed data from the All New Zealand Acute Coronary Syndrome Quality Improvement (ANZACS-QI) registry for 3,857 patients who received acute reperfusion therapy for ST-elevation myocardial infarction (STEMI) between 2015 and 2017. The analysis examined 'patient' and 'system' delays: 'patient delay' was defined as the time from symptom onset to first medical contact (FMC); 'system delay' was defined as the time from FMC until reperfusion therapy (primary percutaneous coronary intervention [PCI] or fibrinolysis). Seventy percent of the study cohort received primary PCI; 30% received fibrinolysis. In the fibrinolysis cohort, 10.5% received pre-hospital fibrinolysis. Most patients (77%) were transported to hospital by ambulance. In analyses adjusted for covariates, the likelihood of travelling to hospital by ambulance was lower among people who were older, male and presented to a hospital without a routine primary PCI service. For ambulance-transported patients, the median symptom to FMC time was 45 minutes, but this delay was >2 hours for a quarter of patients. Delays were longer for self-transported patients (a median of 97 minutes), with a quarter experiencing delays of >3 hours. In analyses adjusted for covariates, a delay between symptom onset and FMC of >1 hour was more common with older age, for those of Māori or Indian ethnicity and for those who did not call an ambulance. For ambulance-transported patients who received primary PCI, the median time was 119 minutes. For ambulance-transported patients who received fibrinolysis, the median system delay was 86 minutes, with Māori patients more often delayed than European/Other patients. Among patients who received pre-hospital fibrinolysis, the median system time was 46 minutes shorter than in those who received in-hospital fibrinolysis. For the patients who underwent rescue PCI after fibrinolysis, the median needle-to-rescue time was 237 minutes (4 hours).

Comment: See next paper.

Reference: N Z Med J. 2019;132(1498):41-59
Abstract

Direct transport to PCI-capable hospitals after out-of-hospital cardiac arrest in New Zealand: inequities and outcomes

Authors: Dicker B et al.

Summary: These researchers retrospectively analysed data from the St John New Zealand out-of-hospital cardiac arrest (OHCA) registry for 1,750 adults treated for an out-of-hospital cardiac arrest of presumed cardiac aetiology between 1 October 2013 and 31 October 2018. Significantly fewer older-aged patients (>65 years) compared with those aged 45–64 years and younger (15–44 years) were transported to hospitals with PCI capability (49.9% vs 59.7% and 52.1%; p<0.001). In a comparison of ethnicities, Pacific Peoples had the highest proportion transported to PCI-capable hospitals, followed by Europeans and Māori (86.2% vs 55.6% and 32.9%; p<0.001). Significantly fewer patients living in rural areas compared with those living in an urban location were transported to PCI-capable hospitals (34.7% vs 59.1%; p<0.001). Logistic regression analysis revealed significantly higher 30-day survival in patients conveyed directly to hospitals with PCI-capability compared with those taken to non-PCI-capable hospitals (adjusted OR 1.285; 95% CI, 1.01 to 1.63; p=0.04).

Comment: Many thanks to everyone for your kind messages following the announcement of our Heart Foundation and National Science Challenge funding grant to research **ACCESS: Accessing Cardiovascular Care for Equity StudieS**. Corina, the team and I are motivated to address the inequities in healthcare and health outcomes for heart disease, as highlighted in these studies.

Reference: Resuscitation. 2019;142:111-6
Abstract

Prevalence of frailty in a tertiary hospital: a point prevalence observational study

Authors: Richards SJG et al.

Summary: This report included 420 adult inpatients in a single tertiary New Zealand hospital who were assessed using the Reported Edmonton Frail Scale; those with scores of ≥8 were considered frail. The overall prevalence of frailty was 48.8% and increased significantly with age; ≥85-year-olds were significantly more likely to be frail compared with <65-year-olds (OR 6.25; 95% CI, 3.17 to 12.7; p<0.01). Compared with New Zealand Europeans, Māori patients were significantly more likely to be frail (OR 4.0; 95% CI, 1.45 to 11.9; p=0.02). Compared with patients admitted to a medical specialty, those admitted to a surgical specialty were less likely to be frail (OR 0.52; 95% CI, 0.31 to 0.86; p<0.01) and those admitted for rehabilitation were more likely to be frail (1.86; 1.03 to 3.41; p<0.04). Frail patients were significantly more likely to come from a rest home (OR 2.81; 95% CI, 1.38 to 6.14; p<0.01) or hospital-level care (9.62; 2.68 to 61.6; p<0.01).

Comment: This was certainly new information for me, and I was not aware that frailty was such a significant health issue for Māori. However, as we have more Māori ageing, we must ensure that frailty is identified and managed equitably for our kaumātua, and that their rights to 'age well' are upheld.

Reference: PLoS One. 2019;14(7):e0219083
Abstract

Ethnic disparities in childhood prevalence of maltreatment: evidence from a New Zealand birth cohort

Authors: Rouland B et al.

Summary: This survey of the 1998 New Zealand birth cohort of 56,904 children through 2016 recorded cumulative childhood prevalence of reports to child protective services (CPS), substantiated maltreatment (by subtype) and out-of-home placements. The children were followed from birth to age 18 years. Child maltreatment and child protection involvement differed markedly by ethnic group; compared with other children, Māori and Pacific Islander children were much more likely to be reported to CPS, to be substantiated as victims, and experience an out-of-home placement. Across all levels of CPS interactions, rates of Māori involvement were more than 2-fold higher than those of Pacific Islander children and more than 3-fold those of European children.

Comment: Shocking and unacceptable results. Urgent action is needed to address the causes of deprivation, provide services that respond to families living with poverty and address discrimination.

Reference: Am J Public Health. 2019;109(9):1255-7
Abstract

Exploration of Māori household experiences of food insecurity

Authors: Beavis BS et al.

Summary: This research was undertaken over a 3-month period in 2011 by Māori dietetic students with Māori supervision. Analysis of observational and discussion data was guided by Kaupapa Māori methodology. The 4 Māori households (18 individuals) in this investigation each contributed over 40 hours of data. The analysis identified 4 key themes around the experience of food insecurity in the household. All households had experienced income-related food insecurity and this was expressed by the theme 'Overcoming socioeconomic hardship'; this insecurity was felt most keenly by the low-income family. In all households, food insecurity had short- and long-term impacts on hauora (well-being). Whānau described strategies they had developed to reduce the severity of food insecurity: themes were identified around the sharing of food, gardening for food, and teaching food and nutrition skills. Thematic analysis of the texts used by the household members expressed Māori values and/or hauora influences, encompassing manaakitanga (sharing food/hospitality), whanaungatanga (family relationships) and kaitiakitanga (caring for the environment).

Comment: Excellent Kaupapa Māori-guided research that both critiques the structures that create food insecurity, as well as highlights the ways in which whānau attempt to overcome these using Māori values.

Reference: Nutr Diet. 2019;76(3):344-52
Abstract

Influences on Indigenous and Pacific students' health career choices: a longitudinal cohort study

Authors: Crawford R, Turvey J

Summary: These researchers followed 2 cohorts of secondary school students from 5 schools enrolled in an Incubator Programme set up to encourage Indigenous (Māori) and Pacific students to consider a career in health. The students were surveyed before and after participating in the Incubator Programme, in an attempt to understand what influences Māori and Pacific students in New Zealand to choose nursing as a health career. Nursing was the most common career choice out of all possible career options. The survey responses indicated that the programme broadened and confirmed available career options. The students described various influences on career choices, including personal experience, exposure to the media, careers advisors and teachers.

Comment: I think that this demonstrates the importance of having systems, structures and a supportive workforce in place to support Māori and Pacific students into health careers. It also reflects what I'm hearing anecdotally at admission interviews – students are highly motivated by personal or whānau experience of health issues but often don't receive good career or course advice until it's too late.

Reference: Contemp Nurse. 2019;55(2-3):250-60
Abstract

A principles framework for taking action on Māori/Indigenous homelessness in Aotearoa/New Zealand

Authors: Lawson-Te Aho K et al.

Summary: These researchers describe how they developed a principles framework – Whare Ōranga – for guiding action on Māori/Indigenous homelessness in Aotearoa/New Zealand. This framework incorporates 3 pathways that create opportunities for action on Māori homelessness: Rangatiratanga (the Māori self-determination pathway); Whānau Ora (Government policy that places Māori families at the centre of funding, policy and services); and Housing First, an international pathway with local application for homelessness that is being implemented in parts of Aotearoa. These pathways and their potential opportunities informed the content of 20 interviews that were held with authoritative Māori, who talked about how Māori principles can be used as the foundation for action to address Māori homelessness. This issue can only be addressed by incorporating rights-based and culturally aligned practice empowered by Māori worldviews, principles and processes. Importantly, such action has to be embedded within Te Tiriti o Waitangi, which endorses Māori tribal self-determination and authority, and Whānau Ora as a government obligation to reduce inequities in Māori homelessness. Moreover, the root causes (colonisation and historical trauma) of Māori homelessness must be addressed, by adopting strong rights-based frameworks that will enact decolonisation and guide official policy.

Comment: An excellent framework, underpinned by a rights-based approach and acknowledgement of the root causes for homelessness.

Reference: SSM Popul Health. 2019;8:100450
Abstract