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Māori Health Review™

Making Education Easy

Issue 72 – 2018

In this issue:

Abbreviations used in this issue

CKD = chronic kidney disease
CVD = cardiovascular disease
ED = Emergency Department
ESRD = end-stage kidney disease
GP = general practitioner
OR = odds ratio
RR = risk ratio

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
Matire
Dr Matire Harwood
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An audit of risk assessments for suicide and attempted suicide in ED: a retrospective review of quality

Authors: de Beer W et al.

Summary: This audit retrospectively analysed data from 376 files of patients who had presented to the ED in Waikato Hospital, Hamilton, following an attempted suicide between 1 July 2015 to 30 June 2016. The auditors evaluated the quality of psychiatric risk assessments conducted by Mental Health & Addiction Services staff members in the ED, to determine adherence to the New Zealand Ministry of Health Clinical Practice Guidelines for Deliberate Self Harm. The analysis found that clinicians routinely focused on the historical features of the suicide attempt presentation and failed to record judgements about future suicidal behaviours. Fewer than half of the cases recorded interactions with family members. The guideline with the lowest level of adherence was that requiring clinicians to check whether Māori patients wanted culturally appropriate services during the assessment and treatment planning; <10% of the clinical records reported following this guideline.

Comment: Disappointing results, particularly when 1. Māori are at increased risk for poor mental health outcomes and 2. Māori-led services exist in most centres, and 3. Kaupapa Māori services are achieving equitable outcomes. Referrals from clinicians appear to be the barrier to quality care.

Reference: N Z Med J. 2018;131(1470):14-21
Abstract

Multiple forms of discrimination and relationships with health and wellbeing: findings from national cross-sectional surveys in Aotearoa/New Zealand

Authors: Cormack D et al.

Summary: Using data from the 2008, 2010 and 2012 General Social Surveys (GSS), biennial nationally-representative surveys in NZ, these researchers examined patterning of forms of discrimination in the last 12 months and frequency of experiencing multiple forms of discrimination. Māori, Pacific and Asian ethnic groups were much more likely to report racial discrimination, to have any experience of discrimination, and to experience multiple forms of discrimination, as compared with Europeans/Others. Discrimination was associated with poorer self-rated health, poorer mental health (using the 12-item Short Form Health Survey), and greater life dissatisfaction. Negative health impacts increased as the number of forms of discrimination experienced increased.

Comment: Although I am aware of the multiple levels of 'isms' or discriminations that operate in our society (racism, sexism, ageism, disable-ism, 'beneficiarism') and have theorised that there is a cumulative impact for Māori living with stroke in my PhD, this paper now provides robust evidence on the actual health effects. I find it useful to consider the many forms of discrimination or judgement my patients have experienced in the time from making the appointment to when they see me.

Reference: Int J Equity Health. 2018;17(1):26
Abstract

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Treaty of Waitangi in New Zealand public health strategies and plans 2006–2016

Authors: Came H et al.

Summary: These researchers reviewed 12 public health strategies and plans published on the Ministry of Health database between 2006 and 2016, in which the Crown discourses referred to text from either te Tiriti o Waitangi or the Treaty of Waitangi. Crown discourses were categorised as i) rhetorical (i.e. naming Treaty principles), ii) aspirational statements around health inequities, iii) practical actions towards implementing the Treaty, and/or iv) addressed substantive issues of relationships, Treaty obligations, Māori involvement in decision-making and service delivery. The findings confirm that public health strategies rarely address Treaty obligations. As the article states, this silence is inconsistent with legislative requirements to engage with the Treaty and health equity and is likely to inform health-related Waitangi Tribunal claims. The researchers call for further work to strengthen alignment of health policy to fulfil Crown Treaty obligations.

Comment: See next paper.

Reference: N Z Med J. 2018;131(1469):32-7

Abstract

Institutional racism in public health contracting: Findings of a nationwide survey from New Zealand

Authors: Came H et al.

Summary: Outcomes are reported from a nationwide telephone survey of public health providers conducted in NZ from November 2014 to May 2015, which sought to identify inconsistencies and biases within health contracting practices by comparing government-funded contracting processes for Māori-led public health providers (n=60) and generic providers (n=90). Quantitative data were subjected to descriptive statistical analyses and revealed four key areas of significant variation: contract length, monitoring intensity, compliance costs and auditing frequency. Non-significant data involved access to discretionary funding and cost of living adjustments, the frequency of monitoring, access to Crown (government) funders and representation on advisory groups. An inductive approach was used to analyse data from open-ended responses in the survey domains of relationships with portfolio contract managers, contracting and funding, as a way of categorising participant's perspectives into significant themes. The qualitative material showed disparate provider experiences, dependent on individual portfolio managers, with nuanced differences between generic and Māori providers' experiences. The researchers make the point that in a policy context where health equity is a key directive to the health sector, these findings suggest there is scope for NZ health funders to improve their contracting practices.

Comment: Recent experience on an advisory group is enough proof for me, but readers may prefer the published evidence in these two papers. I do like that the authors describe potential tools or solutions and I'll suggest these to the group – will let you know how it went.

Reference: Soc Sci Med. 2018;199:132-9

Abstract

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Health and wellbeing of Indigenous adolescents in Australia: a systematic synthesis of population data

Authors: Azzopardi PS et al.

Summary: These researchers describe their systematic synthesis of population data reporting the health and wellbeing of Indigenous adolescents (aged 10–24 years) in Australia. They first defined a reporting framework around three key domains: health outcomes (mortality and morbidity relating to disease and injury); health risks (risk factors for adverse outcomes in adolescence, adulthood, or the next generation); and sociocultural determinants of adolescent health and wellbeing. A national advisory group (6 Indigenous young people, 3 Indigenous adult community members, 3 researchers, 3 policy makers, and 2 service providers, all aged ≥16 years) provided input about the reporting framework, interpretation of findings, and policy recommendations. Available data (primary data from national surveys and administrative datasets, and available published data) were available for 184 (79%) of 234 elements of the defined reporting framework. According to the evidence, the health profile of Indigenous Australian adolescents differs markedly from that of non-Indigenous adolescents, with high rates of communicable, nutritional and reproductive diseases, non-communicable diseases, and excess intentional and unintentional injuries. Almost a third of Indigenous adolescents aged 18–24 years reported high levels of psychological distress (twice the non-Indigenous rate). The researchers conclude that the early onset of health risks, high adolescent birth rates, and heavy disease burden suggest that without a priority focus on adolescents, Australia will not redress Indigenous health inequalities.

Comment: As the authors suggest, as Indigenous young people make up a significant proportion of the total Indigenous population in Australia (and Aotearoa), it is not possible to address Indigenous health equity without a focus on adolescent health and wellbeing. How do we get our governments, funders and planners on board?

Reference: Lancet. 2018;391(10122):766-82

Abstract

KINDLY SUPPORTED BY Asthma + Respiratory FOUNDATION NZ

Ethnic disparities in breast cancer survival in New Zealand: which factors contribute?

Authors: Tin ST et al.

Summary: This analysis involved 13,657 women diagnosed with primary invasive breast cancer between January 2000 and June 2014 who were in the Auckland and Waikato Breast Cancer Registries. Compared with other ethnic groups, the 1,281 Māori and 897 Pacific women in this analysis were younger, more likely to reside in deprived neighbourhoods and to have co-morbidities, and less likely to be diagnosed through screening and with early stage cancer, to be treated in a private care facility, to receive timely cancer treatment, and to receive breast conserving surgery. In Cox regression modelling, Māori and Pacific women had a higher risk of excess mortality from breast cancer (age and year of diagnosis adjusted HR 1.76; 95% CI, 1.51 to 2.04 for Māori and 1.97; 95% CI, 1.67 to 2.32 for Pacific women), of which 75% and 99%, respectively, were explained by baseline differences. The most important contributor was late stage at diagnosis. Other contributors included neighbourhood deprivation, mode of diagnosis, type of health care facility providing the primary cancer treatment and type of loco-regional therapy.

Comment: The authors have gone beyond a mere description of factors to quantify the contribution these have on ethnic disparities in breast cancer survival in Aotearoa. I'll certainly look to take a similar approach in future research.

Reference: BMC Cancer. 2018;18:58

Abstract

Inequity in dialysis related practices and outcomes in Aotearoa/New Zealand: a Kaupapa Māori analysis

Authors: Huria T et al.

Summary: The rate of CKD is 3-fold higher among NZ Māori than among NZ non-Māori, non-Pacific peoples. Moreover, Māori commence dialysis treatment for ESRD at 3 times the rate of NZ European adults. This retrospective analysis was informed by a Kaupapa Māori approach and sought to determine evidence of inequity in dialysis-related incidence, treatment practices, and survival according to indigeneity in NZ, in a cohort of adults who commenced treatment for ESRD in NZ between 2002 and 2011. Propensity score matching assembled 1,039 Māori patients and 1,026 non-Māori patients matched by clinical and sociodemographic characteristics. Non-Māori were older, more likely to live in urban areas (83% vs 67%) and were less socioeconomically deprived (36% living in highest decile areas vs 14%) than Māori. Fewer non-Māori had diabetes (35% vs 69%) as a cause of kidney failure. Non-Māori were more frequently treated with peritoneal dialysis (34% vs 29%), received a pre-emptive kidney transplant (4% vs 1%), and were referred to specialist care <3 months before treatment (25% vs 19%). Fewer non-Māori started dialysis with a non-tunnelled dialysis vascular catheter (43% vs 47%). The Indigenous-age standardised incidence rate ratio for non-Māori commencing renal replacement therapy in 2011 was 0.50 (95% CI, 0.40 to 0.61) compared with Māori. Propensity score matching generated cohorts with similar characteristics, although non-Māori less frequently started dialysis with a non-tunnelled venous catheter (30% vs 47%) or lived remotely (3% vs 14%). In matched cohorts, non-Māori experienced lower all-cause mortality at 5 years after commencement of treatment (RR 0.78; 95% CI, 0.72 to 0.84). NZ European patients experienced lower mortality than Māori patients in indigenous age-standardised analyses (age-standardised mortality rate ratio 0.58).

Comment: Fantastic to see some research in this area – dialysis and renal replacement therapy – given the large numbers of Māori affected and the significant ethnic disparities.

Reference: Int J Equity Health. 2018;17(1):27

Abstract

Risk of lower limb amputation in a national prevalent cohort of patients with diabetes

Authors: Gurney JK et al.

Summary: This study followed 217,207 New Zealanders with diabetes from 2010 until the end of 2013 for lower limb amputations, and to the end of 2014 for mortality. 784 individuals (3.6 cases/1,000 individuals) underwent a major (above-ankle) lower limb amputation during follow-up; 1,217 (5.6/1,000) underwent a minor (below-ankle) amputation. The risk of major and minor amputation was 39% and 77% greater for men than women, respectively (adjusted HR: major amputation 1.39; 95% CI, 1.20 to 1.61; minor amputation 1.77; 95% CI, 1.56 to 2.00). Indigenous Māori were at far higher risk of above-knee amputation compared with European/Other diabetics (HR 1.65; 95% CI, 1.37 to 1.97). Amputation risk increased with increasing comorbidity burden; of all comorbid conditions, peripheral vascular disease conferred the greatest independent risk. Prior minor amputation increased the risk of subsequent major amputation by 10-fold (HR 10.04; 95% CI, 7.83 to 12.87) and increased the risk of another minor amputation by 20-fold (HR 21.39; 95% CI, 17.89 to 25.57). Death was common among the total cohort, but particularly among those who underwent amputation, with more than half of those who underwent a major amputation dying within 3 years of their procedure (57%).

Comment: I was a little confused about the differences in reported outcomes – a major amputation was defined as 'above the ankle' for the whole group, yet was defined as 'above knee' in the ethnic analysis. I therefore wondered if the risk for Māori with diabetes having a major amputation was greater than 65%. My point is that for disparities, researchers should aim to have consistent definitions, or provide an explanation when they are conflicting.

Reference: Diabetologia. 2018;61(3):626-35

Abstract

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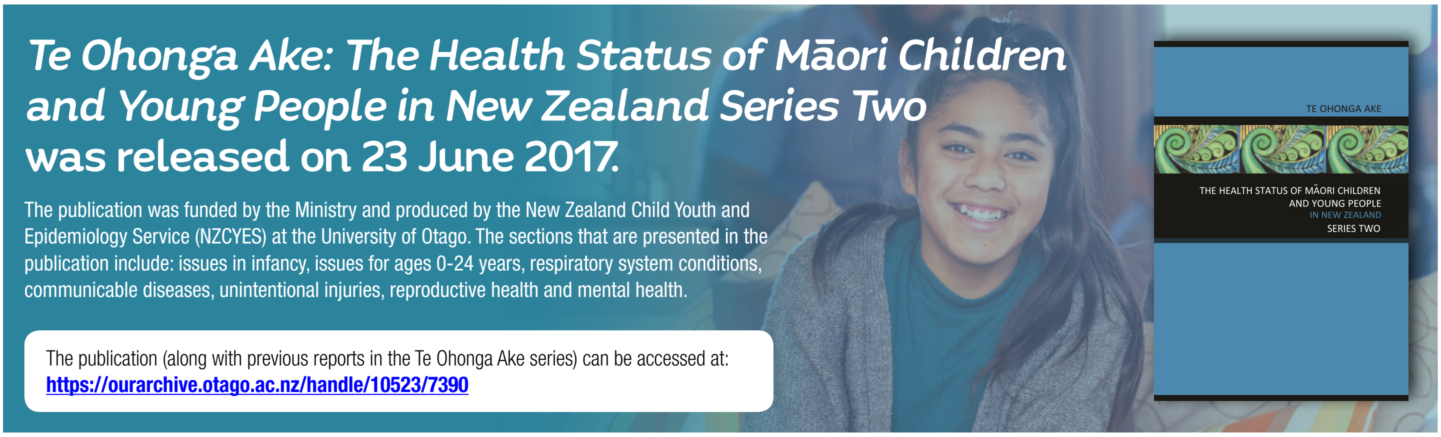

Education preferences of people with gout: Exploring differences between Indigenous and non-Indigenous peoples from rural and urban locations

Authors: Treharne GJ et al.

Summary: These researchers compared education preferences of Māori and New Zealand Europeans with gout, and of those living in rural or urban areas, in a cohort of people with gout managed in primary care from 2 rural regions and 1 city. Focus groups involved 26 Māori and 42 New Zealand Europeans (44 rural, 24 urban). Participants discussed education preferences for diet, medication, and ways of communicating. When they individually ranked the three most important ideas for each topic, the most frequently prioritised ideas were knowing one's own food triggers, knowing side effects of medications, and communicating via a GP or specialist. More Māori participants prioritised natural remedies, easy to understand information, and communicating via television. More NZ European participants prioritised knowing the kinds of alcohol that trigger gout, communicating via GP/specialist, and receiving written information. More urban participants prioritised knowing to stay hydrated and medication doses as important information.

Comment: See next paper.

Reference: Arthritis Care Res (Hoboken). 2018;70(2):260-7

Abstract

Effect of a health literacy intervention trial on knowledge about cardiovascular disease medications among Indigenous peoples in Australia, Canada and New Zealand

Authors: Crengle S et al.

Summary: This intervention trial assessed the effect of a customised, structured CVD medication health literacy programme on medication knowledge among 171 Indigenous people aged $\geq$20 years with, or at high risk of, CVD attending primary care services in Australia, Canada and New Zealand. The study participants had at least one clinical diagnosis of a CVD event, or in Canada and Australia had a 5-year CVD risk $\geq$15%, and were prescribed $\geq$2 of the following CVD medication classes: statin, aspirin, ACE inhibitors and beta blockers. They all attended an education session delivered on 3 occasions over 1 month by registered nurses or health educators trained in health literacy and principles of adult education. Each session used an interactive tablet application and the participants received an information booklet and pill card. At baseline (before session 1), the participants displayed a low level of knowledge about the CVD medications; mean percent correct answers were highest for statins (34.0%), 29.4% for aspirin, 26.0% for beta blockers and 22.7% for ACE inhibitors. In adjusted analyses, knowledge scores increased significantly between pre-assessments and post-assessments at all 3 time points for all medication classes ($p<0.001$). For all 4 medications, the absolute increases in adjusted percent correct items from pre-session 1 to post-session 3 assessments were 60.1% for statins, 76.8% for aspirin, 71.4% for ACE inhibitors and 69.5% for beta blockers.

Comment: Great examples of health literacy research in Aotearoa. In the first paper, differences in understandings and health education preferences between Māori and non-Māori for the management of an important health condition were identified in a mana-enhancing way. The second paper goes the next step to develop/test a health literacy intervention – with fantastic results.

Reference: BMJ Open. 2018;8:e018569

Abstract

Ethnic bias and clinical decision-making among New Zealand medical students: an observational study

Authors: Harris R et al.

Summary: All final year NZ medical students in 2014 and 2015 (n=888) were invited to participate in the Bias and Decision-Making in Medicine (BDMM) study, a cross-sectional online investigation that examined ethnic bias (Māori compared with NZ European) among medical students and associations with clinical decision-making. Key components included two chronic disease vignettes (CVD and depression) with randomised patient ethnicity (Māori or NZ European) and questions on patient management, implicit bias measures (an ethnicity preference Implicit Association Test [IAT] and an ethnicity and compliant patient IAT), and explicit ethnic bias questions. One-third of the students (n=302) participated in the survey (34% response rate). Linear regression analysis identified implicit and explicit ethnic bias favouring NZ Europeans. No significant differences in clinical decision-making by patient ethnicity were observed for the CVD vignette. The analysis also failed to identify any differential associations by patient ethnicity between any measures of ethnic bias (implicit or explicit) and patient management responses in the CVD vignette. However, in the depression vignette, the ranking of recommended treatment options differed by patient ethnicity and there was explicit preference for NZ Europeans, reflected by increased reporting that NZ European patients would benefit from treatment but not Māori (slope difference 0.34; 95% CI, 0.08 to 0.60; p=0.011), although this was the only significant finding in these analyses.

Comment: Although the response rate was not great, the study has provided strong evidence on the presence of ethnic bias amongst medical students in Aotearoa. I'd like to see the development and testing of interventions that reduce implicit racial/ethnic bias, not just in medical schools but throughout our education system.

Reference: BMC Med Educ. 2018;18(1):18

Abstract

Risk of stomach cancer in Aotearoa/New Zealand: A Māori population based case-control study

Authors: Ellison-Loschmann L et al.

Summary: These researchers sought to determine why Māori experience disproportionate rates of stomach cancer compared to non-Māori and to identify priorities for prevention. The study examined 165 Māori stomach cancer cases from the New Zealand Cancer Registry between 1 February 2009 and 31 October 2013; 480 randomly selected Māori controls from the NZ electoral roll were matched by 5-year age bands to cases. The diffuse subtype made up nearly half of all cancers (47.9%). The following risk factors were all associated with increased odds of stomach cancer: having >2 people sharing a bedroom in childhood (OR 3.30; 95% CI, 1.95 to 5.59), being tested for *Helicobacter pylori* (OR 12.17; 95% CI, 6.15 to 24.08), being an ex-smoker (OR 2.26; 95% CI, 1.44 to 3.54) and adult exposure to environmental tobacco smoke (OR 3.29; 95% CI, 1.94 to 5.59). Some results were attenuated following post-stratification weighting. The researchers call for population-level strategies to reduce the incidence of stomach cancer in Māori, including expanding measures to screen and treat those infected with *H. pylori* and a continued policy focus on reducing tobacco consumption and uptake.

Comment: Familial stomach cancer in a few Māori whānau (due to E-cadherin germline mutation) is often touted as an excellent example of the usefulness of genomic research to address health inequities in Aotearoa. However, as highlighted here, inequities in stomach cancer incidence and mortality rates between Māori and non-Māori are more likely due to wider determinants such as overcrowded living conditions, smoking, inadequate health care (poor screening for and treatment of *H. pylori* infection) and diet. Perhaps our limited health funding is better focused in these areas.

Reference: PLoS ONE. 2017;12(7):e0181581

Abstract

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.