

Māori Health Review™



Making Education Easy

Issue 76 – 2018

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Abbreviations used in this issue

BMI = body mass index
DHB = District Health Board
OR = odds ratio

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Ngā mihi

Matire

Dr Matire Harwood

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Increasing incidence of type 2 diabetes in New Zealand children <15 years of age in a regional-based diabetes service, Auckland, New Zealand

Authors: Sjardin N et al.

Summary: These researchers analysed data from a cohort of 104 NZ children (aged <15 years) presenting with type 2 diabetes to a single paediatric diabetes centre in Auckland between 1995 and 2015. The cohort had a BMI standard deviation score of +2.3, blood sugar of 15.3 mmol/L, and HbA1c of 76 mmol/mol. At presentation, acanthosis nigricans was found in 90% of the children and 48% were symptomatic. One-third (33%) were Māori, 46% Pacifica, 15% Asian/Middle Eastern and 6% European. Type 2 diabetes incidence increased by 5% each year. The average annual incidence per 100,000 over the entire 21-year period was 1.5 overall, 5.9 in Pacifica and 4.1 in Māori.

Comment: Understanding the pathways to type 2 diabetes is key if we are to address this increasing health issue. Three priority areas for me would be 1. Improved management of gestational diabetes (GDM), as offspring of mums with GDM present with early-onset type 2 diabetes; 2. Better oral health care, another risk factor for type 2 diabetes and; 3. Addressing the obesogenic environments in which Māori and Pacific people are living.

Reference: *J Paediatr Child Health. 2018;54(9):1005-10*

[Abstract](#)

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Vaccine impact on long-term trends in invasive bacterial disease in New Zealand children

Authors: Walls T et al.

Summary: This article describes long-term trends in hospital discharge rates and notifications for invasive bacterial infections caused by *Streptococcus pneumoniae* (IPD), *Neisseria meningitidis* and *Haemophilus influenzae* type B (Hib) in NZ children (aged <15 years), the impact of vaccines on the rates of these diseases and rates in comparison to UK data. Two datasets were used: the National Minimum Dataset for data on hospital discharges from all private and public hospitals in NZ and EpiSurv, NZ's national database for notifiable disease surveillance. Hospitalisation rates for Hib fell by 84% within 2 years after the introduction of the vaccine (from 13.53/100,000 in 1993 to 2.19/100,000 in 1995). Hospitalisation and notification rates were similar for Hib. After the introduction of MeNZB vaccine in 2004, hospitalisation rates for meningococcal disease fell by 73% within 3 years: from 36.68 per 100,000 in 2003 to 10.05 per 100,000 in 2006. Over the 8 years after the introduction of MeNZB vaccine, notification rates for meningococcal disease declined by 75%, from 26.15 per 100,000 to 2.48 per 100,000 and continued to decline. From 2007 to 2011, the rates of meningococcal disease in NZ were lower than those in the UK (8.16 vs 10.37/100,000), despite NZ not having a meningococcal vaccine on the immunisation schedule for those years. NZ hospitalisation rates for IPD fell by 62% within 2 years of the introduction of PCV7 vaccine (from 7.80/100,000 in 2007 to 2.98/100,000 in 2009). Notification rates were 3–6-fold higher than the hospitalisation rates, but also fell markedly after the introduction of PCV7 vaccine. Rates of invasive bacterial disease have fallen substantially in NZ children since the introduction of meningococcal and pneumococcal vaccines, with the greatest absolute reductions in disease incidence amongst Māori children, although disparities are still apparent between Māori and non-Māori children.

Comment: See next paper.

Reference: *Pediatr Infect Dis J.* 2018;37(10):1041-7
[Abstract](#)

Results from a mobile outreach influenza vaccination program for vulnerable and high-risk populations in a high-income setting: lessons learned

Authors: Giles ML et al.

Summary: This pilot project introduced an outreach mobile influenza vaccination program led by a large hospital network in Australia that was designed to target high-risk and vulnerable populations in a high-income setting. After identifying key populations, the project engaged stakeholders with established access to these populations. A mobile, nurse-led immunisation service visited 16 sites where these populations attend and offered influenza vaccine. A total of 520 influenza vaccines were administered. Two-thirds (61%) of those vaccinated had previously received the influenza vaccine, but only around one-third (39%) had received it within the last year. Almost half (45%) of the participants self-reported a risk factor for severe disease.

Comment: Childhood immunisations have improved the health and wellbeing of our children, and contribute to health equity between Māori and non-Māori children. Given these results, and the inequities in immunisation rates, particularly in some DHBs, we must look to innovative and evidence-based strategies, such as those described in the second paper here, to improve access.

Reference: *Aust N Z J Public Health.* 2018;42(5):447-50

[Abstract](#)

Inequities in exposure to occupational risk factors between Māori and non-Māori workers in Aotearoa New Zealand

Authors: Denison HJ et al.

Summary: These researchers sampled participants from NZ electoral rolls and invited them to participate in a telephone interview, in which they were questioned about current workplace exposures. The investigation assessed differences in the prevalence of self-reported exposure to disease risk factors, including dust and chemicals, physical factors and organisational factors, between 2,344 Māori and 2,710 non-Māori workers. Exposure to occupational risk factors was more likely for Māori than non-Māori. Even when Māori and non-Māori were working within the same job, Māori were more likely to be exposed to physical factors such as heavy lifting and loud noise, and to organisational factors such as carrying out repetitive tasks and working under tight deadlines.

Comment: A really important study and, as highlighted, one of the first in the world to describe differences in occupational risk factors between Indigenous and non-Indigenous peoples. The results speak to a breach in rights for Māori to occupations and work environments that are safe.

Reference: *J Epidemiol Community Health.* 2018;72(9):809-16

[Abstract](#)

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A report titled

Te Ao Auahatanga Hauora Māori: Māori Health Innovation Fund – Analysis of Te Kākano Seeding Innovation 2013-17

was recently published on the Ministry of Health website.

Written for the Ministry by Sandy Kerr of Brown Research Limited, the report gives insight into a range of innovative models of service delivery trialled between 2013 and 2017 under the Te Kākano (seeding innovation) category of the Te Ao Auahatanga Hauora Māori: Māori Health Innovation Fund. It draws upon 22 individual programme evaluations that tell the innovation stories, and illustrates themes of success across the initiatives and discusses alignment to the Fund objectives, its overall aim and priorities.

Te Ao Auahatanga Hauora Māori: Māori Health Innovation Fund was established in 2009 to address the service gaps and unmet needs of Māori by the health system through trialling innovative models of service delivery by Māori health providers with the overall aim of achieving whānau ora.

<https://www.health.govt.nz/our-work/populations/maori-health/maori-health-providers/te-ao-auahatanga-hauora-maori-maori-health-innovation-fund-2018-2022/te-pataka>

Te Whānau Pou Toru: a randomized controlled trial of a culturally adapted low-intensity variant of the Triple P-Positive Parenting Program for Indigenous Māori Families in New Zealand

Authors: Keown LJ et al.

Summary: These researchers describe how they tested their culturally adapted version of the Triple P-Positive Parenting Program for Māori parents of young children in NZ. The researchers collaborated closely with Māori tribal elders, practitioners as end-users and parents as consumers to identify content and delivery process used in Triple P, making sure that the adapted programme would incorporate traditional Māori values. *Te Whānau Pou Toru* was evaluated with 70 parents of 3–7-year-old children; the parents were randomised to an intervention group or waitlist control. Assessments of the parents immediately after the programme ended revealed positive effects with the intervention, with parents in that group reporting significantly greater improvements in child behaviour problems and less interparental conflict about child-rearing, as compared with parents in the control group. When the parents were interviewed at 6 months after completing the programme, those in the intervention group reported significantly greater reductions in over-reactive parenting practices and higher levels of confidence in managing various difficult child behaviours, as compared with parents in the control group. Parents expressed high levels of satisfaction with *Te Whānau Pou Toru*.

Comment: As the authors suggest, the introduction of 'evidence-based' parenting courses requires an effective implementation plan. The participatory approach taken here may be useful to others looking to apply programmes in your local communities.

Reference: *Prev Sci.* 2018;19(7):954-65

[Abstract](#)

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Determinants of high availability of methamphetamine, cannabis, LSD and ecstasy in New Zealand: are drug dealers promoting methamphetamine rather than cannabis?

Authors: Wilkins C et al.

Summary: Recent anecdotal reports of illegal drug supplies in many small towns in NZ suggest that cannabis is becoming harder to obtain, whereas methamphetamine is becoming ever easier to obtain. Outcomes are reported from an anonymous online survey of alcohol and drug use in NZ, promoted via a broadly targeted Facebook™ campaign conducted from November 2017 to February 2018 and targeted at people aged ≥16 years. A total of 6,311 surveys were completed and returned. Across NZ, respondents reported methamphetamine as more available than cannabis. Methamphetamine was easier to obtain in towns and rural areas than in cities. In logistic regression analysis, statistically significant predictors of reporting high availability of methamphetamine were living in a town/rural area (OR 1.38), purchasing from a gang member (OR 1.88), daily methamphetamine use (OR 2.41), Māori ethnicity (OR 1.36) and reporting low availability of cannabis (OR 1.89). Low availability of cannabis failed to predict for high availability of ecstasy or LSD. Living in a town/rural area did not predict for high availability of cannabis, LSD or ecstasy. Purchasing from a gang member predicted for high availability of cannabis (OR 1.80) and LSD (OR 4.61).

Comment: These results align with international literature for methamphetamine use and Indigenous peoples – it is an increasing problem and particularly so for rural communities. We must look both upstream, to those factors associated with drug misuse such as poverty and housing, and downstream, to equitable access to and through rehabilitation.

Reference: *Int J Drug Policy.* 2018;61:15-22

[Abstract](#)

'Asymptomatic' South Auckland preschool children have significant hearing loss and middle ear disease

Authors: Dickinson LJ et al.

Summary: Data are reported from this Counties Manukau DHB recall of South Auckland children to attend hearing screening at age 2–3 years after flaws with their newborn hearing screen. All had been well babies with no identified risk factors for hearing loss, so were not scheduled for targeted follow-up to retest hearing. Of 700 children who were recalled, 485 attended. The average age was 36 months. Ethnicity was Pacific Island (41.2%), Asian/Indian (29.1%), NZ European (14.6%), and Māori (12.0%). The deprivation level was high; 45% of the cohort was at the highest deprivation level 10. All children were initially screened by distortion product otoacoustic emission (DPOAE) testing. About one-third (36%) failed DPOAE screening; 17% had abnormal type B tympanograms and most (13.6%) of these children also had hearing loss. Twenty-nine children underwent grommet surgery, and 1 child had a perforated tympanic membrane. Failed tympanometry was significantly associated with hearing loss (Chi-squared = 16.67; $p < 0.001$). Five children had permanent sensorineural hearing loss; 2 of them required cochlear implants for idiopathic hearing loss, with no specific risk factors. Overall, around one-fifth (22%) of the children were identified as having hearing problems. Responses from parents or caregivers who completed a 14-item questionnaire about the child's ear health revealed that 15% of the parents/caregivers had no suspicion of hearing problems, but had children with significant hearing loss. In regression analysis, Pacific/Māori ethnicity was significantly associated with risk of hearing loss, as were hearing problems in children whose parents/caregivers reported hearing problems in the previous 12 months.

Comment: An important message here for me is the fact that the screening occurred before the scheduled B4SC (B4 School Check) – and that some of these children would have presented to school labelled as having 'learning difficulties' when in fact they had potentially treatable conditions. The authors recommend 'a different approach to hearing screening' – I'd like to know what that is!

Reference: *Int J Pediatr Otorhinolaryngol.* 2018;114:106-10

[Abstract](#)

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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 Hauui and two young children Te Rangiura and Waimarie.



The shame of fat shaming in public health: moving past racism to embrace indigenous solutions

Authors: Warbrick I et al.

Summary: These NZ researchers discuss the ways in which indigenous peoples in colonised countries have been stigmatised for generations for their skin colour, their beliefs and their culture. Over the last few decades, public and clinical health body weight has focused on body weight. This article describes how 'recommended weight ranges' support racist attitudes toward Māori, as an indigenous group. The BMI, which correlates with population data on health status, classifies people as underweight, 'normal', overweight and obese by weight ranges that do not account for inter (and intra) ethnic variation in body type. Evidence from studies on institutional and societal racism, as well as critical research on weight stigma and the weight loss industry, reveals how perceptions of weight have blamed indigenous (Māori) peoples for being fat and for being less productive (or moral) because they are fat. The article points out that a weight loss-centred approach has not improved the health of indigenous people. Instead, this approach upholds racist sentiment towards indigenous peoples in developed nations, who are more likely to be overweight, obese and disproportionately affected by weight-induced comorbidities and physical disorders, in comparison with other peoples in those nations. Psychological, emotional and social issues underlie those weight-associated physical ailments. These study researchers propose indigenous solutions based on local, traditional knowledge that provide an alternative to weight-focused health promotion and could serve as pathways out of fat shaming.

Comment: Fat shaming by health providers is an issue, with a 2003 survey of 620 GPs finding that more than half considered obese patients to be "awkward, unattractive, ugly and non-compliant". Many think fat-shaming may motivate people to lose weight when in fact it creates stress and anxiety. People who are obese are also less likely to be considered for job promotions and receive good service in public settings. The authors not only name the issues of 'fat shaming' and stigmatisation for Māori, but propose solutions to them.

Reference: *Public Health*. 2018 Oct 20. [Epub ahead of print]

[Abstract](#)

Te Wero tonu – the challenge continues: Māori access to medicines 2006/07–2012/13 update

Authors: Metcalfe S et al.

Summary: Previously reported evidence found large inequities between Māori and non-Māori for dispensings of prescription medicines in NZ in 2006/07 (Metcalfe et al., 2013; Horsburgh & Norris, 2013). This paper presents updated data on Māori:non-Māori inequities in disease burden-adjusted medicines access in 2012/13, and changes over time. In analyses adjusted for age, population and burden of disease (i.e. health loss, in disability-adjusted life years [DALYs]), large inequalities remained for Māori compared with non-Māori; there was virtually no improvement since the last report. In 2012/13, there was a shortfall of 41% in pharmaceutical treatments that Māori failed to receive, had those treatments been dispensed at rates equitable to non-Māori. This relative gap between Māori and non-Māori was nominally worse than the 37% reported for the medicines available in 2006/07, but not statistically significant. The report concludes that while the interpretation of the data is hampered by various complexities and limitations, nevertheless, large inequities remain in access and persistence across many therapeutic groups.

Comment: The results speak for themselves – that inequities in access to medicines by ethnicity occurs in Aotearoa is unacceptable. However, I also wish to acknowledge and applaud the authors for the presentation of the paper in a 'standard' medical journal, weaving te reo and Te Tiriti o Waitangi throughout it.

Reference: *N Z Med J*. 2018;131(1485):27-47

[Abstract](#)

Health and wellbeing of Māori secondary school students in New Zealand: trends between 2001, 2007 and 2012

Authors: Clark TC et al.

Summary: This paper reports on the health and wellbeing status of Māori secondary school students in NZ compared to European students, in this analysis of anonymised data obtained from representative health surveys of NZ secondary school students conducted in 2001, 2007 and 2012 (total n=27,306 including 5,747 Māori). In age- and sex-adjusted analyses, Māori students experienced small but significant improvements between 2001 and 2012 in health, family and school connections. Notwithstanding, Māori students reported poorer health, greater exposure to violence and socioeconomic adversity over this period compared to European students. In analyses that controlled for socioeconomic deprivation, there was a marked reduction in inequity, although Māori continued to have worse health outcomes for general health, mental health, contraceptive use, healthy weight, substance use, access to healthcare and exposure to violence. There was some evidence of convergence between Māori and European students, with gaps narrowing over time on some indicators – not all.

Comment: I've included this paper given the recent media and reader interest. Rather than 're-invent the wheel' with my comments here, I suggest you read this fantastic interview with the lead author in the NZ Herald (https://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=12151536)!

Reference: *Aust N Z J Public Health*. 2018 Oct 29. [Epub ahead of print]

[Abstract](#)

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