

# Māori Health Review™



Making Education Easy

Issue 70 – 2017

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### Abbreviations used in this issue

HR = hazard ratio

SES = socioeconomic status

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Ko te manu e kai i te miro nōna te ngahere, Ko te manu kai i te mātāuranga, nōna te ao.

A big mihi to everyone for your kind words, messages and posts about the L'Oreal UNESCO award and story on TVNZ ([Sunday Programme](#), showed November 5 if you're interested!). The recognition is for all of us, working hard in our different areas to achieve equity and excellence! Have a safe Christmas holiday and wonderful 2018.

Ngā mihi

**Matire**

Dr Matire Harwood

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## 'Nothing can be done until everything is done': the use of complexity arguments by food, beverage, alcohol and gambling industries

**Authors:** Petticrew M et al.

**Summary:** These researchers examined how four unhealthy commodity industries (alcohol, food, sugar-sweetened beverages and gambling) have used arguments about complexity in their public statements and documents to dispute their role the causation of public health issues. The analyses identified two main framings: (i) these industries argue that aetiology is so complex that individual products cannot be blamed; and (ii) they argue that population health measures are 'too simple' to address complex public health problems.

**Comment:** We have had a fair bit of industry reaction to public health issues recently (tobacco, sugar tax, and gambling, as examples) and should expect more to come. This paper provides a useful analysis, deconstructing the discourse in ways that help us re-construct the perfect response.

**Reference:** *J Epidemiol Community Health* 2017;71:1078-83

[Abstract](#)

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[www.maorihealthreview.co.nz](http://www.maorihealthreview.co.nz)

## Media accounts of unintentional child injury deaths in New Zealand: a teachable moment?

**Authors:** John S, Kool B

**Summary:** This review of media accounts of fatal unintentional child (0–14 years) injury events in New Zealand analysed reports from the country's four largest newspapers between 2011 and 2015 by reviewing their completeness and potential to deliver evidence-based injury prevention messages. The evaluation considered the article prominence, presence of prevention messages and case ascertainment for the two leading causes of death (2011 to 2013 only). Over the 5-year review period, the researchers identified 242 media accounts detailing 122 fatal child injury events (133 deaths). The most common causes of injury were transport-related (56%) and drownings (21%). Clear prevention messages were found in only 20% (n=49) of accounts. One-third (33%) of accounts included images and two-thirds (66%) were located within the first 3 pages. Case ascertainment in the media accounts was high for the two most common causes of child fatal unintentional injuries reported: it was complete for all transport deaths and all but 1 drowning.

**Comment:** See next paper.

**Reference:** *N Z Med J.* 2017;130(1461):15-23

[Abstract](#)

## Regional survey supports national initiative for 'water-only' schools in New Zealand

**Authors:** Mansoor OD et al.

**Summary:** In March 2016, the New Zealand Ministry of Education issued a guideline encouraging schools to consider a 'water-only' policy, and provided supporting resources. This national initiative is intended to remove sugary drinks, including fruit juices, from schools and limit drinks to water or unflavoured milk. Following the release of this guideline, these researchers surveyed all 201 schools with primary school-aged children in the Greater Wellington region on the (1) current status of, (2) support needs for, and (3) barriers to or lessons learned from, a 'water-only' school policy. Just over one-third (39%; n=78) of schools responded. The majority of responses indicated support for 'water-only': 22 (28%) had implemented a policy; 10 (13%) were in the process of doing so; 22 (28%) were considering it; and 12 (15%) were 'water-only', but did not have a policy. Twelve schools (15%) were not considering a 'water-only' policy. Among barriers reported to implementing a 'water-only' policy, the main reasons included lack of community and/or family support. Many schools did not see any barriers beyond the time needed for consultation. Monitoring and communication were identified as key to success. A quarter of schools requested public health nurse support to help the school move towards a 'water-only' policy.

**Comment:** Two papers here demonstrating how simple messaging – in the media and in local communities – can address major health issues for our tamariki. Please consider providing injury prevention messages when treating children for injuries, and making your school 'water-only'.

**Reference:** *Aust N Z J Public Health.* 2017;41(5):508-11

[Abstract](#)

## Social disparities in the prevalence of diabetes in Australia and in the development of end stage renal disease due to diabetes for Aboriginal and Torres Strait Islanders in Australia and Māori and Pacific Islanders in New Zealand

**Authors:** Hill K et al.

**Summary:** This paper reports data from an investigation into social disparities in diabetes in relation to area socioeconomic status (SES) and Aboriginal and Torres Strait Islander, Māori and Pacific Islander ethnicity. The study researchers obtained data from the National Diabetes Services Scheme to examine the population prevalence of diabetes in a cohort of 7,434,492 Australians and also data from the Australian and New Zealand Dialysis and Transplant Registry on treated end-stage renal disease due to diabetes. These data were correlated with the Australian Bureau of Statistics Socioeconomic Indexes for Areas, in order to examine socioeconomic disparities. The paper reports the discovery of a social gradient in the prevalence of diabetes in Australia, with an incremental decrease in disease incidence with increasing affluence (Spearman's rho = 0.765; p<0.001). The risk of developing end-stage renal disease due to type 1 diabetes was higher for males with low SES compared with females with low SES (RR 1.20; 95% CI, 1.002 to 1.459). Among Australian and New Zealand Aboriginal and Torres Strait Islanders, Māori and Pacific Islanders appear to have a low risk of end-stage renal disease due to type 1 diabetes (RR 6.57; 95% CI, 6.04 to 7.14) but they have a vastly disproportionate burden of end-stage renal disease due to type 2 diabetes (RR 6.48; 95% CI, 6.02 to 6.97; p<0.001) in comparison with other Australians and New Zealanders.

**Comment:** This paper demonstrates the importance of monitoring by ethnicity and neighbourhood deprivation (socioeconomic status). Disappointing to see minimal change in ethnic disparities for end-stage renal failure due to diabetes over the past 20 years.

**Reference:** *BMC Public Health.* 2017;17:802

[Abstract](#)

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**Disclaimer:** This publication is not intended as a replacement for regular medical education but to assist in the process. The reviews are a summarised interpretation of the published study and reflect the opinion of the writer rather than those of the research group or scientific journal. It is suggested readers review the full trial data before forming a final conclusion on its merits.

**Research Review publications are intended for New Zealand health professionals.**

## Dementia: Supplementary Findings from LiLACS NZ for Section Five, 'Service Use and Common Health Conditions' in the report 'Health, Independence and Caregiving in Advanced Age'

Funded by the Ministry of Health, the University of Auckland released the report *Dementia: Supplementary Findings from LiLACS NZ for Section Five, 'Service Use and Common Health Conditions'* in the report *'Health, Independence and Caregiving in Advanced Age'* on the 10th of May 2017. This report establishes how the presence of dementia affects older Māori and non-Māori (aged 80 years and above), and the services they use when the dementia patients also have cardiovascular disease, chronic lung disease and diabetes mellitus.

The study found that dementia was associated with lower functional status, higher frailty, poorer mental and physical health-related quality of life and higher health service use and cost. The combination of dementia with any of the physical health conditions studied in the report (cardiovascular disease, chronic lung disease, and diabetes mellitus) worsened health status and increased health service use and costs.

The project *Te Puāwaitanga O Ngā Tapuwae Kia Ora Tonu/ Life and Living in Advanced Age, a Cohort Study in New Zealand (LiLACS NZ)* is a longitudinal cohort study of New Zealanders in advanced age. LiLACS NZ is the world's first longitudinal study of an indigenous population aged 80 and over.

The report, along with the 13 previously released LiLACS NZ reports, can be found at the University of Auckland website:

<https://www.fmhs.auckland.ac.nz/en/faculty/lilacs/research/publications.html>

## Indigenous health: designing a clinical orientation program valued by learners

**Authors:** Huria T et al.

**Summary:** This study was conducted at the University of Otago, Christchurch. The researchers explored medical student experiences and perceptions of an orientation course for indigenous health competencies during undergraduate medical training. As the article explains, indigenous health programs are seen as a curriculum response to addressing health disparities and social accountability. The analysis included 602 quantitative (Likert-scale responses) and qualitative (open-text comments) student evaluations of a 3-day immersed indigenous health orientation programme held between 2006 and 2014. A thematic analysis included 426 narratives of student experiences. As many as 92% (509 of 551 respondents) of the responses rated the indigenous health orientation programme as extremely or highly valuable and 87% considered that the course strongly increased their interest in indigenous health. According to the evaluations, the following features of the clinical course enhance value for learners: situated learning (*learning environment; learning context*); teaching qualities (*enthusiasm and passion for Māori health; role-modelling*); curriculum content (*re-presenting Māori history; exploring Māori beliefs, values and practices; using a Māori health framework in clinical practice*); teaching methodologies (*multiple teaching methods; simulated patient interview*); and building relationships with peers (*getting to know the student cohort; developing professional working relationships*).

**Comment:** Our colleagues in Otago have developed a number of excellent teaching and learning programmes in indigenous health. We've adopted the Hui Process in our clinical teaching sessions and had similar, positive feedback.

**Reference:** *BMC Med Educ.* 2017;17(1):180

[Abstract](#)

## The epidemiology of work-related injury admissions to hospitals in the Midland region of New Zealand

**Authors:** Kool B et al.

**Summary:** These researchers retrospectively reviewed trauma registry records for adults ( $\geq 15$  years) admitted to 4 hospitals in New Zealand's Midland Trauma System (MTS) as a result of work-related injuries (WRI) between 1 January 2012 and 31 December 2015. A total of 2,169 WRI trauma admissions were analysed for patterns of injury incidence by demographic characteristics, employment industry, mechanism of injury, body regions injured, injury severity score, month, day and time of injury, duration of hospital stay, domicile District Health Board, and discharge destination. These admissions corresponded to an annualised rate of 205.8 per 100,000 workers or 234.3 per 100,000 full-time employment employees (FTE). The highest injury rates were observed for males (238.0 per 100,000 workers) and those aged 15–24 years (227.1 per 100,000 workers); the rates were lowest for Asians (83 per 100,000 workers). The industries with the highest injury rates included the 'agriculture/forestry/fishing', 'manufacturing', and 'transport/postal/warehousing' industries. The most common mechanism of injury was 'Contact with machinery', and the most common body region injured was the 'extremities or pelvic girdle'. The in-hospital case fatality rate was  $<0.5\%$ .

**Comment:** A good reminder, as we implement Health and Safety regulations in workplaces, that organisations collect accurate ethnicity data consistently. Targeting high-risk industries is likely to have significant benefits for Māori.

**Reference:** *Injury.* 2017;48(11):2478-84

[Abstract](#)

## Changing smoking-mortality association over time and across social groups: National census-mortality cohort studies from 1981 to 2011

**Authors:** Teng A et al.

**Summary:** The authors of this New Zealand case study state that the difference in mortality between current and never-smokers varies over time, affecting future projections of health gains from tobacco control. They used New Zealand census data to examine this heterogeneity by sex, ethnicity and cause of death on absolute and relative scales. The data included smoking status, which the researchers linked to subsequent mortality records for 25–74-year olds over 3 time periods spanning 30 years: 1981–84; 1996–99; and 2006–11. The analysis yielded 16.1 million person-years of follow-up. Age-standardised mortality rates and rate differences (SRDs) were calculated for current and never-smokers. The analysis identified a decline in mortality over time in never-smokers, whereas mortality trends varied by sex, ethnicity and cause of death among current smokers. SRDs were stable over time in European/Other men, moderately widened in European/Other women and markedly increased in Māori men and women. In Poisson regression analyses adjusting for multiple socioeconomic factors and household smoking, smoking-mortality rate ratios (RRs) increased from 1981–84 to 1996–99 and there was a moderate increase from 1996–99 through to 2006–11 (RRs of 1.48, 1.77, 1.79 in men and 1.51, 1.80, 1.90 in women, respectively). Socioeconomic confounding also increased over time.

**Comment:** The authors found that although smoking-related deaths in ischaemic heart disease (IHD) reduced for NZ European people over time, they increased in Māori men and women, suggesting that "Māori are both earlier in the tobacco epidemic and have experienced slower declines in never-smoker IHD mortality rates". They suggest that tobacco control interventions are prioritised for Māori health gain, with a focus on those proven effective (tobacco tax, smoking cessation services) as well as innovative ideas (see the next paper).

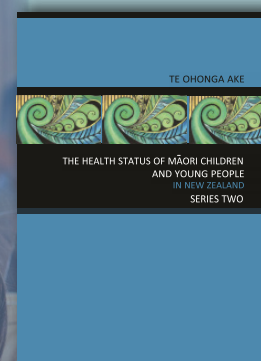
**Reference:** *Sci Rep.* 2017;7:11465

[Abstract](#)

## Te Ohonga Ake: The Health Status of Māori Children and Young People in New Zealand Series Two was released on 23 June 2017.

The publication was funded by the Ministry and produced by the New Zealand Child Youth and Epidemiology Service (NZCYES) at the University of Otago. The sections that are presented in the publication include: issues in infancy, issues for ages 0–24 years, respiratory system conditions, communicable diseases, unintentional injuries, reproductive health and mental health.

The publication (along with previous reports in the Te Ohonga Ake series) can be accessed at:  
<https://ourarchive.otago.ac.nz/handle/10523/7390>



## Exercise to support indigenous pregnant women to stop smoking: Acceptability to Māori

**Authors:** Roberts V et al.

**Summary:** This investigation sought to explore the acceptability of an exercise-based intervention to support cessation of smoking among Māori pregnant women. The researchers held interviews with key stakeholders and conducted focus groups with Māori pregnant women. The participants expressed support overall for the idea of a physical activity programme for pregnant Māori smokers to aid smoking cessation. The analyses revealed an overarching finding across all participant feedback – the critical need for a Kaupapa Māori approach (designed and run by Māori, for Māori people) to ensure successful programme delivery, as this will mean that Māori cultural values are respected and infused throughout all aspects of the programme. Participants raised several practical and environmental barriers to attendance, including cost, the timing of the programme, accessibility, transport, and childcare considerations.

**Comment:** This ties in nicely with the previous paper, clearly demonstrating the need to reduce tobacco smoking for Māori and presenting the results from innovative research.

**Reference:** *Matern Child Health J.* 2017;21(11):2040-51

[Abstract](#)

## Survival disparity following abdominal aortic aneurysm repair highlights inequality in ethnic and socio-economic status

**Authors:** Krashram M et al.

**Summary:** These New Zealand researchers sought to determine how SES and ethnicity impact upon patient survival after abdominal aortic aneurysm (AAA) repair. They analysed data from 6,239 patients (median age, 75 years) undergoing open and endovascular AAA repair during a 14.5-year period (from 1 June 2000 to 31 December 2014). According to the ethnicity information on the health records, the majority (n=5,654) of patients identified as New Zealand Europeans; 421 identified as New Zealand Māori, 97 identified as belonging to a Pacific ethnic group, and 67 identified as an Asian ethnic group. The median survival follow-up period was 5 years. In analyses that adjusted for confounders, those who identified as New Zealand Māori had the lowest survival compared with all other ethnic groups (HR 1.46; 95% CI, 1.23 to 1.72). When the researchers linked SES (on a score of 10, where 1 is least deprived and 10 is most deprived) to census data, they found that living in areas of high social deprivation  $\geq 7$  was an independent predictor of short- and medium-term overall mortality, as compared with living in deprivation deciles 1 or 2 (low SES).

**Comment:** This paper ties in nicely with a AAA screening programme supported by Maori in Waitemata DHB ([The Waitemata Abdominal Aortic Aneurysm Screening Pilot](#)), confirming that inequities can occur at all sites along the disease pathway from prevention, investigation and through to treatment.

**Reference:** *Eur J Vasc Endovasc Surg.* 2017 Oct 10. [Epub ahead of print]

[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.



## Achieving health equity in Aotearoa: strengthening responsiveness to Māori in health research

**Authors:** Reid P et al.

**Summary:** This paper makes the point that health research should aim for equity and ensure that no one is left behind. The New Zealand Government considers that health research conducted in New Zealand should contribute to improving Māori health and eliminating health inequities. Increasingly, as recipients of government funding, researchers are obliged to demonstrate that they understand their delegated responsibilities in their research, making sure that the work has the potential to address Māori health needs and priorities. These requirements form the basis of responsiveness to Māori in health research, and several research institutions have implemented systems that support their organisational approach to this endeavour. However, as this paper acknowledges, many health researchers have a narrow view of responsiveness to Māori and how it might relate to their work. In this viewpoint, Papaarangi Reid and colleagues provide an overview of existing frameworks that is intended to be used to develop thinking and positioning in relation to the Treaty of Waitangi and responsiveness to Māori. They go on to describe an equity-based approach to responsiveness to Māori and highlight four key areas that require thoughtful reflection: (1) relevance to Māori; (2) Māori as participants; (3) promoting the Māori voice, and; (4) human tissue. The paper argues for greater engagement with responsiveness to Māori activities as part of an ongoing commitment amongst researchers to ensure equitable health outcomes.

**Comment:** Obviously a conflict of interest (ha ha), but I hope those of you undertaking health research find this useful, particularly when writing grant and ethics applications. To paraphrase Papaarangi, the paper will help to ensure that Māori are not left behind in the health system, and will ensure current health researchers and those still in training are 'future proofed' so that we can guarantee responsiveness to Māori.

**Reference:** *N Z Med J.* 2017;130(1465):96-103

[Abstract](#)

## Ethnic disparities in rates of publicly funded bariatric surgery in New Zealand (2009–2014)

**Authors:** Rahiri JL et al.

**Summary:** New Zealand Government funding for bariatric surgery has steadily increased over the last few years, in an effort to cope with the growing obesity epidemic. Marked ethnic disparities in obesity rates exist in New Zealand, with rates amongst Māori and Pacific people being 3 to 5 times higher compared with all other ethnic groups within New Zealand. These researchers analysed reported census and hospitalisation discharge data from Statistics NZ and the New Zealand Ministry of Health, in order to calculate rates of publicly-funded bariatric surgery by self-identified ethnicity amongst morbidly obese individuals who underwent bariatric procedures between June 2009 and July 2014. The paper reports that the average number of publicly-funded bariatric procedures performed per 1,000 morbidly obese patients over the 5-year study period was 3.0 for European, 1.4 for Māori and 0.7 for Pacific ethnicities.

**Comment:** Evidence increasingly suggests that bariatric surgery has an important role to play in managing obesity and other long-term complications (including type 2 diabetes). As these conditions are more prevalent for Māori, it is important to provide information about access to, and quality of care for, this effective intervention. Many DHBs are attempting to address inequities in bariatric surgery rates (including geographical and ethnic disparities). The authors suggest that a system approach is necessary.

**Reference:** *ANZ J Surg.* 2017 Oct 18. [Epub ahead of print]

[Abstract](#)

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