ISSN 1178-6191

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Abbreviations used in this issue
HPV = human papillomavirus
MPR = medication possession ratio
PCP = primary care provider
QALY = quality-adjusted life-year

This month we celebrate a real milestone for Māori Health Review as this is our 50th Issue. Thank you to all our readers who have helped make this publication a success over the years. We value your support and always appreciate and enjoy your comments and feedback.

Tēnā koutou katoa

Nau mai ki tenei Tirohanga hou Hauora Māori. He rangahau tuhi hou e paa ana ki nga hau ora a ki te oratanga o te Māori. No reira noho ora mai raa i o koutou waahi noho a waahi mahi hoki. Ngā mihi o te wā me te Tau Hou ki a koutou katoa. Noho ora mai.

Greetings

Welcome to this issue of the Māori Health Review. Each issue attempts to bring you research relevant to the health and wellbeing of Māori. I welcome feedback and suggestions for papers/research to include in future issues and I'm pleased to hear and read about the excellent work being undertaken in Hauora Māori.

Nga mihi
Matire
Dr Matire Harwood
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Sport-related concussions in New Zealand: A review of 10 years of Accident Compensation Corporation moderate to severe claims and costs

Authors: King D et al.

Summary: These researchers analysed sport-related concussion and associated costs in New Zealand requiring medical treatment from 2001 to 2011 in 7 sports codes. Of 20,902 claims costing $NZD16,546,026 recorded over the study period, 1330 (6.4%) were moderate-to-severe (MSC) Accident Compensation Corporation (ACC) claims. The mean yearly number and costs of MSC claims were 133 and $1,303,942. Rugby union recorded the highest number of MSC claims per year (38; 95% CI, 36 to 41 per 1000 MSC claims). New Zealand Māori had the highest total ($6,000,759) and mean cost ($21,120) per MSC claim.

Comment: A few issues stood out for me in this paper. The 'ethnicity question' in the ACC form does not currently reflect 'best practice' and therefore the quality of data is limited, as the authors acknowledge. The incidence of moderate-severe concussion was higher for Māori than NZ Europeans playing rugby league; and lower for Māori than NZ Europeans playing rugby union. This seemed unusual. Finally, the call for further investigation to understand the high cost in managing MSC for Māori should probably start with the system factors, rather than individual 'susceptibility'.

Reference: J Sci Med Sport 2014;17(3):250-5
Abstract

Māori Participation and Attainment in Science Subjects (school students aged 15 to 17 years), 2008 to 2012

The Ministry of Health has just published data measuring Māori students' (aged 15 to 17 years) participation and attainment in science subjects. Māori students' participation and attainment in science subjects is necessary to enable them to study at higher levels to become Māori health professionals which is vital to providing appropriate care for Māori individuals, their whānau and all New Zealanders.

The data can be viewed at this link in an easy to use excel workbook.
http://www.health.govt.nz/publication/maori-participation-and-attainment-science-subjects-aged-15-17-years-2008-2012

For more information, please go to http://www.maorihealth.govt.nz

Allopurinol use in a New Zealand population: prevalence and adherence

Authors: Horsburgh S et al.

Summary: This paper describes the prevalence of allopurinol use in various population groups in a region of New Zealand, using data from all community pharmacy dispensing databases in that region over a 1-year period covering 2005/2006. Adherence was assessed using the medication possession ratio (MPR), with a MPR of 0.80 indicating suboptimal adherence. A total of 953 people received allopurinol in the study year (prevalence 3%). In multiple logistic regression analyses, the prevalence was higher in males (6%) than in females (1%) and Māori (5%) than non-Māori (3%). The overall MPR during the study was 0.88, with 161 patients (22%) using allopurinol having suboptimal adherence. Suboptimal allopurinol adherence was 46% more likely among Māori compared with non-Māori (95% CI, 0.30 to 0.72; p=0.001).

Comment: As the authors say, the provision of excellent care by health professionals requires regular review as part of plans to improve gout outcomes in Aotearoa.

Reference: Rheumatol Int. 2014 Jan 4. [Epub ahead of print]
Abstract

Cost-effectiveness and equity impacts of three HPV vaccination programmes for school-aged girls in New Zealand

Authors: Blakely T et al.

Summary: These researchers compared the health gains, net-cost and cost-effectiveness of New Zealand's existing national human papillomavirus (HPV) vaccination programme of vaccination dispersed across schools and primary care (an observed coverage of only 47%) with two other alternative vaccine delivery programmes with higher estimated coverage: school-based only (the estimated coverage is 73%), and mandatory school-based vaccination but with opt-out permitted (estimated coverage 93%). A Markov macro-simulation model was developed for 12-year-old girls and boys in 2011, with future health states of: cervical cancer, pre-cancer (CIN I–III), genital warts, and three other HPV-related cancers (oropharyngeal, anal, vulvar cancer). The current HPV vaccination programme has an estimated cost-effectiveness of $NZ18,800/quality-adjusted life-year (QALY) gained compared to the status quo in New Zealand prior to 2008 (no vaccination, screening alone). The incremental cost-effectiveness ratio (ICER) of an intensive school-based-only programme of girls, compared to the current situation, was $NZ34,700/QALY gained. Mandatory vaccination appeared least cost-effective (ICER compared to school-based of $NZ122,500/QALY gained). All interventions generated more QALYs per 12-year-old for Māori and people living in deprived areas (range 5–25% greater QALYs gained).

Comment: The evidence here suggests that the benefits of a structured HPV vaccination programme (i.e., the prevention of major consequences including cervical cancer) will potentially advance Māori well-being the most.

Reference: Vaccine 2014;32(22):2645-56
Abstract

Is change in global self-rated health associated with change in affiliation with a primary care provider? Findings from a longitudinal study from New Zealand

Authors: Jatrana S et al.

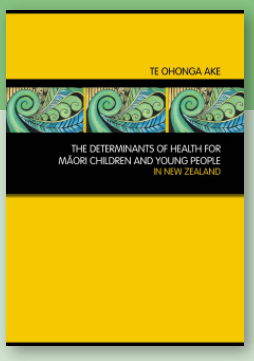
Summary: This investigation into the association of self-rated health and affiliation with a primary care provider (PCP) in New Zealand used data from a New Zealand panel study of 22,000 adults. In any given wave, the odds of being affiliated with a PCP were higher for those in good and fair/poor health relative to those in excellent health. Affiliation with a PCP increased for Europeans as health declined, whereas affiliation with a PCP decreased for Māori as health declined. These associations did not differ significantly by age or gender.

Comment: The authors appear to have focused on the 'behaviour of' and 'uptake of message by' Māori/individuals. Tatau Kahukura identified systems factors (cost, couldn't get an appointment and travel) as the three main reasons why Māori do not see a PCP despite health need.

Reference: Prev Med 2014;64C:32-36
Abstract

CLICK HERE
to read previous issues of Māori Health Review

The statistical report *Te Ohonga Ake: The Determinants of Health for Māori Children and Young People in New Zealand* was released on the 23rd May.



The report was funded by the Ministry of Health and produced by the New Zealand Child and Youth Epidemiology Service (NZCYES) of the University of Otago. It provides an overview of the underlying social determinants that influence the health and wellbeing of Māori children and young people. Determinants are considered using four main sections covering the wider macroeconomic and policy context; socioeconomic and cultural determinants; risk and protective factors; and health outcomes as determinants. This publication will be useful to all those working in the health sector to improve health outcomes for Māori children and youth.

The report is available to download at:
http://www.health.govt.nz/publication/te-ohonga-ake-determinants-health-maori-children-and-young-people

For more information, please go to http://www.maorihealth.govt.nz

Outcome following heart transplantation in New Zealand Māori

Authors: Stewart FR et al.

Summary: These researchers performed a retrospective analysis of all New Zealand heart transplant recipients over a 25-year period (from December 1987 to December 2012) to compare access to and outcomes following heart transplantation between Māori and non-Māori. Of 253 patients transplanted, 176 (69%) were European, 47 Māori (19%) and 30 (12%) of other ethnicities. Demographics were similar between Māori and non-Māori for median age (both 46 years), gender (17% vs 21% female), time on waiting list (90 vs 76 days) and diagnosis (dilated cardiomyopathy: 62% vs 58%). Māori were heavier (median 81 vs 71 kg; p<0.0001) and more were blood group A (58% vs 39%). Five-year survival was similar (79% vs 78%) but 10-year survival was significantly reduced in Māori (54% vs 67%; p=0.02).

Comment: An interesting review of heart transplant demography and outcomes by ethnicity.

Reference: Heart Lung Circ 2014;23(4):353-6
Abstract

Māori Health Review

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.

Maintenance of statin use over 3 years following acute coronary syndromes: a national data linkage study (ANZACS-QI-2)

Authors: Grey C et al.

Summary: This study linked national hospitalisation, mortality and pharmaceutical dispensing data for 11,348 patients aged 35–84 years discharged from a public hospital with an acute coronary syndrome in New Zealand in 2007. Patients were followed for 3 years, to describe patterns of statin use and predictors of poor maintenance. Within 90 days of discharge, 83% had received a statin. The proportions of patients who were adequately maintained on a statin (MPR ≥80%) were 69% in year 1 of follow-up, 67% in year 2 and 66% in year 3. Patients taking statins prior to admission and those who underwent a coronary procedure were 20–50% more likely to have a MPR ≥80% over 3 years than others. Patients aged 35–45 years and those of Māori or Pacific ethnicity were 13–25% less likely to have a MPR ≥80% than those aged 55–64 years and Europeans.

Comment: Given the "marked ethnic inequalities in cardiovascular health in New Zealand, it is vital that every effort is made to increase the use of effective preventive treatments in Māori and Pacific peoples".

Reference: Heart 2014;100(10):770-4
Abstract

Ukaipō niho: the place of nurturing for oral health

Authors: Broughton JR et al.

Summary: This paper reports on oral health-related characteristics, beliefs and behaviours among 222 pregnant Māori women participating in a randomised controlled trial of an intervention to prevent early childhood caries among Māori children. The women were randomly allocated to Intervention or Delayed groups. There were no systematic differences between these groups at baseline, other than those in the Delayed group being slightly older, on average. Around 37.0% were expecting their first child. Most reported good health; 43.6% were current smokers, and 26.4% had never smoked. Current use of alcohol was reported by 8.2%. Almost all were dentate, and 57.7% described their oral health as fair or poor. Toothache in the previous year was reported by 1 in 6 respondents; 33.8% reported being uncomfortable about the appearance of their teeth, and 27.7% reported difficulty in eating. Use of dental services was relatively low and symptom-related; 78.9% needed to see a dentist. Overall, most of the sample believed that it was important to avoid sweet foods, visit dentists and to brush the teeth, while about half thought that using fluoride toothpaste and using floss were important. Drinking fluoridated water was considered to be important by 38.2% of the women. There was evidence of oral health-related fatalism: 74.2% believed that most people usually get dental problems; 58.6% believed that most people will need extractions at some stage and that most children eventually get dental caries.

Comment: Some interesting results, particularly the acceptance by most that dental problems, particularly in children, are inevitable.

Reference: N Z Dent J 2014;110(1):18-23
Abstract

Protecting children from taking up smoking: parents' views on what would help

Authors: Marck K et al.

Summary: Responses are described from 1806 parents of children in low-income areas of Auckland, New Zealand, who participated in a community-, school- and family-based smoking-initiation questionnaire that explored their thinking around what factors could help protect their children from smoking initiation. The majority of respondents (80%) were either Pacific Island or Māori mothers and 25% were current smokers. Five main categories of suggested strategies for preventing smoking initiation were identified: building children's knowledge of smoking risks; denormalising smoking; reducing access to tobacco; building children's resilience; and health promotion activities. The most common suggestion was to educate children about smoking.

Comment: Another project looking in detail at what parents think would work best for children. As the authors say, the next step is to engage whānau along a creative pathway, to generate new and useful strategies that work.

Reference: Health Promot J Austr 2014;25(1):59-64
Abstract

The effect of active video games by ethnicity, sex and fitness: subgroup analysis from a randomised controlled trial

Authors: Foley L et al.

Summary: The Electronic Games to Aid Motivation to Exercise (eGAME) study was a randomised controlled trial to evaluate the effect of active video games on body composition, physical activity and cardiovascular fitness in overweight and obese children in New Zealand. The study recruited 322 children aged 10–14 years who regularly used traditional sedentary video games and randomly allocated them to a 24-week active video games intervention (n=160) or control (n=162). At 24 weeks, statistically significant overall treatment effects were observed favouring the intervention group for body mass index, body mass index z-score and percentage body fat. Regression analyses revealed that the interaction operated consistently across important subgroups (by ethnicity, sex, and cardiovascular fitness).

Comment: My son would love this article! Liked that the authors have been 'up front' with the limitations in analysis (did not recruit as many Māori and Pacific children as had hoped, more males than females) and that it adds to the sparse evidence on this topic.

Reference: Int J Behav Nutr Phys Act 2014;11(1):46
Abstract

Enacting kaitiakitanga: challenges and complexities in the governance and ownership of rongoā research information

Authors: Boulton A et al.

Summary: This paper acknowledges the lack of consistent guidelines for researchers and research teams in New Zealand regarding the *governance and ownership* of research data collected from Māori individuals or collectives. The article discusses challenges encountered by one research team as it negotiated data ownership and governance of rongoā Māori (tradiational Māori healing). The paper describes ways in which traditional knowledge may be protected in a modern intellectual property law context and how to adequately support those, often community-based organisations, who work at the interface between Indigenous knowledge and the Western world.

Comment: A timely article given the work underway in various areas to organise data (including information, genetic material, tissue) into 'banks' such as bio-banks. The authors don't provide the answers, but have set out the questions we need to ask.

Reference: Int Indigenous Policy J 2014;5(2):1-18
Abstract