Māori Health Review

Making Education Easy

Issue 3 – 2007

In this issue:

- *Serious health events following involuntary job loss*
- *Long-term aspirin use and mortality in women*
- *Acute effects of exercise on cigarette cravings*
- *Intensive smoking cessation intervention reduces mortality*
- *Seafood consumption and neurodevelopment*
- *Insulin resistance in a rural Māori community*
- *Interventions to prevent or delay type 2 diabetes*
- *Disparities in health: myths and truths*
- *Human rights discourse and Indigenous health*
- *Panui – upcoming events of interest*

Tena ano koutou katoa

Nau mai ano ki te putanga tuatoru o Te Tirohanga Rangahau Hauora Māori. Nga mihi maha ano mo nga hua urupare me nga pepa i tonoa mai e koutou.

I te whakatapiritanga o nga tirohanga pepa rangahau ko te whakauruhia e au he paanui a he painga mo koutou e mahi ana i roto i te hauora Māori. Te tino hawene raa mo te wahanga o te "Hauora IV – Māori Health Standards" a te "Hauora tua whaa – Nga Tuuranga Hauora Māori". E tino hari ana au ki te paanui i taua pukapuka.

I na whakaritea nga raa mahi, maaku e hoatu aua raa i roto i te putanga, a mua ake nei.

Te tumanako ko te pai to koutou paanui o te tirohanga – o tenei marama.

Na Dr Matire Harwood (Nga Puhi)

Welcome to the 3rd edition of Māori Health Review. Our front page study this month provides a great example of a piece of well designed local research. Other work originating from New Zealand includes an interesting study highlighting the high prevalence of insulin resistance and diabetes in a community North of Gisborne. Plus we also revisit a seminal paper published in 2000 which discusses the "common myths and uncommon truths" around disparities in health for Māori.

I hope you enjoy the latest edition and welcome your comments and feedback.

King regards,

Dr Shaun Holt
Medical Advisor, Research Review
shaunholt@researchreview.co.nz

Serious health events following involuntary job loss in New Zealand workers

Authors: Keefe V et al

Summary: This prospective cohort study assessed associations between involuntary job loss, mortality and serious illness over 8 years. The cohorts comprised workers from two meat-processing plants in Hawkes Bay, one which closed in 1986 (n = 1,945), and one which remained open until 1994 (n = 1,767). There was 96% complete follow-up for both cohorts. The relative risk of serious self-harm leading to hospitalisation or death was significantly increased for workers who had been made redundant (RR 2.47; 95% CI: 1.04-5.89). For workers made redundant the risk of admission to hospital with a mental health diagnosis was also significantly increased (RR 1.17; 95% CI: 0.68-2.01). None of the other findings were significant. The authors concluded that involuntary job loss increased the risk of mental distress leading to serious self-harm.

Comment: This study illustrates some important aspects of Māori health research. Firstly, that a person from the local community, having identified an issue (closure of the local meatworks and the impact this had on workers), collaborated with others and was able to undertake research to investigate it further. Secondly, that the researchers were committed to carrying out a quality study. The comparison of two large cohorts over the time frame and in such detail was a huge task and the researchers should be recognised for their hard work. Finally, that extensive consultation with the community is necessary in order to complete such worthwhile research.

Reference: Int J Epidemiol. 2002; 31(6):1155-6, comment on pages 1094-7
PMID: 12540716

Long-term aspirin use and mortality in women

Authors: Chan AT et al

Summary: Women enrolled in the Nurses' Health Study provided the data for this prospective, nested, case-control study. A total of 79,439 women, with no history of cardiovascular disease or cancer, were followed-up for 24 years to determine the relationship between aspirin use and mortality risk. The relative risk of all-cause mortality was reduced in women who reported current aspirin use compared to those with no regular aspirin use (RR 0.75; 95% CI 0.71-0.81). Mortality from cardiovascular disease (RR 0.62; 95% CI 0.55-0.71) and cancer (RR 0.88; 95% CI 0.81-0.96) was also reduced. Cardiovascular mortality benefits were achieved with 1-5 years of aspirin use (RR 0.75; 95% CI 0.61-0.92), whereas risk of cancer mortality was not significantly reduced until after 10 years of aspirin use (Plinear trend = 0.005). Only low and moderate aspirin doses were beneficial. Greater benefits were observed in older participants and those with more cardiovascular risk factors.

Comment: As evidence emerges about the anti inflammatory effects of many of the 'secondary prevention' medications, aspirin and statins included, we are starting to see the wider benefits of these drugs including reduced deaths from cardiovascular disease, cancer and possibly diabetes. These three diseases are the leading causes of death for Māori and therefore we must keep abreast of research such as this and incorporate the evidence into best practice.

Reference: Arch Intern Med. 2007; 167:562-572

PMID: 17389287

The acute effects of exercise on cigarette cravings: a systematic review

Authors: Taylor AH and Ussher MH

Summary: The authors analysed 14 studies looking at the effects of a single session of exercise (vs a passive condition) on cigarette cravings, withdrawal symptoms and smoking behaviour. Participants refrained from smoking during exercise in all but 1 study. Exercise induced a rapid reduction in cigarette cravings, withdrawal symptoms and negative affect, which was maintained for up to 50 minutes. The mean reduction in 'strength of desire to smoke' was 1.1 (SD 0.9) at 10 minutes post-exercise. The reduction in cravings and withdrawal symptoms was observed at different exercise intensities, from as high as 60–85% heart rate reserve (HRR) (lasting 30–40 minutes) to as low as 24% HRR (lasting 15 minutes), and also with isometric exercise (for 5 minutes). The authors noted that distraction was probably not the primary reason for the effects.

Comment: Many would consider the results of this study (that exercise reduces the symptoms of craving and withdrawal in smokers trying to quit) to be 'common sense'. However, as the researchers note, further research is required to understand 'why' so that the appropriate advice can be provided to people in auahi kore programmes. All clients should see their GP first to determine whether it is safe to exercise when trying to quit. However five minute of isometric exercise (such as pressing palms together in front of the body while deep breathing) seems a simple step to help reduce cigarette cravings that could be could be incorporated into auahi kore programmes.

Reference: Addiction. 2007; 102(4):534–543

http://www.blackwell-synergy.com/doi/abs/10.1111/j.1360-0443.2006.01739.x

Intensive smoking cessation intervention reduces mortality in high-risk smokers with cardiovascular disease

Authors: Mohiuddin SM et al

Summary: The impact of different interventions on smoking cessation in 209 smokers hospitalised with acute cardiovascular disease was assessed in this study. Patients were randomised to treatment with intensive antismoking intervention (comprising a minimum of 12 weeks of behaviour modification counselling plus individualized pharmacotherapy provided at no cost to the participant) or usual care consisting of counselling and printed educational material provided prior to hospital discharge. At 24 months, rates of continuous smoking cessation amongst subjects in the intensive intervention group were 33% versus 9% in the control group ($p < 0.001$). There were significant reductions in hospitalisations (RRR 44%; $p = 0.007$) and all-cause mortality in the study group (RRR 77%; $p = 0.014$) vs controls). The absolute risk reduction in mortality was 9.2% (NNT 11). The authors conclude that hospitalised smokers, especially those with cardiovascular disease, should receive intensive smoking cessation interventions.

Comment: I performed a quick informal survey of 20 recently hospitalised smokers after reading this paper and discovered that not one of them had been offered an intensive cessation intervention by their medical team. The benefits of a structured three month programme with tailored pharmacotherapy provided at no cost to the patient are wide reaching and include reduced hospitalisation and mortality. Smokers admitted to hospital should be offered a similar intervention if available. If it is not available then perhaps providers or DHB's could consider the development of such a service.

Reference: Chest. 2007; 131:446-52

http://www.chestjournal.org/cgi/content/abstract/131/2/446

Independent commentary by Dr Matire Harwood, Medical Research Institute of New Zealand

Maternal seafood consumption in pregnancy and neurodevelopmental outcomes

Authors: Hibbeln JR et al

Summary: The effects of maternal seafood intake during pregnancy on neurodevelopment outcomes in children was examined using 11,875 pregnant female participants from the Avon Longitudinal Study of Parents and Children (ALSPAC). Seafood intake was rated as none, some (1–340 g/week), and >340 g/week using a food frequency questionnaire at 32 weeks gestation. (Current US guidelines suggest a limit of 340g/week of seafood in pregnancy.) There was an increased risk of children being in the lowest quartile for verbal intelligence quotient with no seafood consumption (OR 1·48; 95% CI 1·16–1·90) or some seafood consumption (OR 1·09; 95% CI 0·92–1·29). Increased risk of suboptimal outcomes for prosocial behaviour, fine motor, communication, and social development scores was also observed in association with a low maternal seafood intake.

Comment: The authors have highlighted the tension we have as maternity health providers in providing care when there may be lack of evidence. The benefits of seafood consumption during pregnancy (omega 3 and improved neurodevelopment in the foetus) must be weighed with the risk (high levels of mercury in some fish can cause impaired neurodevelopment). In the end, advice to pregnant women has to be based on evidence but should also be conservative until we have compelling evidence of harm. The NZFSA provides comprehensive and updated information on their website about food that is safe to eat during pregnancy.

(http://www.nzfsa.govt.nz/consumers/food-safety-topics/foodborne-illnesses/pregnancy/index.htm) including safe seafood (http://www.nzfsa.govt.nz/consumers/food-safety-topics/chemicals-in-food/mercury-in-fish/index.htm).

Reference: : Lancet. 2007; 369:578-585

http://www.thelancet.com/journals/lancet/article/PIIS0140673607602773/fulltext

Ngati and healthy-insulin resistance in a rural Māori community

Authors: Tipene-Leach D et al

Summary: The authors assessed the prevalence of insulin resistance, impaired fasting glycaemia, impaired glucose tolerance, and diabetes mellitus in 589 randomly selected individuals aged > 25 years from the Ngati Porou Hauora Register. A questionnaire and anthropometric measures were used to determine the effectiveness of different ways of identifying individuals with insulin resistance. Rates of diabetes (10.6%) and insulin resistance (37.0%) were high in this population. Diabetes was most prevalent in those aged 60-69 (34.1%), whereas rates of insulin resistance were highest amongst participants aged 30-39 (44.3%). Factors more common in insulin-resistant individuals were gout and family history of diabetes. These individuals also had greater waist circumferences, higher blood pressure, and lower levels of HDL cholesterol. The authors note that given the links between insulin resistance, cardiovascular risk and development of type 2 diabetes, the high rates of insulin resistance in younger members of this population are of particular concern.

Comment: The results of the first part of the Ngati and Healthy study are presented in this paper. Insulin resistance, considered to be a risk factor for the development of type 2 diabetes, was common in the young adults. I understand that the next phase of the study is underway. Prevention programmes developed specifically for the East Coast community, including structural changes and the removal of barriers for people to access information, education and healthy kai, will be evaluated over time. We look forward to hearing how the study is progressing.

Reference: : N Z Med J. 2004; 117(1207):U1208. For comments see U1218 and U1220, plus N Z Med J. 2006; 119(1228):U1831 and U1834.

PMID: 15608803

Pharmacological and lifestyle interventions to prevent or delay type 2 diabetes

Authors: Gillies C et al

Summary: The authors conducted a systematic review and meta-analysis in order to assess the effectiveness of pharmacological and lifestyle interventions to prevent or delay type 2 diabetes in people with impaired glucose tolerance. The analysis included 21 randomised, controlled trials, reporting data for 8,084 patients. For lifestyle interventions compared to standard advice, the hazard ratio (HR) was 0.51 (95% CI 0.44-0.60), NNTB 6.4 (95% CI 5.0-8.4). For oral diabetes drugs vs control HR 0.70 (95% CI 0.62-0.79), NNTB 10.8 (95% CI 8.1-15.0). For orlistat vs control HR 0.44 (95% CI 0.28-0.69), NNTB 5.4 (95% CI 4.1-7.6). For the herbal remedy jiangtang bushen vs standard diabetes advice HR 0.32 (95% CI 0.03-3.07), NNTB 4.0 (95% CI NNTH 16.9 to NNTB 24.8). In conclusion the authors note that both lifestyle and pharmacological interventions reduce the rate of progression to type 2 diabetes to a similar degree.

Comment: The previous study showed that the prevalence of insulin resistance in a Māori community was high with almost half of all adults aged 30-39 at increased risk for developing type 2 diabetes. The results of this meta analysis of interventions to prevent type 2 diabetes in such a population is therefore timely. My patients with impaired glucose tolerance always ask to hold off the drug treatment if possible. It is therefore reassuring to see that lifestyle interventions, when applied adequately, are as effective as drug treatment. Note that the effectiveness of jiangtang bushen, a herbal recipe, was not significant.

Reference: BMJ. 2007. 10; 334(7588):299

http://www.bmj.com/cgi/content/abstract/bmj.39063.689375.55v1

Disparities in health: common myths and uncommon truths

Authors: Reid P et al

Summary: The authors discuss disparities in health for Māori in relation to measures of socioeconomic deprivation. They identify 3 specific areas of importance with regard to disparities. The first is a 'distribution gap'. This relates to the skewed geographic distribution of Māori toward more deprived areas: 56% live in areas ranked in the 3 lowest deciles. There is also an 'outcome gap', which relates to differences in outcome which are still observed once deprivation is controlled for. The third area is a 'gradient gap'. This is described as the relationship between ethnicity and increasing deprivation. It appears that increasing deprivation compounds risk for Māori but not for Pakeha. The authors suggest that the design and provision of healthcare services should be informed by both a disparities focus, and a development focus.

Comment: An oldie but a goodie, what more can I say? This paper was one of the first to show that inequalities in health outcomes for Māori are not fully explained or driven by differences in deprivation. The authors 'bust' many of the myths for Māori health research and confirm that we have a right to define ourselves, that accurate ethnicity data must be collected and analysed in a way that allows Māori to monitor health policy and services.

Reference: Pac Health Dialog. 2000; 7(1):38-47

PMID: 11709879

Panui – upcoming events of interest to Māori health providers and researchers

Te Ohu Rata o Aotearoa (Māori Medical Practitioners) Hui aTau and Scientific Meeting 2007, 5th and 6th May, Tangata Marae Matamata

This is the eleventh annual meeting for Te ORA. The theme the conference is 'Tohungia te pae tawhiti – Determining the future' with a focus on achieving equity in health outcomes for Māori and setting a timeline for that goal. For more information, contact Lorraine Byers at 0800 4 TEORA (0800 4 83672) or teora@teora.Ma.ori.nz

Launch for 'Hauora IV – Māori Health Standards 1991 to 2004'

Known for providing high quality Māori health statistics, the latest in the Hauora series - Haoura IV - will be launched on 28 June 2007 at the Wellington School of Medicine. Hauora IV not only provides the latest in Māori health data. Expert commentaries are also presented in chapters that cover many of the major health issues faced by Māori including diabetes, cancer, cardiovascular disease and mental health. Four Hauora workshops will be provided in order to acquaint people with the data. These will be held in Hawkes Bay, Auckland, Christchurch and Wellington in late 2007/early 2008. For more information contact Dr Fiona Cram on email fionac@katoa.net.nz

Can human rights discourse improve the health of Indigenous Australians?

Authors: Gray N and Bailie R

Summary: The authors discuss the use of human rights discourse as a framework for arguing that the Australian Government has an international obligation to improve Indigenous health. Two potential directions for this discourse are examined. These focus on the human right to health, and the interactions between health and human rights. The authors find that there is a limited opportunity to improve the health of Indigenous Australians through international law in relation to both legal and moral imperatives. In their conclusions they note that barriers to using this framework to improve Indigenous health include some which are perpetuated by the Australian Government. However, despite the governments hostility toward including human rights considerations into its public policy decision making, human rights discourse "does provide a sustainable intellectual framework in which to consider the social and structural determinants of health and maintain these issues on the political agenda."

Comment: As we move from the 'needs' based analysis and reasoning to developing a framework to improve Māori health outcomes that is based on Indigenous and Human rights, it is interesting to read how the Indigenous Australians fared with a similar argument at a national level. The paper is useful to everyone working in health, not just policy makers, as it provides evidence of the ways in which rights of Indigenous people are breached and how these impact on health outcomes.

Reference: Aust N Z J Public Health. 2006; 30: 448-52

PMID: 17073227

Subscribing to Māori Health Review

To subscribe or download previous editions of Māori Health Review publications go to www.maorihealthreview.co.nz

To unsubscribe reply to this email with unsubscribe in the subject line.