

Māori Health Review

Making Education Easy

Issue 9 – 2007

In this issue:

- *Revisiting the thrifty gene hypothesis*
- *Seasonal variations in vitamin D levels*
- *Estimated impact of adjusted CVD risk*
- *Worldwide prevalence of COPD*
- *Improving breastfeeding rates*
- *Racial disparities in asthma outcomes*
- *Pregnancy-related health care advice*
- *Cigarette prices and smoking participation*
- *Panui*

Tena koutou, tena koutou, tena taatou 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. Noho ora mai

Matire

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.

Stay well, regards

Matire

Dr Matire Harwood

matire@maorihealthreview.co.nz

Racialised genetics and the study of complex diseases: the thrifty genotype revisited

Authors: Paradies YC et al

Summary: This article appraises the evidence for the the thrifty gene hypothesis. The authors highlight the fact that when population genetic data are used to map susceptibility for complex disease, the research is seen as commendable; embracing the goals of disease prevention and harm reduction for all, especially dispossessed, formerly enslaved, or colonised populations. Thus, genetic research into complex disease attracts a high investment of scientific resources, yet such research fails to greatly enhance our understanding about these diseases and it maintains problematic conceptions of human variation. The authors point out that although population genetic data may seemingly support the contention that the high prevalence of type 2 diabetes mellitus is due to our biological incapacity to cope with modern affluent and sedentary lifestyles, no consistent evidence supports the notion that minority populations are particularly genetically susceptible. Further, they note that it is unclear as to why such genetic differences should exist, given the original pan-species orientation of the thrifty gene hypothesis. Genetic research into complex disease should pay close attention to key environmental, social, and genetic risk factors operating within and between groups, and not simplistically attribute between-group differences to racialised genetics.

Comment: Although written from the Australian Aboriginal experience, the thrifty gene hypothesis is also a popular theory here in Aotearoa. Therefore I have included this critique for readers of Māori Health Review as it provides a clear description of all flaws in such 'racialised gene' theories. As the authors state, genetic research has a place in health research but we should all be wary of researchers claiming that ethnic differences in complex disease such as diabetes are the result of Māori or indigenous genes.

Reference: *Perspect Biol Med.* 2007;50:203-27

<http://dx.doi.org/10.1353/pbm.2007.0020>

Hauora: Māori Standards of Health IV. A study of the years 2000–2005

The Hauora: Māori Standards of Health series provides data and commentary on inequalities in health status, experiences, and outcomes between Māori and non-Māori. The fourth edition, covering the years 2000–2005, is being published by Te Rōpū Rangahau Hauora a Eru Pōmare and will be available towards the end of November. It will include data on the Māori population, social and economic indicators, hospitalisations, mortality, cancer and mental health. It will also contain chapters by invited authors on a range of health issues, including CVD, diabetes, respiratory disease, oral health, disability, sleep problems, occupational safety and health, health in prisons, and the National Primary Medical Care Survey.

The book will be available to download from www.hauora.maori.nz

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

Seasonal variation in vitamin D levels in the Canterbury, New Zealand population in relation to available UV radiation

Authors: Livesey J et al

Summary: Plasma 25-hydroxyvitamin D (25(OH)D), total calcium (CaT), ionised calcium (Ca) and parathyroid hormone (PTH) concentrations in healthy volunteers (119 female, 82 male; median age 45 years), measured between February and July 2004, were modelled in a relationship with vitamin D-weighted ultraviolet (UV) energy measurements (dUV) for Christchurch, obtained from the National Institute of Water and Atmospheric Research UV Atlas. 25(OH)D levels were <75 nmol/L in 88% of subjects in February 2004 and in 100% of subjects in June and July. Levels were severely deficient (<12.5 nmol/L) in 1.5% of subjects. Between February and July, there were significant decreases in 25(OH)D and Ca concentrations and a significant increase in the CaT concentration. There was a hyperbolic relationship between PTH and 25(OH)D while CaT and Ca correlated negatively with PTH ($r = -0.30$ and -0.33 ; both $p < 0.001$). Monthly mean dUV intensity ranged from 10 kJ-m⁻²-day⁻¹ in December 2003 to 0.5 kJ-m⁻²-day⁻¹ in June 2004. Compartmental modelling estimated that a Christchurch person made 1200 IU/day of vitamin D in mid-summer but only 60 IU/day in midwinter. The authors suggest that a daily supplement of 2600 IU vitamin D3 would correct vitamin D deficiency.

Comment: I've included this paper to just alert readers that this topic – Vitamin D deficiency – is receiving more and more attention in health journals. To date it has been associated with bone disease, acute stroke, colorectal cancer and more recently diabetes and cardiovascular disease. Therefore it may have implications for Māori and warrants further attention and possible investigation in future studies.

Reference: *N Z Med J.* 2007;120(1262): U2733

<http://www.nzma.org.nz/journal/120-1262/2733/>

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

The impact of New Zealand CVD risk chart adjustments for family history and ethnicity on eligibility for treatment (PREDICT CVD-5)

Authors: Wells S et al

Summary: New Zealand cardiovascular (CVD) risk management guidelines support targeted treatment to patients with a high 5-year CVD risk and recommend a 5% upward adjustment for some high-risk population subgroups. This study estimated the impact of these adjustments on eligibility for treatment in a primary care setting, using data from CVD risk assessments involving 23,709 patients visiting their primary care provider in Auckland, New Zealand, between 2002 and 2006. Baseline CVD risks were calculated with and without the 5% upward adjustment for family history of premature ischaemic CVD or for being of Māori, Pacific or Indian subcontinent ethnicity. Baseline CVD risks were calculated for 23,693 patients (99.9%); 90% were aged between 35 and 74 years. Unadjusted risk scores revealed that 70% of patients were below the 10% 5-year risk threshold for specific individualised treatment; 11% were between the 10 to 15% risk (recommended to receive individualised lifestyle counselling in general practice) and 19% had a >15% risk (recommended for drug treatment and referral to a dietician in addition to individualised lifestyle counselling). Over 25% of patients had a premature family history of CVD; 21% were Māori, Pacific, or Indian subcontinent – adjusted risk scores increased the numbers eligible for drug treatment, intensive lifestyle management, and dietician referral by approximately 20% and individualised lifestyle assessment and counselling by 50%.

Comment: This is the fifth paper in the series on PREDICT – a web-based clinical decision support system for opportunistic screening of CVD in general practice. Importantly, the authors note that adjusting CVD risk scores with the addition of family history or Māori, Pacifica or Indian ethnicity significantly increased the number of people who would be eligible (and may benefit from) risk factor management. As a result, initial costs to the patient and health system (for medications, staff, programmes) will increase. However, these could possibly be offset by long term benefits/costs reductions at the treatment end of the CVD pathway as well as the huge impact on quality of life for people who have CVD risk managed appropriately.

Reference: *N Z Med J.* 2007;120(1261):U2712

<http://www.nzma.org.nz/journal/abstract.php?id=2712>

International variation in the prevalence of COPD (The BOLD Study): a population-based prevalence study

Authors: Buist AS et al

Summary: This worldwide study sought to determine the prevalence of chronic obstructive pulmonary disease (COPD) and its risk factors and investigate variation across countries by age, sex, and smoking status. A total of 9,425 participants completed postbronchodilator spirometry testing plus questionnaires about respiratory symptoms, health status, and exposure to COPD risk factors. COPD prevalence estimates based on the Global Initiative for Chronic Obstructive Lung Disease staging criteria were adjusted for the target population. Overall, 10.1% had stage II or higher COPD; gender-specific rates were 11.8% for men and 8.5% for women. Odds ratios (ORs) for 10-year age increments did not vary greatly across sites and for women and men. The overall pooled estimate was 1.94 (95% CI 1.80 to 2.10) per 10-year increment. Site-specific pack-year ORs varied significantly in women (pooled OR=1.28, 95% CI 1.15 to 1.42), but not in men (1.16, 1.12 to 1.21). The authors note that while age and smoking are recognised as strong contributors to COPD, they fail to fully explain variations in disease prevalence; local public health officials must better appreciate what other factors contribute to COPD, in order to develop appropriate, region-specific primary and secondary prevention policies.

Comment: Chronic obstructive pulmonary disease (COPD) continues to be an important cause of morbidity, mortality, and health-care costs worldwide. It is also a significant health issue for Māori. Although cigarette smoking is an important risk factor universally, other factors, such as exposure to indoor and outdoor air pollution, occupational hazards, and infections, are also important. Further research is recommended to understand COPD and its management.

Reference: *Lancet.* 2007;370:741-50

[http://dx.doi.org/doi:10.1016/S0140-6736\(07\)61377-4](http://dx.doi.org/doi:10.1016/S0140-6736(07)61377-4)



Ngā Kōrero

The next edition of the Māori Health Directorate's new look quarterly newsletter will be released in December. Go to www.maorihealth.govt.nz to view the current edition.

Ideas for new articles are welcomed
Email: gavin_koroi@moh.govt.nz



Antenatal education and postnatal support strategies for improving rates of exclusive breast feeding: randomised controlled trial

Authors: Su L-L et al

Summary: This randomised controlled trial investigated whether antenatal breastfeeding education alone or postnatal lactation support alone improves rates of exclusive breastfeeding compared with routine hospital care. Participants comprised 450 women with uncomplicated pregnancies at a tertiary hospital in Singapore. Compared with women who received routine care, women receiving antenatal education were much more likely to breastfeed exclusively at six weeks, three months, and six months postnatally; women in the postnatal support group were more likely to breastfeed exclusively at two weeks, six weeks, three months, and six months postnatally. The numbers needed to treat to achieve one woman exclusively breast feeding at six months were 11 for postnatal support and 10 for antenatal education. In conclusion, hospital-based interventions comprising antenatal breastfeeding education and postnatal lactation support significantly improve rates of exclusive breastfeeding up to six months after delivery.

Comment: Published in one of the leading medical journals, this paper supports the report we had in last month's Māori Health Review from Glover and others. That is, adequate education and importantly, satisfactory postnatal support, may assist mums in their choice to breastfeed.

Reference: *BMJ*. 2007;335:596

<http://dx.doi.org/doi:10.1136/bmj.39279.656343.55>

Effect of race on asthma management and outcomes in a large, integrated managed care organization

Authors: Erickson SE et al

Summary: This study investigated racial disparities in asthma management and outcomes in a managed care organisation that provided uniform access to health care services. It prospectively studied 678 patients and interviewed after discharge all patients who had been hospitalised for asthma. Patients were followed-up for subsequent emergency room visits and hospitalisations during a median follow-up of 1.9 years. Black patients had almost double the risk of emergency room visits (hazard ratio 1.93) and hospitalisations (HR 1.89) compared with White patients. The differences persisted after adjustment for socioeconomic status and differences in asthma therapy. Because all patients had uniform access to care, the authors said the findings support the potential for genetic differences related to asthma.

Comment: A poor paper, the authors have not considered an important cause of ethnic disparities in asthma outcomes – quality of care. There is substantial evidence here in Aotearoa that Māori experience higher rates of asthma morbidity than non Māori including higher hospitalisation rates and higher rates of asthma symptoms that require time off school/work. Studies have also shown that Māori with asthma are less likely to receive preventative medicines, an asthma action plan or adequate asthma education compared with non Māori. Unequal treatment must be considered when there are inequitable outcomes.

Reference: *Arch Intern Med*. 2007;167:1846-52

<http://archinte.ama-assn.org/cgi/content/short/167/17/1846>

Intersections of ethnicity and social class in provider advice regarding reproductive health

Authors: Downing RA et al

Summary: In this study, ethnically diverse, low-income (n=193) and middle-class women (n=146) were questioned about their pregnancy-related health care experiences. The main aim of the study was to examine whether health care providers are perceived as advising low-income women, particularly women of colour, to limit their childbearing and to what extent they feel they are discouraged by providers from having future children. According to logistic regression analyses, the odds of being advised to limit childbearing were greater for low-income women of colour than for middle-class White women. In a separate statistical analysis, the odds of being discouraged from having children were greater for low-income Latinas than for middle-class White women. The study authors conclude that more research is needed to assess how ethnicity and social class impact women's experiences with reproductive health care.

Comment: I was shaken by the findings of this study. Given the simple study design and current focus on sexual and maternity health care for Māori, a similar study may be warranted here.

Reference: *Am J Public Health*. 2007;97:1803-7

<http://www.ajph.org/cgi/content/abstract/97/10/1803>

Privacy Policy: Research Review will record your email details on a secure database and will not release it to anyone without your prior approval. Research Review and you have the right to inspect, update or delete your details at any time.

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 Australia is now available.

Please let your Australian colleagues know they can subscribe free at

www.researchreview.com.au

Health and Independence Report 2007 released

The health sector is producing key improvements in New Zealanders' health and life expectancy, according to *The Health and Independence Report 2007* released this month. This year's Health and Independence Report contains Health Minister Pete Hodgson's report on progress on the New Zealand Health Strategy and implementing the Quality Improvement Strategy. It also includes the Director-General's annual report on the state of public health.

The report presents data from 39 'headline indicators' of health system performance such as life expectancy, use of primary health care, immunisation coverage and cancer survival. It assesses whether the health sector is making progress towards important goals such as better health for all New Zealanders. It is available from the Ministry's website: www.moh.govt.nz/publications



Panui

Hauora IV: Maori Health Standards 1990 to 2005

The launch for this important document is planned for the end of November 2007. The latest 'Hauora' book has up to date Māori health data for all major causes of mortality and hospitalisations, and particular topics of interest including racism in health; mental health issues; Māori and disability; and chapters dedicated to specific illnesses including cancer, respiratory and cardiovascular disease. I hope to bring you summaries of the chapters and their website links in future issues of Māori Health Review.

INIHKD October 2007

Commentaries for this issue were written during breaks of the INIHKD conference held in Rotorua. It was a pleasure to catch up with friends and colleagues from around the motu and from overseas. For those of you who couldn't make it, I plan to provide summaries and comments of some of the presentations at the conference including:

- Applying ethical standards to front line service delivery in Canadian Indigenous communities
- Tribal and urban American Indian/Alaska Native epidemiology centres
- Indigenising community-based participatory research
- Pukapuka Hauora: Māori parents' experience of managing a child with asthma
- Manaaki Manawa; cardiac rehabilitation developed by Māori for Māori.

Cigarette prices, smoking, and the poor: implications of recent trends

Authors: Franks P et al

Summary: This US-based study examined the relationship between smoking participation and cigarette pack price by income group and time period to determine the role of cigarette prices in income-related disparities in smoking. Data from the 1984–2004 Behavioral Risk Factor Surveillance System surveys were linked to information on cigarette prices to examine the adjusted prevalence of smoking participation and smoking participation–cigarette pack price elasticity (change in percentage of persons smoking relative to a 1% change in cigarette price) by income group (lowest income quartile [lower] vs all other quartiles [higher]) and time period (before vs after the Master Settlement Agreement [MSA]). Overall, the study found that the increasing price of cigarettes over time was associated with a marked decline in smoking for higher-income individuals, but not for lower-income persons. Prior to the MSA, the association between cigarette pack price and smoking participation revealed a significantly larger elasticity among lower-versus higher-income persons (−0.45 vs −0.22). After the MSA, the association was not statistically significant for either income group. The authors conclude that “despite cigarette price increases after the MSA, income-related smoking disparities have increased”. Cigarette prices are no longer an effective strategy to reduce smoking prevalence and may impose a disproportionate burden on poor smokers.

Comment: Similar arguments have been made by Māori public health physicians and researchers here – that raising taxes on cigarettes is not an effective means for smoking cessation and may actually contribute to health inequalities. My smoking whanau and patients also complain to me that despite contributing to health spending (from cigarette tax) they do not currently have access to all options of smoking cessation medication. Several have had to ‘cough up’ hundreds of dollars for treatment to help them quit.

Am J Public Health. 2007;97:1873-7

<http://www.ajph.org/cgi/content/abstract/97/10/1873>



Independent Renal Anaemia Educational Series for NZ GPs reviewed by Dr Viliani Tutone. [Click Here for a free copy](#)

➤ View the latest job listings at Healthcare Jobs -

<http://www.researchreview.co.nz/jobs.cfm>

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.