

Māori Health Review

Making Education Easy

Issue 13 – 2008

In this issue:

- *Social risk factors and child health*
- *Fitness and mortality in older adults*
- *Soft drinks, fructose, and gout*
- *Economic reforms and health outcomes*
- *Asthma control in general practice*
- *NZ child use of dental services*
- *SES markers and health status*
- *Rural Indigenous diabetes care*
- *Care pathways in different ethnicities*
- *Panui*

E nga mana, e nga reo, e nga tangata katoa, he mihi mahana ki a koutou katoa. Naumai, haere mai ki te Tirohanga Hou Rangahau Hauora Māori. Nga moemiti maha mo o koutou urupare, o koutou whakaaro, o koutou tohutohu a tautoko hoki. No reira tonoa mai ano o koutou korero, a riipoata rangahau ki a whiriwhirihia mo nga tuku-nga, e heke mai nei.

Warm greetings to you all and welcome to Māori Health Review. We appreciate your feedback, thoughts, advice and support. I also wish to encourage people to send through research or journal articles to be considered for future issues.

Noho ora mai

Matire

Dr Matire Harwood

matire@maorihealthreview.co.nz

Influence of multiple social risks on children's health

Authors: Larson K et al

Summary: Using cross-sectional data from the US 2003 National Survey of Children's Health, 8 social risk factors, both individually and as part of a cumulative social risk index, were tested as independent predictors of 4 parent-reported child health outcomes: global health status, dental health, socioemotional health, and overweight. The survey assessed 102,353 parents of children aged 0 to 17 years. The percentage of children in poorer health increased with the number of social risk factors across all health outcomes. More than half of children had ≥ 2 risk factors, and 24% had ≥ 4 . In adjusted analyses, low maternal mental health, Black or Hispanic race/ethnicity, $< 200\%$ of the federal poverty level, low household education, unsafe neighbourhoods, and lack of health insurance increased the odds for less than very good child health.

Comment: The cumulative effect of social stressors – including racism, whānau ora (maternal health) and neighbourhood environment – on wellbeing starts in childhood. Imagine with time the impact of chronic stress on health. As the authors suggest, the health status of a population has many influences that work in complex and layered ways. Addressing these influences requires a multi-level approach, which must start during the antenatal period and continue throughout life.

Reference: *Pediatrics*. 2008;121:337-44

<http://dx.doi.org/10.1542/peds.2007-0447>



Ngā Kōrero

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

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



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

Cardiorespiratory fitness and adiposity as mortality predictors in older adults

Authors: Sui X et al

Summary: The association among cardiorespiratory fitness ("fitness"), adiposity, and mortality in older adults was examined in data from 2603 adults aged ≥ 60 years who completed a baseline health examination during 1979–2001. 450 deaths occurred during a mean 12-year follow-up and 31,236 person-years of exposure. Adjusted death rates per 1000 person-years were 13.9, 13.3, 18.3, and 31.8 across BMI groups of 18.5–24.9, 25.0–29.9, 30.0–34.9, and ≥ 35.0 , respectively ($p=0.01$ for trend); 13.3 and 18.2 for normal and high waist circumference (≥ 88 cm in women; ≥ 102 cm in men) ($p=0.004$); 13.7 and 14.6 for normal and high percent body fat ($\geq 30\%$ in women; $\geq 25\%$ in men) ($p=0.51$); and 32.6, 16.6, 12.8, 12.3, and 8.1 across incremental fifths of fitness ($p<0.001$ for trend). The association between waist circumference and mortality persisted after adjusting for smoking, baseline health status, and BMI ($p=0.02$) but not after additional adjustment for fitness ($p=0.86$). Fitness predicted mortality risk after further adjustment for smoking, baseline health, and either BMI, waist circumference, or percent body fat ($p<0.001$ for trend).

Comment: Although this study looked at older adults (aged 60 years and over), the research is significant. Fitness reduced the risk of death and this was true for smokers, people with other health conditions and/or obesity. Do clinicians capture this information from people when screening for risk factors? Or is the focus on smoking history and BMI (height and weight calculation as a measure of obesity)? Perhaps fitness tests should be incorporated into well health checks. However, we also need to consider strategies that facilitate older Māori adults into regular physical activity. Walking groups, line dancing sessions and aqua-activities are just a few of the examples currently organised by Māori providers.

Reference: *JAMA*. 2007;298:2507-16
<http://jama.ama-assn.org/cgi/content/abstract/298/21/2507>

Soft drinks, fructose consumption, and the risk of gout in men: prospective cohort study

Authors: Choi HK and Curhan G

Summary: A total of 46,393 men with no history of gout at baseline provided information on intake of soft drinks and fructose through validated food frequency questionnaires. During 12 years of follow-up, there were 755 confirmed incident cases of gout. Compared with intake of less than 1 serving of sugar-sweetened soft drinks per month, the multivariate relative risk for gout was 1.29 for 5 to 6 servings per week, 1.45 for 1 serving per day, and 1.85 for 2 or more servings per day (p for trend=0.002). Diet soft drinks were not associated with risk of gout (p for trend=0.99). For increasing quintiles of fructose intake, the multivariate relative risks for gout were 1.00, 1.29, 1.41, 1.84, and 2.02 (p for trend <0.001). Other major sources of fructose intake, including total fruit juice and fructose-rich fruits (apples and oranges) were also associated with a higher risk for incident gout (p for trend <0.05).

Comment: This study is relevant given the high rates of gout in Māori and evidence of unequal treatment for gout (particularly prophylactic medication to prevent gout attacks). Prevention and secondary prevention includes education regarding nutrition (foods to avoid), hydration and medication. The advice to people at risk of gout is to swap sugared soft drinks for the diet versions and avoid fructose-rich fruits.

Reference: *BMJ*. 2008;336:309-12
<http://dx.doi.org/10.1136/bmj.39449.819271.BE>

Inequalities in mortality during and after restructuring of the New Zealand economy: repeated cohort studies

Authors: Blakely T et al

Summary: New Zealand census mortality data from 1981 to 2001 were analysed for any change in disparities between income and mortality during a period of major structural and macroeconomic reform and for how different diseases contributed to these disparities. All-cause mortality rates declined over the 25-year study period in all groups stratified by sex, age, and income, except for 25–44 year olds of both sexes on low incomes among whom there was little change. In all age groups pooled, relative inequalities increased from 1981–4 to 1996–9, then stabilised in 2001–4. Absolute inequalities were stable over time, with a possible fall from 1996–9 to 2001–4. Cardiovascular disease was the major contributor to the observed disparities between income and mortality, but decreased from 45% in 1981–4 to 33% in 2001–4 for males and from 50% to 29% for females. A corresponding increase in cancer occurred; from 16% to 22% for males and from 12% to 25% for females.

Comment: This study from NZ showed that when the economy was restructured, although overall death rates declined, the disparities between 'rich' and 'poor' (based on household income) actually increased. As the authors state, there is not enough evidence to conclude that the reforms on their own explained the findings. However, the editor of *BMJ* pointed out that although it is much easier to utilise research that tackles risk factors at the individual level, studies such as these that 'map associations between trends in inequalities in health determinants and in health outcomes are necessary for an evidence-informed debate about policies to tackle widening health inequalities'.

Reference: *BMJ*. 2008;336:371-5
<http://dx.doi.org/10.1136/bmj.39455.596181.25>

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

> NOW AVAILABLE Rehabilitation and Hepatitis Research Reviews

To update your Research Review subscriptions log on to the Member's Area at www.researchreview.co.nz



Suboptimal asthma control: prevalence, detection and consequences in general practice

Authors: Chapman KR et al

Summary: 354 primary care physicians assessed 10,248 patients for asthma control; 59% were uncontrolled, 19% well-controlled and 23% totally controlled. Physicians overestimated control, regarding only 42% of patients as uncontrolled. Physicians were more likely to report plans to alter the regimens of uncontrolled patients than controlled patients (1.29 vs 0.20 medication changes per patient), that were consistent with guideline recommendations. Of the uncontrolled patients, 59% required one or more urgent care or specialist visits versus 26% and 15% of well-controlled or totally controlled patients, respectively. Patients were more likely to report short-term symptom control when they had not required urgent or specialist care (odds ratio 5.68).

Comment: Three points:

1. GPs in this study overestimated asthma control in their asthma patients. Innovative solutions to improve diagnostic and management confidence in primary care are required. Some GPs are measuring exhaled nitric oxide using separate machines. I understand that an evaluation of the machine in NZ primary care is currently underway.
2. When the GP correctly diagnosed the level of asthma control, management was in keeping with evidence. This finding supports the use of asthma guidelines.
3. GPs are the first step for most asthmatics. This study found that the time frame from the GP visit to requiring urgent or hospital care is short for those with poor control. GPs play a vital role in the management of asthma and if they can correctly diagnose and manage 'poorly controlled' asthma, hospitalisation may be prevented.

Reference: *Eur Respir J.* 2008; 31:320-5

<http://dx.doi.org/10.1183/09031936.00039707>

Child use of dental services and receipt of dental care in New Zealand

Authors: Jamieson LM and Koopu PI

Summary: Data from the 2002 National Children's Nutrition Survey were examined for dental service use and dental care receipt among 3275 participants (37.4% Māori, 32.2% Pacific and 30.3% New Zealand European or Other). Irregular dental attendance was associated with children who were 11–14 years, Pacific, had not always lived in New Zealand, lived in rented accommodation, frequently watched television, consumed breakfast on the way to school, purchased lunch, consumed sugar-containing products or had food security issues. Tooth restoration was associated with the 11–14-year age group, Māori ethnicity, low household income, households with 4+ children, regular television viewing, consuming breakfast on the way to school, frequent consumption of high-sugar foods, food security issues, children experiencing dental pain at night or who had received dental care under a general anaesthetic. Tooth extraction was associated with Pacific ethnicity, low household income, children who had a disability, purchased their lunch, regularly consumed high-sugar-containing products, had food security issues, had experienced dental pain at night or received dental care under a general anaesthetic.

Comment: Firstly, I want to apologise to Sugar Te Paa and my mum for taking so long to get orange niho papers into the Review! I'd also like to thank Te Ao Marama, the Māori Dental Association, for inviting me to their hui held in Tauranga this month. And now the review. Improving oral health is one of 12 priorities in Māori Health yet Māori do not have the same oral health status as non Māori. This is true across all age groups. The Hauora IV chapter examines disparities in oral health outcomes between Māori and non Māori, details sites for differential access to oral health determinants (such as fluoride and income) and describes the discrepancies in access to oral health services along the continuum of care (see http://www.hauora.maori.nz/downloads/hauora_chapter11_web.pdf). The paper from the National Children's Nutrition Survey provides further evidence of the greater need for dental services among Māori, Pacifica people and those living with deprivation. As my mum has found with her two moko, dental services are not located with these people in mind and she has to travel out of her neighbourhood to access dental care.

Reference: *J Paediatr Child Health.* 2007;43:732-9

<http://dx.doi.org/10.1111/j.1440-1754.2007.01168.x>

Comparison of different markers of socio-economic status with cardiovascular disease and diabetes risk factors in the Diabetes, Heart and Health Survey

Authors: Metcalf PA et al

Summary: Data from 4020 participants aged 35–74 years in the 2002/2003 Diabetes, Heart and Health Survey were used to compare socioeconomic status (SES) markers (the occupation-based NZ Socioeconomic Index (NZSEI), combined household income, education, and the area-based deprivation measure NZDep2001) with cardiovascular disease (CVD) and diabetes risk factors. After adjusting for all other SES measures, there were relatively few independent risk factor associations with NZSEI or education; CVD and diabetes risk factors were more strongly associated with the area-based NZDep2001 and household income. In general, the strongest associations were observed for NZDep.

Comment: Further evidence to support the use of NZDep as marker of socio-economic status in Aotearoa. And not just for research purposes. As the investigators found here, NZDep is strongly associated with the health status of people living in Aotearoa and therefore should be used in the development of health policy, including funding equations. It must be noted that ethnicity is another variable, independent of NZDep level, which also must be applied in policy and funding decisions.

Reference: *N Z Med J.* 2007;121 (1269):U2929

<http://www.nzma.org.nz/journal/121-1269/2929/>

Check out
the new
Natural
health Info
section at

www.naturalhealthreview.org

Keeping you
up to date with
research on
conditions and
therapies!

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.

Panui

Just to let you know about a couple of important conferences coming up:

Te ORA (Maori Doctors) Annual Scientific Conference, to be held at Porangahau Marae, Hawkes Bay from the 25th to 27th of April 2008, this year's theme is "Relationships: Nga Taura Here Tangata". This is a fantastic opportunity to attend a conference in a positive and supportive environment and to share some of the amazing work that is been done around the country. Please visit the website for more information - <http://www.teora.maori.nz/>

PRIDoC 2008

The fourth gathering of the Pacific Region Indigenous Doctors Congress, the conference theme, Ho'omau, to Persevere, urges us to carry on the healing of our people throughout the Pacific. Past congresses have enabled us to learn from each other, share our successes and best practices, as well as learn more about one another's cultures. PRIDoC 2008 will feature medical education and research workshops on the 11–12 of June, followed by plenary and breakout sessions on topics related to indigenous health during the main conference from 13–15 June, 2008. Kaua'i awaits....e komo mai kakou, <http://www.acteva.com/booking.cfm?bevalD=151531>

***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.*

Partnership approach to Indigenous primary health care and diabetes: a case study from regional New South Wales

Authors: Cooper J et al

Summary: This paper discusses the successful development of an integrated and coordinated approach to diabetes care, which provides comprehensive outreach services through a multidisciplinary Diabetes Complication and Assessment Clinic (DCAC) to four isolated rural Aboriginal communities around Casino, in the Northern Rivers of New South Wales. This structured approach has significantly improved quality of life, clinical outcomes and cost to the community both emotionally and financially. The study authors suggest that their model for providing chronic disease management might apply to both regional and metropolitan Aboriginal communities.

Comment: The Australian Journal of Rural Health's first 'virtual' issue was put together in February 2008 and is dedicated to Australian indigenous health issues. Papers published in previous issues of the journal that focussed on indigenous health issues were included in this special edition. You may wish to read other papers which can be viewed here: <http://blackwell.sites.optin.com.au/readcamp.rsp?rin=1z985648-2312732&campaign=00k>

This paper is a fantastic example of a rural diabetic service that worked closely with the local community to improve access. And plans to monitor outcomes, undertake research and improve systems are under way.

Reference: *Aust J Rural Health.* 2007;15:67-70
<http://dx.doi.org/10.1111/j.1440-1584.2007.00853.x>

Racial and ethnic disparities in medical and dental health, access to care, and use of services in US children

Authors: Flores G and Tomany-Korman SC

Summary: Racial/ethnic disparities in children's medical and dental care were examined for White, African American, Latino, Asian/Pacific Islander, Native American, and multiracial children, using data from the National Survey of Children's Health – a US telephone survey in 2003–2004 of a national random sample of parents and guardians of 102,353 children 0 to 17 years old. Many significant disparities were noted, such as uninsurance rates (e.g. 6% for Whites vs 21% for Latinos) and the proportions with a usual source of care (e.g. Whites 90% vs Native Americans 61%). Many disparities persisted for ≥1 minority group in multivariate analyses (e.g. increased odds of suboptimal health status, overweight, asthma, emotional difficulties, unmet medical and dental needs, transportation barriers to care, problems getting specialty care, emergency department visits, not receiving mental health care, and not receiving prescription medications). Certain disparities were particularly marked for specific racial/ethnic groups, and multiracial children also experienced many disparities.

Comment: A survey conducted in a large population in the US. There are two interesting things about this study. Firstly, it included dental care outcomes with health status questions. Secondly, the authors sought information about service provision and access through the care pathway for children from various ethnicities, and didn't just describe differences in disease rates.

Reference: *Pediatrics.* 2008;121:e286-e298
<http://dx.doi.org/10.1542/peds.2007-1243>

The views expressed in this Publication are personal to the authors, and do not necessarily represent the views or policy of the Ministry of Health on the issues dealt with in the publication.

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, health care, and outcomes between Māori and non-Māori. The fourth edition, covering the years 2000–2005, is now available, published by Te Rōpū Rangahau Hauora a Eru Pōmare. It includes data on the Māori population, social and economic indicators, hospitalisations, mortality, cancer and mental health. It also contains 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 can be downloaded from www.hauora.maori.nz or can be ordered in hard copy by emailing: moh@wickcliffe.co.nz or calling (04) 496 2277 quoting HP4497.