













Māori Health Review

Making Education Easy

Issue 11 - 2007

In this issue:

-  *Impact of income on health*
-  *Risk factors for adverse lipid profiles*
-  *Food additives and child behaviour*
-  *Focused occupational therapy after stroke*
-  *A database for hepatoma screening?*
-  *NZRA Biologics Register, initial data*
-  *Patient retention in diabetic reviews*
-  *Measuring Indigenous Australians' wellbeing*
-  *ED asthma management strategies*
-  *Panui*

Nga mihi nui o te kirihimete, hari tau hou hoki

Noho ora mai

Matire

Greetings

Welcome to the final edition of Māori Health Review for 2007

A big thank you to all our readers for your support over the past year and for all your kind feedback that you've sent us. It is great to know you find the Review interesting and informative.

Also thanks for our sponsor who makes this publication possible.

We really appreciate your support.

Have a wonderful Christmas and Māori Health Review will be back again in the New Year.

Matire

Dr Matire Harwood

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The global impact of income inequality on health by age: an observational study

Authors: Dorling D et al

Summary: This report analysed mortality data from the World Health Organisation and income data from the annual reports of the United Nations Development Programme, sourced from 126 countries worldwide that had complete data on income inequality and mortality by age and sex around the year 2002 (including 94.4% of world human population), in order to determine whether the apparent impact of income inequality on health, which has been shown for wealthier nations, is replicated worldwide, and whether the impact varies by age. Mortality in 5-year age bands for each sex was analysed by income inequality and income level. At ages 15-29 and 25-39 years, mortality worldwide was more closely correlated with variations in income inequality than with variations in material wealth, particularly among the poorest countries in Africa. Data revealed higher mortality for a given level of overall income in more unequal nations.

Comment: Three conclusions from this paper. Firstly, the impact of income on health varies with age. Secondly, income differences were largest in more competitive rather than cooperative societies. Finally, social inequalities (as reflected by unequal incomes) are damaging to health for those living in both rich and poor nations. The direct mechanisms by which income affects health will vary but the underlying issue is that health is best protected when people cooperate.

Reference: *BMJ*. 2007;335(7625):873

<http://dx.doi.org/10.1136/bmj.39349.507315.DE>

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Serum lipid levels for a multicultural population in Auckland, New Zealand: results from the Diabetes Heart and Health Survey (DHAH) 2002–2003

Authors: Gentles D et al

Summary: Fasting blood samples were analysed from adults aged between 35–74 years within the Auckland area; 1006 Māori, 996 Pacific people (mostly of Samoan, Tongan, Niuean, or Cook Islands origin), and 2021 'Others' (mostly New Zealand-born Europeans), to describe mean serum lipid concentrations and to identify risk factors for an adverse lipid profile. After adjusting for age and gender, Māori and Pacific people had similar mean serum total and LDL cholesterol levels but lower HDL levels and higher total/HDL cholesterol ratios, compared to Others. Māori also had higher triglycerides than Others. Positive associations were observed between unfavourable lipid profiles and high BMI and cigarette smoking, and between increased HDL cholesterol and lower total/HDL cholesterol ratios and current alcohol drinking and vigorous leisure time activity. In >90% of all ethnic groups, total cholesterol levels exceeded currently accepted optimal levels (>4mmol/L); two-thirds exceeded 5 mmol/L. The total/HDL cholesterol ratio exceeded the 'optimal' threshold of 4.5 in 30% of Others, 40% of Māori and 44% of Pacific people.

Comment: Two points to take from this paper. The main lipid-related CVD risk for Māori is low HDL and high triglyceride levels and therefore checking the 'cholesterol level' only is not enough – a complete lipid profile must be undertaken each year with fasting blood tests from age 35 for Māori males and age 45 for Māori females. Secondly, information about ways to improve HDL and TG levels must be provided to Māori. HDL levels can be improved by eating fish 3 or more times/week, using small amounts of olive oil and exercising 5–6 times/week. TG levels can be reduced by decreasing sugar and saturated fat intake (fatty meats such as sausages) and reducing meal sizes, especially the evening meal.

Reference: *N Z Med J.* 2007;120(1265): U2800

<http://www.nzma.org.nz/journal/120-1265/2800/>

Food additives and hyperactive behaviour in 3-year-old and 8/9-year-old children in the community: a randomised, double-blinded, placebo-controlled trial

Authors: McCann D et al

Summary: 153 3-year-old and 144 8/9-year-old children consumed a challenge drink containing artificial food colour (sodium benzoate) and one of two artificial food additive mixes (A or B) or a placebo mix, to test for effects on childhood behaviour. Among all 3-year-old children, behaviour assessed by a global hyperactivity aggregate was significantly and adversely affected by mix A compared with placebo (effect size 0.20 [95% CI 0.01–0.39], $p=0.044$), but not by mix B versus placebo. 8/9-year-old children showed a significantly adverse effect when given mix A (0.12 [0.02–0.23], $p=0.023$) or mix B (0.17 [0.07–0.28], $p=0.001$). In both populations, results persisted when analysis was restricted to those children consuming $\geq 85\%$ of drinks with no missing data.

Comment: In summary, evidence that food colouring and additives affect child behaviour (increased hyperactivity associated with educational, especially reading, difficulties). Retailers may promote products (including coloured and flavoured soft drinks) by making them more accessible through low cost or storing them at eye level on shelves. Hopefully, appropriate regulation is brought in but until then, caregivers may want to withhold these products, particularly during school time.

Reference: *Lancet.* 2007;370:1560-7

[http://dx.doi.org/10.1016/S0140-6736\(07\)61306-3](http://dx.doi.org/10.1016/S0140-6736(07)61306-3)

Occupational therapy for patients with problems in personal activities of daily living after stroke: systematic review of randomised trials

Authors: Legg L et al

Summary: This systematic review and meta-analysis examined data from nine randomised controlled trials that evaluated the effect of occupational therapy focused on practice of personal activities of daily living or where performance in such activities was the target of the occupational therapy intervention in a stroke population ($n=1,258$). Occupational therapy focused on improving personal activities of daily living after stroke increased performance scores (standardised mean difference 0.18, 95% CI 0.04 to 0.32, $p=0.01$) and reduced the risk of poor outcome (death, deterioration or dependency in personal activities of daily living) (odds ratio 0.67, 95% CI 0.51 to 0.87, $p=0.003$). For every 100 people who received occupational therapy focused on personal activities of daily living, 11 (95% CI 7 to 30) would be spared a poor outcome.

Comment: A topic close to my research heart, stroke rehabilitation and recovery improved when focused occupational therapy was provided. This may not be an issue for people treated in a dedicated stroke unit, however, when my dad was treated for his stroke in a general medical ward, we had to specifically ask for both physio and occupational therapy prior to his discharge. I see advocacy for people with stroke and their whānau as an important role for Māori providers.

Reference: *BMJ.* 2007;335:922

<http://dx.doi.org/10.1136/bmj.39343.466863.55>

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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.

Hepatoma screening and follow up of HBsAg positive tests results at Tauranga Hospital, a 5 year retrospective audit

Authors: Newbury R et al

Summary: Tauranga Hospital case notes and electronic records were reviewed retrospectively (2002–7) for inpatient episodes coded as either liver cell carcinoma, unspecified carcinoma, liver failure, cirrhosis and several other related codes. HBsAg+ individuals from the Medlab database (2002–7) were cross-referenced against the National Database of HBsAg+ persons, to find those not known. The aims of the study were to screen for hepatomas more effectively at Tauranga Hospital and to improve HBsAg+ patient referral rates to the hepatitis foundation. Six hepatomas were identified secondary to HBV, one in a screening programme of 6 monthly ultrasounds and serum alpha-fetoprotein measurements. Medlab identified 1761 HBsAg+ individuals, of which only 1295 were known to the national database.

Comment: Hepatitis and its effects remains a major issue for Māori with liver cancer four times more common in Māori compared with non Māori, and death rates almost four times higher also. Survival from liver cancer is improved significantly when diagnosed early through blood tests. This small study from Tauranga highlights the importance of a dedicated screening service – not only did they identify more people at risk than the national database, the process by which people are screened, diagnosed and treated can be greatly improved.

Reference: *N Z Med J.* 2007;120(1266):U2848

<http://www.nzma.org.nz/journal/120-1266/2848/content.pdf>

The NZRA Biologics Register: baseline characteristics and outcome from the first year of enrolment

Authors: Harrison A

Summary: This report analysed data from the first 12 months of registrations on the NZRA Biologics Register, which was initiated at the same time as the launch of public funding of Humira for the treatment of adult rheumatoid arthritis (RA) on 1 January 2006. Data concerned 244 patients, representing 84.4% of Pharmac approvals; 80% of the patients were female, the mean age was 56 years and mean disease duration was 13 years. Europeans were over-represented and Māori significantly under-represented (3.8%). Upon commencing Humira, 70% were taking prednisone at a mean daily dose of 10mg. At first reapplication, compliance with the registry was 82%, and the following disease activity measures had decreased from baseline; ESR 42 to 23, CRP 37 to 11, tender swollen joint count 20 to 2.7, physician global VAS 75 to 20 mm, patient global VAS 74 to 25 mm, pain VAS 71 to 23 mm, HAQ 1.78 to 0.96, and prednisone use 70% to 34%. Responses were sustained at 12 and 18 months. *“These data confirm the efficacy of Humira in a New Zealand cohort of RA patients with relatively severe and longstanding RA, but raise concerns about equality of access and risk of severe infection”*, conclude the researchers.

Comment: Ethical dilemmas arise for Māori when a new treatment is offered as part of a research trial. Questions include: am I a guinea pig? Do I want to hear all this new information when I'm already feeling vulnerable with ill health or in the hospital? Can I continue to get the new treatment at the end of the study? And from the other side – this treatment looks better than standard care and because this is a common disease for Māori, every effort should be made to ensure Māori participants are recruited. As the researcher suggests here, a new treatment for RA appears to be very effective, RA is more common in Māori than non-Māori yet the percentage of Māori receiving the new drug was low, raising concerns about quality of health care and information.

Reference: *N Z Med J.* 2007;120(1266):U2858

<http://www.nzma.org.nz/journal/120-1266/2858/content.pdf>

Retention of patients in the “Get Checked” free annual diabetes review program in Waikato, New Zealand

Authors: Joshy G et al

Summary: Data were retrospectively reviewed from 10,919 Waikato Primary Health registered patients (87% had type 2 diabetes and 8% had type 1 diabetes) who had ≥1 review in the “Get Checked” free annual diabetes review programme between 1st July 2000 and 30th June 2006. During 2005/06, 57% of the estimated 10,604 diabetes patients utilised the free check. Within 1.5 years after initial review, 35% had not returned for a second review. Retained patients attended subsequent reviews more regularly. Those who attended a second review returned much earlier for the third review, 75% within 1.5 years after second review. The time to return for a second review was significantly prolonged in Māori and Asians compared with Europeans (median 1.4 years vs 1.1 years). Patients aged <40 years returned for a second review later (1.8 years) than ≥65-year-olds (1.1 years). Patients less likely to return for a second review were those aged <40 years (vs ≥65 years), those of Māori or Asian ethnicity (vs Europeans) and those with type 1 diabetes (vs type 2).

Comment: The researchers suggest that perceived benefit and free tests are enough to encourage people to attend clinic for diabetic reviews. As we know, there are numerous barriers to diabetes care. These include institutional factors (funding services with resources and staff), service factors (appointments not booked properly or letters sent to wrong address) and patient factors (including time off work or away from whānau to travel, wait, be seen and have tests). I do agree, however, that further investigation and intervention is required, particularly for Māori with diabetes.

Reference: *N Z Med J.* 2007;120(1266):U2847

<http://www.nzma.org.nz/journal/120-1266/2847/content.pdf>

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

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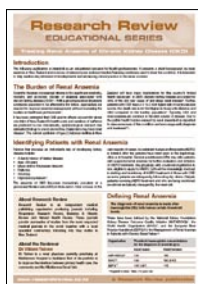
Hauora: Māori Standards of Health IV

In the first chapter of 'Hauora: Māori Standards of Health IV', Papaarangi and Bridget have provided a superb summary of the issues we face when describing Māori health status. They start with a clear description of our right to monitor Māori health through the collection and analysis of health data, clarify the difference between inequalities and inequities and confirm the influence of colonisation on health inequalities. The chapter ends with a framework for understanding health inequities including the direct and indirect effects of racism. Such discourse is a crucial first step to allowing further discussion of the place of racism in NZ.

http://www.hauora.maori.nz/downloads/hauora_chapter01_web.pdf

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Independent Renal Anaemia Educational Series for NZ GPs reviewed by Dr Viliami Tutone.

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Measuring emotional and social wellbeing in Aboriginal and Torres Strait Islander populations: an analysis of a Negative Life Events Scale

Authors: Kowal E et al

Summary: This paper discusses the policy and political context surrounding the widespread socioeconomic disadvantage and health inequality amongst Aboriginal and Torres Strait Islander Australians, and suggests a culturally-appropriate means of measuring emotional and social wellbeing (ESWB), a concept acknowledged as crucially important to the health of Indigenous populations. The paper also explores the evaluation of scales in a health research setting, including assessments of endorsement, discrimination, internal and external reliability. An evaluation of the Negative Life Events Scale (NLES) in two samples of Aboriginal people living in remote communities in Australia's Northern Territory shows potential for assessing psychosocial wellbeing in Aboriginal and Torres Strait Islander populations. The researchers advocate that a better understanding of ESWB will lead to better psychosocial health of Indigenous populations and decrease health inequalities.

Comment: An important paper encouraging researchers to share and agree upon definitions and tools to measure the wellbeing of indigenous Australians. As an area that is growing more sophisticated, indigenous health research is now looking to tie people's experience, including experience with prejudice, to their emotional and social wellbeing and physical health. Chronic stress, or negative life events, can have both direct physical effects (including raised blood pressure, elevated heart rate, reduced immunity) and encourage unhealthy behaviour (such as smoking). Further research in this area is vital.

Reference: *Int J Equity Health*. 2007;6:18

<http://dx.doi.org/10.1186/1475-9276-6-18>

Effectiveness of emergency department asthma management strategies on return visits in children: a population-based study

Authors: Guttman A et al

Summary: Comprehensive administrative health and survey data were assessed from all 152 emergency departments (EDs) in Ontario, Canada, concerning all 2- to 17-year-olds treated in EDs for asthma from April 2003 to March 2005. The aim was to describe the resources and asthma management strategies used by EDs, and their effect on return visits within 72 hours. 32,996 children (>9% of children with asthma in Ontario) had ≥ 1 visit to an ED relating to asthma; 68.5% of these visits were triaged as high acuity. 148 (97%) of EDs reported using ≥ 1 asthma management strategy; 74% used ≥ 3 . The overall return-visit rate was 5.6%. According to logistic regression analyses accounting for the clustering of patients in emergency departments and controlling for patient and ED characteristics, strategies significantly associated with a reduction in return visits included preprinted order sheets and access to a paediatrician for consultation. Return visit rates were 4.4% in the 11 EDs that used both of these strategies and 6.9% in the 95 that used neither strategy.

Comment: This study looked at ways to improve asthma outcomes for children treated in EDs with a focus on service delivery rather than patient characteristics. Not surprisingly, better outcomes were seen with improvements in service delivery. These improvements were simple enough and included access to paediatric expertise and preprinted management guidelines for staff to utilise.

Reference: *Pediatrics*. 2007;120:e1402-10

<http://dx.doi.org/10.1542/peds.2007-0168>

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