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Making Education Easy

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In this issue:

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. 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. Wishing you and your whānau all the best over the Christmas season.

Stay well, regards

Matire
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Early cardiac morbidity of rheumatic fever in children in New Zealand

Authors: Gilbert O et al

Summary: These researchers retrospectively analysed data from 36 children (mean age 11.8 years) with acute rheumatic fever (ARF) and rheumatic heart disease (RHD) admitted to Starship Children's cardiology ward between 2007 and 2009. All but one child was of Māori or Pacific Island ethnicity. 10 children had symptoms and signs of congestive cardiac failure on admission. The children were admitted 49 times with an average length of hospital stay of 23 days; the subset of children with ARF requiring cardiac surgery at the same admission had an average of 54 days in hospital. The total hospital cost over the 2-year period was $1,918,600.

Comment: An important reminder on why we must tackle this life threatening illness quickly and effectively. The long-term sequelae are frightening, as is the thought of young children undergoing significant cardiac surgery. And the results confirm previous suggestions that this is now almost exclusively a disease affecting Māori and Pacific people.

Reference: N Z Med J. 2011;124(1343):57-64.

http://journal.nzma.org.nz/journal/abstract.php?id=4880

Independent commentary by Dr Matire Harwood (Ngapuhi)

Research Review publications are intended for New Zealand health professionals.

Neighborhoods, obesity, and diabetes — a randomized social experiment

Authors: Ludwig J et al

Summary: This US-based social experiment assessed the association of personal, individual health with the social and economic environments in which people reside. From 1994 through 1998, the Department of Housing and Urban Development randomly assigned 4,498 women with children living in public housing in high-poverty urban census tracts (in which ≥40% of residents had incomes below the federal poverty threshold) to one of three groups: 1,788 received housing vouchers, which were redeemable only if they moved to a higher census income tract, and counselling on moving; 1,312 received unrestricted, traditional vouchers, with no special counselling on moving; the remaining 1,398 (controls) were offered neither of these opportunities. During 2008–2010, the study collected data on health outcomes, including height, weight, and level of glycated haemoglobin (HbA_{1c}). At follow-up, the rates of a body mass index (BMI) of ≥35, a BMI of ≥40, and a glycated haemoglobin level of ≥6.5% were lower in the group receiving the low-poverty vouchers than in the control group, with an absolute difference of 4.61 percentage points, 3.38 percentage points, and 4.31 percentage points, respectively; the between-group differences were not significant.

Comment: The headlines in the United States, where the study was carried out, read 'Change your neighbourhood to improve your health'. If only it were that easy! But there are certainly important messages to take from this study. Good urban design across all neighbourhoods should plan for adequate sources of nutritious kai, opportunities and sites for safe physical activity (like paving, parks and playgrounds) and access to medical care (clinics and/or transport), so that benefits to health and wellbeing are enjoyed by all.

Reference: N Engl J Med. 2011;365:1509-19.

http://www.nejm.org/doi/full/10.1056/NEJMsa1103216

Health equity in the New Zealand health care system: a national survey

Authors: Sheridan NF et al

Summary: Data are reported from a national survey of health equity outcomes across the New Zealand District Health Boards (DHBs). The survey aimed to identify the extent of evidence-based practices in the chronic condition management of stroke, cardiovascular disease, chronic obstructive pulmonary disease, congestive heart failure and diabetes. The survey data were supplemented with interviews conducted with 31 expert informants on program reach and the cultural needs of Māori and Pacific peoples. Responses were received from 15 of the 21 DHBs surveyed and from 21 of 84 Primary Health Organisations. Analyses revealed that measuring, monitoring and targeting equity is not systematically undertaken. The Health Equity Assessment Tool is used in strategic planning but not in decisions about implementing or monitoring disease programs. Variable implementation of evidence-based practices in disease management and multiple funding streams made program implementation difficult. Equity for Māori is embedded in policy, this is not so for other ethnic groups or by geography. Populations that conventional practitioners find hard to reach, despite recognised needs, are often underserved. Nurses and community health workers carried a disproportionate burden of care. Cultural and diversity training is not a condition of employment.

Comment: As a colleague of mine always reminds me, quality health care and outcomes will not be achieved without equity. Yet despite the tools, the will and obligations to intervene, efforts to reduce inequalities continue to be met with resistance. Which begs the question, who is benefitting from such inaction?

Reference: Int J Equity Health. 2011;10:45.

http://www.equityhealthj.com/content/10/1/45/abstract

Alcohol outlet density, levels of drinking and alcohol-related harm in New Zealand: a national study

Authors: Connor JL et al

Summary: This study analysed data from a 2007 national survey that assessed individual alcohol consumption and drinking consequences among 1,925 18–70-year-olds. The study participants' addresses were mapped and compared with location of alcohol outlets. Outlet density was the number of outlets of each type (off-licences, bars, clubs, restaurants) within 1 km of a person's home. Density of off-licences was positively associated with binge drinking, and density of all types of outlet was associated with alcohol-related harm scores, before and after adjustment for individual socioeconomic status.

Comment: I don't think I can add anything more; the findings are powerful enough. Just to say that this research group continues to contribute to our knowledge about the impacts of alcohol abuse on individuals, whānau and communities.

Reference: J Epidemiol Community Health. 2011;65(10):841-6.

http://jech.bmj.com/content/65/10/841.abstract

Do effects of price discounts and nutrition education on food purchases vary by ethnicity, income and education? Results from a randomised, controlled trial

Authors: Blakely T et al

Summary: These researchers sought to determine whether the effects of price discounts and tailored nutrition education on supermarket food purchases (percentage energy from saturated fat and healthy foods purchased) vary by ethnicity, household income and education. The study involved 1,104 New Zealand shoppers randomised to receive a 12.5% discount on healthier foods and/or tailored nutrition education (or no intervention) for 6 months. The analyses revealed an association of price discounts with healthy food purchasing (0.79 kg/week increase) that varied by ethnicity (p=0.04): European/other 1.02 kg/week (n=755); Pacific 1.20 kg/week (n=101); Māori −0.15 kg/week (n=248). This association of price discounts with healthy food purchasing did not vary by household income or education.

Comment: I've included this paper as follow-up to summaries/comments on this study in previous issues of Māori Health Research Review. The researchers have tried to tackle the issue of how to improve access to affordable and nutritious kai in various ways, yet results remain inconclusive. If anything, this paper confirms the complexity of the matter.

Reference: J Epidemiol Community Health. 2011;65(10):902-8.

http://jech.bmj.com/content/65/10/902.abstract

Increased prevalence of albuminuria among non-European peoples with type 2 diabetes

Authors: Kenealy T et al

Summary: The association between albuminuria and ethnicity was evaluated in this New Zealand study involving 65,171 adults (median age 64.7 years) in primary care with type 2 diabetes (median duration 5.1 years) who were not on renal replacement therapy; 48.5% were non-European. Microalbuminuria or greater was present in 50% of Māori, 49% of Pacific people, 31% of Indo- and East-Asians and 28% of Europeans. In regression analyses that controlled for study site and other known risk variables (including age, sex, duration of diabetes, smoking status, socioeconomic status, body mass index, systolic and diastolic blood pressure, triglyceride levels, HbA_{1C} and being on an ACE inhibitor or angiotensin II receptor blocker) and compared with Europeans, odds ratios for 'advanced' albuminuria (≥100 mg/mmoL) were 3.9 in Māori, 4.7 in Pacific people, 2.0 in Indo-Asians and 4.1 in East-Asians.

Comment: Further reason to remain vigilant in the management of type 2 diabetes, treating it and its complications quickly. Key is a good relationship with patients and their whānau, so that they understand the need for medication despite feeling 'okay'.

Reference: Nephrol Dial Transplant. 2011 Sep 13. [Epub ahead of print]

http://ndt.oxfordjournals.org/content/early/2011/09/13/ndt.gfr540.abstract

Dental caries in Taranaki adolescents: a cohort study

Authors: Page LA, Thomson WM

Summary: This paper describes dental caries status (in the permanent dentition) recorded in a cohort of 430 Taranaki adolescents examined in 2003 at age 13, 255 (59.3%) of whom were re-examined at age 16. At follow-up, caries prevalence (1+ DMFS [decayed/missing/filled]) had increased from 68% at baseline to 79%, mean DMFS had increased from 2.9 to 3.6, and the prevalence of high caries experience (5+ DMFS) had increased from 20% to 41%. The 3-year mean net caries increment of 0.5 surfaces was dominated by occlusal surfaces and the overall incidence of caries was approximately 46%. Over one-third of the cohort (37%) presented with decayed surfaces at follow-up, and this was significantly higher among Māori and males.

Comment: Oranga niho or oral health issues are a major cause for hospitalisation amongst Māori and tamariki, tai tamariki and pakeke. Te Kete Hauora at the Ministry of Health has recently launched a publication on research priorities for Māori in oral health; this useful resource can be accessed at http://www.otago.ac.nz/wellington/otago019612.pdf.

Reference: N Z Dent J. 2011;107(3):91-6.

http://www.unboundmedicine.com/medline/ebm/record/21957836

The gap in the subjective wellbeing of Māori and New Zealand Europeans widened between 2005 and 2009

Authors: Sibley C et al

Summary: These researchers compared the self-reported subjective wellbeing of Māori and New Zealand Europeans in two NZ national postal samples. The first sample was collected in 2005 before the global financial crisis of 2007/2010. The second was collected in 2009 while the crisis was ongoing. The first sample contained 289 Māori and 2,769 NZ Europeans; numbers in the second sample were 964 and 4,073, respectively. While NZ Europeans' scores on the Personal Wellbeing Index (PWI) were near-identical across the 2005 and 2009 samples, scores for Māori, which were already lower than NZ Europeans on the PWI in 2005, were further decreased in 2009.

Comment: This study validates for many what they intuitively felt to be happening. The findings also provide powerful evidence showing that privilege contributes to better health outcomes, and that targeted interventions are necessary to 'close the gap' in health outcomes between Māori and NZ European.

Reference: Soc Indic Res. 2011;104(1):103-15.

http://www.springerlink.com/content/3l85722j67830582/

Improving health and energy efficiency through community-based housing interventions

Authors: Howden-Chapman P et al

Summary: Outcomes are reported from two New Zealand community-based housing interventions designed to improve the energy efficiency of older housing and thereby the occupants' health. The Housing, Insulation and Health Study showed that insulating 1,350 houses, built before insulation was required, improved the occupants' health and wellbeing as well as household energy efficiency. The Housing, Heating and Health Study investigated the impact of installing more effective heating in insulated houses for 409 households, where there was a child with doctor-diagnosed asthma. The intervention increased indoor temperatures and halved NO_2 levels. Children reported less poor health, lower levels of asthma symptoms and sleep disturbances by wheeze and dry cough. Children also had fewer days off school.

Comment: Having addressed health outcomes based on urban design and at the town planning level, this study draws attention to the next level down – adequate housing. And of course the benefits of energy efficiency extend beyond health to financial and environmental.

Reference: Int J Public Health. 2011 Aug 20. [Epub ahead of print]

http://www.springerlink.com/content/a1x5196467204255/

Diabetes self-management education in South Auckland, New Zealand, 2007-2008

Authors: Silva M et al

Summary: This study evaluated a diabetes self-management education program implemented as part of a district-wide approach in South Auckland, New Zealand. Self-management attitudes and behaviours were monitored with the use of questionnaires before program implementation and 3 months after it ended. There was evidence of the program improving participants' attitudes toward their own ability to manage their diabetes; in diet, physical activity, and foot care, as well as haemoglobin A_{1c} levels. Participants also reduced their sense of isolation when dealing with their diabetes.

Comment: Great to see the results of a project led by a community-DHB partnership. And an open acknowledgement of the effort, resource and time required to engage those with perhaps highest unmet need.

Reference: Prev Chronic Dis. 2011;8(2):A42.

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3073435/