Māori Health Review

Making Education Easy

Issue 8 – 2007

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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

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Prevalence of rheumatic heart disease detected by echocardiographic screening

Authors: Marijon E et al

Summary: This study compared rheumatic heart disease prevalence data obtained from standard clinical screening with echocardiographic confirmation of suspected cases and from systematic screening with echocardiography screening, in populations of children aged 6 to 17 years in Cambodia and Mozambique. Clinical evidence of rheumatic heart disease confirmed by echocardiography was found in 8 of 3677 children in Cambodia and 5 of 2170 children in Mozambique; corresponding prevalence rates were 2.2 cases per 1000 and 2.3 cases per 1000, respectively. However, echocardiographic screening revealed 79 cases of rheumatic heart disease in Cambodia and 66 cases in Mozambique, corresponding to prevalence rates of 21.5 cases per 1000 and 30.4 cases per 1000, respectively. In the majority of cases, the mitral valve was involved (87.3% in Cambodia and 98.4% in Mozambique). In view of the fact that rheumatic heart disease frequently has devastating clinical consequences and secondary prevention may be effective after accurate identification of early cases, these results have important public health implications, the study concludes.

Comment: An amazing result – screening for RHD with echo in the community picked up 10 times more cases than expected. A study in a rural North Island community in which adults have echo as part of a screening programme is currently underway. Preliminary results paint a similar picture with much higher prevalence of heart-valve disease than expected. There may be a need to consider such a screening programme in NZ, given the extremely high rates of RHD for Maori.

Reference: N Engl J Med. 2007;357:470-6

http://content.nejm.org/cgi/content/abstract/357/5/470

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

Tauiwi general practitioners' talk about Māori health: interpretative repertoires

Authors: McCreanor T and Nairn R

Summary: This qualitative investigation used discourse analysis to describe interpretative repertoires in interview transcripts from 25 Tauiwi (non-Māori New Zealanders) general practitioners (GPs) from urban Auckland talking about Māori health. The main interpretative repertoires (patterns of language use on particular topics) utilised by participants in their talk about Māori health are outlined; including key explanatory forms relating to prevalence and causality of Māori health problems, and rationales for specialised practices when working with Māori. These repertoires are oriented to constructions of Māori health that either blame Māori for their plight or justify existing service provision. *"As such, they are antithetical to arguments for changes to policy and practice that might bring about population-level health gains for Māori"*, conclude the authors.

Comment: An interesting study. As the authors ask, is it possible to improve Māori health with changes to policy and practice aimed at the population level when providers continue to orient themselves to blaming Māori or justifying poor service provision? In the same way that health promotion campaigns attempt to change a person's behaviour to reduce risk to other people (e.g. passive smoking) perhaps we could utilise the same principles for a health promotion/education plan for providers that aims to change their 'unhealthy' behaviours.

Reference:* *N Z Med J. 2002; 115:U272

http://www.nzma.org.nz/journal/115-1167/272/

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

Health literacy and mortality among elderly persons

Authors: Baker DW et al

Summary: This US study sought to determine whether low health literacy levels independently predict overall and cause-specific mortality in a prospective cohort of 3260 Medicare managed-care enrollees aged ≥65 years. They were interviewed in 1997 about their demographics and health. The participants also underwent a test of health literacy. Main outcome measures included all-cause and cause-specific (cardiovascular, cancer, and other) mortality using data from the National Death Index through 2003. Adequate (n=2094), marginal (n=366), and inadequate (n=800) health literacy scores were associated with crude mortality rates of 18.9%, 28.7%, and 39.4%, respectively. Adjusted hazard ratios for all-cause mortality were 1.52 and 1.13 for participants with inadequate and marginal health literacy, respectively, compared with participants with adequate health literacy. Participants with inadequate health literacy had higher risk-adjusted rates of cardiovascular death but not of death due to cancer. Years of school completed were only weakly associated with the risk of dying. In conclusion, this study revealed that reading fluency is a more powerful variable than education for examining the association between socioeconomic status and health.

Comment: Dr Papaarangi Reid recommended this paper as evidence that health literacy is being increasingly recognised as an important health determinant. Crucially, health literacy can not be measured by level of education/schooling. The authors of this study looked at how well people understood basic medical forms and labelled prescription vials. Measures that facilitate the transfer of adequate health knowledge must be developed in order to assist people in managing their health/well being.

Reference: Arch Intern Med. 2007;167:1503-9

http://archinte.ama-assn.org/cgi/content/short/167/14/1503

Methods for recruiting White, Black, and Hispanic working-class women and men to a study of physical and social hazards at work: the United for Health study

Authors: Barbeau EM et al

Summary: This article conceptualises a model for rectifying what little is known about the joint distribution and health effects of physical and psychosocial hazards (e.g., noise, dusts, fumes, and job strain) and social hazards (e.g., racial discrimination and gender harassment) encountered at work. It describes recruitment strategies and the characteristics of study participants in the United for Health study. This study recruited 14 worksites from the areas of manufacturing, meat processing, retail, and transportation, and 1282 workers, of whom 62% were men, 36% were women, 39% were Black, 23% were Hispanic, 25% were White, 31% earned less than a living wage, 40% were below the poverty level, and 23% had less than a high school education.

Comment: The authors of this study have already documented the social hazards that occur in the workplace including work place abuse, sexual harassment and racism (the latter significantly more prevalent for African American workers compared with White workers). Here they describe the importance of appropriate recruitment strategies for occupational health research including the need to investigate the health effects of both physical and psychosocial hazards. The health effects of racism in NZ were recently reported by Dr Harris and others and I understand that they plan further research in this important area.

Reference: Int J Health Serv. 2007;37:127-44

http://baywood.metapress.com/link.asp?id=b0n2585064670230

Community attitudes to the collection and use of identifiable data for health research – is it an invasion of privacy?

Authors: Molster C et al

Summary: This survey investigated community views on the statutory collection of identifiable data by the Western Australian Birth Defects Registry and the extent to which the use of such data is perceived to be an invasion of privacy, when balanced against the community benefit of three public health scenarios. A total of 600 respondents were recruited randomly from the electronic version of the Western Australian telephone directory; the response rate was 78%. The majority of respondents supported statutory notification of cases (79%) and considered the statutory notification of postcodes (85%) and names and addresses (65%) to not constitute an invasion of privacy. Similarly, most (76%) considered the receipt of a letter requesting participation in research to not constitute an invasion of privacy. Overall, 55% considered none of these to be an invasion of privacy and only 4% considered all to be an invasion of privacy. In conclusion, the majority of Western Australians consider the statutory inclusion and use of identifiable data by the WA Birth Defects Registry as not being an invasion of privacy, when those data are required for legitimate public health research, the respondents are notified by the registrant's medical practitioner and data are kept confidentially and securely.

Comment: Similar concerns were raised here in NZ with regard to studies looking at the effects of environmental exposures such as dioxins on health outcomes including congenital problems. Services that currently collect health information on a register/database and yet choose not to analyse it may be missing the point. Good quality registers that collect accurate data in a consistent manner allow us to monitor process issues and outcomes. Guidelines for such registers must recognise the rights of individuals including the right to 'safe' research.

Reference: Aust N Z J Public Health. 2007;31:313-7

http://www.blackwell-synergy.com/doi/abs/10.1111/j.1753-6405.2007.00077.x

Incidence of new-onset diabetes and impaired fasting glucose in patients with recent myocardial infarction and the effect of clinical and lifestyle risk factors

Authors: Mozaffarian D et al

Summary: This study investigated the incidence of, and risk factors for, new-onset diabetes (new diabetes medication or fasting glucose ≥ 7 mmol/L) and impaired fasting glucose (fasting glucose $\geq 6{\cdot}1$ mmol/L and <7 mmol/L) in 8291 Italian patients with a myocardial infarction within the previous 3 months, who were free of diabetes at baseline. The total person-years were 26,795 and mean follow-up period was 3.2 years. 998 patients (12%) developed new-onset diabetes (incidence 37 cases per 1000 person-years). Among 7533 patients without impaired fasting glucose at baseline, 2514 (33%) developed new-onset impaired fasting glucose or diabetes (incidence 123 cases per 1000 person-years), increasing to 3859 (62%) of 6229 with the lower cut-off for impaired fasting glucose of 5·6 mmol/L (incidence 321 cases per 1000 person-years). Risk factors independently associated with new-onset diabetes or impaired fasting glucose included older age, hypertension, use of beta-blockers, lipid-lowering medications (protective), and diuretic use. Independent lifestyle risk-factors included higher body mass index (BMI), greater BMI gain during follow-up, current smoking, a lower Mediterranean dietary score, and wine consumption of more than 1 L/day. Inability to perform exercise testing was associated with higher incidence of diabetes and impaired fasting glucose. In conclusion, the data indicate that myocardial infarction could be a prediabetes risk equivalent, state the authors.

Comment: Patients often report that "I found out I had pre diabetes when I had my heart attack/stroke" or "I didn't get diabetes until after my heart attack/stroke". As described in this large study, a cardiovascular event can be considered as a pre-diabetes risk factor. Therefore, providers must ensure that post-MI patients have appropriate prevention strategies and regular diabetes screening.

Reference: The Lancet. 2007;370:667-75

http://www.thelancet.com/journals/lancet/article/PIIS0140673607613439/abstract

Influences that affect Māori women breast-feeding

Authors: Glover M et al

Summary: This project aimed to identify factors influencing breastfeeding decisions among Māori women. During 2004-2005, a diverse demographic of Māori women and family members was selectively recruited from within a major urban area, small towns, and rural areas. Thirty women who had cared for a newborn within the previous three years were interviewed, alone or together with other family members. All participants self-identified as Māori and were >16 years. Few women had artificially fed their babies. Most women had breastfed and their determination to breastfeed was strong. The project identified five influences that divert Māori women from breastfeeding: interruption to a breastfeeding culture; difficulty establishing breastfeeding within the first six weeks; poor or insufficient professional support; perception of inadequate milk supply; and returning to work. These influences occur in a temporal sequence and highlight opportunities for intervention. The article also discusses factors that encourage breastfeeding.

Comment: Breastfeeding confers significant health benefits to children. Therefore, many organisations, including WHO and MoH, call for the protection, promotion and support of breastfeeding including a 'breastfeeding' culture that enables women to breastfeed for the first 6 months and beyond. This study highlights the issues faced by Māori women in their decision to breastfeed and the authors provide sites for intervention. As a clinician, I think it is also important for providers to identify and manage health issues that may make breastfeeding difficult, including postnatal depression and anaemia for mum or reflux for baby.

Reference: Breastfeed Rev. 2007;15:5-14
PMID: 17695072

Heart failure hospitalisations and deaths in New Zealand: patterns by deprivation and ethnicity

Authors: Riddell T

Summary: This study explored the association between socioeconomic deprivation and heart failure outcomes in Māori and non-Māori New Zealanders. Heart failure mortality and hospital admission data from 1988–1998 were retrospectively analysed for Māori and non-Māori aged ≥45 years assigned to small area deprivation in the New Zealand Indices of Deprivation for 1991 and 1996. For both Māori and non-Māori, socioeconomic deprivation was associated with an increased risk of heart failure deaths and hospitalisations. Within any given socioeconomic strata, this risk was higher for Māori than non-Māori. The study author comments that Māori disparities in heart failure outcomes do not simply reflect differences in socioeconomic deprivation; further research is needed to investigate the influence of other determinants such as lifecourse and lifestyle exposures, neighbourhood characteristics, access to medical care, and racism.

Comment: This paper is significant, for a number of reasons. Firstly, it addresses a major health issue for Māori. Hospitalisation and mortality rates for heart failure are up to eight times higher for Māori than non-Māori in certain age groups. The study also confirmed that Māori disparities in health outcomes (heart failure) are not fully explained by differences in deprivation. And finally, having identified the 'gap', Dr Riddell describes other factors that may contribute to the disparity including the lifecourse, access to care and racism.

Reference: N Z Med J. 2005;118:U1254

http://www.nzma.org.nz/journal/118-1208/1254/

Trends in ethnic disparities in stroke incidence in Auckland, New Zealand, during 1981 to 2003

Authors: Carter K et al

Summary: This study used standard diagnostic criteria and community-wide surveillance procedures in Auckland, New Zealand (NZ) in 1981 to 1982, 1991 to 1992, and 2002 to 2003, to assess trends in ethnic-specific stroke rates. NZ/Europeans experienced significant declines in stroke attack (19%) and incidence rates (19%) from 1981 to 1982 to 2002 to 2003. In contrast, these rates remained high or increased in other ethnic groups, particularly for Pacific peoples in whom stroke attack rates increased by 66% over the same periods. Some favourable downward trends in vascular risk factors, such as cigarette smoking, were counterbalanced by increasing age, body mass index, and diabetes in certain ethnic groups. The study concludes that Auckland has experienced divergent trends in ethnic-specific stroke incidence and attack rates in recent decades. *"The findings provide mixed views as to the future burden of stroke in populations undergoing similar lifestyle and structural changes".*

Comment: See study below.

Reference: Stroke. 2006;37:56

http://stroke.ahajournals.org/cgi/content/abstract/37/1/56

Incidence of stroke in women in Auckland, New Zealand. Ethnic trends over two decades: 1981–2003

Authors: Dyall L et al

Summary: This study reports on the burden of stroke in women across different ethnic groups from 1981 to 2003, using data from three population-based registers identifying all first-ever and recurrent strokes in residents (aged ≥15 years) of Auckland, New Zealand, in the 12-month periods from 1981–1982, 1991–1992, and 2002–2003. The WHO standard world population was used for direct age standardisation of annual rates (per 100,000 population). While the proportion of women who have experienced a stroke did not change noticeably over the study period, ethnic differences emerged which were related to population changes within the New Zealand population. Standardised stroke incidence in women was relatively stable across the three study periods (1981–1982), 133; (1991–1992), 143; and (2002–2003), 124. However, rates of first-ever stroke in women declined significantly by 14% between 1991–1992 and 2002–2003. In contrast to the significant declines in event rates in European women over two decades (Rate ratio 0.84), Pacific women experienced increasing trends in event rates (2.71). The rate of stroke for Māori women did not change significantly over time. Over half of the women who had a stroke event reported that they had high blood pressure; 25% reported that they had diabetes. The proportion of women who smoked declined over time but increases in body mass index indicated weight gains in women over time. These trends were consistent across ethnic groups. Women's survival after 1 month following their stroke has improved by 39% over the 20-year period. Favourable changes in early survival were most pronounced in European women.

Comment: The articles were written on behalf of the ARCOS (Auckland Regional Community Stroke) Study Group and provide information about trends in stroke incidence rates and risk factors over a 20-year period in Auckland. The authors describe divergent trends in ethnic-specific stroke incidence and attack rates, and of associated risk factors. Although stroke attack and incidence rates significantly declined from 1981 to 2003 for NZ Europeans, rates remained the same for Māori and significantly increased for Pacifica people. And although the study found a downward trend in cigarette smoking across all ethnic groups, this was counterbalanced by increased rates of other risk factors (such as diabetes and age) in Māori and Pacifica people having a stroke. The conclusion: increased disparity in stroke rates and risk factors between Māori/Pacifica people and NZ Europeans over the past 20 years.

The study group also analysed data by gender and showed that women's survival after 1 month following their stroke improved by 39% ($p<0.0001$) over the 20-year period. However, favourable changes in early survival were most pronounced in European women. The authors conclude that 'Targeted stroke prevention programmes are needed in New Zealand to meet the needs of specific ethnic groups as well as the needs of providing ongoing care and support to [them] following their stroke'. The Māori and Pacific Stroke Study, which I am involved in, aims to provide such ongoing care in the community and improve stroke outcomes for Māori, Pacific people and their whanau.

Reference: N Z Med J. 2006;119:U2309

http://www.nzma.org.nz/journal/119-1245/2309/