Māori Health Review

Making Education Easy — Issue 6 – 2007

In this issue:

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

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Effects of an injury prevention programme on serious spinal injuries in New Zealand rugby union

Authors: Quarrie KL et al

Summary: Since its introduction in 2001, all New Zealand rugby coaches and referees have taken part in the RugbySmart programme. The goals of the programme are to educate those involved in rugby about physical conditioning, injury management, and safe techniques during contact phases. This ecological study assessed the effect of RugbySmart on the frequency of serious spinal injury resulting in permanent disablement amongst rugby union players. Based on historical data, the predicted number of spinal injuries for the years 2001 to 2005 was 18.9, whereas the actual number was 8 (relative rate 0.46, 95% CI 0.19 to 1.14). A single injury arose from scrums compared to 9 injuries forecast (relative rate 0.11, 95% CI 0.02 to 0.74), and in other phases of play 7 injuries were observed compared to 9 predicted (relative rate 0.83, 95% CI 0.29 to 2.36). RugbySmart has been associated with a reduction in the rate of disabling spinal injuries amongst New Zealand players of rugby union.

Comment: Great to see that a programme targeting specific and potentially severe injuries was introduced to the 'national game' and is effective in reducing spinal injuries from scrums. I would like to see a similar programme for the prevention and management of traumatic brain injury (TBI) in which comprehensive TBI surveillance is undertaken alongside educational initiatives for players, coaches, referees and medics attending matches. Such a programme should monitor for long term effects of recurrent TBI and ensure a consistent approach to managing players with acute TBI.

Reference: BMJ 2007; 334:1150

http://www.bmj.com/cgi/content/abstract/334/7604/1150

Key dates for the 2007 DHB Elections

vote! 2007 Local+DHB Elections — shaping our communities together

MANATŪ HAUORA — MINISTRY OF HEALTH

Friday 24 August	Candidate nominations close (12 midday)
From 21 September	Voting documents issued – start of voting period, special votes are issued and early processing of votes will begin.
Saturday 13 October	Election Day – voting period ends at (12 midday)
Saturday 13 October	Special votes counted and official results declared
Monday 10 December	Elected board members take office.

For more information about the DHB elections, including a candidate information handbook and frequently asked questions, visit www.maorihealth.govt.nz or email vote2007@moh.govt.nz

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

Disparities in health care are driven by where minority patients seek care

Authors: Hasnain-Wynia R et al

Summary: The authors conducted an observational study to assess racial disparities in best practice patient care between and within 123 hospitals. Best practice was assessed using the Hospital Quality Alliance Inpatient Quality of Care Indicators for acute myocardial infarction (5 care measures), congestive heart failure (2 measures), community-acquired pneumonia (2 measures), and patient counselling (4 measures). In unadjusted analyses, patients from ethnic minorities had significantly poorer care across 8 of 13 quality measures. Differences were greatest with regard to counselling measures. Following adjustment for individual patient characteristics and hospital effect, 3 of 4 counselling measures remained significantly different. The authors conclude that racial differences in receipt of best practice patient care result primarily from the locations in which patients seek care and suggest that policies aimed at reducing disparities should take their underlying causes into consideration.

Comment: An interesting study in that the authors attempted to assess quality of care using 'best practice' measures across many hospitals. As they say, ethnic disparities in clinical process of care are partly explained by the centre in which care is received. Other studies have shown similar results – African American people are treated in the hospitals that are more likely to have inadequate levels of funding, resources and staffing. I would argue though that patients are therefore less likely to receive best practice or evidence based care rather than claim that the problem is with the patient and where they *seek* care.

Reference: Arch Intern Med 2007;167:1233-1239

http://archinte.ama-assn.org/cgi/content/abstract/167/12/1233

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

How much does health care contribute to health inequality in New Zealand?

Authors: Tobias M and Li-Chia Y

Summary: The aim of this study was to assess the impact of health care on ethnic and socioeconomic disparities in health amongst New Zealanders. The authors used the concept of "amenable" mortality to refer to deaths occurring between the ages of 0 and 74 years from causes that are responsive to health care. In comparison to New Zealanders of European ethnicity, excess mortality which was accounted for by amenable causes of death was 27% for Māori males, 34% for Māori females, 33% for Pacific males and 44% for Pacific females. For deprived vs non-deprived populations, amenable causes of death accounted for 26% of excess mortality in males and 30% in females. In conclusion the authors find that "amenable causes of death made a substantial contribution to differences in mortality in the 0-74 year age range between ethnic and socio-economic groups".

Comment: This study looked at the end of health care pathways and compared outcomes for Māori, Pacifica people and European/Other to see how much health care (or inadequate health care) contributes to ethnic disparities in health outcomes. Deaths from causes considered to be responsive to health care were approximately 30% of total deaths for Māori compared with the European/Other people. In other words, a third of Māori deaths appear to be a result of inadequate health care. DHB's must be informed of these findings in order for them to make appropriate changes to policy and practice.

Reference: Australian and New Zealand Journal of Public Health 2007; 31(3):207–210

http://www.blackwell-synergy.com/doi/abs/10.1111/j.1753-6405.2007.00049.x

Reducing inequalities in health care – what can we learn from the United States?

Authors: Dr Rhys Jones (Ngāti Kahungunu)

Summary: The author spent a year in the US on a Harkness Fellowship in healthcare policy. This included a series of organisational case studies examining interventions to reduce health care disparities. He outlines US attempts to develop policy aimed at eliminating racial and ethnic disparities in healthcare in order to identify policy lessons for New Zealand. The author finds that these efforts are at an early stage in the US and are often aligned with general quality improvements. Despite this, there are a number of valuable lessons to be learned for New Zealand.

Comment: Dr Rhys Jones (Kahungunu) presented the findings of this study at the recent Te ORA hui. The project was undertaken in the US as part of a Harkness fellowship. A qualitative study, Rhys identified factors that impact on health services as they attempt to reduce ethnic disparities in health care and health outcomes. As he states, efforts in the US currently sit under the 'quality improvement' umbrella which has both advantages and disadvantages. Currently on paternity leave, I'm sure Rhys would be happy to provide a copy of his lecture or more information about the study on his return.

The abstract will be available via the following link in the near future:

http://www.teora.Māori.nz/Site/hui_a_tau/default.aspx

Exposure to primary medical care in New Zealand

Authors: Crampton P et al

Summary: This observational study used a representative survey of visits to general practitioners to estimate exposure to primary medical care amongst different population groups. The highest annual exposure to primary medical care was observed amongst the elderly (aged > 65 years) and then adults aged 18 to 64 years. Ethnically European New Zealanders had higher annual exposure to primary medical care in comparison to those of Māori, Pacific, and Asian ethnicity after controlling for age, gender, NZDep2001, rural/urban, and organisation type. There was no effect of deprivation (NZDep2001 quintiles) on exposure to primary medical care after controlling for other factors. The authors note that populations groups with high healthcare needs should be expected to have greater exposure to primary medical care, but that this does not appear to be the case for New Zealanders of Māori, Pacific, and Asian ethnicity, or for those living in deprived areas.

Comment: It is a major concern that given the high health need, Māori do not have relatively high exposure to primary medical care. The flow-on effects will be significant as a visit to the GP is often the first step in the care pathway including prevention (screening or immunizations), primary health care (diagnosis and management of illness) and referral to secondary and tertiary services (hospital and specialist care). One major barrier is cost and the recent subsidies for adults aged 18 to 45 enrolled at PHO's may address the inequalities somewhat. Other barriers require similar attention.

Reference: J NZMA 2007; 120(1256)

http://www.nzma.org.nz/journal/abstract.php?id=2582

Families' health-related social problems and missed referral opportunities

Authors: PFleegler EW et al

Summary: A self-administered, computer-based questionnaire was used to collect data from 205 parents of children aged 0 to 6 years attending paediatric clinics for a well-child visit. The authors sought to understand the burden of health-related social issues faced by families, and their experience of screening and referral for these issues. At least 1 health-related social problem was reported by 82% of families, and 2 or more by 54%, although during the previous 12 months, one third of families reported no screening for these issues. A need for referral was identified by 70% of families. 63% of referrals made resulted in a contact with the referral agency, and the agency was found helpful in 82% of cases. 92% of parents considered that locating a computer-based system for screening and referral of health-related social problems in a paediatrician's office would be acceptable.

Comment: Although not specific to Māori, the study does highlight a number of issues experienced by families living in urban centres that may be relevant to Māori. Firstly, the families attending the clinic report a significant burden of social problems that impact on wellbeing. Secondly, services appear to be missing opportunities for well child screening and did not refer to appropriate services. However when referred, families contacted referred services and found them useful. Primary care and well child services may wish to undertake a similar review of burden and referral processes using a computer based questionnaire as part of a quality improvement programme.

Reference: Pediatrics 2007; 119(6)

http://pediatrics.aappublications.org/cgi/content/abstract/119/6/e1332

Differences in severity – adjusted paediatric hospitalisation rates associated with race/ethnicity

Authors: Chamberlain JM et al

Summary: The authors aimed to test the hypothesis that severity-adjusted emergency department paediatric admission rates were associated with race/ethnicity. Patient data (n = 8,952) relating to ethnicity and severity of illness were collected randomly from an established database of 16 emergency departments. Data for Black and Hispanic patients were similar and were combined. White patients had higher crude (8.2 vs 5.3%) and severity-adjusted (1.71 vs 1.1) admission rates in comparison to Black and Hispanic patients. In the highest quintiles of illness severity, standardised admission ratio's for Black and Hispanic patients were close to 1.0, whereas admission rates for White patients were 1.5 to 2.0 times that expected in the 2 lowest quintiles of severity. The authors concluded that these results are "more consistent with high rates of discretionary admissions for White patients with low illness severity than with under-admitting severely ill Black or Hispanic patients".

Comment: That three of the 16 emergency departments recorded ethnicity in less than 10% of patients is appalling. The authors have quite rightly highlighted this point in the paper and excluded those sites from the analysis. The other interesting finding is that White children are more likely to be admitted to hospital than Black/Hispanic children at these centres. The authors state that this difference is due to the higher rates of 'discretionary' admissions for White patients with non severe disease. Two points I'd like to raise – doctors do appear to play a role in deciding who is admitted to hospital; the decision is not based on clinical factors alone. Secondly I know how difficult it can be to look after a sick child at home. Do the results suggest that White kids and their families benefit from hospital admission while Black/Hispanic families are left to manage at home without support?

Reference: Pediatrics 2007; 119(6)

http://pediatrics.aappublications.org/cgi/content/abstract/119/6/e1319

Māori Health Review – Te Manu Whakahīato PHO

MANATŪ HAUORA
MINISTRY OF HEALTH

The Ministry is pleased to announce that Te Manu Whakahīato PHO (a governance training and development programme) targeted at Primary Health Organisation Māori board members commenced in Wellington on 12 and 13 July 2007.

If you are a Māori PHO Board member interested in attending Te Manu Whakahīato PHO, and you have not already received information from your PHO administrators, then please register your interest with Joseph Tawhara, Advisor, Relationships, Māori Health on (04) 460 4916, alternatively by email: **joseph_tawhara@moh.govt.nz**

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

Neighbourhood deprivation and access to fast-food retailing

Authors: Pearce J et al

Summary: The authors sought to determine whether geographic access to fast-food outlets varied in relation to the deprivation of the area, and the socio-economic ranking of local schools. They also assessed associations with access to healthier food outlets, namely supermarkets. Neighbourhood deprivation was assessed using census data, and school socioeconomic data were obtained from the Ministry of Education. Travel distances between neighbourhoods and schools and the nearest fast-food and health food outlets were calculated. There were significant negative associations between neighbourhood deprivation and local access to both multinational and independent fast-food outlets, both $p < 0.001$. In the least socially deprived areas, the travel distance to fast-food outlets was at least twice as far as that in the most deprived areas. A similar relationship was found for healthier food outlets such as supermarkets ($p < 0.001$). Neighbourhood deprivation correlates to geographic access to both fast-food outlets and supermarkets.

Comment: This study showed that urban planning, particularly in regard to positioning of fast food outlets in deprived neighbourhoods, is an important factor in creating obesogenic environments. I am a little concerned that the authors seem to believe that having a similar pattern of supermarkets should allow people in deprived neighbourhoods to make a 'healthy choice'. The nature of fast food outlets (where food is presented as 'meals', staff ask that you consider 'upsizing' portions and you can spend $5 without embarrassment) is quite different to supermarkets (where food is packaged separately and there may be an expectation to purchase and therefore spend more) and this must be taken into account. Pukana, a Māori TV show for tamariki, is currently showing a competition in which tamariki from different schools must create meals with $10 or less to spend at the supermarket. The camera follows the kids as they make their choices and a Māori nutritionist then explains why the choices were good or not. Even I have picked up a few tips!

Reference: Am J Preventative Medicine 2007; 32(5):375-382

http://www.sciencedirect.com/science?

Defend: a community-based model of care to improve blood pressure control in Māori and Pacific patients with diabetic nephropathy

Authors: Collins JF et al

Summary: This randomised controlled trial investigated blood pressure control in Māori and Pacific patients with type 2 diabetes mellitus and diabetic nephropathy. Participants (n = 65) were randomised to usual clinic care (UC) or community care (CC) where they received monthly visits by nurse-led Māori or Pacific Island Health Care Assistants (HCA). During community visits the HCA adjusted antihypertensive medication according to protocol, toward a target blood pressure of < 130/80. Reassessment occurred at 12 months at closure (14-23 months). Overall, community care was more effective than usual care. Results are presented in the table below.

Mean (SD)		Baseline	1 year	Exit
SBP (mmHg)	UC	161 (20)	149 (23)	150 (26)
	CC	161 (20)	140 (19)*	138 (25)
DBP (mmHg)	UC	85 (12)	77 (12)	78 (10)
	CC	88 (9)	78 (11)	76 (12)
eGFR (ml/min/1.73m2)	UC	39 (14)	41 (18)	36 (17)
	CC	36 (15)	33 (17)	31 (15)
24 urine protein (g/d)	UC	3.0 (3.1)	3.1 (2.9)	4.0 (3.9)
	CC	4.3 (4.5)	2.9 (3.0)	2.3 (2.5)

*SBP significantly lower in CC group at 1 year (P=0.04).

Comment: Dr Cherie Hotu, one of the first Māori endocrinologists specialising in diabetes was a principal investigator in this study that aimed to improve outcomes for Māori with Type 2 DM complicated by renal disease. Optimal BP is an important step in preventing further deterioration in renal function and preventing cardiovascular disease including heart attacks and stroke. Participants were recruited for this study from the Auckland region and as you can see, community care was more effective than usual care. Hopefully the evidence leads to a change in practice.

The abstract will be available via the following link in the near future:

http://www.teora.Māori.nz/Site/hui_a_tau/default.aspx

Portion size and eating rate during a fast food meal: effects on energy intake

Authors: Ebbeling CB et al

Summary: The aim of this study was to examine the effect of altering portion sizes and eating rates during the consumption of an extra-large fast-food meal - in relation to energy intake. Participants were 18 adolescents aged 13 to 17 years who ate > 1 fast-food meal each week. All had a BMI exceeding the 80th percentile. A baseline meal comprising chicken nuggets, french fries, and cola was offered in unlimited amounts. During the cross-over study, this meal was represented in three different formats, each providing 125% of the amount consumed at baseline. The three meal formats were as follows: 1 large serving at a single time point, portioned into 4 smaller servings presented at a single time point, or portioned into 4 smaller servings presented at 15-minute intervals. Regardless of the meal format, there were no significant differences in energy intake in kilojoules, or energy intake relative to daily energy expenditure.

Comment: This study highlights some of the problems with fast food. Fast food is extremely dense in energy but is also highly palatable to teenagers (and a few adults!). The researchers attempted to reduce portion size and to slow the eating rate but these steps had no effect and teenagers consumed the same amount of energy no matter how the meal was served (in 4 portions) or the duration of meal. The take home message is to avoid the 'size ups' that are offered at many of the multi-national outlets, order a small sized meal and if necessary supplement meals with healthy options such as fruit, yoghurt or milk/water.

Reference: Pediatrics 2007; 119(5):869-875

http://pediatrics.aappublications.org/cgi/content/abstract/119/5/869