

Pacific Health Review

Making Education Easy

Issue 6 – 2009

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Kia orana, Fakalofa lahi atu, Talofa lava, Malo e lelei, Bula vinaka, Taloha ni, Kia ora, Greetings.

Welcome to the sixth edition of Pacific Health Review, a research-based publication focused on major health issues affecting Pacific people.

The research for this edition was selected by Dr Colin Tukuitonga and commentary has been provided by Drs Teuila Percival and Siniva Sinclair.

Our first study highlights the worrisome issue of the very high migration of Pacific Island health professionals to Australasia, which contributes to the shortage of health workers in Pacific Island countries. Results are also of concern from a study that investigated dietary Fe intake among young New Zealand children: a significant proportion of them had inadequate intake, thereby increasing the risk of iron deficiency.

We look forward to your feedback and hope you enjoy this issue.

Kind regards,

Colin

Dr Colin Tukuitonga

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Australia and New Zealand's contribution to Pacific Island health worker brain drain

Authors: Negin J

Summary: This analysis of Australian and New Zealand 2006 census data revealed that 652 Pacific Island born doctors and 3467 Pacific Island born nurses and midwives are working in Australia and New Zealand. The number of Fiji-born doctors in Australia and New Zealand is almost the same as those living in Fiji. The numbers of Samoa, Tonga and Fiji-born nurses and midwives in Australia and New Zealand exceed those in the domestic workforce.

Comment: (Teuila Percival, Siniva Sinclair) Pacific health professionals are part of a global workforce which is currently at a premium. Meeting workforce needs is a problem for all countries but particularly difficult for poorly resourced developing Pacific nations. Bilateral solutions with Australia and New Zealand are needed to reduce the impact of Australia and New Zealand's contribution to the brain drain of health workers from the Pacific Islands.

Reference: *Aust N Z J Public Health*. 2008;32(6):507-11

<http://www3.interscience.wiley.com/journal/121559902/abstract>



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Race and nicotine replacement treatment outcomes among low-income smokers

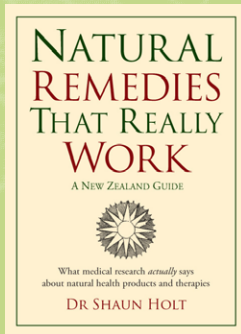
Authors: Fu SS et al

Summary: Long-term smoking cessation outcomes were compared among four racial/ethnic groups (whites, blacks, American Indians/Alaska Natives, and Asians) after an aided quit attempt using nicotine replacement therapy (NRT). A cohort of 1782 smokers who recently filled a prescription for NRT was stratified by race, using Minnesota Health Care Programs (e.g., Medicaid) pharmacy claims databases between July 2005 and September 2006. At about 8 months after the NRT index prescription fill date, participants were surveyed as to 7-day point prevalence abstinence. The overall survey response was 58.2%. Overall, abstinence outcomes did not significantly vary by race. Multivariate analysis adjusted for potential confounders did not demonstrate any differences in efficacy of NRT between racial/ethnic minority smokers and white smokers.

Comment: (Teuila Percival) Access to treatment programmes is an issue for Pacific peoples but it is reassuring to learn that if an evidence-based programme is accessed, the outcome for minority groups such as we Pacific people can be the same as other groups.

Reference: *Am J Prev Med.* 2008;35(6 Suppl):S442-8

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www.newzealandnaturalremedies.co.nz

Relationships between frequency of family meals, BMI and nutritional aspects of the home food environment among New Zealand adolescents

Authors: Utter J et al

Summary: Associations were examined between frequency of family meals and body mass index (BMI), other aspects of the home food environment, and related nutrition behaviours, in data collected from 3245 ethnically diverse students during baseline measurements of the Pacific Obesity Prevention In Communities study. In total, 42% of adolescents ate a family meal on all of the previous five school nights. Bivariate analysis demonstrated a modest association between frequency of family meals and BMI ($p=0.045$), but this significance disappeared when demographic characteristics were included in the model. Frequency of family meals was associated with positive aspects of home food environment and positive nutrition behaviours, including parental support for healthy eating, limits on television use, having fruit available at home, consuming five fruits and vegetables a day, eating breakfast, and bringing lunch from home. No relationships were observed between family meals and high fat/high sugar foods.

Comment: (Teuila Percival) This adds to the mounting positive evidence for the good old fashioned family eating patterns of breakfast, home-made lunch, dinner as a family, and turning the TV off.

Reference: *Int J Behav Nutr Phys Act.* 2008;5:50

<http://www.ijbnpa.org/content/5/1/50>

Epidemiology of acute rheumatic fever in New Zealand 1996-2005

Authors: Jaine R et al

Summary: These researchers evaluated trends in New Zealand's acute rheumatic fever (ARF) incidence rates between 1996 and 2005 and the extent to which the disease is concentrated in certain populations based on age, sex, ethnicity and geographical location, using hospitalisation data (1996 through 2005) and population data from the 1996 and 2001 censuses. The annual ARF rate was 3.4 per 100,000 and concentrated by age group (in 5- to 14-year-olds), ethnicity (Māori and Pacific peoples) and geographical regions (upper North Island areas). From 1996 to 2005, the ARF rate decreased significantly in New Zealand European and Others but increased for Māori and Pacific peoples. Compared with New Zealand European and Others, rate ratios were 10.0 for Māori and 20.7 for Pacific peoples. Notably, 59.5% of all cases were Māori or Pacific children aged 5-14 years, who comprised only 4.7% of the New Zealand population.

Comment: (Teuila Percival) Visiting paediatricians from the UK are shocked at the high rates of ARF in New Zealand. Usually, they will not have seen a single case in their entire career, whereas we in South Auckland have a dedicated Rheumatic Fever clinic.

Prevention of Streptococcal sore throat requires considerable resources and a change in the way primary care delivers simple healthcare to our Pacific and Māori young people and children.

Reference: *J Paediatr Child Health.* 2008;44(10):564-71

<http://www.ingentaconnect.com/content/bsc/jpc/2008/00000044/00000010/art00008>

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The Ministry of Health has recently released six papers to support the review of the Pacific Health and Disability Action Plan:

- Pacific Youth Health
- Pacific Peoples' Experience of Disability
- Pacific Child Health
- Improving Quality of Care for Pacific Peoples
- Pacific Cultural Competencies: A Literature Review
- Pacific Peoples and Mental Health

The papers are available on <http://www.moh.govt.nz/pacific>

Food frequency information--relationships to body composition and apparent growth in 4-year-old children in the Pacific Island Family Study

Authors: Rush E et al

Summary: Patterns of association between growth and body composition and food frequency were recorded at the 4-year measurement point for 739 children in the Pacific Island Family (PIF) Study. Parents completed a food frequency questionnaire relating to the children's consumption of 111 foods over a 4-week period. The most frequently consumed foods included bread (1.32 times/day) and total milk (1.63), followed by breakfast cereal (0.83), and fruits (0.78–0.83). 77% of respondents consumed white bread only while 85% consumed standard milk and 7% consumed milk less than once a month or never. Recommended frequency of consumption for fruit was attained by 60%, while only 35% achieved the recommended level for vegetables. Traditional Pacific food consumption made up 5% of the dietary pattern. Protein consumption was positively associated with weight and BMI at 4 years, along with weight gain (0 to 4 years), while frequency of fat consumption was negatively correlated with these variables, in addition to body fat %. Dairy consumption showed a positive correlation with body fat % and BMI.

Comment: (Teuila Percival) The PIF study is following a cohort of Pacific children from birth and has shown concerning growth patterns of increasing body fat % and BMI in the preschool age group. The important message for Pacific people is the need to start preventing and/or intervening early with child obesity.

Reference: *N Z Med J.* 2008;121(1281):63-71

<http://www.nzma.org.nz/journal/abstract.php?id=3240>

Ethnic variance in iron status: is it related to dietary intake?

Authors: Wall CR et al

Summary: These researchers estimated usual Fe intake and dietary sources from 2 days' weighed food records in a random sample of 247 New Zealand children aged 6–23 months with evaluable dietary and blood analysis data. Associations were determined between adequacy of Fe intake, as measured by the Estimated Average Requirement (EAR), and iron deficiency (ID). The median daily Fe intake was 8.3 mg (age 6–11 months) and 6.3 mg (age 12–23 months). Breast milk and milk formulas (median 58%; age 6–11 months), and cereals (41%) and fruit and vegetables (17%; age 12–23 months), were the predominant dietary sources of Fe. Fe intake was below the EAR for 25% of the children. Not meeting the EAR increased the risk of ID for children aged 6–11 months (RR, 18.45) and 12–23 months (RR, 4.95). In comparison with NZ European children, Pacific children had a greater daily Fe intake ($p=0.04$) and obtained a larger proportion of Fe from meat and meat dishes ($p=0.02$).

Comment: (Teuila Percival) We certainly need to continue to encourage appropriate iron intake in our infants and children. However, an important issue for Pacific children is breaking the cycle of recurrent illness and poor nutrition which might explain the lack of relationship between estimated iron intake and risk of iron deficiency in Pacific children.

Reference: *Public Health Nutr.* 2008 Dec 17:1-9 [Epub ahead of print]

<http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=3043424>

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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.

Nutrition labels: a survey of use, understanding and preferences among ethnically diverse shoppers in New Zealand

Authors: Gorton D et al

Summary: Outcomes are reported from a survey conducted at 25 supermarkets in Auckland, New Zealand, between February and April 2007, questioning ethnically diverse shoppers on their nutrition label use, understanding of the mandatory Nutrition Information Panel (NIP), and preference for and understanding of four nutrition label formats: multiple traffic light (MTL), simple traffic light (STL), NIP and percentage of daily intake (%DI). A total of 1525 shoppers completed the survey: 401 Māori, 347 Pacific, 372 Asian and 395 New Zealand European and Other ethnicities (10 did not state ethnicity). Reported use of nutrition labels (always, regularly, sometimes) ranged from 66% to 87% by ethnicity. While there was little difference in ability to obtain information from the NIP according to ethnicity or income, there were marked ethnic and income disparities in ability to use the NIP to determine if a food was healthy. STL and MTL label formats were associated with high levels of understanding and acceptance across ethnic and income groups.

Comment: (Teuila Percival) This is useful information for regulation authorities. Providing easily understood labelling that enables consumers to make informed choices about food is past overdue.

Reference: *Public Health Nutr.* 2008 Dec 17:1-7 [Epub ahead of print]

<http://tinyurl.com/dn79yn>



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News Flash!!

Change to the health education resource Healthy Weight for Adults (HE1324)

This resource no longer contains ethnic-specific healthy weight ranges. In line with WHO recommendations, the Ministry of Health is no longer using different BMI cut-off points for defining overweight and obesity for Pacific people – the BMI ranges are now for all adults regardless of ethnicity, gender or age.

The rationale for the position can be found in the Ministry's *Body Size Technical Report: Measurements and classification in the 2006/07 New Zealand Health Survey* June 2008, available on the Ministry of Health's website: <http://www.moh.govt.nz>.



MANATU HAŪORA

An association between ethnicity and cardiovascular outcomes for people with type 2 diabetes in New Zealand

Authors: Kenealy T et al

Summary: The association between ethnicity and risk of first cardiovascular (CV) event for 48,444 patients with type 2 diabetes in New Zealand was investigated in routinely collected data from a national primary health care diabetes annual review programme linked to national hospital admission and mortality data. Ethnicity was recorded as European, Māori, Pacific, Indo-Asian, East-Asian or Other. Median follow-up was 2.4 years. Māori were at 30% higher risk of first CV event and East-Asian at 27% lower risk compared with European/Other, with no significant difference in risk for Pacific and Indo-Asian peoples.

Comment: (Siniva Sinclair) The findings of this study support international evidence of ethnic variations in health outcomes for people with diabetes. Interestingly, in this, the largest published data of a cohort of Maori and Pacific diabetics, the significantly higher cardiovascular risk observed in Māori was not reflected in Pacific rates, with Pacific diabetics not differing significantly from the European/other or Indo-Asian groups in time to first recorded cardiovascular event.

Reference: *Diabet Med.* 2008;25(11):1302-8

<http://tinyurl.com/acn9ca>

Independent commentary by:

Dr Colin Tukuitonga

Colin is the chief executive of the Ministry of Pacific Island Affairs, a registered medical practitioner and public health physician with extensive experience in public health and public policy in the Pacific, New Zealand and internationally. He has provided strategic and operational advice to the NZ Ministries of Health, Pacific Island Affairs and NZAID, the Accident Compensation Corporation, regional and international organisations including SPC, WHO and other UN organisations.

Dr Teuila Percival

Dr Teuila Percival is a Samoan Consultant Paediatrician at Kidz First Children's Hospital, South Auckland. Teuila's clinical and governance experience includes previous chair and current board membership of the South Seas Healthcare as well as current membership of the New Zealand Health Research Council. She is currently the Director of Public Health at the School of Population Health, University of Auckland.

Dr Siniva Sinclair

Dr Siniva Sinclair was born and raised in Papua New Guinea, trained as a medical doctor and public health specialist in Auckland, and worked in Samoa and the region before taking up a position at Counties Manukau DHB Planning and Funding in 2008.

Ethnic counts on mortality and census data (mostly) agree for 2001-2004: New Zealand Census-Mortality Study update

Authors: Blakely T et al

Summary: This study sought to determine whether any bias exists in ethnic group counts between census and mortality data, by comparing 2001 census data linked anonymously and probabilistically with subsequent mortality data of 2001-04 (82,404 eligible mortality records). Using a 'total' definition of ethnicity, there was close agreement between census and mortality counts: 7419 Māori on the 2001 census versus 7536 Māori according to mortality data, a census to mortality ratio of 0.98; Pacific 2451 and 2493, ratio 0.98; Asian 1236 and 1215, ratio 1.02; non-Māori non-Pacific non-Asian 73,089 and 72,051, ratio 1.01. In contrast, a 'sole' definition of Māori ethnicity revealed census counts to be only 86% of mortality counts, indicating that mortality data is not recording as many people with ≥ 2 ethnic groups as would be expected based on census data.

Comment: (Siniva Sinclair) The findings of this study provide reassurance that disagreements in ethnicity coding between mortality data and census data, while still occurring to some degree, were much reduced in 2001-04 compared with the early 1990s and even the late 1990s. This means that the substantial undercounting of Māori and Pacific deaths in mortality data in the 1980s and 1990s (compared with census data) is now much less of a problem, particularly when using the "total" definition of ethnicity (i.e. counting all cases with a given ethnicity mentioned, even if other ethnicities are also mentioned). This is thanks to an ethnicity question very similar to that used in the census having been introduced to the death registration form in 1995, and highlights the importance of ethnicity data being collected in a manner as close as possible to the census in all administrative datasets.

Reference: *N Z Med J.* 2008;121(1281):58-62

<http://www.nzma.org.nz/journal/abstract.php?id=3242>

Ethnic differences in cardiovascular disease risk factors and diabetes status for Pacific ethnic groups and Europeans in the Diabetes Heart and Health Survey (DHAH) 2002-2003, Auckland New Zealand

Authors: Sundborn G et al

Summary: Data from the Diabetes Heart and Health Survey (DHAH) 2002-03 were assessed for ethnic differences in cardiovascular disease (CVD) risk factors and diabetes status for Pacific ethnic groups (Samoan, Tongan, Niuean, Cook Islanders, and Other Pacific) and European New Zealanders by gender. All Pacific groups were at significantly greater risk of CVD than Europeans. Niueans had the lowest Pacific CVD risk and Samoans had the highest estimated risk. Individual risk factors differed between the groups, however; the most observable differences were the more adverse lipid profile in Tongan men and the lower total cholesterol and microalbumin in Niuean women when compared to their Samoan counterparts. Diabetes prevalence was highest in Samoan men (26.2%) and Tongan women (35.8%). Niueans had the lowest diabetes prevalence of both sexes (men 14.9%, women 10.8%). Undiagnosed diabetes as a proportion of total diabetes was similar in Samoan, Niuean and Cook Islands groups (1/4-5) suggesting efficient screening. Cook Islanders had a ratio of one undetected diabetes case for every two known cases.

Comment: (Teuila Percival) This comparison of Pacific ethnic groups is very useful and provides health professionals and planners with some important tasks. The Cook Islands undetected diabetes cases ratio is very concerning, but overall, the Pacific prevalence of CV risk and diabetes reminds us once again of the need for upstream prevention for our communities.

Reference: *N Z Med J.* 2008;121(1281):28-39

<http://www.nzma.org.nz/journal/abstract.php?id=3238>

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