

Pacific Health Review

Making Education Easy

Issue 4 – 2008

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

Welcome to the fourth edition of Pacific Health Review.

In this edition, we feature findings from a survey of New Zealand health professionals providing care to pregnant women to identify their knowledge and practices in regard to smoking cessation advice and support. We also present findings from several studies that enhance our understanding of the risk factors for excess body fatness in New Zealand children.

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

Kind regards,

Colin

Dr Colin Tukuitonga

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Supporting pregnant women to quit smoking: postal survey of New Zealand general practitioners and midwives' smoking cessation knowledge and practices

Authors: Glover M et al

Summary: According to 147 general practitioners (GPs; 39% of 376 sampled) and 203 midwives (57% of 355 sampled) surveyed as to smoking cessation knowledge and support offered to pregnant women who smoke, 71% of GPs and 11% of midwives advised complete abstinence, >60% stated they provide cessation counselling to pregnant women, and 34% of GPs and 31% of midwives recommended nicotine gum.

Comment: The prevalence of smoking is higher among Pacific Peoples compared with non-Māori New Zealanders. The Pacific Islands Families (PIF) Study showed that smoking is common among pregnant Pacific women. Overall, approximately one-quarter of the mothers reported smoking during pregnancy. Three-quarters of the 435 smokers (before pregnancy) continued to smoke during pregnancy, and eight mothers commenced smoking once pregnant. Smoking rates for each trimester were 23.7% in the first, 21.0% in the second, and 20.4% in the third trimester of pregnancy, respectively.

General practitioners (GPs) and midwives are in the best position to advise and assist women about smoking cessation at a time when they are most motivated to stop. While the study response rate was low (especially among GPs), results showed that GPs and midwives could be doing more to advise pregnant women to stop smoking. Midwives, in particular, were not advising women to stop but to reduce smoking. Further, neither GPs nor midwives provided adequate assistance to pregnant women to stop smoking. Study findings suggest that smoking cessation continues to be an important topic for professional education for GPs and midwives.

<http://www.nzma.org.nz/journal/121-1270/2949/>

Reference: *N Z Med J. 2008;121(1270):U2949*



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Smacking – are we being too heavy-handed? Findings from the Pacific Islands Families Study

Authors: Schluter PJ et al

Summary: Pacific parents interviewed about child discipline revealed that 21.5%, 52.0%, and 77.1% of mothers reported smacking their children at 1, 2, and 4 years postpartum; 24.4% and 78.4% of fathers reported smacking at 1 and 2 years postpartum. Hitting with an object was reported by 0.2%, 6.6%, and 24.3% of mothers and by 1.3% and 13.2% of fathers, respectively.

Comment: The Pacific Islands Families (PIF) Study followed a cohort of newborn Pacific infants born at Middlemore Hospital in 2000. This paper described the types, frequency, and concordance of physical punishments employed by parents on their children at ages 1, 2, and 4 years. Physical punishment increased with the age of the child whereby 3 out of 4 children aged 4 years received punishment. Fathers in particular were more likely than mothers to use an object (belt, spoon) to discipline their children. These findings confirm general perceptions that Pacific parents' attitudes about disciplining children are more likely to involve physical measures. This puts them at greater risk of prosecution under the provisions of the newly ratified Crimes (Substituted Section 59) Amendment Act 2007. Pacific communities, churches and government agencies need to discuss ways in which parents are informed and supported to raise children within the law and to reduce the likelihood of prosecution.

<http://www.nzma.org.nz/journal/120-1267/2860/>
Reference: *N Z Med J. 2007;120(1267): U2860*

Independent commentary by Dr Colin Tukuitonga, Chief Executive of the Ministry of Pacific Island Affairs

Young people, money, and access to tobacco

Authors: Wong G et al

Summary: This study investigated how Māori, Pacific Island, European, and Asian school students access cigarettes, with a special focus on their disposable income.

Comment: Smoking among young people in New Zealand continues to be a major public health challenge. A study of daily smoking prevalence among Year 10 students between 1999 and 2006 showed a 44% decline among girls and 46% among boys but the prevalence among Pacific girls has remained static since 2004. Overall, smoking among Pacific boys and girls remains higher than other young New Zealanders. Cook Island girls and Niuean boys had the highest prevalence of smoking (Scragg et al 2007). This study involved 12 focus groups of students aged 11–15 years, recruited through schools. Focus group discussions included sources of student money, parental monitoring of the use of money and student access to cigarettes. Students reported that young people can easily buy cigarettes from tobacco retailers. Cigarettes were also obtained freely from family members or from adults on the street. Study results showed that parents and retailers need more information and guidance on limiting the availability of tobacco products to young people. Better monitoring of retailers is also needed.

<http://www.nzma.org.nz/journal/120-1267/2864/>

Reference: *N Z Med J. 2007;120(1267):U2864*

High serum uric acid as a novel risk factor for type 2 diabetes

Authors: Dehghan A et al

Summary: Serum uric acid level and risk of type 2 diabetes was assessed in 4536 subjects without diabetes at baseline, 462 of whom developed diabetes during follow-up. Age- and sex-adjusted hazard ratios (HRs) for diabetes were 1.30 for the second, 1.63 for the third, and 2.83 for the fourth quartile of serum uric acid, compared with the first quartile. After adjusting for body mass index, waist circumference, systolic and diastolic blood pressure, and HDL cholesterol, HRs decreased to 1.08, 1.12, and 1.68, respectively.

Comment: This population-based study from The Netherlands showed that high serum uric acid level is a strong and independent risk factor for diabetes. The study involved 4536 adults free of diabetes at baseline and followed up for a mean period of 10.1 years. Gout and hyperuricaemia is more common among Māori and Pacific peoples in New Zealand. Type 2 diabetes is 3–4 times more common among Pacific peoples compared with other New Zealanders. Gout is commonly diagnosed with Pacific patients with diabetes, amongst other co-morbidities. The significance of the findings from this study in Pacific people is yet to be determined but raised levels of serum uric acid may be a useful indicator not only of gout but also of diabetes.

<http://dx.doi.org/10.2337/dc07-1276>

Reference: *Diabetes Care. 2008;31:361-2*



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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>



Maternal employment and early childhood overweight: findings from the UK Millennium Cohort Study

Authors: Hawkins SS et al

Summary: After investigating the relationship between maternal and partner employment and overweight in children aged 3 years, these researchers conclude that policies supporting work-life balance may help parents reduce potential barriers impeding young children's access to healthy foods and physical activity.

Comment: The UK Millennium Cohort Study consisted of 13,113 singleton children born between 2000 and 2002 in the United Kingdom. Parents were interviewed when the child was aged 9 months and 3 years, and the child's height and weight were measured at 3 years. A total of 23% (3085) of children were overweight at 3 years. Children were more likely to be overweight for every 10 hours a mother worked per week. Long hours of maternal employment, rather than lack of money, may impede young children's access to healthy foods and physical activity. Findings from this study may be applicable in New Zealand, where it is common for both parents to work. Pacific peoples are among the lowest income earners in New Zealand and many work during the day in one job and another at night. While no formal studies have been done on this phenomenon, it is generally accepted that this is the case.

<http://dx.doi.org/10.1038/sj.ijo.0803682>

Reference: *Int J Obes.* 2008;32:30-8

Body-mass index and incidence of cancer: a systematic review and meta-analysis of prospective observational studies

Authors: Renehan AG et al

Summary: These researchers suggest that their epidemiological observations may inform the exploration of biological mechanisms that link obesity with cancer.

Comment: Excess bodyweight, expressed as increased body mass index (BMI), is associated with increased risk of some common adult cancers. A systematic review and meta-analysis was conducted to assess the strength of associations between BMI and different sites of cancer and to investigate differences in these associations between sex and ethnic groups. Analysis was made of 221 datasets (141 articles), including 282,137 incident cases reported between 1966 and 2007. In men, a 5 kg/m² increase in BMI was strongly associated with oesophageal adenocarcinoma, and with thyroid, colon, and renal cancers. In women, strong associations were recorded between a 5 kg/m² increase in BMI and endometrial, gallbladder, oesophageal adenocarcinoma, and renal cancers. Associations were generally similar in studies from North America, Europe and Australia, and the Asia-Pacific region. Stronger associations were observed in Asia-Pacific populations between increased BMI and both premenopausal and postmenopausal breast cancers. Obesity is more prevalent among Pacific peoples and Māori than other ethnic groups in New Zealand. Among adults in 2003, the age-standardised obesity prevalence rate was 48% for Pacific females and 38% for Pacific males. For Māori adults, the figures were 28% for females and 29% for males. This compares with 20% for European/Other females and 18% for European/Other males. Among children aged 5-14 years in 2002, there was a similar pattern (MSD Social Report 2007). If the results of the meta-analysis and systematic review are applicable to Māori and Pacific populations in New Zealand, increased incidence of oesophageal, thyroid, colon and renal cancers in men and endometrial, gallbladder, oesophageal and renal cancers in women can be expected in the future. More effective obesity prevention programmes are urgently needed if the rise in expected cancer incidence is to be avoided.

[http://dx.doi.org/10.1016/S0140-6736\(08\)60269-X](http://dx.doi.org/10.1016/S0140-6736(08)60269-X)

Reference: *Lancet.* 2008;371:569-78

Dietary intake and the development of the metabolic syndrome: the Atherosclerosis Risk in Communities Study

Authors: Lutsey PL et al

Summary: Over 9 years of follow-up, 3782 incident cases of metabolic syndrome were identified in 9514 participants from the Atherosclerosis Risk in Communities (ARIC) study.

Comment: The role of diet in the origin of metabolic syndrome is not well understood. This study was designed to evaluate the relationship between incident metabolic syndrome and dietary intake using prospective data from 9514 participants (age 45 to 64 years) enrolled in the ARIC study. Results showed that Western dietary pattern, meat, and fried foods promote the incidence of metabolic syndrome, whereas dairy consumption provides some protection. The 1997 National Nutrition Survey and the 2002 National Children's Nutrition Survey showed that Pacific peoples in New Zealand consume a typical 'Western diet' with a high intake of meat and fried foods. Current programmes designed to improve diets and nutrition of Pacific families may help reduce the risk of metabolic syndrome, although the impact of these interventions remains uncertain.

<http://dx.doi.org/10.1161/CIRCULATIONAHA.107.716159>

Reference: *Circulation.* 2008;117:754-61

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Influence of multiple social risks on children's health

Authors: Larson K et al

Summary: In this U.S.-based research, low maternal mental health, Black or Hispanic race/ethnicity, <200% of the federal poverty level, low household education, unsafe neighbourhoods, and lack of health insurance increased the odds for less than very good child health.

Comment: Social risk factors such as growing up in poverty, racial/ethnic minority status, and maternal depression have been associated with poorer health outcomes for children. This study examined the strength of association of 8 social risk factors, both individually and as part of a cumulative social risk index, on parent-reported child health status. Data were obtained from the 2003 National Survey of Children's Health, a telephone survey of 102,353 parents of children aged 0 to 17 years in the USA. Results showed that the percentage of children in poorer health increased with the number of social risk factors across all health outcomes. Multiple social risk factors have a cumulative effect on parent-reported child health status across physical and socioemotional domains, demonstrating a very strong risk gradient effect. These findings emphasise the importance of addressing multiple levels of social risk to achieve improvements in child health. Study findings may have relevance in New Zealand, particularly for Māori and Pacific families, where multiple risk factors often co-exist.

<http://dx.doi.org/10.1542/peds.2007-0447>

Reference: *Pediatrics*. 2008;121:337-44

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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.

Risk factors for excess body fatness in New Zealand children

Authors: Duncan JS et al

Summary: This study sought to determine demographic and lifestyle risk factors for excess body fatness in a multiethnic sample of New Zealand children.

Comment: This cross-sectional study was conducted to identify demographic and lifestyle risk factors for excess body fatness in 1229 European, Polynesian, Asian, and 'Other' children aged 5–11 years (603 male, 626 female) living in New Zealand. After controlling for differences in sex, age, and socioeconomic status (SES), Asian children were more likely to have excess body fat than European children. Three lifestyle risk factors related to fat status were identified: low physical activity, skipping breakfast, and insufficient sleep on weekdays. Clustering of these risk factors resulted in a cumulative increase in the prevalence of overfat. The findings from this study enhance our understanding of the risk factors for excess body fatness in New Zealand children.

<http://www.ncbi.nlm.nih.gov/pubmed/18364339>

Reference: *Asia Pac J Clin Nutr*. 2008;17:138-47

Application of the 2006 WHO growth standard from birth to 4 years to Pacific Island children

Authors: Rush EC et al

Summary: The 2006 World Health Organisation (WHO) growth standard was applied to body size at birth, 2 and 4 years for the 2000 Pacific Island family birth cohort study, compliant (not smoking and breastfed) and non-compliant children. At birth the average child was 3.673 kg; z-score 0.605 units higher ($p < 0.000001$) than the WHO standard. At 2 and 4 years, average z-scores for weight and body mass index (BMI) were significantly different from 0 (mean z-scores for weight +1.062 and +1.688, for BMI +1.701 and +1.969 respectively, $p < 0.000001$). Mean height was significantly lower at 2 years (z-score, -0.232) but higher at 4 years (z-score, +0.626; both p-values < 0.000001). Over 4 years, the daily weight gain was 11.2 g/day compared with 8.9 g/day for the WHO child. At 2 and 4 years, compliant children weighed less and were slightly shorter than non-compliant children. At birth, 2 and 4 years, non-compliant children categorised as non-smoking weighed more than smoking mothers' children.

Comment: The study compared body size at birth, 2 and 4 years for the whole cohort with the 2006 WHO growth standard using z-scores. Data were obtained from the 2000 Pacific Islands Families birth cohort study of weight at birth and weight and height at 2 and 4 years. Pacific children are born heavy, over 4 years increase in weight is faster and between 2 and 4 years increase in height is faster than the reference breastfed child, independent of pre- and postnatal factors. Study findings suggest that interventions to limit weight gain need to start with the family before conception.

<http://dx.doi.org/10.1038/sj.ijo.0803751>

Reference: *Int J Obes (Lond)*. 2008;32:567-72

Rheumatic fever diagnosis, management, and secondary prevention: a New Zealand guideline

Authors: Atatoa-Carr P et al

Summary: The National Heart Foundation of New Zealand, and the Cardiac Society of Australia and New Zealand (CSANZ) recently launched an evidence-based review and guideline entitled New Zealand Guideline for Rheumatic Fever Diagnosis, Management, and Secondary Prevention. The final draft of the New Zealand guideline was endorsed by Te Hotu Manawa Māori, Pacific Islands Heart Beat, The Paediatric Society of New Zealand, and the Rheumatic Fever Trust of New Zealand – plus approved by a number of organisations including the Royal Australasian College of Physicians, the Australasian Society for Infectious Disease, the Pasifika Medical Association, and Te Ohu Rata o Aotearoa. The Guideline should result in improved consistency in the approach to this disease, and reduced mortality and morbidity from acute rheumatic fever and rheumatic heart disease.

To view the guideline, go to: <http://www.nhf.org.nz/files/Rheumatic%20fever%20guideline%201.pdf>

<http://www.nzma.org.nz/journal/abstract.php?id=2975>

Reference: *N Z Med J*. 2008,121(1271):U2975

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