Pacific Health Review

Making Education Easy

Issue 15 – 2012

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Abbreviations used in this issue

C&CDHB = Capital and Coast District Health Board
ED = emergency department
PND = postnatal depression

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

Welcome to the fifteenth edition of Pacific Health Review. We are pleased to again bring you articles and commentaries on a range of important issues for Pacific health. The articles on the relationship between income and health, and the increasing incidence of serious infectious diseases in New Zealand, add to the evidence we have presented previously on the impact of the socioeconomic determinants on the health of Pacific people.

At the same time, the studies we have included on ethnic differences in the use of medicines, as well as the two studies on tobacco, indicate that effective health interventions for Pacific people need to take account of sociocultural factors.

Pacific workforce and provider development has been a key policy response to improving health system performance for Pacific peoples in New Zealand over the past decade. Despite this focus, the number of Pacific people in clinical roles remains very low. In 2011 for example, there were only 16 Pacific medical graduates and 65 Pacific nursing graduates in New Zealand. The study on the factors that influence success of Pacific students in first year health sciences at university is a timely contribution to the ongoing Pacific health workforce dilemma of attracting, supporting and retaining Pacific students so that they successfully complete their qualifications. This study highlights the difficulty of effective intervention to address health workforce shortages.

Improving Pacific health requires multifaceted, evidence-informed action in health, as well as other sectors and at multiple levels including policy, funding, management and clinicians. However, the research and evidence base, as with the numbers in the Pacific health workforce, remains very small. On a positive note, Pacific Health Review provides an opportunity to review the health literature through a Pacific lens and bring together the insights of Pacific health experts from a wide range of disciplines, representing a range of Pacific ethnicities. The diversity of views can contribute to shared learning, which is required to make progress on these complex issues.

Thank you to our commentators for their contributions. I would also like to acknowledge all our readers. Please continue to send us your feedback.

Vinaka vakalevu

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Pacific Health Review is supported by the Ministry of Health's Pacific Provider and Workforce Development Fund. Dr Api Talemaitoga, Chief Advisor, Community Health Service Improvement, wishes to acknowledge the commentaries and insights provided by Dr Monique Faleafa, Dr Corina Grey, Dr John Huakau, Ron Manulevu, Pauline Sanders-Telfer, Dr El-Shadan Tautolo, Abel Smith and Denise Kingi 'Uluave.

The relationship between income and health using longitudinal data from New Zealand

Authors: Gunasekara FI et al

Summary: This study used 4 years of annual data (2002–2005) from the NZ Survey of Family, Income and Employment to investigate the effect of income changes on self-rated health.

Comment: (Dr Corina Grey) For those of us working in this area, it seems obvious that a person's health (measured either objectively or subjectively) is heavily influenced by their income. However, it may be surprising to know that the evidence for a relationship between income and health is relatively weak, coming mainly from cross-sectional surveys or analyses using only one income or health measure.

This study attempted to overcome many of the biases involved in a cross-sectional study design by using longitudinal data that repeated measurements in the same individuals over time and used fixed-effects regression modelling. The results revealed that increasing income had a small, but non-significant, effect on self-rated health. There was some evidence that changes in income had a more substantial effect among those whose health at baseline was poorer. Employment appeared to have a greater influence on health than income in this study, with a movement into unemployment over the study period being associated with a moderate but significant negative effect on self-rated health.

Studies such as this are particularly salient to those of us working to improve Pacific health. Pacific peoples in New Zealand are more likely than Other New Zealanders to live in areas of high deprivation and are overrepresented in unemployment statistics. This study suggests that short-term changes in adult income may be less important for adult health than indicated by cross-sectional surveys, but longer follow-up is required to accurately capture the effect of long-term income on health. In the meantime, the study results indicate that initiatives to reduce unemployment may be helpful to address health inequalities.

Reference: J Epidemiol Community Health. 2012;66(6):e12.

http://jech.bmj.com/content/early/2011/06/28/jech.2010.125021.short

New Zealand evidence for the impact of primary healthcare investment in Capital and Coast District Health Board

Authors: Tan L et al

Summary: This paper presents an evaluation of primary care investment measured through the C&CDHB Primary Health Care Framework. The Framework was developed in 2002/2003 to guide funding decisions at a DHB level, and to provide a transparent basis for evaluation of the implementation of the Primary Health Care Strategy in this district. Positive outcomes of the increase in primary care investment were noted almost immediately, with increased access to primary care for high-need populations, workforce redistribution, and improved health outcomes.

Comment: (Dr Corina Grey) Interestingly, Māori and not-for-profit providers (both of whom tend to serve more deprived and ethnically diverse populations) demonstrated more positive changes in service uptake by Māori, Pacific peoples and other ethnic groups compared with mainstream services. Very low fees PHOs employed a broader range of primary health care workers, including community outreach workers to increase service access for 'hard to reach' populations (which have typically included Pacific peoples), and extended services beyond the usual clinic setting, into homes, schools, churches, sports clubs etc. Longer-term impacts on population health were also noted, including a reduction in ambulatory-sensitive hospitalisations and a lower increase in the rate of ED attendance by populations enrolled in PHOs. Improvements were particularly marked for the most vulnerable populations, including Pacific peoples.

This case study of a comprehensive approach to primary health care demonstrates that sustained and targeted investment in primary care can impact positively on health outcomes and reduce inequalities. The strategies that seemed to work best included well-established public health approaches, including fostering community participation, working within and across sectors, and supporting community action. These are learnings that could be examined and implemented in other areas across New Zealand.

Reference: N Z Med J. 2012;125(1352):7-27.

http://journal.nzma.org.nz/journal/abstract.php?id=5131

Increasing incidence of serious infectious disease and inequalities in New Zealand: a national epidemiological study

Authors: Baker MG et al

Summary: This paper aimed to develop a robust systematic method for measurement of the population incidence of serious infectious diseases and to apply this method to monitor and describe trends for hospital admissions for infectious disease in New Zealand from 1989 to 2008.

Comment: (Dr John Huakau) Over the 20-year study period the age-standardised incidence of overnight hospitalisations for infectious diseases increased by 51.3% compared to 7.3% for non-infectious diseases. Māori and Pacific populations, and those most socioeconomically deprived were more than twice as likely to be admitted with infections compared to European and other populations and those least socioeconomically deprived, respectively. Overall the rates of admission for infectious diseases over the 20-year study period increased by 72% for Pacific, 50% for Māori and 40% for Europeans and others. The authors suggest the increasing incidence and rising inequalities in infectious diseases are probably caused by fundamental social determinants, such as disparities in income, housing conditions, and access to health services.

An accompanying commentary by Professors Lim and Mokdad[1] from the University of Washington, Seattle, makes the important point that "…these findings challenge the epidemiological transition theory, whereby development is accompanied by a shift of health burden towards chronic disease, and have enormous implications for health and social policy in New Zealand…"

Professors Lim and Mokdad call for urgent action to reverse the rising burden of infectious diseases. An accompanying Editorial[2] notes that the New Zealand Government has acknowledged the possible contribution of some social determinants to adverse outcomes among this country's Indigenous peoples.

I look forward to seeing the Government's response to addressing the growing inequalities in the burden of disease, especially policy outlining better access to health services for Māori and Pacific populations (as well as those socioeconomically deprived). I would also advocate for tangible steps towards increasing the socioeconomic status of Māori and Pacific populations through increased economic development.

1. Lim SS and Mokdad AH. Socioeconomic inequalities and infectious disease burden. Lancet. 2012;379(9821):1080-1.

2. Editorial. Social determinants of health and outcomes in New Zealand. Lancet. 2012;379(9821):75.

Reference: Lancet. 2012;379(9821):1112-9.

http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(11)61780-7/abstract

Ethnic differences of medicines-taking in older adults: a cross cultural study in New Zealand

Authors: Bassett-Clarke D et al

Summary: This qualitative study highlights ethnic differences in attitudes to medicines *per se* and medicines-taking; the study authors recommend that pharmaceutical care consider these influences on medication-taking behaviour.

Comment: (Pauline Sanders-Telfer) Ethno-cultural barriers to medicines use were explored in focus group discussions among New Zealand Europeans, Māori, Pacific and Asian peoples. The responses from the Pacific participants will be discussed in this review.

Pacific participants believed that medications suppressed rather than cured illness and were part of treatment alongside faith in God, massage and herbal illness. Participants also expressed concern about adverse effects and toxic buildup of medicines in their bodies.

Overall, the analyses reveal a knowledge gap around the function of medicines, an unwillingness to ask questions and disclose information, and a lack of understanding of health professionals' roles, with Pacific participants preferring a doctor over a pharmacist as a source of information. Language was identified as a significant barrier affecting the participants' choice to seek more information, compromising the quality of information in favour of communicating with a native speaker.

The study participants were not asked if they were recent immigrants or born in New Zealand. Is the assumption that participants from different ethnic groups are recent immigrants, or that New Zealand-born participants from different ethnic groups would hold the same views as recent immigrants? Refining this information could highlight medicine beliefs that are passed to the next generation rather than lived and personal experiences brought from overseas. Health beliefs, understanding of the role of health professionals and communication are intimately connected to choices, compliance and successful treatment prescriptions.

The authors note that cultural competency is part of the pharmacy practice regulatory framework. The challenge is how this policy is being implemented, including what support is provided to achieve competence, how progress is monitored and performance appraisals carried out as well as how successful cultural competence is measured. All are key questions if we are to move beyond the rhetoric.

This study is a necessary beginning to understanding how different cultures perceive their medicines. The intention is assumed to continually improve service delivery, streamline processes and share success stories. We need continued research to gauge successes, regularly measure the current environment and ensure competencies are relevant.

Reference: Int J Pharm Pract. 2012;20(2):90-8.

http://tinyurl.com/7osbv3z

Smoking is rank! But, not as rank as other drugs and bullying say New Zealand parents of pre-adolescent children

Authors: Glover M et al

Summary: This study provides insight into how pre-adolescents' parents rank smoking in comparison to other health concerns. Parents of 4,144 children (37.8% of Pacific ethnicity) attending five urban schools in a high smoking prevalence population in Auckland, New Zealand, were asked to rank seven concerns on a paper-based questionnaire, including smoking, alcohol and bullying, from most to least serious. Amongst the 3,026 parents that completed the survey, methamphetamine and other illicit 'hard' drugs were ranked as most serious followed by marijuana smoking, alcohol drinking, bullying, cigarette smoking, sex and obesity. Parents who were never smokers ranked cigarette smoking as more serious than those who were current or ex-smokers.

Comment: (Dr El-Shadan Tautolo) It is well established that Pacific children are more likely to be exposed to second-hand smoke than non-Pacific non-Māori children, whilst tobacco use is a major cause of illness among Pacific children and a major contributor to health inequalities in NZ. These study findings show that parents' under-estimation of the serious nature of tobacco smoking relative to other drugs could partly explain low participation rates in parent-focused smoking initiation prevention programs. If parents perceive bullying, alcohol and illegal drugs to be a greater threat to their child than tobacco smoking, they may be less inclined to focus attention on preventing their children from taking up smoking. Moreover, the parents themselves may also be less likely to quit smoking.

Reducing smoking among Pacific families remains a key priority for NZ, and this study highlights the need for preventive interventions to acknowledge parents' other concerns, but also clearly explain that long-term tobacco smoking harms and kills more people than these other concerns combined. Furthermore, there is the potential for tobacco to act as a gateway drug for alcohol and illegal drug use.

A key element of this research is the large proportion of Pacific parents who completed the survey. This is a wonderful achievement, given the difficulties often involved in recruiting and engaging with Pacific respondents for similar types of surveys. While being mindful of the word limits often prescribed in journal article submission guidelines, perhaps a greater or more detailed explanation of the recruitment strategies and processes involved would be extremely useful for other researchers working with Pacific populations and communities.

Reference: Health Promot J Austr. 2011;22(3):223-7.

http://www.ash.org.nz/site_resources/library/Research_of_the_Month/smoking_is_rank.pdf

Youth opinions of tobacco control in New Zealand: support for specific measures and the relationship with smoking behaviours amongst 14–15-year-olds

Authors: Smith A et al

Summary: Action on Smoking and Health (ASH) national survey data of 14- and 15-year-old students in New Zealand were used to assess the attitudes of young people toward tobacco control and explore the association between these attitudes with both smoking intentions and behaviour. Students responded to 7 statements relating to specific tobacco control measures; outdoor smoking bans, increased and hypothecated tax, display bans, plain packaging, and reduced access.

Comment: (Dr El-Shadan Tautolo) Roughly 2,100 (8.6%) of the 24,495 survey respondents were of Pacific ethnicity, which is a considerable strength of the study. Controls that target commercial access to tobacco and reducing the number of tobacco retailers to make cigarettes less available received the most support from students; plain packaging and display bans received the least support. The findings suggest that a significant amount of ambivalence remains among young people in regards to tobacco control, which could reflect a genuine finding, in that young people are yet to form opinions or it reflects misunderstanding of the questions. Presenting young people with the facts that build a rationale for measures where there is ambivalence (i.e., promotion) in a way that builds critical awareness around the tobacco industry may help to shift attitudes around tobacco control.

Potential limitations of the study include the use of quantitative opinion measures; a qualitative study would encourage in-depth discussion around issues. Also, the cross-sectional nature of the data does not allow causal inferences to be made. Longitudinal data would provide stronger evidence of a relationship between attitudes toward tobacco control and smoking susceptibility and smoking behaviour.

With the proposed government goal of a Smokefree NZ by 2025, the views of youth need to be sought and understood, if tobacco control initiatives are to be accepted and effective. Congratulations to ASH and the study researchers for gathering information from this key demographic. This evidence can make an important contribution to achieving a tobacco-free future.

Reference: Nicotine Tob Res. 2012;14(4):479-85.

http://ntr.oxfordjournals.org/content/14/4/479.abstract

Investigating factors that influence success of Pacific students in first-year health sciences at university in New Zealand

Authors: Sopoaga F, van der Meer J

Summary: Pacific students enrolled in their first year of health sciences (FYHS) at the University of Otago in 2010 were invited to complete a questionnaire on their experiences and adjustment to university.

Comments by Dr Monique Faleafa with additional comments on ethnicity and first-year student experience by Ron Manulevu: Given that completion rates for Pacific tertiary students have been historically lower than other ethnicities in New Zealand, this survey investigating factors influencing academic achievement for Pacific tertiary students is highly relevant. It also adds to the paucity of literature available evidencing the workforce pipeline issues we face when attempting to grow a diverse health workforce in New Zealand to meet the needs of diverse, underserved populations. It is encouraging that overall, most of the 55 students had a positive first year experience, including transition to university, environment and engagement with staff and peers. However, overall academic performance was low with only 14 out of 61 gaining entry into a health professional course following exams – 45 indicated a preference for medicine but only 4 gained entry. Interestingly, the study shows 40% of respondents identified as Fijian Indian. Fijian Indians have significantly different health needs and culture from indigenous Fijian. It would be useful to see the breakdown of overall academic performance by ethnicity. It would also be useful to understand when Pacific students completed the survey. Given that a high proportion of respondents came from out of Dunedin and were under the age of 20, the influencers may shift significantly as students begin to gain a better understanding of the study expectations required to successfully complete FYHS. The author's overall conclusion that factors influencing academic outcomes 'are complex' is accurate and not surprising, given the plethora of potential confounding factors that the Pacific youth population may bring with them (and the sample size had 95% under the age of 24). Successful Pacific youth education outcomes may well be a function of the interaction of educational experience, socioeconomic status, nutrition, psychological well-being, social relationships, culture, environment, IQ and self-efficacy. Rightly so, the authors suggest the need for further investigation of 'preparedness' prior to entering university – also a crucial transition point in the health workforce pipeline.

Overall, this article is highly relevant to current Pacific health and education issues, and raises important research questions that warrant further investigation.

Reference: N Z Med J. 2012;125(1352):28-38.

http://journal.nzma.org.nz/journal/abstract.php?id=5130

Knowledge, views and experiences of gambling and gambling-related harms in different ethnic and socio-economic groups in New Zealand

Authors: Walker SE et al

Summary: This survey measured the broader gambling harms and provided benchmark data to evaluate an awareness education programme to minimise harm; part of New Zealand's public health approach to problem gambling. The survey also assessed whether previously reported ethnic and socio-economic disparities are evident when researching broader gambling harms.

Comment: (Abel Smith) New Zealand is one of only two countries worldwide to formally adopt a public health approach to problem gambling, which signifies our recognition that harm from problem gambling impacts on the health of individuals, families and communities. This study included 1774 adults and 199 youths aged 15–17 years, and measured the broader gambling harms amongst different ethnic groups and people living in deprivation areas. It also evaluated an awareness education programme launched in April 2007 to minimise gambling harm and highlight solutions that could prevent and minimise harm.

The survey identified gambling to be a common activity and that Māori and Pacific people are more than twice as likely to be frequent, continuous gamblers than people of European and other ethnicities. Pacific people are overrepresented amongst frequent, continuous gamblers and also among non-gamblers. The greatest harm impact was amongst low-income earners and Māori and Pacific peoples.

These results underline the need for more robust public health approaches to address our current and future gambling harm problems. An approach specifically targeting the more vulnerable groups is a priority. Māori and Pacific people, groups and organisations need to take on a lead role to ensure that gambling harm is prevented from further escalation.

Reference: Aust N Z J Public Health. 2012;36(2):153-9.

http://onlinelibrary.wiley.com/doi/10.1111/j.1753-6405.2012.00847.x/abstract

Validation of the Edinburgh Postnatal Depression Scale (EPDS) as a screening tool for postnatal depression (PND) in Samoan and Tongan women living in New Zealand

Authors: Ekeroma AJ et al

Summary: The aim of this study was to validate the Edinburgh Postnatal Depression Scale (EPDS) as a screening tool for PND in Samoan and Tongan women living in New Zealand.

Comment: (Denise Kingi 'Uluave) This study follows research by Abbotts and William (2006) who reported PND prevalence rates of 16% in Pacific women in New Zealand and statistically significant differences between Tongan women (30.9%) and Samoan women (7.6%). Validation of the EPDS is required before the prevalence study can be repeated.

The study led by Ekeroma involved 85 Samoan and 85 Tongan women who delivered babies in Middlemore Hospital between February 2009 and June 2010. The participants were required to complete the EPDS between 4 and 7 weeks after delivery. Findings suggest the EPDS is an acceptable and valid tool for PND screening in English, Samoan and Tongan versions. The dissimilar cut-offs for PND screening identified for Samoan and Tongan women are recommended to be used when administering the EPDS in these populations.

Additional studies that not only simply translate the EPDS into ethnic languages but also seek validation from varying Pacific cultural paradigms are warranted. It has been recommended that assessment of functional status may be a useful adjunct to PND screening; some women may avoid answering questions truthfully and choose to carry the burden of mental illness due to the stigma attached to a diagnosis of depression. A functional assessment that initially enquires about resuming pre-pregnant activities, her confidence about parenting, and whether or not the woman is feeling overwhelmed may prove to be less threatening than asking her if she is feeling depressed. A more accurate depression screening may then follow.

This research indicates that the EPDS should be seriously considered for use in both primary and secondary health care services.

Reference: N Z Med J. 2012;125(1355):41-9.

http://journal.nzma.org.nz/journal/abstract.php?id=5192