Pacific Health Review

Making Education Easy

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In this issue:

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Dr Api Talemaitoga, Clinical Director, Pacific Programme Implementation, wishes to acknowledge the commentaries and insights provided by Dr Debbie Ryan, Dr Kuinileti Chang Wai, Dr Siniva Sinclair, Hilda Faasalele, Dr Corina Grey, Dr Ausaga Faasalele Tanuvasa, Dr Gerhard Sundborn and Amanda Dunlop.

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

It is always a pleasure to bring these journal articles to you as readers interested in current health issues that impact on the health and wellbeing of Pacific peoples. We are again privileged to have the expertise of our commentators adding to the dialogue with their knowledge and experience of being at the front line of our health services.

We maintain that this country has a very good health system with many dedicated health professionals who are committed to making a difference to everyone seeking assistance for their health needs. However, despite all the good work, we continue to see discrepancies in the effectiveness of health services for segments of our population.

Pacific people continue to feel the brunt of this, perhaps sometimes inadvertent, discriminatory element within a first world health system, resulting in the continuing inequalities that the system measures in many ways; life expectancy, diabetes treatment, rates of rheumatic fever, access to health services and many others.

We hope these articles and their commentary helps you think about your interactions with Pacific peoples and others in our health systems who are perhaps not getting the best from the health services they access. As fair-minded New Zealanders, we want to continue best practice in our professions, ensuring we are both clinically and culturally competent.

Funding for rheumatic fever has been signalled in the budget for the next 4 years, so it is interesting to read Dr Viali's experience in Samoa and how we can take lessons from this to reduce embarrassingly high rates for Pacific children in this country.

We also need to take heed of the evidence of ethnic differences in prescriptions, prevention and lifestyle interventions, obesity and the need to be aware of the cultural factors associated with chronic illness that will impact on how Pacific patients accept, deal with, comply with and treat the diagnoses and advice they recieve.

For this edition, I hope you enjoy these articles as much as I have and please do not hesitate to give us any feedback or ideas that can assist to improve the health outcomes of Pacific peoples in New Zealand.

Best wishes

Dr Api Talemaitoga, Clinical Director Pacific Programme Implementation

Dr Debbie Ryan, Principal Pacific Perspectives, selected the articles and coordinated the commentaries for this edition.
debbieryan@researchreview.co.nz

Analysis of a primary care led diabetes annual review programme in a multi ethnic cohort in Wellington, New Zealand

Authors: Smith R et al

Summary: This paper reports improvements in outcomes of diabetes care across all ethnic groups over five annual diabetes reviews in the primary care led "Get Checked" programme.

Comment: (Dr Debbie Ryan) The Diabetes Get Checked programme has been run in New Zealand since 2000. The programme provides diabetic patients with a free annual check-up by their general practice team – to screen for risk factors, update treatment and referral as required for further specialist treatment; with the aims of ensuring early intervention and prevention of complications. Standard data is collected and used by PHOs and the Ministry of Health for monitoring and planning of services for people with diabetes.

This study of 2967 patients, who completed five annual reviews between 2000 and 2007 in the Wellington region, included 254 Pacific patients. The authors recognise that this small group, less than 20% of the target group, is a highly motivated subset of patients. Data is not presented on the 16,087 (80%) people who had one or more, but less than five, Get Checked reviews in the same period.

The study findings demonstrate that over the five reviews in this group of patients (attending presumably motivated practitioners), use of antidiabetic medication, ACE inhibitors and statins increased in all ethnic groups. This was matched by improvements in clinical measures including weight, blood pressure, lipid levels and an initial fall in HbA_{1c}. The authors note the importance of the reduction of cholesterol levels in reducing risk of vascular events for these patients.

This is an important addition to research into Pacific people participating in the Diabetes Get Checked programme. Elley et al. (2007) in the Diabetes Cohort Study have also described the reduction of ethnic disparities with high rates of participation and appropriate management for Pacific people accessing diabetes checks.* Of note, these findings reflected care provided by a small group of providers with a focus on Pacific populations – of the 7539 Pacific people in this study 67% attended only 10% of practices, suggesting that Pacific people with diabetes commonly prefer Pacific providers, and that these providers are providing good quality care.

Although the authors of the Wellington study provide optimistic findings, we are left not knowing about those who had fewer than five reviews, and about those who did not have any Get Checked review.

* Elley CR et al. Cardiovascular risk management of different ethnic groups with type 2 diabetes in primary care in New Zealand. Diabetes Res Clin Pract. 2008;79(3):468-73.

Reference: Diabetes Res Clin Pract. 2011;91(2):164-70.

http://www.diabetesresearchclinicalpractice.com/article/S0168-8227%2810%2900570-X/abstract

Culturally appropriate storytelling to improve blood pressure: a randomized trial

Authors: Houston TK et al

Summary: An interactive storytelling intervention involving DVDs was tested as a tool for health promotion among African Americans with hypertension attending an inner-city safety-net clinic in the southern United States.

Comment: (Dr Kuinileti Chang Wai) This was an interesting randomised controlled trial in which 299 hypertensive African American patients received a series of DVDs that contained patient stories delivered at baseline, 3 months, and 6 months. Patients in the comparison group received a DVD that covered health topics not related to hypertension.

76% of 299 African American patients were retained throughout the study. Most of the patients were women and the mean age was 53.7 years. Baseline mean systolic and diastolic pressures were similar in both groups. Among those with uncontrolled hypertension at baseline, reduction favoured the intervention group at 3 months for both systolic (11.21 mm Hg (95% CI, 2.51 to 19.9 mm Hg); p=0.012) and diastolic (6.43 mm Hg (CI, 1.49 to 11.45 mm Hg); p=0.012) blood pressures. Patients with baseline controlled hypertension did not significantly differ over time between study groups. Blood pressure eventually increased for both groups, but between-group differences remained relatively constant.

This study has relevance for our Pacific population in New Zealand as we have a high prevalence of uncontrolled hypertension, coronary heart disease and diabetes compared with Europeans (Bell et al., 1996). There are many factors that affect Pacific peoples' adherence or non-adherence to their hypertensive medications. These are often complex and can range from non-adherence to medications to a whole set of socio-economic issues. Most of the Pacific led clinics in New Zealand have dedicated teams of doctors, nurses and community workers who try to help individuals and families to prioritise their health and improve adherence to medications, with mixed results.

Pacific cultures have used storytelling over the years to pass on history and legends to the following generations. The challenge would be further research to determine whether captured patient stories on DVDs could help Pacific people with hypertension improve the control of their blood pressure and therefore improve their health outcomes.

Reference: Ann Intern Med. 2011;154(2):77-84.

http://www.annals.org/content/154/2/77.abstract

Ethnic differences in access to prescription medication because of cost in New Zealand

Authors: Jatrana S et al

Summary: Data from SoFIE-Health (wave 3), an add-on to the Statistics New Zealand-led longitudinal Survey of Family, Income and Employment (SoFIE) (n=18,320), were used to examine ethnic differences in financial barriers to access to prescription medication in New Zealand.

Comment: (Dr Siniva Sinclair) This study examined a very important issue – people in New Zealand being unable to fill prescriptions due to cost – in greater detail than has been done before. While extremely interesting, the findings were from a single point in time (2004–5), and before government subsidies for (selected) medications were further increased. Forthcoming comparisons with the subsequent waves of the SoFIE-Health survey will yield even more valuable information.

The study found that the odds of having deferred filling a prescription in the past 12 months due to cost were over 30% higher for Māori, and more than double for Pacific people, compared to non-Māori, non-Pacific, non-Asian people (mostly NZ Europeans) – even after adjusting for potential confounders including demographic, socioeconomic, health behavioural and health variables. (Asians appeared to have lower odds of deferring filling prescriptions than NZ Europeans. However, adjusting for confounders removed this finding).

This is concerning, as Māori and Pacific people are more likely to have higher health needs (with higher numbers of prescriptions, and thus co-payments, in a year, being perhaps part of the reason they are more likely to have deferred filling one or more of them) and partial or discontinued drug therapy is likely to result in unfavourable outcomes.

The study was not able to distinguish which types of prescriptions were less likely to be filled, but other evidence suggests that cost-related decreases in medication include those used for treating disabling and potentially life-threatening illnesses, and are associated with increases in the use of hospital services, and even in deaths.

Removing cost barriers to accessing prescription medicines is therefore a vital part of reducing disparities in health outcomes for Māori and Pacific people in New Zealand. It remains to be seen how the increased subsidies for prescriptions brought in subsequent to this study may have affected different groups' responses to the question on deferral of prescription filling.

Reference: J Epidemiol Community Health. 2011;65(5):454-60.

http://jech.bmj.com/content/65/5/454.abstract

Rheumatic Fever Programme in Samoa

Authors: Viali S et al

Summary: This paper describes the Rheumatic Fever Programme in Samoa and its impact upon the incidence of acute rheumatic fever (ARF) and rheumatic heart disease (RHD). The incidence of ARF has decreased from 30 per 100,000 in 2005 to 12.8 per 100,000 in 2007, to 7.3 per 100,000 in 2008, and 9.5 per 100,000 in 2009. Similarly, the incidence of RHD has decreased from 40.2 per 100,000 in 2007 to 34 per 100,000 in 2008 and to 31.8 per 100,000 in 2009.

Comment: (Dr Siniva Sinclair) Rheumatic fever, a disease of poverty long eradicated in most developed and many developing nations, continues at extremely high rates in Samoa – as it does also among Pacific and Māori people in New Zealand, with the NZ government recently committing $12 million over four years to reduce rates of rheumatic fever among children in NZ.

This article by Dr Satupaitea Viali – a New Zealand-trained cardiologist working in Samoa – and colleagues outlines what is known of the epidemiology of rheumatic fever and rheumatic heart disease in Samoa and the measures taken to understand and control the epidemic there over the past several years. Diagnosis, follow-up and management as well as data collection are even more difficult in resource-poor settings than they are in NZ, but documenting the challenges – as well as progress made – in the medical literature is an important step in moving control efforts to the next level. With symptoms of rheumatic heart disease (such as heart failure) being a more common presentation than those of acute rheumatic fever, there is a clear role for greater public awareness of the disease, as well as of the importance of treating sore throats in its prevention. The echocardiography screening programmes in schools, as well as picking up cases of undiagnosed rheumatic heart disease, will hopefully be another effective means for educating families. There has been an increase in rates of compliance with IM penicillin used for secondary prophylaxis, however, this was from a very low base and there is still room for improvement. With the very high costs of cardiac surgery to the Samoan government, prevention and early detection are key to reducing the burden of rheumatic heart disease.

Reference: N Z Med J. 2011;124(1329):26-35.

http://www.nzma.org.nz/journal/abstract.php?id=4529

Rheumatic fever recurrence prevention: A nurse-led programme of 28-day penicillin in an area of high endemnicity

Authors: Spinetto H et al

Summary: To evaluate the safety and effectiveness of longer-acting penicillin to prevent recurrences of acute rheumatic fever (ARF), these researchers assessed historical data from the regional RF register for Auckland, New Zealand, in a 5–14-year-old population with ARF rates of ~40–80/100,000. Every 28 days, community nurses delivered free benzathine penicillin to consented patients; discharge was after 10 years of treatment or age 21 years, whichever was longer. First-episode and recurrent ARF cases were classified as definite (Jones criteria 1992) or probable (Jones criteria 1956). Of the 360 cases meeting the case definitions, 20 recurrences occurred in 19 people (median age 21 years). Age at first episode ranged from 2–52 years (median 21.3). After penicillin was discontinued, ARF recurred at 0–21 years; 72% of recurrent cases occurred within 5 years, and 12% between 5 years and 10 years. The 4-weekly long-acting penicillin failure rate (n=1) was 0.07/100 patient years. The programme failure rate (Auckland residents) was 1.4/100 patient years (n=20). Fifty-five percent of recurrences were attributed to patient non-adherence. Two recurrences after discharge from prophylaxis as per the New Zealand guidelines occurred after 3 years and 13 years.

Comment: (Hilda Faasalele) Sadly, Pacific peoples have one of the highest rates of rheumatic fever in New Zealand and one of the highest rates in the world. Secondary programmes (like this one), developed to prevent recurrence, rely on effective follow-up to ensure regular administration of prophylaxis antibiotics. This initiative, described as a community-based nurse-led secondary prophylaxis programme for Rheumatic Fever heart disease, shows there is no doubt that community nursing services (working with Pacific community health workers) can deliver effectively to prevent recurrences. Unfortunately, historically in New Zealand, nurse-led initiatives have tended to be underfunded, under resourced and timelines do not often take into account the need to establish critical and effective relationships with the communities most affected. Long-term success of these initiatives needs to be measured in the improvement in housing, nutrition, and health literacy of our Pacific families. Pacific nursing leadership is also required, to lead some of these changes.

Reference: J Paediatr Child Health. 2011;47(4):228-34.

http://tinyurl.com/3da9eab

Helplessness, self blame and faith may impact on self management in COPD: a qualitative study

Authors: Sheridan N et al

Summary: This article suggests ways in which clinicians can better support patients with chronic obstructive pulmonary disease (COPD) and be aware of how patients experience and interpret helplessness.

Comment: (Dr Corina Grey) In-depth interviews were conducted on 29 people with moderate-to-severe COPD in this New Zealand study, of whom over half were Pacific. Patients were asked to describe their experiences of living with COPD, their understanding and management of symptoms and treatments, and factors impacting their quality of life.

While many of the European patients admitted to blaming themselves for the development of their illness, self-blame was not apparent in any of the interviews with Pacific patients. Instead, God, church and family were reported to be the most important things in Pacific patients' lives, and going to church was often the last remaining activity they engaged in outside of the home. Although their strongly held beliefs appeared to contribute to Pacific patients' quality of life in between exacerbations, they did not appear to mitigate against feelings of helplessness at their condition or their ability to self manage. Patients in this study reported frustration at the confusing and often conflicting messages they got from different health professionals about the treatment of their condition. Most could not remember being taught strategies to help them manage distressing symptoms and lacked understanding about the role of their different medications and inhalers. Of concern was the finding that only a few patients had action plans to direct early self management of an acute exacerbation.

This study highlights the importance of ensuring that COPD patients and their families are well informed about the nature of their condition and appropriate management. For current smokers, this should include smoking cessation counselling. Almost a third of Pacific patients in this study were still smoking, despite being admitted to hospital at least twice in the past 12 months.

Reference: Prim Care Respir J. 2011 Apr 21. pii: pcrj-2011-02-0015. doi: 10.4104/pcrj.2011.00035. [Epub ahead of print]

http://www.thepcrj.org/journ/view_article.php?article_id=805

Pain, infection, and colds and flu: Samoan people's views about antibiotics

Authors: Norris P et al

Summary: This study explored Samoan people's interpretation and use of a subset of Western medicines, namely, antibiotics, in Samoa and in New Zealand. These researchers conducted semi-structured interviews with 31 Samoans, recruited through informal networks. Results from these interviews informed the development of a questionnaire administered to 232 Samoans recruited in health care facilities in Samoa and New Zealand.

Comment: (Dr Ausaga Faasalele Tanuvasa) Samoan people using Western medicine alongside traditional methods of healing is well documented in the literature. However, there is limited information on Samoan people's understanding and use of healing agents, for example, antibiotics. Although nearly half the sample in the study had tertiary education, in Western terms, this study found that Samoan people were confused about what antibiotics do and which medicines are antibiotics. The study shows that 75% of respondents said that antibiotics are commonly used for colds and flu and were frequently used for these conditions, while 50% believed that antibiotics are pain killers and were confused between infection and pain. The confusion between antibiotics and pain killers may reflect a conflict between Samoan and Western concepts of illness. This is because in the Samoan view, the lived experience of illness appears to be conflated with the illness itself; that is, pain is seen as an illness.

The study has raised important issues on Samoan people's understanding of antibiotics. It has implications on how patients interpret medical information despite their level of education. The authors suggest that there is a need for health education programmes aimed at individuals or as a part of public education campaigns to promote the use of antibiotics.

Reference: Res Social Adm Pharm 2011;7(1):81-92.

http://www.rsap.org/article/S1551-7411%2810%2900030-6/abstract

The 'Healthy Dads, Healthy Kids' (HDHK) randomized controlled trial: efficacy of a healthy lifestyle program for overweight fathers and their children

Authors: Morgan PJ et al

Summary: This study, conducted in NSW Australia, evaluated the feasibility and efficacy of a father-centred programme 'Healthy Dads, Healthy Kids' (HDHK) designed to support overweight fathers to lose weight and role model positive behaviours to their children. Fifty-two fathers were assigned to either an intervention or control group and outcome measures were compared 3 and 6 months post-intervention. The intervention consisted of eight 75-minute educational sessions delivered over a 3-month period. Three educational sessions involved fathers and children combined. Two educational sessions focussed on nutrition and five focussed on physical activity. A web-based support package was also provided as part of the intervention.

Comment: (Dr Gerhard Sundborn) This study showed statistically significant differences were evident between the intervention and control groups in weight loss of fathers as well as reductions in their waist circumference, BMI, blood pressure, resting heart rate (RHR) and increased physical activity. In children, significant between-group differences were found in physical activity, RHR and dietary intake. Although there was no significant intervention effect for dietary intake of fathers, the HDHK fathers decreased their diet by more than 3000kj per day and it is likely that this would have been significant given greater statistical power. This research is novel in that it investigates the paternal influence on child behaviour and factors that specifically affect healthy weight. The sustained weight loss of fathers 6 months post-intervention, higher activity and healthier nutritional profile of both fathers and their children suggests that fathers are effective change agents within families. Compared to other family-based lifestyle interventions the HDHK is less demanding in terms of contact time and number of sessions. Focussing on educational components of a healthy lifestyle in a meaningful way (as shown by the sustained positive change) is likely to promote long-term benefits and lifestyle change. Possible limitations of this study include recruitment bias, as volunteers that applied to participate in this study may already have a high degree of motivation for weight loss that may not be reflected in the general population, and a requirement that all participants have internet access. The authors conclude that "*targeting fathers is a novel and efficacious approach to improving health behaviour in their children.*"

Reference: Int J Obes (Lond). 2011;35(3):436-47.

http://www.nature.com/ijo/journal/v35/n3/abs/ijo2010151a.html

Impact of targeted beverage taxes on higher-and lower-income households

Authors: Finkelstein EA et al

Summary: A 40% tax on sugar-sweetened beverages (SSBs) would raise $US2.5 billion annually, but would not greatly impact obesity (i.e. an average annual weight loss of 0.59 kg per person), according to this paper. The researchers analysed data from the US-based 2006 Nielsen Homescan panel of people who scanned store-bought food and beverage purchases over a 12-month period. Computer models were used to predict the impact of various tax rates on sugary drinks.

Comment: (Amanda Dunlop) This paper makes a significant contribution to the ongoing discussion relating to targeted taxes on SSBs as a strategy for addressing the obesity epidemic. The key finding is that targeted beverage taxes will have minimal effect on weight loss outcomes of people from lower-income households.

The general view held by Pacific peoples in the greater Auckland region and some Pacific researchers on this issue in relation to Pacific peoples is consistent with these findings: that targeted beverage taxes will have minimal effect on Pacific peoples' weight loss outcomes, but will have a significant effect on purchasing behaviours as people try to circumvent taxes e.g. people purchasing generic, bulk or sale items (*personal consultations, 2005 and 2008*). There are a number of reasons for this. First, anecdotal evidence suggests that SSBs have become part of Pacific-New Zealand culture and everyday life. Pacific peoples have bought in to "the image... the dream... the lifestyle" key SSB multi-national corporations have "sold" to them via association with their particular SSB brands (*personal consultations 2005 and 2008*).

Second is the proliferation of generic, cheap SSB brands, which has only made SSBs more affordable and accessible. Most SSBs are cheaper than their lite and diet variants, and milk and water products (*Counties Manukau District Health Board review, 2004*). Price is therefore not a barrier or a deterrent. Pacific children's (2 to 14 years) higher SSB consumption levels than New Zealand European and Asian children (*NZ Household Survey, 2006–07*) is evidence of this and the former point.

Finally, the intervention itself. Achieving behaviour change requires multi-faceted, long-term approaches. There is a plethora of social marketing and health behaviour literature emphasising the need for behaviour change strategies to make the desired behaviour (in this case, lower levels of SSB consumption) 'attractive', easy, convenient and acceptable to perform; and to move beyond targeting the individual to change his/her behaviour by creating an environment that enables and supports behaviour change e.g. regulatory and environmental supports. Behaviour change objectives also need to be described as short-, medium- and long-term goals and appropriate interventions implemented accordingly, in recognition that behaviour change takes time and is the result of sustained, supported efforts. Counties Manukau District Health Board and the Food Industry Group's "McDonald's Low Sugar Drinks Trial" (2005–06.) is a prime example of this (www.letsbeatdiabetes.org.nz). In this 6-month trial, one SSB was replaced by its sugar-free variant as the default choice in all 21 McDonald's restaurants in the district, to reduce the amount of sugar ingested through SSBs and move the population incrementally towards healthier drink options. The intervention resulted in a 17% reduction in the amount of sugar ingested through SSBs.

Reducing SSB consumption will be difficult. Targeting price alone via targeted taxes will have minimal effect, particularly for Pacific peoples.

Reference: Arch Intern Med. 2010;170(22):2028-34.

http://archinte.ama-assn.org/cgi/content/abstract/170/22/2028