

# Pacific Health Review

Making Education Easy

Issue 29 – 2021

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### Abbreviations used in this issue

**COVID-19** = coronavirus disease 2019  
**PCV10** = 10-valent pneumococcal conjugate vaccine  
**PHO** = primary health organisation  
**NCD** = non-communicable disease  
**SARS-CoV-2** = severe acute respiratory syndrome coronavirus 2

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

## Welcome to the latest issue of Pacific Health Review.

This issue covers a range of topics regarding Pacific people living in Aotearoa NZ, including declining alcohol consumption, the inequity of access to contraception for women, and barriers to health care access for Pacific communities. From further afield, we report the benefits of the 10-valent pneumococcal conjugate vaccine in Fiji, community perceptions of risk factors for diabetes in Vanuatu, the impact of a soft-drink tax in Tonga, and a comprehensive analysis of recent mortality patterns in Tonga.

We hope you find these and the other selected studies interesting, and welcome your feedback.

Kind regards,

**Associate Professor Collin Tukuitonga**

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**Pacific Health Review is supported by funding from the New Zealand Ministry of Health.**

## Pacific peoples and alcohol: A review of the literature

**Authors:** Nosa V et al.

**Summary:** This review examined alcohol use by Pacific people living in NZ. A search of Ovid Medline, Embase, Scopus, Kiwi Research Information Service, Cochrane, Index NZ, PubMed, Google Scholar and ProQuest for the period 2009–2019 identified 30 relevant articles that investigated alcohol consumption in Pacific youth and adults living in NZ. Analysis of the data showed that Pacific adults were significantly less likely to have consumed alcohol in the past year than non-Pacific adults (54% vs 85%). Alcohol consumption by Pacific men declined significantly from 70.5% in 2006/07 to 60.0% in 2017/18, whereas alcohol consumption among Pacific women showed little change (49.2% in 2006/07 and 49.4% in 2017/18). 46% of Pacific men who consumed alcohol and 25% of Pacific women who consumed alcohol met the threshold for hazardous consumption. The proportion of Pacific students who reported regular alcohol consumption or binge drinking declined significantly from 2001 to 2019.

**Comment:** Alcohol misuse is a major cause of social and health problems among Pacific people in NZ even though Pacific adults are less likely to consume alcohol than non-Pacific adults. Furthermore, half of all Pacific adult males and a quarter of all Pacific adult females met the criteria for hazardous consumption. The literature review showed a decline in consumption in Pacific adult males in the decade 2006/07 to 2017/18. Pacific young people also showed a decline in alcohol consumption (including binge drinking) between 2001 and 2019. These are encouraging trends although considerable harm continues to be reported regarding violence against women and girls and health problems in the community. An effective alcohol control strategy is urgently needed with a focus on Pacific adults.

**Reference:** *NZ Med J* 2021;134(1529):86-96

[Abstract](#)

## Independent commentary by Associate Professor Collin Tukuitonga



Associate Professor Collin Tukuitonga is a medical graduate and Public Health Physician with extensive experience in health policy, research, management, and leadership in NZ and internationally. He is the inaugural Associate Dean Pacific and Associate Professor of Public Health at the University of Auckland. Prior to this role, he was the Director-General of the Pacific Community based in New Caledonia.



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## All-of-community by all-of-government: Reaching Pacific people in Aotearoa New Zealand during the COVID-19 pandemic

**Authors:** Ioane J et al.

**Summary:** The COVID-19 pandemic has exacerbated the socioeconomic hardship and ongoing health needs of a large proportion of Pacific communities throughout Aotearoa NZ, and will continue to have an adverse effect on the wellbeing and sustainable development of these communities if targeted efforts are not undertaken. Pacific communities have a collective worldview that is fundamental to their existence, so any targeted response needs to be within a collective community. This article discussed the worldview of Pacific communities and the impact of COVID-19, and identified 6 key priorities for working with these communities in NZ.

**Comment:** This is a very important contribution discussing Pacific socioeconomic circumstances and worldviews, the impact of COVID-19 and priorities for those working with diverse Pacific communities. The viewpoint highlights the severe economic hardship for many Pacific families and the difficulties accessing health information despite the efforts of many agencies. The authors recommended 6 priorities when working with Pacific communities:

- utilise Pacific knowledge, practice and protocols;
- prioritise the provision of food, shelter, warmth, care and planning for natural disasters;
- educate to prevent and eliminate virus spread immediately, using all forms of communication;
- test for COVID-19;
- partner with the community to provide robust interventions and gather data to deal with unintended outcomes of family violence, poor mental health, and substance abuse;
- implement solutions that are culturally appropriate and long-lasting to ensure Pacific communities are empowered to thrive and flourish in Aotearoa NZ.

**Reference:** *NZ Med J* 2021;134(1533):96-103

[Abstract](#)

## The inequity of access to contraception for women in Aotearoa

**Authors:** Te Karu L et al.

**Summary:** This article determined the use of different methods of contraception in Aotearoa NZ in 2016–2018. The oral contraceptive was found to be the most common method of contraception, with only 0.3–0.6% of women using alternative methods. Women of European/other descent were more likely than Māori and Pacific women to use an oral contraceptive, whereas Māori women were twice as likely as European/other women to use Jadelle® implants. However, these implants have issues with removal, insertion and breakthrough bleeding and are only widely used in developing countries. Although intra-uterine systems such as Mirena® and Jaydess® are now fully subsidised in NZ for contraceptive purposes, there are usually costs associated with doctors' visits for insertion and removal. These associated costs present a barrier to this form of contraception for all ethnic groups.

**Comment:** Pacific women have some of the highest fertility rates in NZ, thought to be due to a combination of cultural factors and barriers to access of effective contraception. This letter was based on the Health Quality and Safety Commission Atlas of Health Care in NZ showing variations in access to services around the country, including contraception. The system is described by the authors as unfair, unsafe and ineffective. They recommend that a structured approach is needed to improve access to contraception advice and services.

**Reference:** *NZ Med J* 2021;134(1531):86-8

[Abstract](#)

## Effect of ten-valent pneumococcal conjugate vaccine introduction on pneumonia hospital admissions in Fiji

**Authors:** Reyburn R et al.

**Summary:** Fiji introduced routine infant immunisation with a 10-valent pneumococcal conjugate vaccine (PCV10) in October 2012. This study evaluated the impact of introduction of PCV10 on hospital admissions for pneumonia in children and older adults. For the analysis, the pre-PCV10 period was defined as Jan 2007 to Sep 2012, and the post-PCV10 period was defined as Oct 2012 to Dec 2017. All-cause pneumonia decreased in children and increased in adults aged ≥55 years in the post-PCV10 period compared with the pre-PCV10 period. In children aged 2–23 months, there was a 21% decline in severe or very severe pneumonia, a 46% decline in hypoxic pneumonia, and a 25% decline in radiological pneumonia. Mortality due to all-cause pneumonia, bronchiolitis, or asthma decreased by 39% in the post-PCV10 period in children aged 2–23 months.

**Comment:** Pneumonia is a major cause of illness and death in developing countries, especially among children younger than 5 years and adults aged 65 years and older. In 2012, Fiji introduced routine infant immunisation with PCV10. This study was designed to evaluate the effect of PCV10 on pneumonia hospital admissions in children younger than 5 years and adults aged 55 years and older in Fiji, 5 years after vaccine introduction. Introduction of PCV10 was associated with a decrease in pneumonia hospital admissions in children aged 2–59 months (and an increase in older adults). Mortality was reduced by 39% for all-cause pneumonia, bronchiolitis, and asthma admissions in children aged 2–23 months. Pacific nations should consider introducing the PCV10 if they haven't already done so.

**Reference:** *Lancet Glob Health* 2021;9(1):e91-8

[Abstract](#)



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## Ethnic differences in mortality and hospital admission rates between Māori, Pacific, and European New Zealanders with type 2 diabetes between 1994 and 2018

**Authors:** Yu D et al.

**Summary:** This retrospective, population-based, longitudinal cohort study compared the rates of mortality and hospital admission in Māori, Pacific, and European patients with type 2 diabetes in Auckland over a 24-year period. 45,072 patients with type 2 diabetes (48.7% female; mean age 56.7 years) were enrolled in the Diabetes Care Support Service (DCSS) in Auckland in 1994–2018 and were followed up for a median 9.7 years. 37.2% of patients were European, 26.7% were Pacific, and 15.7% were Māori. Despite similar trends across the 3 ethnic groups (increasing hospital admissions and decreasing mortality), Māori and Pacific patients had consistently higher hospital admission rates than European patients. Māori but not Pacific patients had higher adjusted incident rate ratios for all-cause mortality (1.96), cardiovascular mortality (1.93) and cancer mortality (1.64) than European patients.

**Comment:** Type 2 diabetes mellitus disproportionately affects Indigenous and non-European populations globally. In NZ, the prevalence rates in Māori and Pacific people are 4 times higher than non-Māori, non-Pacific people (mostly European). This study was designed to compare the rates of mortality and hospital admission between Māori, Pacific, and European patients with type 2 diabetes living in Auckland between 1994 and 2018. Despite similar temporal trends across the 3 ethnic groups (decreasing mortality and increasing hospital admissions), Māori and Pacific patients had consistently higher hospital admissions than European patients. Furthermore, compared with European patients, poorer health outcomes have persisted among Māori and Pacific people with type 2 diabetes for more than 20 years. New policies supporting prevention and more intensive management of type 2 diabetes are urgently needed. The study findings confirm yet again that our current responses are inadequate and ineffective – it's time to rethink the approach with Pacific (and Māori) communities.

**Reference:** *Lancet Glob Health* 2021;9(2):e209-17

[Abstract](#)

## Community perceptions of the determinants of diabetes in peri-urban Vanuatu

**Authors:** Elliott LM & Taylor J

**Summary:** This study in Vanuatu investigated community perceptions of risk factors for the development of type 2 diabetes. 308 individuals living in peri-urban Vanuatu responded to an open-ended survey. Analysis of the responses revealed a complex picture of diabetes-specific health literacy. Dietary factors were commonly recognised, but dietary complexity was not well understood. There was limited knowledge of the role of smoking and alcohol consumption in the development of type 2 diabetes.

**Comment:** We don't get many studies conducted in Melanesia published in peer-reviewed journals. This study was based in peri-urban Vanuatu, where most residents face extreme economic hardship and social services are difficult to access. The study was co-designed using an open-ended survey to investigate community perceptions of factors contributing to the development of type 2 diabetes. Dietary factors were commonly acknowledged; however, dietary complexity was not well understood. Overall, the findings demonstrate mixed successes in NCD-related health promotion. The authors recommended moving away from more universalised approaches commonly advocated by donors to locally designed and driven health promotion that focuses on more nuanced, culturally sensitive, and contextually grounded messaging. The study findings are applicable to many peri-urban communities in big cities across the Pacific.

**Reference:** *Asia Pac J Public Health* 2021; published online Apr 2

[Abstract](#)

## Is Samoa prepared for an outbreak of COVID-19?

**Authors:** Olayemi LO et al.

**Summary:** This article evaluated the preparedness of Samoa for an outbreak of COVID-19. Samoa is highly susceptible to an outbreak of COVID-19 if strict public health regulations are not enforced. The recent measles epidemic in Samoa and some other Pacific countries has highlighted the extent of spread and rapidity of virus transmission, especially among vulnerable populations, and emphasises the importance of having well-equipped state-of-the-art diagnostic health facilities, public health disease control centres, and highly trained infectious disease personnel. Early disease detection and diagnosis is essential for preventing an epidemic of COVID-19 in Samoa.

**Comment:** Samoa was devastated by a measles epidemic in 2019. The epidemic was a tragedy for Samoa and it was a timely reminder for all Pacific Island nations about the importance of routine immunisation. The global pandemic of COVID-19 poses a public health danger to all nations including the Pacific Island countries. Due to the imminent threat of SARS-CoV-2, the World Health Organization in collaboration with other regional stakeholders has initiated a joint task force on epidemic preparedness and management. Since Samoa is a tourism destination, it is highly vulnerable to an outbreak of COVID-19 if stringent public health measures and regulations are not enforced. This article highlights different opinions and various stand points regarding epidemic preparedness and emergency response in case there is an outbreak of COVID-19 in Samoa. Despite the provocative headline, it is unclear if Samoa is ready for a COVID-19 outbreak. It is worth noting that a few cases of COVID-19 in any Pacific nation would be challenging.

**Reference:** *Asia Pac J Public Health* 2020; published online May 14

[Abstract](#)

## The characteristics of behaviour change interventions used among Pacific people

**Authors:** Matenga-Ikhele A et al.

**Summary:** This systematic review examined interventions designed to encourage health behaviour changes among Pacific people. A search of OVID Medline, PsycINFO, PubMed, Embase and SCOPUS databases identified 27 studies that were suitable for inclusion. 15 studies were from the US (including Hawai'i), 3 from the US territories of American Samoa and the Marshall Islands, 7 from NZ, 1 from Australia, and 1 from Samoa. 10 studies targeted health behaviour change in people with diabetes, and 8 targeted weight loss. Others targeted chronic disease self-management, health-related behaviour, hypertension, smoking cessation, heart failure, renal disease, physical activity, and nutrition. Important characteristics of the interventions included establishing meaningful partnerships with Pacific communities using community-based participatory research, and ensuring interventions were culturally anchored and centred on collectivism using family or social support. The gaps between Eurocentric behaviour change constructs and Pacific worldviews were negotiated using Pacific facilitators and talanoa.

**Comment:** This review examined important factors that influence healthy behaviour changes among Pacific people. This is particularly relevant for people living with a chronic condition such as diabetes, heart disease and certain cancers. The study findings will be useful for designing interventions for Pacific people living with chronic conditions. 27 studies were included in the final analysis published in 6 countries between 1996 and 2020. The review identified new and important potential elements when designing behaviour change interventions for Pacific people. All but 1 study included culturally adapted elements or added cultural elements to the design of their programme which closely resonated with Pacific people. Examples included cooking with local or culturally appropriate food, using *hula* (cultural dance) as a form of exercise, incorporating local language, and cultural customs during education sessions. Unfortunately, there were few studies conducted in NZ and the Pacific region. Most of the existing studies were conducted in the US. Further research is needed in this area conducted with and for Pacific people who live in NZ and the Pacific region.

**Reference:** *BMC Public Health* 2021;21(1):435

[Abstract](#)

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## Identifying opportunities to strengthen school food environments in the Pacific: A case study in Samoa

**Authors:** Reeve E et al.

**Summary:** This study examined outcomes after the introduction of a healthy school food policy in Samoa in 2012. In-depth semi-structured interviews were conducted with 30 individuals in 2018. Health policymakers and leaders in Samoa were found to be strongly committed to improving school food environments. However, there continued to be challenges in ensuring compliance with school nutrition standards. Key issues negatively impacting the policy's effectiveness were the lack of priority given to school food by stakeholders outside of health, and the high prevalence of unhealthy food in the areas immediately surrounding schools. Vendor knowledge and capacity was also an issue. The respondents identified community-level leaders to be potentially pivotal stakeholders to improve the implementation of the healthy school food policy, particularly where school governance relies heavily on community representation.

**Comment:** Improving the food environment for children and young people in schools is a priority across much of the world. This study examined the Samoa experience after the introduction of stronger and targeted food policies. In 2018, the authors conducted in-depth semi-structured interviews with 30 key informants in addition to a review of several local policy documents. In general, the researchers found that health policymakers and leaders in Samoa were strongly committed to improving school food environments but there were ongoing challenges in ensuring compliance with the school nutrition standards. There was potential to capitalise on political will for diet-related NCD prevention.

**Reference:** *BMC Public Health* 2021;21(1):246

[Abstract](#)

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## Equity of expenditure changes associated with a sweetened-beverage tax in Tonga

**Authors:** Teng A et al.

**Summary:** This study investigated the impact of a sweetened-beverage tax (T\$0.50/L) on beverage expenditure patterns in Tonga after its introduction in 2013. Household Income and Expenditure Surveys of randomly selected households were conducted in 2009 (n=1982) and 2015/16 (n=1800). Changes in soft drink (taxed), or bottled water and milk (both untaxed) expenditure were examined. Analysis of the data found a decrease in soft drink expenditure after introduction of the tax, and an increase in bottled water expenditure.

**Comment:** The study examined changes in beverage expenditure patterns before and after the introduction of a sugar-sweetened beverage or 'sugar tax' in Tonga in 2013. The tax was associated with reduced soft drink purchasing and increased bottled water expenditure. Low-income households appeared to have slightly greater declines in soft drink expenditure. The study findings are consistent with studies from other countries confirming a decline in soft drink consumption as a result of a modest increase in tax.

**Reference:** *BMC Public Health* 2021;21:149

[Abstract](#)

## Mortality in Tonga over three triennia, 2010–2018

**Authors:** Figueroa C et al.

**Summary:** This study in Tonga examined infant mortality rates, under-5 mortality rates, adult mortality, and life expectancy at birth for the period 2010–2018. Mortality data were retrieved from the Ministry of Health, national (Vaiola) hospital, community nursing reports, and the Civil Registry. The reconciled data were aggregated into triennia (2010–2012, 2013–2015, and 2016–2018) to reduce stochastic fluctuations in annual mortality rates due to small numbers. Over the three triennia, levels varied minimally for infant mortality rates and under-5 mortality rates, and also for life expectancy at birth (64–65 years for males and 69–70 years for females). Cumulated risks of adult mortality were significantly higher in men than women.

**Comment:** There are anecdotal reports of static or declining life expectancy at birth across a number of Pacific Island countries and territories. Similarly, declines in infant mortality and under-5 mortality have been reported across all Pacific nations. This study is a comprehensive analysis of mortality patterns in Tonga examining infant mortality rates, under-5 mortality rates, adult mortality and life expectancy at birth from 2010 to 2018. Life expectancy at birth in Tonga during this period has remained relatively low and static, with low infant mortality rates and under-5 mortality rates, indicating the substantial impact from premature adult mortality. Premature mortality was higher in men compared with women. The study showed low life expectancy and higher premature adult mortality than previously reported by international agencies. Analysis of mortality data provides useful information for a range of health and social services planning.

**Reference:** *BMC Public Health* 2021;21:36

[Abstract](#)

## The enrolment gap: Who is not enrolling with primary health organizations in Aotearoa New Zealand and what are the implications?

**Authors:** Irurzun-Lopez M et al.

**Summary:** This study investigated PHO enrolment rates in Aotearoa NZ in 2015–2019, and the variation between different regions and socio-demographic groups. Analysis of the data showed that about 6% of the NZ population was not enrolled with a PHO in 2019. There were persistent differences between geographic regions and across socio-demographic groups. Māori had lower enrolment rates than NZ European/other groups. Young people (aged 15–24 years) were the least likely to be enrolled. The most affluent areas in NZ had the highest enrolment rates; Auckland District Health Board (ADHB) had the lowest rate.

**Comment:** This study examined enrolment rates with PHOs in NZ during 2015–2019. Enrolment with PHOs indicates likelihood of use of primary and community health services with high potential to reduce inequities in access to primary health care. The study showed that approximately 6% of the NZ population were not enrolled with a PHO in 2019. Enrolment rates were lowest among Māori and highest among Pacific people. Enrolment among Pacific people was 100% but data limitations make interpretation difficult. Enrolment was highest among young people aged 5–14 years. Enrolment rates were lowest in the ADHB region. The study confirms ongoing concerns about inequities in enrolment rates and the potential impact on access to primary health care services. Continued efforts to improve the accuracy and completeness of the denominator population (population entitled to enrol in a catchment area) are needed, and efforts to encourage enrolment should be strengthened.

**Reference:** *Int J Equity Health* 2021;20(1):93

[Abstract](#)