

# Pacific Health Review

Making Education Easy

Issue 31 – 2021

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### Abbreviations used in this issue

**COVID-19** = coronavirus disease 2019  
**MOH** = Ministry of Health  
**WHO** = World Health Organization

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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 of interest to Pacific people living in Aotearoa New Zealand, including the vulnerability of Māori and Pacific people to COVID-19 infection and hospitalisation, the profound negative impact of COVID-19 on the mental health and wellbeing of low-income New Zealanders, and the causes, impacts and costs of unintentional childhood injuries in NZ. Research from the Cook Islands warns us of the influence of early life environments on the development of noncommunicable diseases in later life, and reports the efficacy of a mobile phone-based smoking cessation intervention. From Fiji, we have an analysis of the cultural determinants of fruit and vegetable consumption in indigenous Fijian children.

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.**

## Māori and Pacific people in New Zealand have a higher risk of hospitalisation for COVID-19

**Authors:** Steyn N et al.

**Summary:** This NZ study evaluated ethnic disparities in the risk of severe outcomes associated with COVID-19. Data were obtained from the EpiSurv database for all 1829 confirmed and probable cases of COVID-19 reported in NZ up to 25 Sep 2020. Age was associated with a 4.5% increase in odds of hospitalisation per additional year, and the presence of at least 1 underlying health condition increased the odds of hospitalisation 1.74-fold (95% CI 1.14–2.65;  $p=0.01$ ). After controlling for age and underlying conditions, Māori and Pacific people had a significantly higher likelihood of being hospitalised for COVID-19 than other ethnicities (2.5-fold for Māori and 3.06-fold for Pacific people). Asian people were also at higher risk but the increase was not statistically significant. Māori were likely to spend 4.9 days longer in hospital than NZ European/Other, and Pacific people were likely to spend 5.2 days longer in hospital than NZ European/Other. The number of fatalities was too small to draw any definite conclusions about the relationship between ethnicity and the risk of death related to COVID-19.

**Comment:** It is well known that Māori and Pacific people are highly susceptible to viral pandemics. This study of 1829 confirmed or probable cases of COVID-19 reported in NZ up to 25 Sep 2020 showed that Māori and Pacific people had significantly higher likelihood of being hospitalised for COVID-19 compared with non-Māori non-Pacific people after controlling for age and underlying conditions. Māori and Pacific people were also more likely to spend longer in hospital. The number of deaths was too few to draw any firm conclusions. These indicators suggest that Māori and Pacific people suffer more severe disease. COVID-19 vaccination rollout in NZ started in Feb 2021 and vaccination status would not have been a factor in the ethnic differences observed. The study findings confirm yet again that Māori and Pacific people are particularly vulnerable to COVID-19 infection and hospitalisation.

**Reference:** *N Z Med J* 2021;134(1538):28-43

[Abstract](#)

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## 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.



## Emergency COVID-19 funding to general practices in early 2020: Lessons for future allocation to support equity

**Authors:** Selak V et al.

**Summary:** This NZ study evaluated the distribution of COVID-19 emergency funding to general practices in March and April 2020, and discussed whether future funding to general practices should be allocated differently to support equity for patients. 915 practices were stratified according to their proportion of high-needs enrolled patients (Māori, Pacific, or those with socioeconomic deprivation). The median combined March/April funding for general practices with 80% high-needs patients was higher than the funding received by general practices with fewer than 20% high-needs patients (\$36,674 vs \$28,686 per practice, and \$10.50 vs \$7.11 per patient). The March allocation increased funding for high-needs patients but the April allocation did not. The researchers recommended that the MOH should apply pro-equity resource allocation in all future emergencies.

**Comment:** COVID-19 has seriously disrupted the provision of health services in NZ, including primary health care. Due to public health restrictions such as social distancing, primary health care services have been provided remotely which has led to a 50–80% reduction in GP consultations and a reduction in general practice incomes. General practice in NZ is mostly privately owned and funded by a combination of patient fees and government subsidies. Funding has been in the form of capitation payments and practices can opt to obtain additional payments such as Very Low Cost Access (VLCA) and Zero Fees for Under 14s and 6s (for non-VLCA practices). Despite increasing government subsidies for general practices, cost continues to be a barrier to access especially among Māori and Pacific people and those living in the most socioeconomic deprived areas. Due to the disruptions in service provision and a decline in general practice incomes, the MOH provided emergency funding to support general practices in March and April 2020. Data for this study were obtained from 951 practices and 915 (96%) were included in the study. March allocation was pro-equity while the April payment was not. The authors highlighted the need to strengthen pro-equity arrangements in any future emergency funding to general practices.

**Reference:** *N Z Med J* 2021;134(1538):102-10

[Abstract](#)

## Life during lockdown: A qualitative study of low-income New Zealanders' experience during the COVID-19 pandemic

**Authors:** Choi K et al.

**Summary:** This study evaluated the experiences of low-income New Zealanders during the COVID-19 lockdown in 2020. 27 low-income individuals were interviewed in Jun/Jul 2020 immediately after lockdown was lifted. Most of them found life during lockdown to be challenging due to fear of the virus, mental distress and isolation. They generally felt safe at home and coped financially despite experiencing financial stress. Participants coped with lockdown using technology, self-help techniques and support from others. The welfare state ensured they had access to health services and welfare payments. However, the payments did not fully meet participants' needs, and extra support from charitable organisations was needed. Overall, participants were positive about the Government's response to their needs during lockdown.

**Comment:** This study explored low-income New Zealanders' experiences of the Government's COVID-19 policy response and lockdown in March–May 2020. Level 4 lockdown in March 2020 brought widespread economic and social consequences. The Government provided support in a number of ways for workers and others facing hardship. Despite government support, charitable organisations expressed concern over the rising number of those seeking assistance due to unemployment. This study was a qualitative investigation of 27 low-income individuals selected from community organisations in Auckland and Christchurch. The study showed a profound negative impact of COVID-19 on people's mental health and wellbeing, and many endured financial hardship, especially among Māori. The majority of the participants had to access food banks during lockdown. Despite the stress and hardship, most participants were positive about the Government's response to the pandemic at that time.

**Reference:** *N Z Med J* 2021;134(1538):52-67

[Abstract](#)

## The societal cost of unintentional childhood injuries in Aotearoa

**Authors:** Young M et al.

**Summary:** This study estimated the burden and inequity of unintentional childhood injury in Aotearoa NZ. Data from the Accident Compensation Corporation (ACC) and the MOH were used to estimate the direct, indirect and intangible costs of unintentional injuries in children aged <15 years, and the inequity of the impact of childhood injury on discretionary household income. 257,000 children had an unintentional injury in 2014, resulting in direct and indirect costs of almost \$400 million. Pacific children had the highest incidence rates. Māori children had the lowest rates of ACC claims but the highest rate of emergency department attendance. Children living with the highest levels of socioeconomic deprivation had the highest rates of hospital admission after injury. The proportional loss in discretionary income arising from an injury was higher for Māori and Pacific households than for non-Māori, non-Pacific households.

**Comment:** Unintentional injuries are common in children and young people in NZ. Approximately 66 children (0–14 years) die from unintentional injuries each year. This is a study of more than 250,000 children who suffered from an unintentional injury in 2014 resulting in almost \$400 million dollars of direct and indirect costs. Pacific children had the highest unintentional injuries. Falls were the most common cause of injury followed by sports injuries. Injuries from falls were highest among Pacific children at 164 per 100,000 children. Pacific children had fewer long-term disabilities and therefore lower health impacts. This indicates that there may be gaps in longer-term follow-up treatment for Pacific children, who appeared to have fewer long-term injuries due to lack of events past 1 year of age. This is an important study highlighting the causes, impacts and costs of unintentional injuries in NZ. There are substantial ethnic differences which provide useful information for further injury prevention planning and service design.

**Reference:** *N Z Med J* 2021;134(1540):25-37

[Abstract](#)

## Does the National Immunisation Register stack up? Quantifying accuracy when compared to parent-held health record books

**Authors:** Chisholm H et al.

**Summary:** This study examined the concordance between immunisation records held in the National Immunisation Register (NIR) and the Well Child Tamariki Ora parent-held health record books. Immunisation data for vaccinations given between birth and 4 years of age for children born in 2006–2019 were compared. Overall, NIR performance was high: sensitivity ranged from 90–93%, specificity ranged from 78–85%, the positive predictive value ranged from 91–94% and the negative predictive value ranged from 77–84%. NIR performance was higher for vaccines on the National Immunisation Schedule (NIS) than for non-NIS vaccines.

**Comment:** There are ongoing concerns about the completeness and accuracy of the information held in the NIR. This study compared information held in the NIR and the parent-held Well Child Tamariki Ora record book (Health Books) for children born between 2006 and 2019. Overall, the NIR performance was high, especially in relation to the sensitivity (positive agreement between the two data sets) and the positive predictive value (the probability that those found have had the immunisation) in the NIR and the Health Book. This is an important study in that health practitioners can have confidence in the NIR and continue to support it. It is a timely reminder that the NIR is only as good as the information that is provided to the Register.

**Reference:** *N Z Med J* 2021;134(1541):22-32

[Abstract](#)



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## Birth weight and adolescent health indicators in Rarotonga, Cook Islands

**Authors:** Tu'akoi S et al.

**Summary:** This study investigated early-life associations with later-life health in Rarotongan-born students. 195 students (median age 13 years) were included. 67.7% were overweight or obese, 45.7% had central obesity, and 42.7% had elevated blood pressure. Birth weight was found to be inversely associated with central obesity ( $p=0.043$ ).

**Comment:** Healthy early life environments have been shown to be critical in the development of noncommunicable diseases (NCDs) in later life. Studies have also shown that better understanding of the developmental origins of health and disease (DOHaD) can inform an effective approach to risk reduction. This is the first study of early life environment conducted in the Pacific islands, where NCDs are responsible for at least 75% of all deaths annually. The prevalence of adult overweight and obesity rates in Rarotonga are 90% and 70%, respectively, and raised blood glucose affects nearly a quarter of the adult population. This study examined early-life associations with later-life health outcomes by matching birth weight and adolescent health indicators in Rarotongan-born students between 2016 and 2018. Health data were collected from 403 year 9 students from 4 secondary schools in Rarotonga. 195 students had matching birth and adolescent data and were included in the study. Approximately two-thirds of the 195 students were overweight/obese. A significant inverse association was found between birth weight and central obesity. This is an important study in the Cook Islands, confirming other DOHaD studies that showed the influence of early life environments on the development of NCDs in later life.

**Reference:** *Asia Pac J Public Health* 2021; published online Sep 22

[Abstract](#)

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## Takore i te Kai Ava'ava (quit smoking), a mCessation program adapted for the Cook Islands

**Authors:** Ringi T et al.

**Summary:** Mobile phone-based smoking cessation interventions are designed to support smokers to quit. This study evaluated the use of Takore i te Kai Ava'ava, a text message-based smoking cessation programme delivered to smokers living in Rarotonga in 2019. 88 smokers completed a baseline questionnaire about current smoking behaviour and previous quit attempts, and were followed up after 2 months. 32 people completed the follow-up interviews. Of these, 10 (31%) had not smoked in the past week, and 23 (72%) reported a serious quit attempt. 29 (91%) participants felt that the programme would be useful in the Cook Islands.

**Comment:** Smoking is a major public health problem in the Pacific islands where tobacco use in adult males is among the highest in the world. Furthermore, smoking rates in the islands have not declined despite several efforts to prevent smoking and encourage cessation. Mobile phone-based cessation interventions have been effective in supporting cessation in some developed countries. This study and separate studies in American Samoa show that cessation efforts supported by mobile phone technology can be effective aids to quitting. Less than half the participants in this study responded at 2 months but they reported encouraging trends where one-third had not smoked in the week prior to contact. Furthermore, more than 90% of study participants affirmed the use of the programme in the Cook Islands. Longer-term results are unknown.

**Reference:** *Asia Pac J Public Health* 2021;33(6-7):714-20

[Abstract](#)

## Cultural determinants of fruits and vegetable consumption in indigenous (iTaukei) Fijian children

**Authors:** Hawea SMC et al.

**Summary:** This article evaluated caregivers' perspectives on cultural determinants of fruit and vegetable consumption among indigenous children in Fiji. Thematic analysis of focus groups of caregivers of children aged 6 months to 5 years in Suva showed that the caregivers believed that meal components lacked fruit and vegetables, and that food preparation and cooking methods of fruit and vegetable did not stimulate the children's appetites. Non-vegetable products such as meat and fish were considered to be more valued and privileged for those consuming them. Understanding caregiver-perceived cultural determinants is important to inform strategies to increase fruit and vegetable consumption in indigenous Fijian children.

**Comment:** Most Pacific island communities report low intake of fruit and vegetables despite programmes to promote the '5+ a Day' global campaign over many years. Dietary patterns in most islands are dominated by carbohydrates, fish and meat. Food preparation and dietary consumption patterns are strongly influenced by cultural and socioeconomic circumstances of the local community. Children's diets are determined by the choices of their caregivers. This is a qualitative study using focus groups of caregivers of indigenous Fijian children aged 6 months to 5 years in Suva. Understanding cultural preferences and traditional knowledge of caregivers strongly influenced the choices made for children, including consumption of fruit and vegetables.

**Reference:** *Asia Pac J Public Health* 2021;33(6-7):747-52

[Abstract](#)

## Medication risk management and health equity in New Zealand general practice

**Authors:** Leitch S et al.

**Summary:** A general practice electronic alert system has been developed that notifies clinicians about a patient's risk of harm due to pre-existing medical conditions or current medication. This NZ study investigated ethnic and demographic disparities in clinicians' responses to a harm alert. 66 general practices throughout NZ participated. Data were available for 1611 alerts detected for 1582 patients in 2018–2019. The primary outcome was whether action was taken following an alert or not. Logistic regression analysis showed that the likelihood of having action taken in response to an alert was slightly lower for Māori and Pacific patients compared with European patients (odds ratios for Māori and Pacific patients were 0.88 [95% CI 0.63–1.22] and 0.88 [95% CI 0.52–1.49], respectively), and significantly lower for females versus males (odds ratio 0.76, 95% CI 0.59–0.96).

**Comment:** Medication use is highly variable among patients and especially among ethnic minorities and people with socioeconomic disadvantage. Health inequities are common in NZ, including major differences in access to and use of medications among different ethnic groups. This study explored the actions of clinicians following the implementation of an alert system of potential harm from medications in 66 practices throughout NZ. The study found that clinicians generally took action although they were less likely to take action for women and Māori and Pacific patients. Better understanding of the behaviour of health care providers will assist in eliminating bias in health care settings and reduce health care inequities.

**Reference:** *Int J Equity Health* 2021;20(1):119

[Abstract](#)