

# Pacific Health Review

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Issue 28 – 2021

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### Abbreviations used in this issue

COVID-19 = coronavirus disease 19

**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.

In this issue, a longitudinal study reports that Pasifika children in NZ often face considerable residential disruption in their early lives that may compromise their ongoing health and development, a study raises questions about the awareness of Pasifika families about the NZ National Poisons Centre, and a study from Middlemore Hospital reports an over-representation of Pasifika and Māori patients with diabetic ketoacidosis. Early evidence from the Whānau Pakari preschool obesity prevention programme shows encouraging signs, and a rare study from Samoa reports a dramatic rise in cancer incidence over a 10-year period.

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

Kind regards,

**Collin Tukuitonga**

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## Residential mobility for a national cohort of New Zealand-born children by area socioeconomic deprivation level and ethnic group

**Authors:** Robertson O et al.

**Summary:** This longitudinal study investigated the residential mobility of NZ-born children according to deprivation levels and ethnicity. 565,689 children born in NZ in 2004–2018 who had at least 1 recorded residential move between birth and age 4 years were included. Analysis of the data showed that children usually moved to an area with the same level of socioeconomic deprivation; this was especially pronounced in the most and least deprived areas. The number of moves increased with level of deprivation. Māori and Pasifika children were over-represented in high-deprivation areas and under-represented in low-deprivation areas, and had a disproportionately high number of moves compared with children of the same age in the overall population.

**Comment:** This is an important study in respect of life experiences of Pasifika (and Māori) children aged under 4 years. This is the most critical period in the development of the child. The study confirms what we know – that Pasifika children face considerable disadvantage and disruption in their early lives which compromises their health and wellbeing, and learning and development. Study findings should inform policies addressing poverty and socioeconomic disadvantage among Pasifika (and Māori) families. The study should be repeated at regular intervals to monitor the progress made (if any) with the Government's policy on lifting all NZ children out of poverty. Poverty is a significant drag on the learning potential of Pasifika children.

**Reference:** *BMJ Open* 2021;11:e039706

[Abstract](#)

## Independent commentary by Dr Collin Tukuitonga

Dr 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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## A retrospective analysis of calls to the New Zealand National Poisons Centre regarding Pacific patients

**Authors:** Kumpula E-K et al.

**Summary:** This study examined the utilisation of the NZ National Poisons Centre (NZNPC) by Pasifika families. 40,185 calls were made to the NZNPC in 2018–2019, of which 367 (3.4%) were for Pasifika patients, 24,892 (61.9%) for non-Pasifika patients and 13,926 (34.7%) for patients of unknown ethnicity. Most (78%) Pasifika patients were aged 0–5 years, and most exposures involved liquid products (46.6%) and analgesics (8.3%).

**Comment:** An interesting study raising more questions about poisoning among Pasifika children in that they only constituted 3.4% of all calls. This raises several questions for further analysis such as awareness of Pasifika parents about the NZNPC and are they more likely to visit the Emergency Room or A&E clinics. Furthermore, it is possible that not all Pasifika people were identified by the NZNPC and some may have been included in the 34.7% with unreported/unknown ethnic origins. The study suggests that NZNPC could make improvements in their service to Pasifika people.

**Reference:** *NZ Med J* 2021;134(1528):26-34

[Abstract](#)

## Diabetic ketoacidosis admissions at Middlemore Hospital

**Authors:** Lee JH & Orr-Walker BJ

**Summary:** This observational study analysed the ethnic and socioeconomic characteristics of patients admitted to Middlemore Hospital with diabetic ketoacidosis (DKA). 57 patients with type 1 diabetes who were hospitalised with DKA in 2015/16 were included. 35% of patients were Pasifika and 23% were Māori. When compared to regional census data, there was an over-representation of Pasifika and Māori patients in those admitted with DKA. In addition, over half (56%) of patients were from the lowest quintile of socioeconomic status. The most common causes of DKA were non-adherence to insulin treatment (59%), infection (16%) and a new diagnosis of type 1 diabetes (14%). Analysis of those with DKA due to non-adherence to insulin found a disproportionate number of Pasifika and Māori patients.

**Comment:** Type 1 diabetes is increasing internationally including in Pasifika children and young people. Analysis of admissions of DKA to Middlemore Hospital over 1 year showed that 35% of all cases were Pasifika and 23% were Māori. The main reasons for the DKA admission were non-adherence to insulin and infections. The findings suggest that the care of Pasifika and Māori young people with type 1 diabetes needs considerable improvement. A detailed study of the circumstances surrounding non-adherence to insulin is urgently needed.

**Reference:** *NZ Med J* 2020;133(1525):34-40

[Abstract](#)



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## Uptake and outcome of a community-based healthy lifestyle intervention for preschoolers identified with obesity

**Authors:** Cave TL et al.

**Summary:** This study examined the uptake and efficacy of Whānau Pakari, a community-based healthy lifestyle intervention for preschoolers with obesity. 143 children aged 4–5 years with obesity were referred to the Whānau Pakari preschool programme between July 2016 and March 2019. Of those referred, 75 children (52%) engaged with the service. 45% of children were NZ European, 41% were Māori, 5% were Asian and 4% were Pasifika. Among children who engaged with the programme, 38 (51%) completed the 6-month assessment and 24 (32%) completed the 12-month assessment. There was no change in BMI standard deviation score from baseline at 6 or 12 months overall, although 55% and 42% of children had a reduction in BMI at the 2 respective time-points. The remaining children had an increase in BMI.

**Comment:** Excess weight and obesity in children and young people is increasing worldwide including in Pacific people in NZ and the Pacific region. However, a recent study in NZ showed a decline in obesity in 4-year-old children in certain areas. Childhood obesity remains an important public health challenge for Pasifika families and there is an urgent need to identify interventions that are effective and sustainable. Early evidence from the Whānau Pakari preschool obesity prevention programme among Māori children shows encouraging signs. Given similar cultural and socioeconomic circumstances, Whānau Pakari should be considered for Pasifika children and their families.

**Reference:** *NZ Med J* 2020;133(1524):135-9

[Abstract](#)

## Cataract surgery in New Zealand: Access to surgery, surgical intervention rates and visual acuity

**Authors:** Chilibeck C et al.

**Summary:** This cohort study examined ethnic disparities in access to public-funded cataract surgery, surgical intervention rates and visual acuity in NZ. 44,403 patients were identified between November 2014 and March 2019 as needing public-funded cataract surgery. Mean age at prioritisation was 74.4 years, and 56% were female. 69.8% of patients were NZ European and 9.6% were NZ Māori. Māori and Pasifika patients presented a mean 10 years earlier than other ethnic groups, with significantly worse visual acuity. Surgery was approved in 74.4% of prioritisation cases.

**Comment:** Pasifika people are known to have major challenges getting access to specialist health services, including eye health. This study of 44,403 patients needing cataract surgery showed that Pasifika and Māori patients presented 10 years earlier than other ethnic groups, with worse vision than non-Māori, non-Pasifika patients. Visual impairment is an important disability that has a major impact on daily living. Improvements in the care of Pasifika people with visual problems are needed across the entire spectrum of care. Early access to eye health care and vision testing is an important priority.

**Reference:** *NZ Med J* 2020;133(1524):40-9

[Abstract](#)

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## Cancer incidence in Samoa: A 10-year retrospective survey (2007-2016)

**Authors:** Sam FAL et al.

**Summary:** This study investigated trends in the incidence of cancer in Samoa over the period 2007–2016. All laboratory and clinically confirmed cases of cancer at government and nongovernment facilities were reviewed. The incidence of cancer increased steadily from 2007 (28.5 per 100,000) to 2012 (67.1 per 100,000). The incidence rate declined in 2013 (51.4 cases per 100,000), increased in 2014 (65.1 cases per 100,000) and decreased again in 2015 (54.3 cases per 100,000). The most common types of cancer involved the genitalia and breasts in women, and the digestive system in men.

**Comment:** Cancer incidence is increasing worldwide including the Pacific Islands. This is a rare study from Samoa showing a dramatic rise in cancer incidence over a 10-year period. Fluctuations described by the authors most likely reflect reporting rather than a real change in incidence. The most common cancers were female genitalia and breast in women and cancers of the digestive system in men. Most of these cancers are preventable and increased investment in cancer services in Samoa and the Pacific islands is likely to have a major impact on the burden of cancers in these nations.

**Reference:** *Asia Pac J Public Health* 2020; published online Nov 2  
[Abstract](#)

## Pacific and English language fluency and mental disorder symptom indications among Pacific mothers in New Zealand

**Authors:** Schluter PJ et al.

**Summary:** This analysis of the Pacific Islands Families study evaluated the association between language fluency and mental health disorders in new Pacific mothers in NZ. A cohort of Pacific mothers was evaluated 6 weeks, 1 year, and 2 years after giving birth at Middlemore Hospital. At 6 weeks, 27.0% of Pacific mothers were fluent in both Pacific and English languages, 40.8% were fluent only in Pacific language(s), and 32.2% were fluent in English only. Adjusted analyses found that, compared with bilingual mothers, Pacific mothers who spoke only English had a 2.24-fold increased risk of mental health symptoms and those who spoke only Pacific language(s) had a 1.52-fold increased risk.

**Comment:** The Pacific Islands Families study is the first cohort study of Pasifika families of 1398 children born at Middlemore Hospital starting in 2000. It has revealed a number of interesting findings into parenting and child development among Pasifika families. This study is an interesting investigation into mental health disorders among mothers of the cohort, showing potential protective effects of maintaining links with their Pasifika cultures and the ability to speak a Pasifika language. It demonstrates the importance of social connection and maintaining strong cultural affiliation in protecting and promoting health and wellbeing.

**Reference:** *Asia Pac J Public Health* 2020; published online Sep 10  
[Abstract](#)

## Patient perspectives of diabetes and diabetic retinopathy services in Kiribati

**Authors:** 'Ofanoa M et al.

**Summary:** More than 20% of the Kiribati population has type 2 diabetes. This study used Talanga and Kakala Pacific research methodologies to explore patient perspectives on type 2 diabetes and its management in Kiribati. Data were collected from Kiribati patients in focus group interviews. Key topics that were discussed included the patients' knowledge of type 2 diabetes, their access to the health care system, and the need for lifestyle changes. Failures of health care services to meet the complex needs of these patients were identified. Suggested improvements included village-based health promotion, a community-based programme focusing on individuals from early childhood onwards, an increase in the skilled workforce, and an integrated approach to service delivery.

**Comment:** The prevalence of type 2 diabetes mellitus is very high and rising among Kiribati people similar to other populations of the Pacific region. This is a rare and interesting study investigating knowledge of diabetes and understanding of the health system in Kiribati. It confirms clinical practice experience that Kiribati people need more effective information delivery and support for improvements in service delivery. The authors note the importance of early interventions with a focus on young people and schools and support for community-based health promotion.

**Reference:** *Asia Pac J Public Health* 2020; published online Dec 7  
[Abstract](#)

## Rising ethnic inequalities in acute rheumatic fever and rheumatic heart disease, New Zealand, 2000-2018

**Authors:** Bennett J et al.

**Summary:** This study evaluated social and ethnic disparities in rates of acute rheumatic fever (ARF) and rheumatic heart disease (RHD) in NZ. Primary ARF and RHD hospitalisations were evaluated in 2000–2018 and RHD mortality rates were assessed in 2000–2016. Rates of initial ARF hospitalisations were significantly higher in Māori (adjusted rate ratio [aRR] 11.8, 95% CI 10.0–14.0) and Pacific Islanders (aRR 23.6, 95% CI 19.9–27.9) than in those of European or other ethnicity. Rates of initial RHD hospitalisation were also higher for Māori (aRR 3.2, 95% CI 2.9–3.5) and Pacific Islander (aRR 4.6, 95% CI 4.2–5.1) groups, as were rates of RHD deaths (aRR 12.3 and 11.2, respectively). ARF and RHD rates were also higher in socioeconomically disadvantaged communities.

**Comment:** ARF/RHD is a disease of poverty and, despite ARF/RHD prevention policy interventions in NZ, the disease remains very common among Pasifika and Māori young people. In recent years, the NZ Government has invested significant financial resources in ARF/RHD prevention, especially in improving the quality of housing for Pasifika and Māori families. Despite this investment, the incidence of ARF/RHD in Pasifika people increased in 2019 (not included in this study). A continuing high prevalence of ARF/RHD in Pasifika families despite financial investment suggests that a new approach co-designed with affected communities is warranted.

**Reference:** *Emerg Infect Dis* 2021;27(1):36-46  
[Abstract](#)

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

**Authors:** Steyn N et al.

**Summary:** This NZ study evaluated the risk of hospitalisation in COVID-19 patients according to ethnicity. 1829 COVID-19 cases reported in NZ were assessed for age, ethnicity, deprivation index, pre-existing health conditions, and clinical outcomes. Logistic regression analysis adjusted for age and pre-existing conditions showed that, compared with non-Māori and non-Pacific people, Māori with COVID-19 had a 2.5-fold higher risk of hospitalisation and Pacific people had a 3-fold higher risk of hospitalisation.

**Comment:** Pasifika and Māori are long known to be over-represented in viral outbreaks and other infectious diseases, including the 1918 Influenza Pandemic and the 2009 H1N1 outbreak. This study confirms this pattern where Pasifika and Māori people are twice as likely to be hospitalised with COVID-19. The authors state that structural inequities and racism in health care are possible explanations for these differences. It is also worth noting in particular that Pasifika families are more likely to live in overcrowded, damp and cold houses. They are also more likely to have pre-existing conditions such as obesity and diabetes that lead to increased risk of COVID-19 infection and hospitalisation.

**Reference:** *medRxiv* 2020;12.25.20248427  
[Abstract](#)