

Pacific Health Review

Making Education Easy

Issue 39 – 2023

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Abbreviations used in this issue

ED = emergency department
GP = general practitioner
HbA_{1c} = glycated haemoglobin
NGO = non-governmental organisation
OR = odds ratio
PHO = primary health organisation
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 and the Pacific Region. Highlights include a clinical audit of diabetes in the Cook Islands, suggestions for improving vaccine uptake by pregnant women, widening ethnic disparities in heart failure incidence, and reasons for non-attendance at a diabetic retinal screening programme in Te Tai Tokerau (Northland).

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

Kind regards,

Sir Collin Tukuitonga

collin.tukuitonga@pacifichealthreview.co.nz

Dr Roannie Ng Shiu

roannie.ngshiu@pacifichealthreview.co.nz

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Diabetes in the Cook Islands: A clinical audit

Authors: Tepai M et al.

Summary: This study investigated the prevalence of prediabetes, type 2 diabetes, and gestational diabetes in the Cook Islands. Data from two Te Marae Ora Cook Islands Ministry of Health datasets were analysed: the Non-Communicable Diseases register for the period 1967–2018 and the gestational diabetes register for the period 2009–2018. A total of 1270 cases of type 2 diabetes, 54 cases of pre-diabetes, and 146 cases of gestational diabetes were identified; 53% of type 2 diabetes cases were female and half were aged 45–64 years. Twenty women with gestational diabetes went on to develop type 2 diabetes (80% before the age of 40 years).

Comment (CT): Type 2 diabetes is a major public health problem among Pacific people. This study is an excellent example of information that can be obtained from routinely collected data even with the limitations as outlined by the authors. Both registers are records of 'diabetes events' as people present to health services and, as such, cannot be regarded as reliable estimates of the community prevalence of type 2 diabetes and gestational diabetes. It is notable that half of all cases are in the most productive age groups which illustrates the wider implications of the disease in a small community. An additional issue for the Cook Islands is the number of people with type 2 diabetes and gestational diabetes who travel to Aotearoa New Zealand for health care. With minimal investment in the registers, better information can be obtained for service planning and management of type 2 diabetes and gestational diabetes in the islands.

Reference: *J Prim Health Care* 2023;15(2):176–83

[Abstract](#)

Independent commentary by Sir Collin Tukuitonga KNZM

Sir 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.



Independent commentary by Dr Roannie Ng Shiu

Dr Roannie Ng Shiu is the Pasifika Medical Association (PMA) Senior Research Fellow with the University of Auckland Faculty and Medical and Health Sciences Office of the Associate-Dean Pacific. Her primary role is to deliver robust high-quality Pacific health equity research and to increase the Pacific health workforce in Aotearoa with the recruitment and retention of Pacific health students. She was previously with the Department of Pacific Affairs at the Australian National University. Roannie is Samoan and was raised in South Auckland and graduated from the University of Auckland with a PhD in Community Health.



Interventions to improve vaccine coverage of pregnant women in Aotearoa New Zealand

Authors: Macredie F et al.

Summary: This NZ study evaluated interventions to support and encourage maternal vaccination against influenza and pertussis, particularly among Māori and Pacific women. Six individuals with diverse roles in the vaccination workforce were interviewed. In general they suggested that vaccination interventions need to emphasise the importance of maternal vaccination, empower Māori- and Pacific-driven avenues to vaccination, and must be accessible. Healthcare professionals need to proactively engage with pregnant women regarding vaccination and collaborate in service delivery to improve the accessibility of maternal vaccines to all communities.

Comment (CT): Healthcare interventions tend to focus too much on the 'technical' dimensions of medicines and vaccines, often without a good understanding of the reasons and context for its delivery. The cost-benefit analysis of vaccinations is unequivocal although uptake by people can vary. This is an important in-depth discussion with vaccination health professionals on maternal vaccination for pertussis and influenza. Study findings have identified the reasons for inadequate responses to vaccination, especially for Māori and Pacific women. The authors have made several suggestions for improving vaccine uptake by pregnant women. I would highlight the need for Māori- and Pacific-driven delivery that empowers women and their whānau.

Reference: *J Prim Health Care* 2023;15(3):230–7
[Abstract](#)



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Widening ethnic inequities in heart failure incidence in New Zealand

Authors: Chan DZL et al.

Summary: This study investigated ethnic inequities in heart failure incidence from 2006 to 2018 in NZ. Incident heart failure hospitalisations in adult patients were identified through International Classification of Diseases, 10th Revision (ICD-10)-coded national hospitalisation records. Of 116,113 incident heart failure hospitalisations in 2006–2018, 12.8% of patients were Māori, 5.7% were Pasifika, 3.0% were Asian and 78.6% were European/Other. Overall, 64% of Māori and Pacific patients were aged <70 years, compared with 37% of Asian and 19% of European/Others. In 2018, incidence rate ratios compared with European/Others were 6.0, 7.5 and 0.5 for Māori, Pacific people and Asians aged 20–49 years; 3.7, 3.6 and 0.5 for Māori, Pacific people and Asians aged 50–69 years; and 1.5, 1.5 and 0.5 for Māori, Pacific people and Asians aged ≥70 years. Between 2006 and 2018, ethnicity-specific rates diverged in older patients (≥70 years) due to a decline in rates in European/Others and Asians, but no change in rates in Māori and Pacific people.

Comment (CT): Cardiovascular disease is a leading cause of death and disease among Pacific people. While death rates have declined across all ethnic groups in Aotearoa New Zealand, they have been much slower to decline among Māori and Pacific people. Heart failure is a common manifestation of cardiovascular disease. In this study of hospitalisations over more than a decade, Pacific people were under-represented given their high incidence of cardiovascular disease. Furthermore, approximately two-thirds of hospitalisations among Pacific people were premature (under 70 years of age) compared with just 19% among Europeans/Others. Study findings suggest that Māori and Pacific people need better prevention and management, including smoking prevention and cessation, treatment of high blood pressure, and better management of diabetes, dyslipidaemia and related risk factors. Many of the interventions can take place effectively at the primary care level.

Reference: Call to action - the urgent need for a heart health plan in New Zealand. Devlin, G et al. *N Z Med J.* 2023;136(1585):103-8

Reference: *Heart* 2023; published online Aug 3

[Abstract](#)

Non-attendance at diabetic retinal screening in Te Tai Tokerau, Northland, Aotearoa New Zealand

Authors: Wolpert LE et al.

Summary: This retrospective study explored sociodemographic characteristics of patients who failed to attend diabetic retinal screening in Te Tai Tokerau (Northland). 10,275 individuals (median age 66 years, 54.3% male) who were invited to undergo diabetic retinal screening in Te Tai Tokerau in 2011–2020 were included in the analysis. The non-attendance rate was 26.4%. Multivariable logistic regression analysis showed that the risk of non-attendance was higher in younger individuals (<35 vs >75 years: OR 1.84, 95% CI 1.41–2.40; $p < 0.001$) and in Māori (OR 2.69, 95% CI 2.44–2.96; $p < 0.001$) and Pacific people (OR 1.71, 95% CI 1.25–2.36; $p = 0.001$) compared with NZ Europeans. People living in areas of high socioeconomic deprivation were at higher risk for non-attendance (OR 1.56, 95% CI 1.33–1.82; $p < 0.001$), as were those with type 1 diabetes (OR 1.31, 95% CI 1.08–1.59; $p = 0.006$).

Comment (CT): It is well established that Māori and Pacific patients are more likely to miss clinic appointments than other New Zealanders. This study of a register in Te Tai Tokerau has confirmed this observation for patients expected to attend diabetic retinal screening. The review of more than 10,000 individuals over the decade 2011–2020 confirmed that just over one-quarter of the patients did not attend the clinic, especially younger people (under 35 years) and Māori and Pacific patients. Study findings suggest that health clinics need to review their appointment practices and consider communication with Māori and Pacific communities. Clinic reminders have been shown to improve attendance, as well as better scheduling of appointments. Non-attendance not only compromises patient health but leads to inefficiencies in a health system that is struggling to cope with demands. A [recent study](#) showed a promising model for reducing non-attendance at clinics.

Reference: *N Z Med J.* 2023;136(1582):43–51

[Abstract](#)



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Caregiver experiences of racism and child mental health outcomes: Cross-sectional analysis from Aotearoa New Zealand

Authors: Jaung R et al.

Summary: This study evaluated the association between vicarious racism and diagnosed child mental health conditions in NZ. Data from the 2016/2017 New Zealand Health Survey were used to create 2989 child-caregiver dyads; multivariable logistic regression models were then used to investigate the association between caregivers' experiences of racism and diagnosed child mental health outcomes. The prevalence of vicarious racism was higher for Māori (28.1%), Pacific (23.2%) and Asian (29%) children compared to European/Other children (12.5%). Multivariable logistic regression analysis found a significant association between more than two reports of vicarious racism and diagnosed child mental health conditions (OR 2.53, 95% 1.18–5.43).

Comment (CT): Racism and institutional bias is a recurring theme in the health sector and is a factor in poor health outcomes for some patients from ethnic minority groups. There is no doubt that racism is undesirable and unprofessional but it is extremely difficult to measure. Vicarious racism is described as secondary racism, which occurs when hearing about or witnessing someone else's experience of discrimination or prejudice. This interesting study confirms what is already known about racism in the health sector: compared with NZ Europeans/Others, the prevalence of vicarious racism is higher among Māori, Pacific and Asian people. Racism was found to have a significant association with diagnosed child mental health disorders. It is unclear if racism was attributed to the mental health diagnosis or other factors.

Reference: *N Z Med J. 2023;136(1581):28–43*
[Abstract](#)

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Seen and unseen work: The intensity of service provision for individuals with type 2 diabetes in a high-needs population

Authors: Barthow C et al.

Summary: This exploratory study investigated the volume of work undertaken by members of a practice team providing healthcare to patients with type 2 diabetes living in a high-needs population. The practice (Porirua Union Community and Health Service) operates as a Very Low Cost Access practice and serves a population of 7189 individuals (48% Pacific, 21% Māori and 9.2% refugee). 89% of the practice's patients live in the most deprived areas and many have multimorbidities, including 9.3% with type 2 diabetes. Clinical records were extracted from MedTech for eight patients with type 2 diabetes to ascertain the practice work undertaken. The mean numbers of long-term conditions, unique items prescribed, and daily record entries per case per year were high. A range of workers contributed to service provision, including GPs, nurses, a practice-based prescribing pharmacist, a health improvement practitioner, a health coach, a podiatrist and community health workers.

Comment (RNS): This co-designed study with the Porirua Union Community and Health Service provides useful insights into the complexities of providing health care for some of Aotearoa's most high-needs patients. Using a sample of patients with type 2 diabetes, the authors highlight two key issues that warrant further research. First, they demonstrated that current funding models, including 15-minute consultations, are unsustainable and insufficient when caring for populations with co-morbidities and high medication use. Second, providing an integrated healthcare approach (involving a range of healthcare workers) is necessary when working with patients with type 2 diabetes. The authors highlight opportunities for dietitians and social workers while they have been able to use a prescribing pharmacist to good effect. There are a few other studies that highlight these two issues so it would be worth replicating this study in similar practices across Aotearoa to develop the evidence base.

Reference: *N Z Med J. 2023;136(1581):79–85*
[Abstract](#)

Ethnic group differences in patient satisfaction with GP services

Authors: Lee CHJ & Sibley CG

Summary: This analysis of the 2019 New Zealand Attitudes and Values study evaluated ethnic disparities in patient satisfaction with GP services. Initial analysis of data for 38,465 patients showed that, relative to NZ Europeans, Māori and Asian patients had a lower GP satisfaction level and Pasifika patients had a similar level. However, after adjustment for differences in patient-perceived GP cultural respect and GP ethnic similarity, Māori and Pasifika patients had a greater level of GP satisfaction relative to NZ Europeans, and Asian patients had a similar satisfaction level. These findings were maintained after adjustment for a range of demographic factors. Higher GP satisfaction was a significant predictor of higher self-rated health and lower psychological distress.

Comment (RNS): This study is based on an annual longitudinal study of New Zealand Attitudes and Values. The authors note key limitations in the sampling for the study, with a higher proportion of women, NZ Europeans, and those with higher education and income, and only included people with a regular GP. Therefore, the findings cannot be generalised to all groups in Aotearoa New Zealand. It is well known that survey responses in Aotearoa New Zealand are generally low for Māori and Pacific communities, hence the importance of other Pacific-specific longitudinal studies such as the Pacific Islands Families Study to ensure Pacific voices are captured.

Reference: *N Z Med J. 2023;136(1578):39–54*
[Abstract](#)

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Anatomical sciences education needs to promote academic excellence of ethnic minority students – evidence from Pasifika students at the University of Otago

Authors: Time WS et al.

Summary: This study investigated ethnic disparities in academic performance among anatomy students at the University of Otago. A 5-year review of academic performance of NZ European and Pasifika students in ten undergraduate anatomy courses was undertaken. NZ European students achieved higher marks than Pasifika students in most or all academic years for the courses examined. More Pasifika than NZ European students had to repeat courses. Multiple regression analyses confirmed that Pasifika students were more likely to achieve lower marks than NZ European students across all ten anatomy courses.

Comment (RNS): This paper further demonstrates why affirmative action is necessary for equitable pathways into tertiary education. Research into ethnic disparities in education outcomes exists due to socioeconomic reasons. In the context of this research, the authors are investigating disparities between Pasifika and NZ European students in anatomical sciences. Most Pasifika students came from low socioeconomic areas; some attended schools without any science labs, and some entered the programme without a biology background. Factors such as these hinder Pasifika students and those from low socioeconomic backgrounds from being adequately prepared for the first year of tertiary studies, particularly in sciences. Universities can provide support to address these preparation gaps by providing additional teaching and learning support either in a bridging programme or in students' first semester, Pacific mentorship either through university staff or peers and cultural competency training for teaching staff as part of professional teaching training development.

Reference: *Anat Sci Educ.* 2023;16(6):1011–23
[Abstract](#)

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Is there equity of patient health outcomes across models of general practice in Aotearoa New Zealand?

Authors: Sheridan N et al., for the Primary Care Models Study Group

Summary: This nationwide cross-sectional study investigated ethnic disparities in various models of primary care across NZ. Patient-level data from national datasets and practices were analysed using multilevel mixed effects regression analyses. Primary outcomes were polypharmacy in patients aged ≥ 65 years, HbA_{1c} testing in adults with diabetes, childhood immunisations, ambulatory sensitive hospitalisations, and ED visits. A total of 924 general practices with 4,491,964 enrolled patients were evaluated. Traditional practices enrolled 73% of the population, although patients with high health needs were disproportionately enrolled in Māori, Pacific and Trust/NGO practices. No one model of care out-performed others across all outcomes. Patients with higher health needs received more clinical input but this was insufficient to achieve equity. Across models of care, being Māori or Pacific, or living in material deprivation, were associated with poorer outcomes.

Comment (RNS): Understanding health inequities for Māori and Pacific people in Aotearoa New Zealand requires a social determinants approach beyond the health sector. Although they have lower enrolments of Pacific and Māori patients compared to traditional practices, Māori, Pacific and Trust/NGO practices are having an impact by providing more clinical input to patients with higher health needs. Findings suggest that targeted investment in primary health and community care commissioning is needed to provide adequate health care for patients with high needs, and further research is needed to understand Pacific patients' PHO preferences.

Reference: *Int J Equity Health* 2023;22:79
[Abstract](#)

Digital health and Universal Health Coverage: Opportunities and policy considerations for low- and middle-income Pacific Island countries and territories

Authors: Craig A et al.

Summary: This study investigated the potential impact of digital health on health care delivery in Pacific Island countries. A review of 5 years of meeting reports from Pacific Heads of Health, Pacific Health Ministers, and WHO's Western Pacific Regional Committee was undertaken, in conjunction with an umbrella review of literature on the use of digital health to address health systems challenges in low- and middle-income countries, and interviews with key stakeholders (e.g. policymakers, digital health managers, and technical advisors). Analysis of the data revealed that digital health has the potential to improve the efficiency and effectiveness of established health systems and improve access to equitable and quality health care. However, it does not replace fundamental components of health systems such as a sufficiently skilled health workforce, supply chains, health reporting, financing, and governance.

Comment (RNS): During the height of the COVID-19 pandemic, the possibilities and promise of digital health as a tool to safely deliver health care to the general public were highlighted. In the Pacific region, health leaders have long hoped for a digital health system to support the health sector. The geography of Pacific Island countries and territories presents a challenge in delivering health services equitably. Accessibility to remote and rural communities is a common problem throughout the region, with large countries like Papua New Guinea and the Solomon Islands lacking road infrastructure, and small island states like Kiribati and Tuvalu having many islands dispersed across the Pacific Ocean. This paper provides useful findings to help support digital health responses while reminding us that digital health can only be as effective as other fundamental health systems such as workforce capacity and capability, health leadership and supply chains.

Reference: *pacifichealth* 2023:6
[Abstract](#)

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