

Pacific Health Review

Making Education Easy

Issue 34 – 2022

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Abbreviations used in this issue

DHB = District Health Board
GP = general practitioner
HPV = human papillomavirus

All the team at Research Review wish to pass on our congratulations to

Sir Collin Tukuitonga

who has been made a Knight Companion of the New Zealand Order of Merit for services to Pacific and public health.

You can read more about Sir Tukuitonga's career and achievements here:

<https://dpmc.govt.nz/honours/lists/qb2022-knzm#tukuitongaco>

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 worrying ethnic disparities in venous leg ulcers, cataracts, ventilation tube insertions and COVID-19 vaccinations. We also discuss the Brown Buttabeen Motivation programme (a Pacific-led organisation that aims to reduce obesity), and report the feasibility of HPV self-sampling in never-screened or under-screened Māori, Pacific and Asian women in Auckland.

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

Kind regards,

Sir Collin Tukuitonga

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New Zealand postgraduate medical training by distance for Pacific Island country-based general practitioners

Authors: Blattner K et al.

Summary: This qualitative study evaluated the experiences of GPs from the Cook Islands, Niue, and Samoa who were enrolled in the University of Otago's distance-taught Rural Postgraduate medical training programme. Semi-structured interviews were conducted with 8 students. Access to a recognised academic programme represented a milestone for Pacific Island countries with no previous option for formal GP training. Technology presented some issues but these were generally easily solved. The main challenges were related to the provision of academic and other support, as traditional university support services and resources were campus focused and not always easily accessed by students in the Pacific Islands. Distance learning was found to be most effective when it was part of a recognised and supported Pacific in-country training pathway.

Comment (CT): Small Island Developing States (SIDS) in the Pacific region have considerable challenges recruiting and retaining trained health care workers (HCWs), especially doctors and nurses. One of the major factors in the loss of HCWs is the lack of professional development education and peer support opportunities. This study of country-based doctors from the Cook Islands, Niue and Samoa showed that a structured programme of study provided remotely is effective and described by those without prior opportunity for formal general practice training as a 'milestone'. Clinical relevance and a generalist medical curriculum with a rural focus delivered primarily at a distance were regarded as strengths. The main challenges related to the provision of academic and other support. The University of Otago's Rural Postgraduate programme is an effective option for providing professional development opportunities for doctors in Pacific SIDS. Similar programmes of study delivered remotely should be considered for all SIDS as part of the NZ government's development assistance to the Pacific region.

Reference: *J Prim Health Care* 2022;14(1):74-9

[Abstract](#)

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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.



Ethnic differences in those presenting for outpatient management of venous leg ulcers

Authors: Blackmore S et al.

Summary: This study investigated the demographics of patients presenting to Capital & Coast DHB District Nursing Service with venous leg ulcers. Between Jan 2015 and Dec 2020, 999 patients with a venous leg ulcer (91 Māori, 114 Pasifika, and 794 other ethnicities) were treated by the District Nursing service. 559 patients were female and 440 were male. Comparison with census data for the DHB population showed that Pasifika men and women were greatly over-represented (relative risks of 20 and 19, respectively), whereas Māori men and women were less so (relative risks of 6.6 and 5.0, respectively). Mean age in Pasifika patients (55 years in males and 62 years in females) was lower than that in Māori (57 and 65 years, respectively) and other ethnicities (mean 73 and 79 years, respectively).

Comment (CT): Venous leg ulcers are common in the community. This study confirms clinical observations that Pasifika and Māori adults suffer from higher rates of venous leg ulcers. The study also shows that Pasifika and Māori adults present almost 2 decades earlier than others although the reasons for the ethnic differences are unclear. Higher prevalence of type 2 diabetes mellitus may be a factor in the development of venous leg ulcers among Pasifika and Māori people, although venous leg ulcers are also found in those without diabetes. Overweight and obesity, reduced mobility and a history of varicose veins are other factors. Better understanding of the causes of venous leg ulcers is urgently needed so that preventive interventions can be developed. Venous leg ulcers take up a large proportion of district nursing work hours and incur major social and economic costs to individuals and their families.

Reference: *N Z Med J* 2022;135(1555):19-23

[Abstract](#)

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Disclaimer: This publication is not intended as a replacement for regular medical education but to assist in the process. The reviews are a summarised interpretation of the published study and reflect the opinion of the writer rather than those of the research group or scientific journal. It is suggested readers review the full trial data before forming a final conclusion on its merits.

Research Review publications are intended for New Zealand health professionals.

Patient-reported quality of life and eligibility for cataract surgery: Assessing the relationship between ethnicity and 'Impact on Life' questionnaire scores in New Zealand

Authors: Wang N et al.

Summary: This retrospective NZ study evaluated the association between ethnicity and 'Impact on Life' questionnaire scores in patients prioritised for public-funded cataract surgery between Nov 2014 and Mar 2019. The questionnaire measured quality of life in 6 key domains: safety, social interactions, ability to meet responsibilities to others, personal relationships, personal care and leisure activities. All 6 questions were scored on a scale of 1 (no difficulty) to 6 (extreme difficulty), and the total sum score was calculated. Over the 4.5-year period, 46,352 prioritised patients (mean age 74.4 years, 74% female) completed the questionnaire. After controlling for age, gender, visual acuity and cataract type, there was a small but significant difference between scores for Māori and non-Māori (22.8 and 22.4, respectively; $p=0.001$). Māori and Pacific people presented at a younger age (68.5 and 66.7 years, respectively), and had worse visual acuity than other ethnic groups.

Comment (CT): The Impact on Life questionnaire is a patient-reported quality-of-life assessment tool used to prioritise cataract surgery in NZ. This study showed that Pasifika and Māori people presented at a younger age with worse visual acuity and advanced cataracts than other ethnic groups. However, after controlling for confounders, the mean Impact on Life score did not differ significantly between ethnic groups at the time of prioritisation for cataract surgery. The authors did not report on the actual cataract surgery rates by ethnic groups in NZ. It is highly likely that the Impact on Life tool is inadequate for its intended purpose leading to delayed operations for cataracts among Pasifika and Māori people. A study by Chilibeck and others (*N Z Med J* 2020;133(1524):40-9) showed considerable regional variation in cataract surgery in NZ. It also showed that Pasifika and Māori patients develop more advanced cataracts associated with a greater degree of visual impairment at a younger age. Pasifika and Māori patients face barriers to accessing timely referral for cataract surgery. As a result of severe visual impairment, these patients will, in many cases, have significantly decreased quality of life, increased risk of falls, and decreased independence while waiting for treatment. A better system for accessing cataract surgery is needed in order to reduce chronic inequities in access to care for Pasifika and Māori people.

Reference: *N Z Med J* 2022;135(1553):19-26

[Abstract](#)

Persisting variance in middle ear ventilation tube insertion in Auckland children: Why ethnic disparity continues

Authors: Seo JY et al.

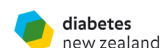
Summary: This NZ study determined temporal trends in ventilation tube (VT) insertion rates by ethnicity and DHB in infants aged 0–4 years. From 2009 to 2018, there was a general decline in the rate of VT insertions. In 2018, Asian and Pacific children had lower rates of VT insertions than other ethnic groups. Rates for Māori, Pacific and Asian children in Counties Manukau DHB were less than half those of their counterparts in Auckland DHB. The NZ European/other group had the highest rates of VT insertions in Counties Manukau DHB and nationally, but a similar rate to that for Māori in Auckland DHB.

Comment (CT): Otitis media is a common condition in children, especially among Pacific and Māori children. VTs are commonly used to treat recurrent and persistent otitis media although the practise varies internationally, including NZ. This study of 0- to 4-year-old children between 2009 and 2018 showed declining use of VTs with considerable variation within the country. Pacific children had the lowest VT insertion rate in Counties and Auckland DHB regions. Furthermore, Pacific, Māori and Asian children in South Auckland had less than half the rates of their respective peers in Auckland Central. European children had the highest VT insertion rate in South Auckland. These findings confirm that there are sustained inequities in access to health care for children. Pacific and Māori children are known to have a greater burden of middle ear disease and yet this study shows that they are not getting fair access to surgical treatment. The VT insertion rates reported in this study reflect the availability of surgeons rather than the needs of children. Findings suggest that the new health system needs to develop better access criteria to VT insertion, and Pacific and Māori children are prioritised for VT insertion where the benefits are clear.

Reference: *N Z Med J* 2022;135(1553):83-90

[Abstract](#)

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Clinical features of patients hospitalised with COVID-19 from February to October 2020, during the early waves of the pandemic in New Zealand

Authors: Bryce A et al.

Summary: The COHESION study evaluated the clinical features of patients hospitalised with COVID-19 during the early waves of the pandemic in NZ. 84 patients (median age 58 years, 49% male) in 8 DHBs who were hospitalised with COVID-19 from Feb 26 to Oct 5, 2020, were included in the analysis; 38 were NZ European, 19 were Pasifika, 13 were Māori, 12 were Asian and 2 were other ethnicity. Pre-existing comorbidities included hypertension (32%), obesity (24%) and diabetes (22%). The median length of stay was 4 days. 12 patients (14%) were admitted to an intensive care unit or high dependency unit. 10 (12%) patients died in hospital; the median age at death was 83 years.

Comment (CT): Pacific and Māori people are vulnerable to COVID-19 and other viral pandemics. In the first wave of COVID-19 in NZ in 2020, most of the reported cases were young European adults who had been infected overseas. The number of COVID-19 cases reported in Pacific and Māori were lower than expected. Subsequent clusters showed that Pacific people were over-represented in the number of new cases, hospitalisations and deaths. In this study of the early outbreak, Pacific people comprised 23% of all hospitalisations. This was more than double the proportion of the total NZ population. The finding is confirmed in subsequent studies showing increased risk of hospitalisation for Pacific people with COVID-19. In March 2021, the Ministry of Health reported that Pacific adults were 5 times more likely to be hospitalised with COVID-19. Steyn N et al. ([N Z Med J 2021;134:1538](#)) showed that the odds for hospitalisation among Pacific people were 3 times the rate in non-Māori, non-Pacific people. Socioeconomic characteristics and higher prevalence of comorbid conditions and delayed access to health care were the reasons provided to explain ethnic differences in hospitalisations for COVID-19. In planning for future pandemics, these observations confirm the need for more effective strategies to address ethnic inequities in NZ.

Reference: *N Z Med J 2022;135(1552):120-30*

[Abstract](#)

Study protocol for evaluating Brown Buttabeen Motivation (BBM): A community-based, Pacific-driven approach to health

Authors: Savila F et al.

Summary: Brown Buttabeen Motivation (BBM) is a Pacific-led organisation that aims to reduce obesity amongst Pacific and Māori people in NZ. This article described the study protocol for evaluating the BBM programme. The study aims to determine the effectiveness of the programme for sustained health and wellbeing outcomes amongst its participants. If a community-based BBM approach leads to sustained weight loss, it could be extended to help other indigenous and migrant populations.

Comment (RNS): Pacific people have the highest incidence of obesity rates in Aotearoa. This trend is also mirrored in the Pacific region, with Pacific countries consistently featured in the top 10 countries in the world with high rates of obesity. Despite government and community interventions to address obesity in Pacific and Māori communities, obesity still remains the most significant health risk for Pacific and Māori communities in Aotearoa. There has been a multitude of programmes and interventions that have yielded short-term weight loss. However, long-term and sustainable interventions for weight loss and obesity prevention remain a critical challenge to address. This evaluation of the BBM programme is a welcomed study that will provide useful insights into designing and implementing an effective long-term solution to obesity and weight loss. This evaluation of a community-led and holistic approach to sustained obesity management and prevention, and weight loss, will not only benefit Pacific and Māori populations in Aotearoa but will also benefit Pacific island countries and ethnic minority communities with higher rates of obesity than the main population.

Reference: *BMC Public Health 2022;22:630*

[Abstract](#)



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Maintenance outcomes of the Children's Healthy Living Program on overweight, obesity, and acanthosis nigricans among young children in the US-affiliated Pacific Region

Authors: Novotny R et al.

Summary: This study evaluated the impact of the Children's Healthy Living Programme on the prevalence of overweight and obesity amongst young children in the US-affiliated Pacific region. 9840 children aged 2–8 years living in 27 communities in 5 jurisdictions of the US-affiliated Pacific region (Hawai'i, Alaska, Commonwealth of the Northern Mariana Islands, American Samoa, and Guam) were included. 19 activities addressed training, policies, systems, and environments of communities, and various behaviours of the children were targeted (consumption of fruit and vegetables, water, and sugar-sweetened beverages; sleep; physical activity; and screen time) during a 2-year intervention period. Continued partnership with community coalitions and ongoing academic training of community partners was undertaken during a 6-year maintenance period. The intervention group showed significant improvements in overweight/obesity, waist circumference, and prevalence of acanthosis nigricans compared with the control group.

Comment (RNS): Childhood obesity among Pacific children across the globe is a major concern. The positive results reported in this paper from the randomised Children's Healthy Living programme demonstrate that multilevel multicomponent interventions can help reduce the prevalence of overweight children and childhood obesity in Pacific communities. The intervention was utilised in US-affiliated Pacific communities and can therefore be of benefit to the wider Pacific region and global Pacific communities in reducing the prevalence of overweight Pacific children and childhood obesity. Subsequent comparative studies across the region and in cities with high Pacific populations, including Auckland, Sydney and Utah, would also be of benefit to Pacific communities across the globe.

Reference: *JAMA Netw Open 2022;5(6):e2214802*

[Abstract](#)

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Assessment of ethnic inequities and subpopulation estimates in COVID-19 vaccination in New Zealand

Authors: Anglemeyer A et al.

Summary: This cross-sectional study evaluated ethnic inequities in COVID-19 vaccination in NZ. Analysis of publicly available Ministry of Health vaccination data (accessed in May 2022) showed that significantly fewer Māori individuals aged ≥ 12 years were fully vaccinated compared with European/other and Pacific individuals (88.2% vs 95.6% and 96.5%; $p < 0.001$). There were early gaps in the vaccine rollout for children aged 5–11 years, with 57% of European/other children receiving at least 1 dose, followed by 47% of Pacific children and 35% of Māori children. Similarly, significantly more European/other individuals had been boosted compared with Māori and Pacific individuals (71.9% vs 47.9% and 55.8%; $p < 0.001$).

Comment (RNS): It has been well established and accepted that ethnic inequities in vaccinations persist among Māori and Pacific populations in Aotearoa. In addition, researchers have argued the need for accurate population estimates for Māori and Pacific populations. Using the Health Service Utilisation (HSU) data and census data to estimate subpopulation sizes the researchers compared COVID-19 vaccination rates. The findings based on the HSU demonstrate that Māori vaccination rates were the lowest however these rates decrease even more if using census data. HSU only includes those who access health services therefore marginalised and younger populations like Māori and Pacific populations are likely to be underestimated in the HSU data leading to overestimates of coverage for these groups. The results highlight how the choice of denominator matters as it affects vaccination coverage disproportionately between ethnic groups with the need to have better population estimates.

Reference: *JAMA Netw Open* 2022;5(6):e2217653

[Abstract](#)

Parental education related to their children's health in late childhood and early adolescence for Pacific families within New Zealand

Authors: Schluter PJ et al.

Summary: Using a large birth cohort of 1368 Pacific children, this longitudinal study investigated the relationship between parental education levels and children's physical health, mental health and health risk-taking behaviours during late childhood and early adolescence. Mothers and fathers who undertook further education in the first 6 years of their child's life had children with significantly smaller increases in body mass index at age 11 and 14 years (compared to 9 years) than those who did not study. Fathers who undertook further education over the 0–6-year postpartum period also had children with significantly lower odds of risk-taking behaviours.

Comment (RNS): This paper provides critical insights into educational attainment and better health by investigating the relationship between parents who undertook further education within the first 6 years of their child's life and the child's health outcomes during late childhood and early adolescence. There are a multitude of studies that have demonstrated the positive relationship between increased parental educational attainment and better health across the globe. These studies however tend to focus on educational attainment at time of birth and most of these studies relate to maternal education attainment. Using the Pacific Island Family longitudinal study the authors have found postpartum education of mothers and fathers as being differentially associated with physical health, mental health and health risk-taking behaviour indicators. Further research and studies are needed to replicate these findings. However, the results provide further impetus to promote and support life-long educational opportunities for Pacific parents in order to achieve better health outcomes in Pacific communities.

Reference: *Sci Rep* 2022;12(1):5313

[Abstract](#)

Human papillomavirus (HPV) self-sampling among never- and under-screened indigenous Māori, Pacific and Asian women in Aotearoa New Zealand

Authors: Bromhead C et al.

Summary: This study evaluated the feasibility of HPV self-sampling in never-screened or under-screened (≥ 5 years overdue) Māori, Pacific and Asian women. 366 women aged 30–69 years in participating general practices in Auckland were eligible for the study, but only 114 women were able to be contacted (17 of whom were subsequently found to be ineligible). Identifying and contacting women overdue for a cervical screen was resource-intensive, with a high rate of un-contactability despite multiple attempts. Focus groups were held with the eligible women to co-design new patient information materials. Questionnaires on HPV knowledge and post-test experience were offered to all participants. Of the 84 HPV self-sampling tests undertaken, there were 5 positive results (6%), including 1 woman with HPV18 who was found on colposcopy to have cervical adenocarcinoma.

Comment (RNS): In Aotearoa the National Cervical Screening Programme has been successful in reducing cervical cancer incidence and mortality. A recent Invasive Cervical Cancer Audit reported that women who develop cervical cancer are either unscreened or under-screened and are most likely Māori, Pacific or Asian women. To address this inequity there is a proposal to offer self-sampling as part of HPV primary screening from 2023. This co-designed study investigates the feasibility of a new wrap-around and culturally HPV self-sampling trial, and addresses some of the barriers to accessing screening services. The results are promising, with urban Māori, Pacific and Asian women finding HPV self-sampling to be acceptable and effective in detecting HPV and early cervical cancer. The study also highlights the difficulty in contacting unscreened and under-screened communities therefore further research on how to upscale HPV self-sampling with rural communities who are known to face many barriers to accessing health care services will be of benefit.

Reference: *Int J Environ Res Public Health* 2021;18(19):10050

[Abstract](#)

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.

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