pacific perspectives

Capital & Coast District Health Board
ŪPOKO KI TE URU HAUORA

Pacific Population Health Profile

Analysis to support localities planning by CCDHB

Report prepared for Capital and Coast District Health Board

November 2019

Acknowledgements

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The authors include Pacific Perspectives' team members: Brenden Mischewski, Dr Corina Grey, David Nicholson and Dr Debbie Ryan. The preparation of this report was supported by Jonathan Malifa.

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Every effort has been made to provide accurate and factual content. The authors cannot accept responsibility for any inadvertent errors or omissions that may have occurred.

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Executive Summary

This report contains a high-level summary of key health status, risk factors and outcome indicators for Pacific people in the Wellington region, with a particular focus on those communities served by the Capital and Coast District Health Board (CCDHB).

This report is intended as an input into planning by the CCDHB for the development of a localities approach to planning and service integration across the wider Wellington region.

The report draws on a mix of publicly available data on the performance of the health system, internal performance monitoring reporting by CCDHB, hospital service utilisation data and bespoke analysis by experts in the performance of health system.

The report incorporates data relating to the Hutt Valley and Wairarapa District Health Boards where appropriate as Pacific communities' use of health services is not limited by the boundaries between district health boards.

The results suggest that Pacific people experience large, pervasive disparities in health risk factors, use of health services and health outcomes. The report identifies significant clustering of Pacific people and describes how people in these communities interact with the regional health system. These communities present an opportunity for a localities-based approach to the provision of health services.

The Pacific population in the Wellington region is relatively stable and clustered around Porirua harbour (the Waitangirua-Titahi bay arc), the Hutt River (the Lower Hutt Valley), the southern suburbs of Wellington (the Strathmore to Berhamphore corridor) and the suburb of Wainuiomata.

Wellington's Pacific communities are resilient with strong cultural and spiritual connections, locally, nationally and internationally. However these communities experience high levels of socioeconomic deprivation and poor access to education, employment and home ownership. The economic resources of these communities are deeply constrained with a medium net worth of just $12,000 – nine times lower than that of New Zealand Europeans.

This report presents data about key health statistics for Pacific people in the CCDHB region and looks across the wider Wellington region for evidence that the health system is meeting the needs of Pacific people.

There are marked differences across almost all of the indicators reviewed between Pacific and non-Pacific people. While Wellington's Pacific communities enroll in primary health organisations (PHOs) at high rates, many Pacific people report unmet primary healthcare needs, often due to the unavailability of appointments and costs associated with appointments and prescriptions.

> *"The results suggest that Pacific people experience large, pervasive disparities in health risk factors, use of health services and health outcomes."*

These barriers appear pervasive. Pacific people are less likely during childhood to get immunised and access oral health care, receive cardiovascular risk assessments and support to manage key health risk factors during adulthood and be supported to manage their long-term conditions as they age.

The effects on communities and families are significant. At a population level, Pacific people live 7.9 fewer years than non-Māori non-Pacific people and are twice as likely to die from potentially avoidable causes.

The cost to the health system is also high. Use of CCDHB Emergency Department (ED) services by Pacific people is growing by 3.5% per annum, twice the rate for the non-Pacific population. Pacific people are also twice as likely as the general population to have used the hospital's ED more than five times since 2014/15.

Use of inpatient services by Pacific people is growing by 2.6% per annum compared to 1.8% for non-Pacific people. Pacific people are 20% more likely than non-Pacific to have an inpatient admission and are 1.4 times as likely to be among the group of high users who had 8.1 admissions over the past five years.

Pacific people are less likely than the total population to access outpatient services and their use of these services is growing more slowly (1.2% per annum) than the general population (1.8% per annum). Among the 12,000 outpatient appointments for Pacific people each year, the DNA rate was around 15.0%, twice that of non-Pacific people.

This report suggests that an equity strategy consistent with the localities approach requires CCDHB to work in collaboration with the communities and primary care practices in the localities identified with high concentrations of Pacific people. An integrated and family-based approach, addressing the health and social needs of Pacific families, closer to home and addressing not just acute illnesses, but also prevention and optimal management of long-term conditions, is recommended.

Abbreviations

ASH	Ambulatory sensitive hospitalisations
BMI	Body mass index
CCDHB	Capital and Coast DHB
DHB	District Health Board
dmft	decayed, missing or filled teeth (marker of the severity of dental disease)
DNA	Did not attend
ED	Emergency Department
HbA1c	glycated haemoglobin, a measure of how well diabetes has been managed
HVDHB	Hutt Valley DHB
MoH	Ministry of Health
NHI	National Health Index
non-Māori non-Pacific	Non Māori non Pacific people
NZ	New Zealand
NZDep	New Zealand Deprivation Index
PHO	Primary healthcare organisation
PPL	Pacific Perspectives Ltd
Stats NZ	Statistics New Zealand
WDHB	Wairarapa DHB

Introduction

In May 2019, Capital and Coast District Health Board (CCDHB) commissioned Pacific Perspectives Limited (PPL) to prepare a Pacific population health profile to build a robust evidence base for Pacific health improvement. The evidence is intended to inform and support the CCDHB's localities approach across the wider Wellington region and the 3DHB Pacific Plan.

This Pacific population health profile aims to:

- Build a robust evidence base for Pacific health that will support health services to identify areas for Pacific health improvement.
- Better inform localities planning and service integration activities for Pacific populations across the wider Wellington region.
- Provide Pacific communities with up to date and relevant information about their health status to better inform community-driven (population health) activation.
- Provide information to support knowledge transfer and information sharing across sectors for Pacific populations.
- Develop an evidence base to inform inter-sectoral approaches to address the social determinants of health for Pacific populations.

A key priority for this work is to ensure the Pacific population health profile aligns with the Health System Strategy 2030 and the relevant strategies of the Wellington regional District Health Boards (DHBs).

Methodology

This report provides a descriptive analysis of available data on health service utilisation and health outcomes. It draws on the approach taken by Auckland and Waitematā District Health Boards (DHBs) to prepare a similar analysis of the Pacific population in the Auckland region (Grey, Sandford, & Walsh, 2019).

The report analyses demographic, health and service utilisation data relating to Pacific communities in the CCDHB region. Preparation of the report involved working with CCDHB to provide expertise to source, collate and present data and explain the results for the Pacific population health profile.

Regions

Information is presented at several geographical levels, depending on the context. These levels include the Wellington region, CCDHB proper, and the cities, towns and suburbs that are home to significant concentrations of Pacific peoples.

Data is presented at the level of the Wellington region to show how the regional Pacific population interacts with hospital services.

Our analysis of the utilisation of CCDHB hospital services by Pacific peoples includes information about people who live in Lower Hutt City but access inpatient services at Wellington hospital. This approach reflects the important role that CCDHB plays in the provision of healthcare services (particularly specialist care) to populations across the Wellington region, including the communities served by Hutt Valley District Health Board (HVDHB) and Wairarapa District Health Board (WDHB).

Data is presented at the level of the CCDHB region to show information about health outcomes and access to health services.

This approach was used in this report for analysis of those matters that the DHB has more direct influence over and where more data was available from CCDHB.

The level of defined localities was used to show information about Pacific communities in the region.

For the purposes of this analysis, concentrations of Pacific peoples are described in ways that reflect the way those communities have organised or established

themselves. This approach reflects the relatively high degree of residential segregation experienced by Pacific communities (Johnston, Poulsen, & Forrest, 2008) due to factors such as historical settlement patterns (Macpherson, 2004). The approach enables a more definitive description of where Pacific people live in the region and, where possible, linking of demographic and health service utilisation data to these communities.

Anonymised data

De-identified data were used to examine the use of hospital services at an individual level. Unique identifiers were created to substitute for the National Health Index (NHI) reference for patients.

Interim demographic data

This report relies on the results of the 2013 census. Detailed data on the distribution of people by ethnicity from the 2018 Census is not expected to be available until March 2020. These results should be treated as interim only until new census data is available.

This report uses 2013 census data to present demographic data. This approach provided a consistent basis for comparing population groups. Population projections prepared by the Ministry of Health (MoH) and Statistics New Zealand (Stats NZ) are available only at the level of territorial local authorities (cities and rural districts).

The difference between the two bases of the Pacific population is modest. The 2013 census reported approximately 20,346 Pacific people in the CCDHB region. The 2019 population projections prepared by the MoH and Stats NZ estimate the 2013 Pacific population at 20,997, a difference of 3.2% (CCDHB, 2019c).

Pacific people: a term of convenience

The 2013 census estimated that there were 295,941 Pacific people in NZ, accounting for 7.4% of the total population. The Pacific population is forecast to increase to 10.9% of the national population by 2038 (MPP, 2017).

The term 'Pacific' is used consistently throughout this report to describe the diverse people who identify with the ethnic communities of the Pacific, but it should be emphasized that this is a term of convenience. The term Pacific is generally unused in the source countries of the people to which it is often applied. It is a useful term however because it acknowledges that the constituent ethnic communities have a common history, including of migration to NZ, and allows a degree of consolidation (Katavake-McGrath, 2015).

The choice to use this term is a pragmatic one. Readers should bear in mind the discussion of the complex identities of the people concerned (Grey, 2001).

Accuracy of population estimates

Concerns about the accuracy of rates include the difficulty in determining the Pacific population in specific areas due to internal migration and changing patterns of ethnic identification between census periods (StatsNZ, 2016), the miscategorisation of ethnic identity in the NHI database, and adjustments to the estimated resident population by Stats NZ (Chan, Papaconstantinou, & Winnard, 2015).

Adjustments to census data is an issue that affects Pacific people to a greater extent than other ethnic groups, as 'non-response rates' are among the highest of all ethnic groups (7.6% in 2006 and 9.2% in 2013). Pacific people also had the highest 'non-response' rate in the 2018 census at 34.9% (StatsNZ, 2019).

This report also provides data from the NZ Health Survey comparing the experience of Pacific people with that of other ethnic groups. The margin of error for the results for subpopulations of the NZ population, including Pacific people, can be significant and not all differences are statistically significant. Readers should refer to the results of the NZ Health Survey for more detail (MoH, 2019g).

Mapping

We have presented some results overlaid on maps of the Wellington region, and its urban core centred around Wellington, Lower Hutt and Porirua.

'Dot density' maps are used to show the number of individuals present in a particular geographic location in figures 2–7 – each dot representing a single person randomly distributed in the area unit in which they live.

Choropleth maps used in figures 11, 30, 31 and 32 are shaded based on the density at which particular attributes are present. For example, figure 30 shows the density of emergency department admissions associated with the population of particular area units.

Overview

Key findings

The Wellington region is home to around 32,900 Pacific people clustered around Porirua harbour (the Waitangirua-Titahi bay arc), the Hutt River (the Lower Hutt Valley), the southern suburbs of Wellington (the Strathmore to Berhamphore corridor) and the suburb of Wainuiomata.

People who identify as Samoan (62.0%) make up the largest group of Pacific people in the region, but the region is also home to significant populations of Cook Island Māori (19.2%) and Tongan people (6.8%). The region is also a major centre for the people of Tokelau with more than half of the entire Tokelauan population being based in Wellington.

The overall Pacific population in the region is forecast to be stable through to 2038. The age profile of the Pacific population is also generally stable across the DHBs and communities under consideration. There are some modest differences in the age profile of Pacific ethnic groups, particularly among children aged 0–14 years and among men aged 15–24 years and women aged 20–29 years in the Waitangirua-Titahi Bay arc.

The region's Pacific population has levels of engagement with senior secondary and tertiary education, qualification attainment and religious affiliation, similar to that seen among Pacific people nationally. There are more marked differences across the ethnic groups we identified in terms of the proportion of people born overseas, Samoan language ability, employment and home ownership.

Broader measures of the socio-economic context for Pacific people highlight the relationship between where most Pacific people in the region live in areas with the highest levels of socioeconomic deprivation, particularly in the Waitangirua-Titahi Bay arc and the Lower Hutt Valley.

Pacific people in the Wellington region experience a burden from the failure of the education system and the economy to take full advantage of their talents and skills. Pacific people are less likely than the rest of the population in Wellington to hold advanced technical or higher qualifications, own or partly own their homes and be in employment, when compared with the total population of the Wellington region. The cumulative effects of these disparities are shown by the striking disparity in median individual net worth for Pacific people which, at $12,000, is nine times lower than that of people identifying as NZ European.

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The health system is failing to meet the needs of Pacific people nationally, and the CCDHB region is no different. There are consistent disparities in health outcomes for Pacific people across measures such as life expectancy, amenable mortality including cancer and cardiovascular disease-related mortality, ambulatory sensitive hospitalisations and potentially housing-related hospitalisations than other people in the CCDHB region.

The drivers of these differences appear to include a higher prevalence of risk factors, poorer access to primary health care and the prevalence of long-term conditions.

The analysis in this report indicates that:

Pacific people in the CCDHB region have amenable mortality rates three times higher than that of non-Māori non-Pacific people (189.4 versus 62.8 per 100,000 people). Between 2009 and 2016, the amenable mortality rate for Pacific people increased by 15.2%, while the rate for non-Māori non-Pacific people fell by 5.9%.

In 2015–17, the average life expectancy for Pacific people was 76.1 years, 7.9 fewer years than non-Māori non-Pacific people. This gap in life expectancy has not decreased over the last 10 years.

More than 2,000 Pacific children in the region were considered to have excess body weight and 3,200 Pacific adults were current smokers.

30% of Pacific adults in CCDHB and 60% in HVDHB report unmet need for primary care in the last 12 months.

More than 50 Pacific children aged 24 months had not received their age-appropriate immunisations.

1,300 Pacific adults have not had a cardiovascular risk assessment.

580 Pacific children had not been examined by community oral health services, and there were approximately 160 Pacific children aged five years with evidence of dental decay.

Around one in eight (11.8% or 1,700) Pacific adults in the CCDHB region have diabetes compared to 4.4% of the total population. Of these Pacific diabetics, 740 do not have optimally managed HbA1C levels.

While Pacific people have among the highest rates of enrolment with primary health organisations, an estimated 9,200 experience some unmet need for primary health care according to the NZ Health Survey.

Pacific people are slightly less likely to use outpatient services offered by CCHDB than the non-Pacific population overall, but their use of emergency department and inpatient services is higher and growing faster than the non-Pacific population. The use of outpatient services by Pacific is growing more slowly than the non-Pacific population.

Compared to the total population, Pacific people are twice as likely to be high users of emergency department services and 1.4 times as likely to be high users of inpatient services.

TABLE 1: KEY HEALTH STATISTICS, CCDHB

Type	Pacific	Non-Māori, non-Pacific
Population		
Population 2013	22,403	245,642
Estimated Population 2018	20,997	263,507
Projected Population in 10 years	21,249	284,926
% growth over next 10 years	1.2%	8.1%+
Health Outcomes		
Life Expectancy (2015–17) years	76.1	83.7
Gap in Life expectancy (2015–17) years	7.9	–
Amenable Mortality (2013–15)		
Cancer Mortality (2013–15)*	155.5	106.8
CVD Mortality (2013–15)*	193.1	98.0
% of deaths from potentially avoidable causes (2013–15)	53.0%	22.5%
Preventable Only	9.2%	6.1%
Amenable Only	11.0%	3.4%
Preventable and Amenable	32.9%	13.0%
% of deaths attributable to smoking (2013–15)	14.0%	12.4%
Health Service utilisation		
Ambulatory Sensitive Hospitalisations – 0 to 4y (2018)**	11,961	6,633^
Ambulatory Sensitive Hospitalisations – 45 to 64y (2018)**	7,743	3,209
Potentially housing-related hospitalisations – 0 to 14*	25.8	9.8

TABLE 1: KEY HEALTH STATISTICS, CCDHB

Type	Pacific	Non-Māori, non-Pacific
Risk Factors, Immunisation and screening		
Diabetes Prevalence – 15+ and PHO enrolled (VDR)	11.8%	4.4%
Overweight or obese – Adults (2014–17)#	91.0%	59.5%
Overweight or obese – Children (2014–17)#	49.4%	26.4%
Smoking Prevalence – Daily (2014–17)**	28.0%	11.0%
% 8-month-olds fully immunised (Q2 18/19)	92.2%	95.1%
% of 2-year-olds fully immunised (Q2 18/19)	87.1%	94.8%
HPV vaccination (2017–18)	63% (2017//18)	75%^

Key:

* Age standardised rate per 100,000 population
** Non-standardised rate per 100,000 population
# Describes people with a body mass index of 25.0 or greater
^ Total population only
+ Non-Pacific population only

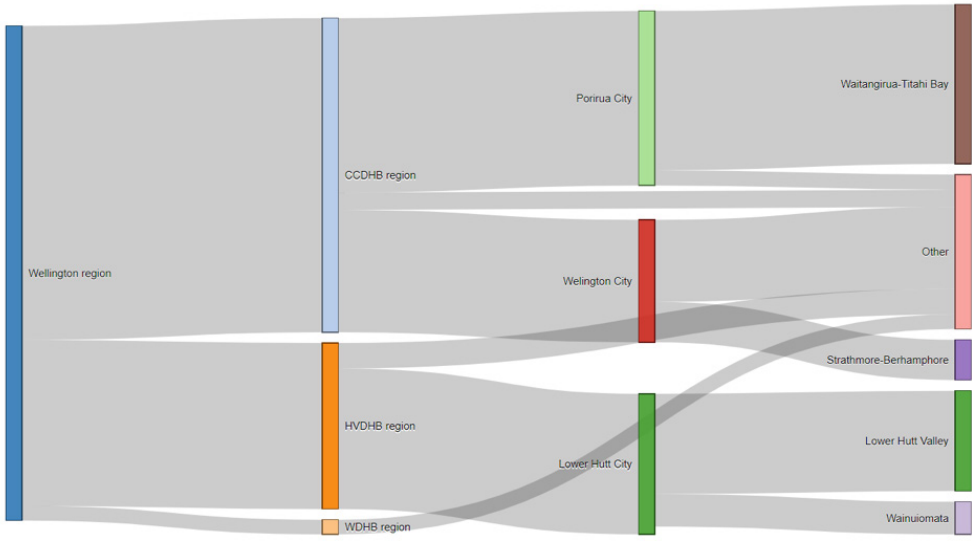
Demography of Pacific communities in the Wellington region

The Wellington region – Takiwā o Te Whanganui-a-Tara occupies 8,049 square kilometers at the southern end of the North Island and is home to around 521,000 people, including 32,900 (6.5%) who identify with one or more Pacific ethnicity.

The region encompasses the Wellington urban area, including the cities of Wellington, Porirua, Lower Hutt and Upper Hutt, which accounts for 80% of the region's population. Other major urban areas include the Kapiti Coast conurbation of Waikanae, Paraparaumu, Raumati and Paekakariki, and the town of Masterton.

Pacific people in the Wellington region tend to be clustered around Porirua harbour (the Waitangirua-Titahi Bay arc), the Hutt River (the Lower Hutt Valley), the southern suburbs of Wellington (the Strathmore to Berhamphore corridor) and the suburb of Wainuiomata.

FIGURE 1: DISTRIBUTION OF PACIFIC PEOPLE BY GEOGRAPHICAL GROUPINGS



Source: (StatsNZ, 2014)

Notes: See Appendix one: Matrix of geographical groupings, Wellington region for a guide to the relationship between these geographical groupings.

Figure 1 shows the distribution of Pacific people across the Wellington region in terms of DHB region, cities and districts and the localities that we have identified, with the height of the boxes indicating the relative number of people.

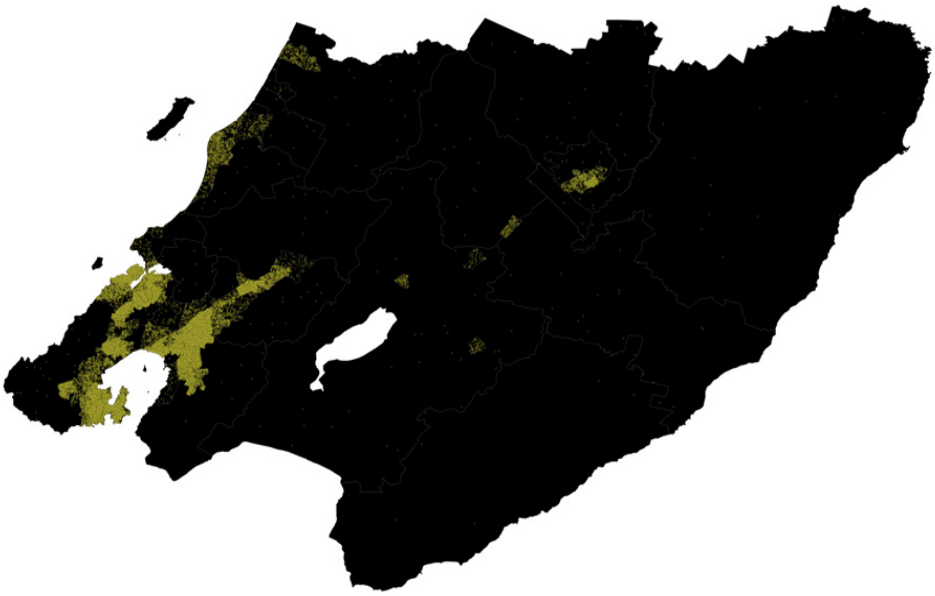
People from across the Wellington region access health services provided by CCDHB, HVDHB and WDHB. Pacific people in the region are concentrated in the urban core of the region around the cities of Wellington, Lower Hutt and Porirua (see Figures 2 and 3).

The discrete Pacific communities in the Wellington region include:

- Waitangirua-Titahi Bay arc. A horseshoe-shaped arc running from Ascot Park and Waitangirua in the central-eastern part of Porirua city through Cannons Creek and Porirua East in the south of the city, and around the western side of Porirua harbour north to Elsdon and Titahi Bay. This area is home to 11,631 Pacific people, which is around 91.3% of the Pacific population of Porirua city.
- Lower Hutt Valley. A corridor that is bounded on the north by the Taita Gorge, in the east by the eastern hills of the valley, the eastern part of the Petone foreshore to the south and the Hutt River to the west. The corridor includes large Pacific communities centred around Naenae and Taita. This area is home to 7,317 Pacific people, which is around 71.3% of the Pacific population of Lower Hutt City.
- Strathmore to Berhamphore corridor. The Pacific population in Wellington is concentrated in the southern and southeastern suburbs of the city of Newtown, Kilbirnie and Strathmore Park. This area is home to 2,940 Pacific people, which is around 33.5% of the Pacific population of Wellington city.
- Wainuiomata. A large suburb of Lower Hutt City, Wainuiomata occupies a basin between the eastern Hutt hills and the Orongoronga Range. The area is home to 2,376 Pacific people, which is around 23.2% of the Pacific population of Lower Hutt city.

Lower concentrations of Pacific people are found in Upper Hutt city (1,863), the Tawa Valley (1,047), Johnsonville (939), Raumati/Paraparaumu/Waikanae (693), Masterton (681), Western Karori (537) and Otaki (282) (see Figure 3).

FIGURE 2: DISTRIBUTION OF PACIFIC COMMUNITIES IN THE WELLINGTON REGION, 2013 CENSUS



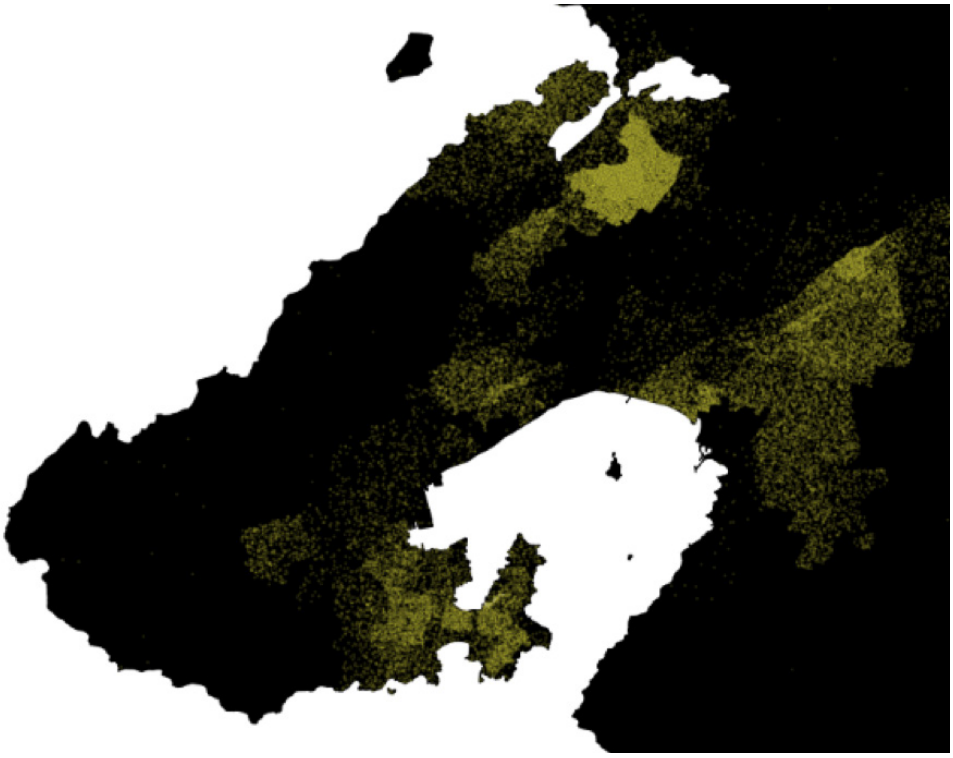


FIGURE 3: FOCUS ON PACIFIC COMMUNITIES IN WELLINGTON, PORIRUA AND LOWER HUTT, 2013 CENSUS

The Pacific population of the CCDHB region

The CCDHB region covers the territorial local authorities of Wellington City, Porirua City and Kapiti Coast District. In 2013, this region was home to around 290,000 people of which around 22,403 (or 7.9%) identify with one or more Pacific ethnicity (CCDHB, 2019c).

A majority of the Pacific population in the CCHDB region is concentrated in Porirua City where an estimated 12,738 Pacific people make up 56.9% of the regional Pacific population. Within Porirua, the Pacific community is the second-largest ethnic group after NZ European, accounting for 24.6% of the city's population.

There is also a high concentration of Pacific people in Wellington City, where 8,928 Pacific people make up 39.9% of the CCDHB region's Pacific population. Within Wellington City, the Pacific population is the fourth largest ethnic group, accounting for 4.7% of the city's population.

The part of the Kapiti Coast District served by CCDHB is home to the smallest Pacific community of around 737 people or 3.3% of the region's Pacific population (see Table 2).

TABLE 2: POPULATION OF THE CCDHB REGION, 2013 CENSUS

Territorial local authority	Total population	Pacific population	Pacific population as a share of TLA population (%)	Share of CCDHB region Pacific population (%)
Wellington City	190,959	8,928	4.7%	39.9%
Porirua	51,717	12,738	24.6%	56.9%
Kapiti Coast	42,375	737	1.7%	3.3%
Wellington region	285,051	22,403	7.9%	100.0%

Source: (StatsNZ, 2014a), (CCDHB, 2019c)

Note: Population estimates for the CCDHB region vary by 2.7% between the 2013 census (285,051 people) and the population data prepared by the Ministry of Health (293,405) even after allowing for differences in boundaries. This report uses 2013 census data counts to allow a consistent basis across the various measure.

A diverse population

There are multiple ethnic groups comprising the Pacific population in the Wellington region (see *Pacific people as a term of convenience*).

The largest groups (see Table 3) are:

- Samoan (62.0%) who make up a greater proportion of the population of the Wellington DHBs and our communities of focus than the national population (49%).
- Cook Island Māori (19.2%) who are represented at roughly the same proportion as the national population (21%).
- Tongan (6.8%) who make up a smaller proportion of the Pacific population in Wellington than nationally (20%).
- Tokelauan (9.7%) for whom the region is a major population centre – around 56.7% of the entire Tokelauan population live in the Wellington region.
- Other Pacific ethnicities who account for 12.5% of the regional Pacific population.

TABLE 3: DHB POPULATION, ETHNICITY DATA

	CCDHB	HVDHB	WDHB	Total
Total Population (2018)	313,054	148,082	44,304	505,440
Pacific population (2018)	20,997	11,105	771	32,873
% of population who are Pacific	6.7%	7.5%	1.7%	6.5%
Samoan	61.9%	63.1%	52.0%	62.0%
Cook Island Māori	21.0%	15.6%	21.8%	19.2%
Tokelauan	10.2%	9.2%	5.3%	9.7%
Tongan	5.1%	9.9%	6.4%	6.8%
Other Pacific peoples	12.9%	11.0%	19.0%	12.5%

*Note that percentages are based on total response ethnicity (people who identify with more than one ethnic group are included in both groups) so percentages add up to >100%. Total population based on 2018 projections. Proportions of detailed ethnic identity based on 2013 census data.

Similar ethnic distributions are found in regional Wellington, although Cook Island Māori (23.6%) and Tokelauan (16.1%) people tend to be the largest groups, with fewer Tongan people (2.9%) in the Waitangirua-Titahi Bay arc than the other communities (see Table 4).

TABLE 4: REGIONAL WELLINGTON COMMUNITIES, ETHNICITY SUBGROUP DATA

DHB	CCDHB	HVDHB	CCDHB	HVDHB
TLA	Porirua	Lower Hutt city	Wellington city	Lower Hutt city
Communities	Waitangirua-Titahi Bay	Lower Hutt Valley	Strathmore-Berhamphore	Wainuiomata
Samoan	61.9%	64.8%	74.5%	69.1%
Cook Island Māori	23.6%	14.1%	13.6%	15.0%
Tokelauan	16.1%	11.0%	2.9%	4.7%
Tongan	2.9%	9.6%	7.9%	6.9%
Other Pacific peoples	9.2%	9.1%	10.3%	12.4%

*Note that percentages are based on total response ethnicity (people who identify with more than one ethnic group are included in both groups) so percentages add up to >100%. Proportions of detailed ethnic identity based on 2013 census data.

Figures 4 to 7 provide a guide to the distribution of these ethnic groups across the Wellington region, highlighting the significant concentration of people who identify as Samoan, Cook Island Māori and Tokelauan in Waitangirua and Cannons Creek in Eastern Porirua.

FIGURE 4: DISTRIBUTION OF SAMOAN COMMUNITIES IN THE WELLINGTON REGION, 2013 CENSUS

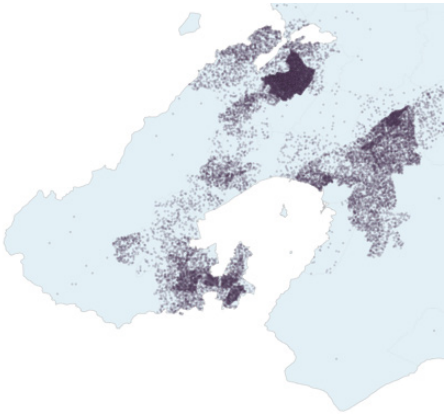


FIGURE 5: DISTRIBUTION OF COOK ISLAND MĀORI COMMUNITIES IN THE WELLINGTON REGION, 2013 CENSUS

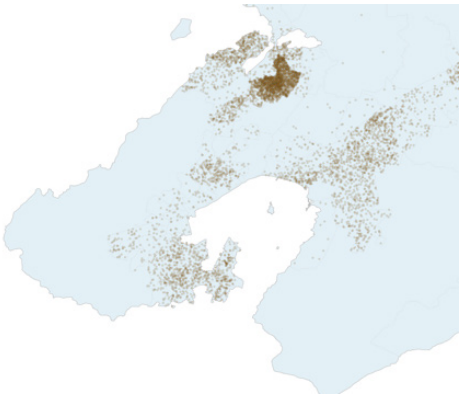


FIGURE 6: DISTRIBUTION OF TOKELAUAN COMMUNITIES IN THE WELLINGTON REGION, 2013 CENSUS

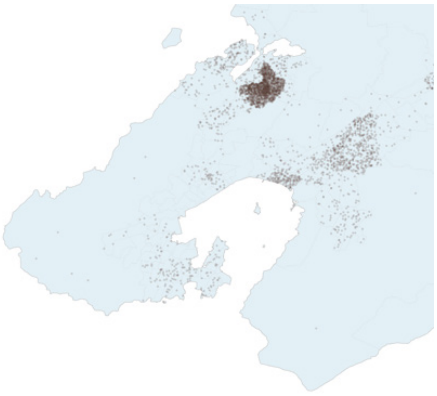
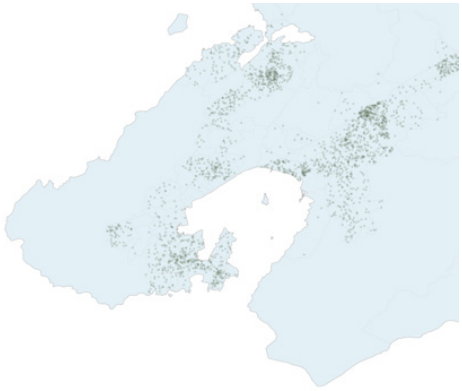


FIGURE 7: DISTRIBUTION OF TONGAN COMMUNITIES IN THE WELLINGTON REGION, 2013 CENSUS



Source: (StatsNZ, 2014a). Note: Scales for groups other than Samoan have been adjusted to reflect the lower base populations.

While a large majority of New Zealanders (84.0%) and Pacific people (62.8%) identify with only one ethnic identity, the prevalence of multi-ethnic identity is increasing.

The proportion of all New Zealanders who identify with two or more ethnicities increased from 12.7% in 2001 to 16.0% in 2013. For Pacific people, multi-ethnic identity is more common and increasing faster than the general population – from 32.5% in 2001 to 37.2% in 2013 (StatsNZ, 2014a). These trends are likely to accelerate with census 2013 data indicating that some 45.4% of Pacific children aged 0–4 years identifying as Māori and/or European as well (StatsNZ, 2014b).

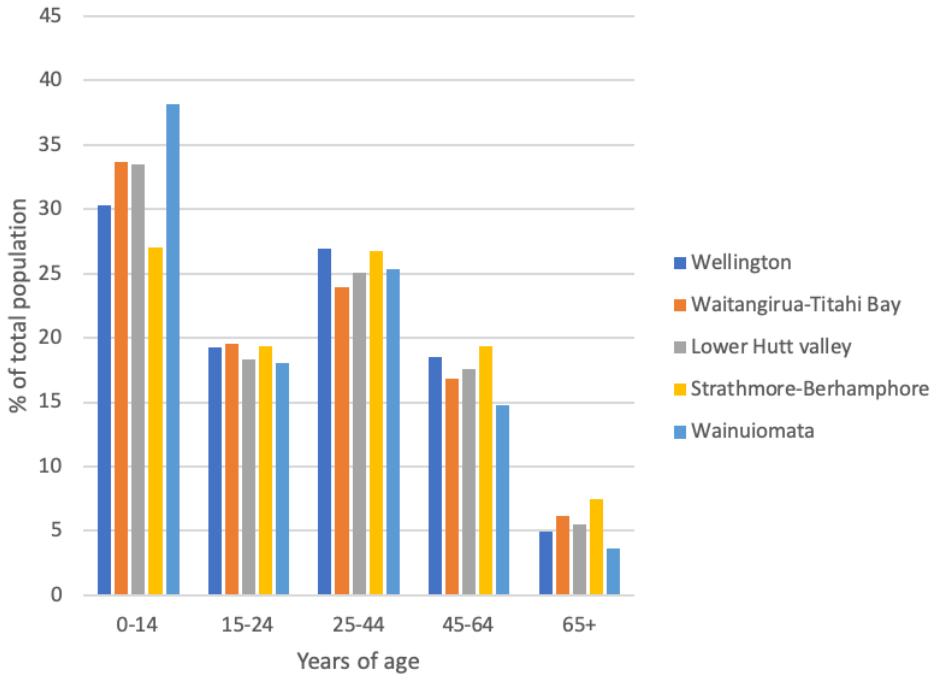
A stable population

Population forecasts indicate that there were 32,873 Pacific people in the Wellington region in 2018, a modest increase of 2.8% since 2013. The population is expected to plateau at around this level through to 2038 (CCDHB, 2019c).

Around 30% of the Pacific population in the Wellington region is aged 0–14 years, 19% are aged 15–24 years, 27% are aged 25–44 years, 18% are aged 45–64 years and 5% are aged 65 years or older. A higher proportion of Pacific people in the WDHB and CCDHB regions are aged <15 years (42% and 38% respectively) than in the HVDHB region (32%), but otherwise the age profiles are similar.

The age profiles of the communities of focus are also generally consistent with that of the Wellington region. The age profiles of the communities of focus are also generally consistent with that of the Wellington region (see appendix two). All age cohorts except those aged 0–14 years showed differences of no more than ±4%. Children aged 0–14 years make up 38% of the population of Wainuiomata compared to 27% of the population of Strathmore-Berhamphore (see Figure 8).

FIGURE 8: DISTRIBUTION OF PACIFIC POPULATION BY AGE COHORT, SELECTED COMMUNITIES

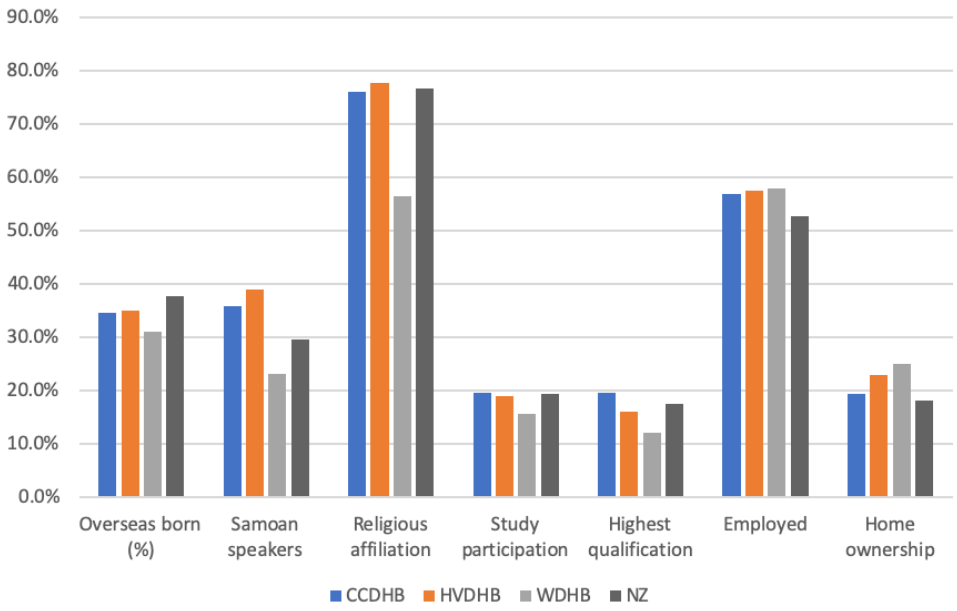


Source: (StatsNZ, 2014)

Selected socioeconomic characteristics

The experience of Pacific people in the Wellington region reflects the Pacific population across NZ in terms of socioeconomic characteristics, including the share of the population born overseas, the proportion of Samoan speakers, religious affiliation, participation in study, qualification attainment, employment and homeownership (see Figure 9).

FIGURE 9: SELECTED SOCIOECONOMIC CHARACTERISTICS, PACIFIC PEOPLES BY DISTRICT HEALTH BOARD



Source: 2013 census.

Notes: Highest qualifications relate to those people with qualifications at level 4 or above on the New Zealand Qualifications Framework.

In 2013, 34.6% of Pacific people in the region were born overseas, with little difference among the three DHBs, and only slightly less than the national average for Pacific people (37.7%). In the Wellington region 24.0% of the total population was born overseas.

Samoan was spoken by 14,709 (41.3%) of Pacific people in the Wellington region in 2013. The next most common language was Tongan, which was spoken by 1,071 people (3.0%). Samoan language ability was slightly more common in HVDHB (39.0%) than CCDHB (35.8%). Ten per cent of the region's Pacific people report that they do not speak English.

Around three-quarters of the Pacific population in 2013 reported that they were affiliated with one or more religions both nationally (76.6%) and in the Wellington region (76.0%). Similar rates were recorded in the CCHDB (76.0%) and HVDHB (77.7%) regions, although the WDHB region was somewhat lower (56.4%). In the Wellington region 49.5% of the total population reported some religious affiliation.

One in five Pacific people aged 15 years or older nationally (19.3%) and in the Wellington region (19.3%) were engaged in full- or part-time study in 2013. Engagement with study was broadly similar across the three DHBs (15.7%-19.6%). In the Wellington region 14.6% of the total population aged 15 years or older were engaged in study.

Attainment of advanced technical qualifications and other forms of higher learning among Pacific people was slightly higher in the Wellington region (18.3%) compared to NZ as a whole (17.4%). CCDHB had the highest rate (19.6%), followed by HVDHB (16.1%) and WDHB (12.0%). In the Wellington region 41.4% of the total population aged 15 years or older held advanced qualifications.

Pacific people in the Wellington region (57.1%) also had higher workforce engagement than the national Pacific population (52.7%) in 2013. The rate of employment was similar across the three DHBs (56.8%-58.0%). In the Wellington region 62.1% of the total population aged 15 years or older were in full or part-time employment.

Home ownership among Pacific people was slightly more common in the Wellington region (20.7%) than nationally (18.0%). The rate was highest in WDHB (24.9%) followed by HVDHB (22.8%) and CCDHB (19.4%). In the Wellington region 47.8% of the total population aged 15 years or older owned or partly owned their own home.

Relative to the total population of the Wellington region, Pacific people are 1.6 times as likely to have been born overseas, 1.5 times as likely to report some religious affiliation and 1.3 times as likely to be engaged in some form of study. Conversely, Pacific people are 0.4 times as likely to hold advanced technical or higher qualifications or own or partly own their own home, and 0.9 times as likely to be in employment.

Some of these characteristics will influence the accumulated wealth of Pacific people, particularly home ownership, qualification attainment and engagement with the labour force. The lower rates are likely to be a significant factor in the median individual net worth of Pacific people which nationally is $12,000, nine times lower than the level for European people ($114,000) (IRD/Treasury, 2018).

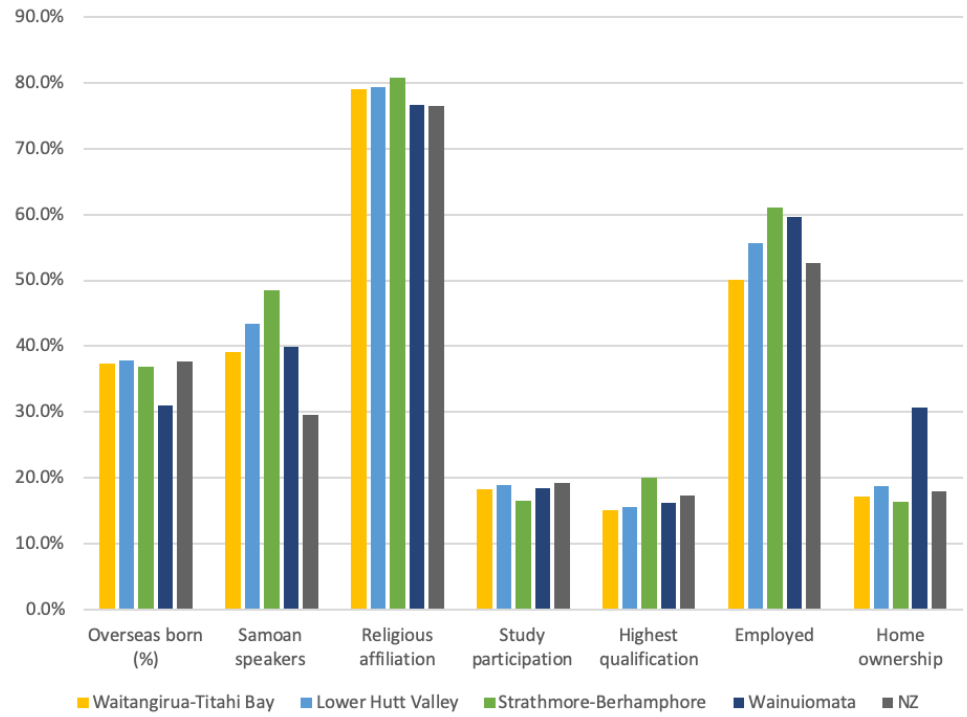
There was little variation among the communities of focus in terms of engagement in study (±2.4%), religious affiliation (±4.2%) or the attainment of advanced technical or other higher qualifications (±4.9%) (see Figure 10).

Focus on housing

Pacific people share similar aspirations for home ownership as other New Zealanders valuing factors such as financial security, privacy and homes that can adapt to their changing needs (Berry, 2014). Pacific people experience high levels of housing stress which is linked to poor social and health outcomes (Joynt, et al., 2016).

Nationally, Pacific people are twice as likely as other New Zealanders (64% versus 33%) to live in rental accommodation, and less likely (27%) than Māori (34%) or Europeans (37%) to live in social housing. Pacific people are more than twice as likely to report major problems with dampness or mould in their homes than the general population (14.8% versus 6.2%) and almost ten times more likely to experience household overcrowding than European New Zealanders (39.8% versus 4.3%) (MPIA, 2016).

FIGURE 10: SELECTED SOCIOECONOMIC CHARACTERISTICS, PACIFIC PEOPLES BY COMMUNITY



Source: 2013 census.

More marked differences were recorded in 2013 in terms of overseas birth (±6.8%) with the lowest rate in Wainuiomata (31.0%) compared to 36.9–37.8% in the other communities.

Samoan language ability was most common across the communities we identified, reflecting the high proportion of Samoan people in each. The highest rate was in Strathmore-Berhamphore (48.5%). The rate in the Lower Hutt Valley was 43.4%, Wainuiomata was 39.8%, and Waitangirua-Titahi Bay was 39.1%.

Employment rates were highest in Strathmore-Berhamphore (61.1%) and Wainuiomata (59.6%), followed by Lower Hutt Valley (55.7%) and Waitangirua-Titahi Bay (50.2%).

Home ownership among Pacific people was most common in Wainuiomata (30.7%), and higher than the regional (20.7%) and the national average (18.0%). Other communities reported a rate between 16.4% and 18.8%.

Socioeconomic Deprivation

In NZ, the most commonly used measure of socioeconomic deprivation is a census-based index of relative socioeconomic deprivation for small areas known as the NZ Deprivation (NZDep) index. It is a scale of deprivation from 1 to 10 that divides NZ into equal-sized deciles. A value of 10 indicates that the area is in the most deprived 10% of areas in NZ, while a value of 1 indicates the least deprived 10% of areas. NZDep is based on nine dimensions of deprivation that consider aspects such as internet and car access, income from a means tested benefit, unemployment, qualifications, home ownership, household overcrowding and single parent families (Salmond, Crampton, & Atkinson, 2007).

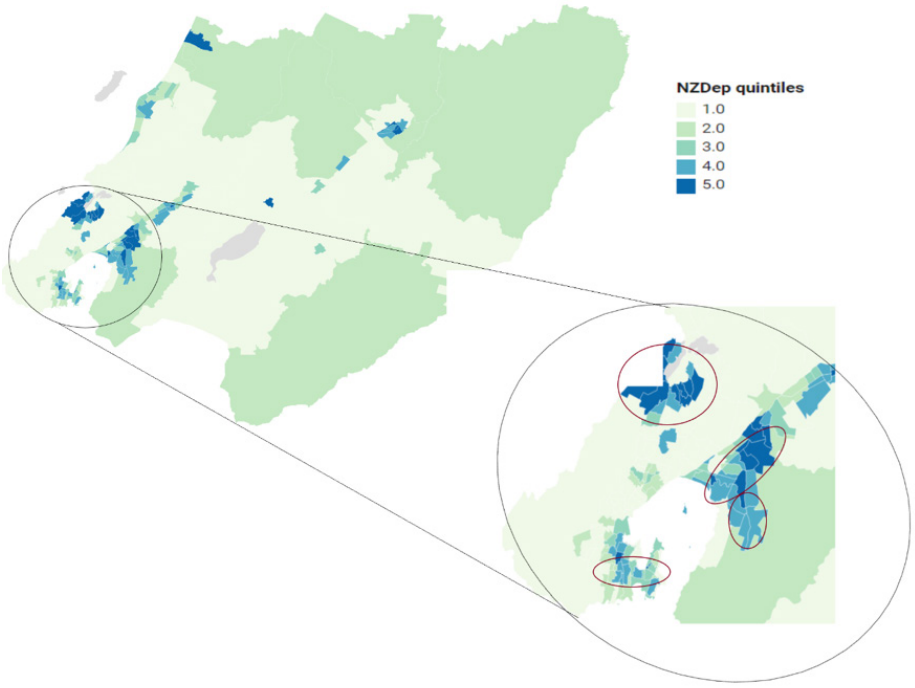
There was significant overlap between the places where Pacific people resided and concentrations of socioeconomic deprivation (see Figure 11). Around 44% of Pacific people in the region lived in areas of highest socioeconomic deprivation (NZDep deciles 9 and 10). Pacific people at CCDHB were more likely to live in these deprived areas (46.3%) than HVDHB (41.1%) or WDHB (34.1%) residents.

There was also considerable overlap between the areas of highest socioeconomic deprivation and the communities of focus. These areas were home to 94.0% of the Pacific people who lived in highly deprived areas (see Figure 11).

The areas of highest deprivation were home to a majority of the Pacific population in Waitangirua-Titahi Bay (86.3%) and the Lower Hutt Valley (62.0%). Wainuiomata was less deprived overall, but still 18.1% of the Pacific population in that community live in areas of high deprivation.

The Strathmore-Berhamphore community was less deprived than the others, with no areas associated with the highest level of deprivation, but 1,839 Pacific people (62.5%) live in NZDep decile 8 areas.

FIGURE 11: SOCIOECONOMIC DEPRIVATION AND SIGNIFICANT PACIFIC COMMUNITIES, SELECTED AREAS



Source: Adapted from (UoO, 2013).

Pacific Health Outcomes

Pacific people experience large and persistent disparities in health outcomes compared to other New Zealanders. These disparities are seen at all ages and across key measures of health such as life expectancy, ambulatory sensitive hospitalisations (ASH) and risk factors for disease (Grey, Sandford, & Walsh, 2019).

A notable expression of these disparities is the proportion of deaths among Pacific people considered potentially avoidable, which is almost twice as high as that in non-Māori non-Pacific people (47.3% versus 23.2%) (Walsh & Grey, 2019). Pacific people have among the highest mortality rates in NZ and slow progress to reduce these rates is resulting in widening relative inequalities (Disney, Teng, Atkinson, Wilson, & Blakely, 2017).

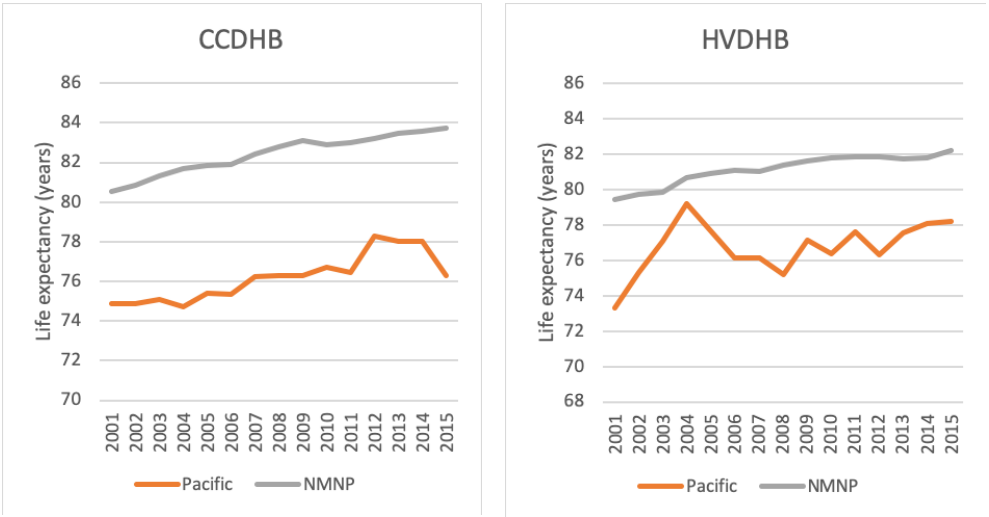
This section provides an overview of the life expectancy and other health outcomes of Pacific people in the Wellington region, explores data on health risk factors, key measures of the health of children and the prevalence of long-term conditions, and outlines what is known about access to primary and secondary care by Pacific people.

Life expectancy

Life expectancy at birth is the average expected lifespan of an individual, based on their year of birth. Life expectancy is largely shaped by socioeconomic conditions, the quality of public health and the effectiveness of medical interventions, particularly among infants (Olshansky & Passaro, 2005).

The life expectancy of Pacific people in the CCDHB region in 2015 was 76.3 years compared to 83.7 years for non-Māori non-Pacific people. In HVDHB, Pacific people had a life expectancy of 78.2 years compared to 82.2 years for non-Māori non-Pacific people (see Figure 12).

FIGURE 12: LIFE EXPECTANCY TRENDS FOR SELECTED DHBS, BY ETHNICITY, 2001–2015



Source: Michael Walsh (Waitematā DHB, 2019)

Note: Life expectancy estimated using 3-year rolling mortality rates. E.g. Life expectancy for 2001 based on mortality rates for 2001–2003

Nationally, life expectancy for non-Māori non-Pacific people increased by 1.5 years between 2005 and 2015 compared to 1.2 years for Pacific people.

Among Pacific people in the CCDHB region, life expectancy increased by 0.9 years, less than half the increase for the non-Māori non-Pacific population (1.8 years).

This pattern of increased relative disparity despite an overall improvement in life expectancy was also seen at HVDHB. There, Pacific life expectancy increased by 0.5 years compared to 1.3 for non-Māori non-Pacific people (see Figure 13).

Figure 14 shows the trend in life expectancy for non-Māori non-Pacific people over the period 2005 to 2015.

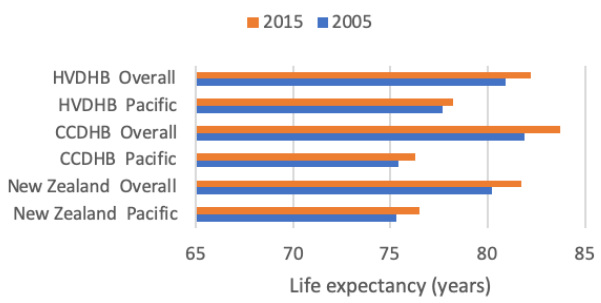
Throughout this period, the disparity in life expectancy between Pacific people compared to non-Māori non-Pacific persisted.

The gap in life expectancy between Pacific and non-Māori non-Pacific was higher for CCDHB than HVDHB between 2005/7 and 2015/17.

The gap for both DHBs varied over time, even allowing for the use of a rolling average.

The smallest gap over the period was 3.2 years for HVDHB in 2005, and the largest was 7.4 years in 2015 for CCDHB.

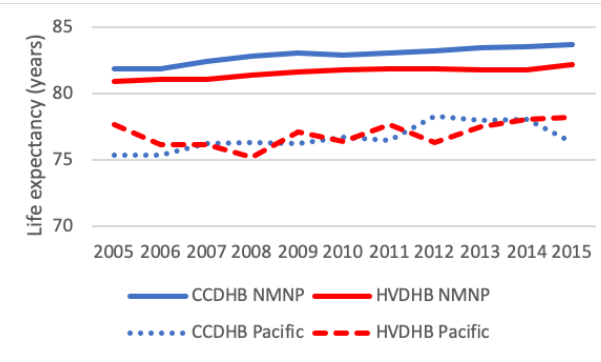
FIGURE 13: LIFE EXPECTANCY CHANGE, 2005 TO 2017



Source: Michael Walsh (Waitematā DHB, 2019)

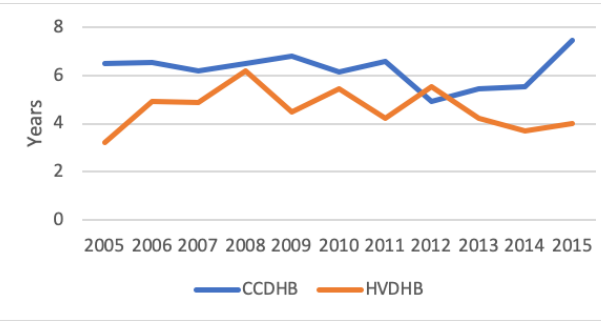
Note: Life expectancy estimated using 3-year rolling mortality rates. E.g. Life expectancy for 2005 based on mortality rates for 2005–2007.

FIGURE 14: GAIN IN LIFE EXPECTANCY (YEARS) FOR PACIFIC COMPARED TO NON-MĀORI NON-PACIFIC; 2005/07 TO 2015/17, SELECTED DHBS



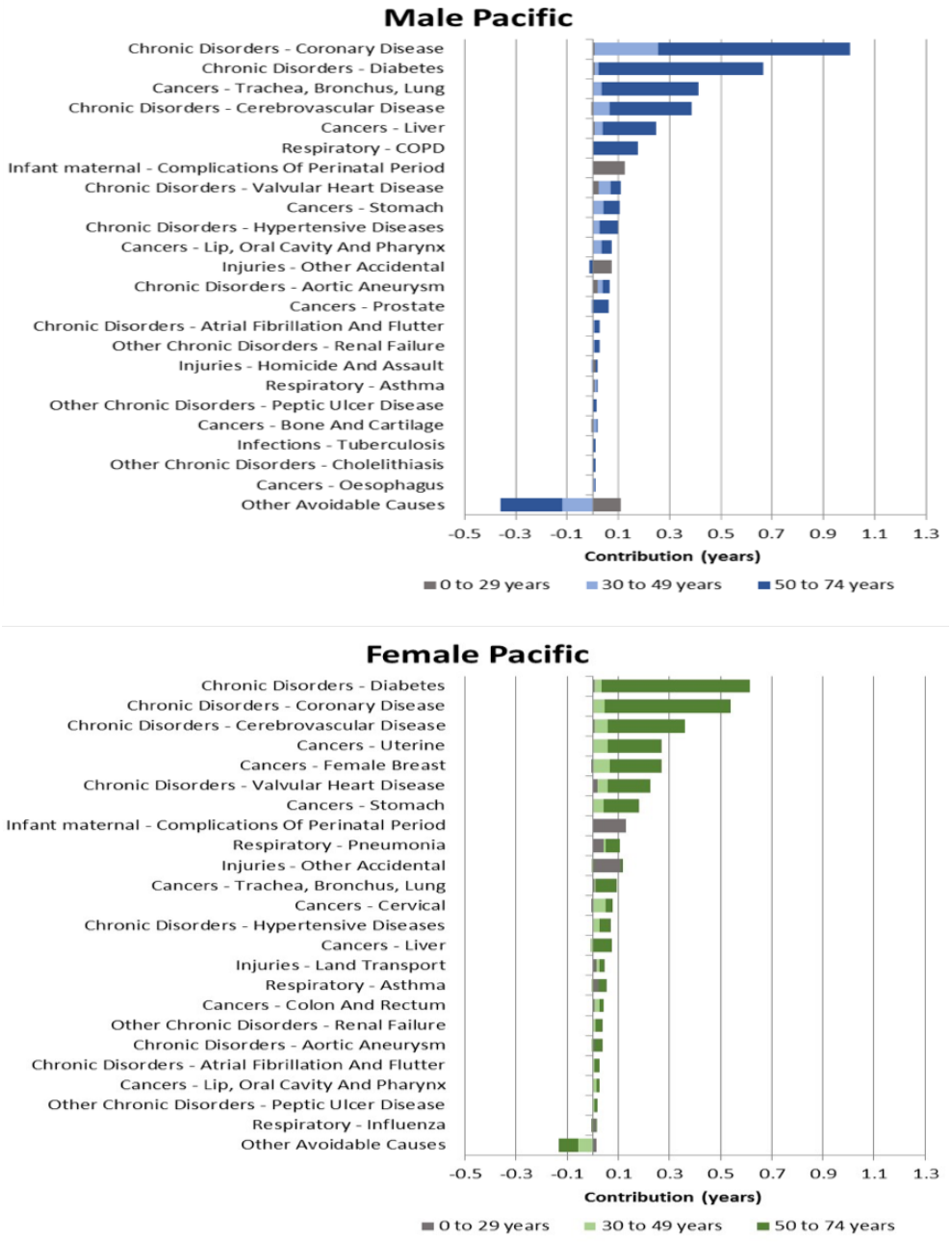
Source: Michael Walsh (Waitematā DHB, 2019)

FIGURE 15: LIFE EXPECTANCY GAP FOR PACIFIC COMPARED TO NON-MĀORI NON-PACIFIC; 2005/7 TO 2015/17, SELECTED DHBS



Source: Michael Walsh (Waitematā DHB, 2019)

FIGURE 16: MALE AND FEMALE PACIFIC LIFE EXPECTANCY GAP DECOMPOSITION (ATTRIBUTABLE CONDITIONS)



Analysis of the specific conditions that contribute to the gap in life expectancy for Pacific people (see Figure 16) highlights the role that preventable or modifiable diseases such as cardiovascular disease, diabetes, cancer and cerebrovascular disease play (Walsh & Grey, 2019). The top three conditions contributing to the life expectancy gap for Pacific men are (in order): coronary disease, diabetes and lung cancer and for Pacific women: diabetes, coronary disease and cerebrovascular disease. Potentially modifiable risk factors for these conditions include excess body weight, smoking, physical inactivity and dietary factors such as salt intake.

Specific cancers contributing to the life expectancy gap for Pacific people include cancers associated with the potentially modifiable risk factors noted above (e.g. lung, uterine and breast cancers) and those associated with infectious agents that could readily be treated if detected (e.g. stomach and liver cancers). Inequities in cancer outcomes highlight the role that differences in health risk factors, later stage presentation and post-diagnosis differences in care play in survival rates, with consequences for the gap in life expectancy (cited in (Grey, Sandford, & Walsh, 2019).

Amenable mortality

The high rate of potentially avoidable deaths among Pacific people in the CCDHB region is associated with approximately 22 additional deaths each year.

Amenable mortality provides an indicator of potential weaknesses in healthcare by identifying premature death from conditions that should not occur in the presence of timely and effective care (Nolte & McKee, 2011).

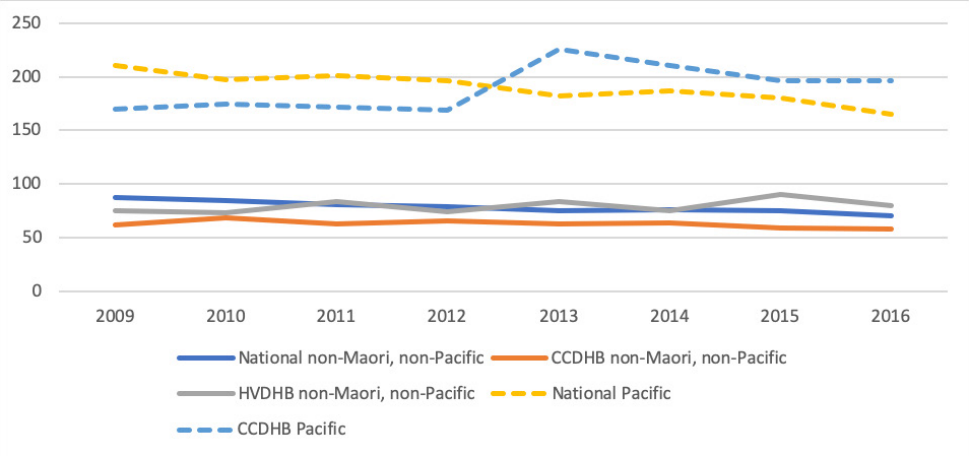
Figure 17 shows the change in amenable mortality from 2009 to 2016 among Pacific and non-Māori non-Pacific people both nationally and among the populations of CCDHB and HVDHB.

The rate of amenable mortality nationally fell by 19.6% over that period among non-Māori non-Pacific people and by 21.7% among Pacific people. Despite this reduction, Pacific people in NZ are 2.3 times more likely to experience an avoidable death than non-Māori non-Pacific (a rate of 165.2 compared to 70.2 per 100,000).

Between 2009 and 2016, there was an average of 34 avoidable deaths of Pacific people in the CCDHB region per year, an average rate of amenable mortality of 189.4 per 100,000 people. This rate is three times greater than the average rate for non-Māori non-Pacific people over the same period (62.8 per 100,000).

While the number of individuals involved is modest – a reporting threshold of 30 deaths is applied in NZ – the rate of amenable mortality in the CCDHB region increased by 15.2% between 2009 and 2016. The rate for non-Māori non-Pacific people over the same period fell by 5.9%.

FIGURE 17: AMENABLE MORTALITY (2009 TO 2016), BY ETHNICITY AND DHB



Source: (MoH, 2019)

Note: Rates per 100,000 age standardized people. A minimum reporting threshold of 30 deaths applies to amenable mortality data. No data available for HVDHB and Wairarapa DHB. Data for 2011, 2014 and 2016 estimated using simple averages (2011 and 2014) or extrapolation of immediate past value (2016).

Ambulatory Sensitive Hospitalisations, 0–4 and 45–64 year olds

Because Pacific people have a higher rate of avoidable hospitalisations than non-Māori non-Pacific, Pacific children under five experienced an additional 288 avoidable hospitalisations on average each year between 2015 and 2019.

ASH involve conditions for which hospitalisation could potentially have been avoided, either because the condition could have been prevented from occurring, or because individuals had access to timely and effective primary care (Page, Ambrose, Glover, & Hetzel, 2007). While access to effective primary care is important in reducing ASH, addressing the factors which drive the underlying burden of disease such as housing, or second hand smoke exposures, is also important.

Figure 18 shows the differences in ASH rates among Pacific and non-Māori non-Pacific children and adults aged 0-4 years and 45-64 years in the CCDHB and HVDHB regions. These rates indicate that ASH rates among Pacific people are persistently higher than non-Māori non-Pacific people; in some cases Pacific people are up to 3 times as likely to be admitted to hospital for an avoidable reason.

The most common conditions contributing to ASH rates include gastroenteritis, asthma and respiratory, dental and skin infections for children, and asthma, congestive heart failure, epilepsy, pneumonia and cellulitis/skin infections for adults.

FIGURE 18: ASH RATES BY DISTRICT HEALTH BOARD, 2015–2019, BY ETHNICITY

Source: (MoH, 2019b)

Note: WHO standardised populations. Non-standardised ASH rates provided for the 12 months ending March of the relevant year. No data is available for Pacific people in the Wairarapa DHB.

Modifiable health risk factors

The prevalence of some important modifiable risk factors for Pacific peoples is higher than the general population.

Pacific people in CCDHB smoke tobacco (22.9%, an estimated 3,317 people), have high body mass index (BMI) (85.6% or 12,400 people) and exhibit patterns of hazardous alcohol use (35.5% or 5,143 people) at a higher rate than the total population. Pacific men are, for example, 1.7 times as likely as non-Pacific men to use tobacco (see Table 5).

TABLE 5: ESTIMATES OF THE PREVALENCE OF MODIFIABLE HEALTH RISK FACTORS FOR PACIFIC IN THE CCDHB REGION, 2014–2017

				Adjusted Ratios		
Risk factors	**Pacific (%)**	**Total population (%)**	**Pacific adults with risk factor (no.)**	**Pacific vs non-Pacific**	**Pacific men vs non-Pacific men**	**Pacific women vs non-Pacific women**
Tobacco use	27.9%	11.3%	3,945	1.47	1.68	1.24
High BMI (Overweight or obese)	91.0%	59.5%	12,900	1.35	1.29	1.41
Hazardous alcohol use	35.5%#	25.2%#	5,020	1.25	1.27	1.22
Fruit and vegetable intake	33.5%#	39.4%#	4,737	0.90	0.88	0.91
Physical activity	55.9%	57.5%	7,905	0.91	0.97	0.84

Sources: (CCDHB, 2019c), (MoH, 2019g)

Notes: Rates for Pacific based on a national sample.

The figures provided for the CCDHB prevalence are the estimated number of Pacific people aged 15 or older in the DHB's region who exhibit each of the modifiable risk factors.

Not all differences provided in the ratios are statistically significant. Ratios are adjusted to account for demographic variables.

See (MoH, 2019g) for more information.

# denotes that the rates are reported at a national level only.

Definitions: The definition of each risk factor is as follows:

- Tobacco: Current smokers (has smoked more than 100 cigarettes in lifetime and currently smokes at least once a month)
- Overweight or obese: Overweight or obese: BMI of 25.0 or greater (or IOTF equivalent for 15–17 years)
- Hazardous alcohol use: Hazardous drinkers (AUDIT score ≥8, among past-year drinkers)
- Fruit and vegetable intake: Meets vegetable and fruit intake guidelines (3+ servings of vegetables and 2+ servings of fruit per day)
- Physical activity: Physically active (did at least 2.5 hours of activity in the past week, spread out over the week)

Excess Body Weight

If Pacific children had excess body weight at the same rate as the general population, then there would be 2,000 fewer overweight/obese Pacific children in the Wellington region

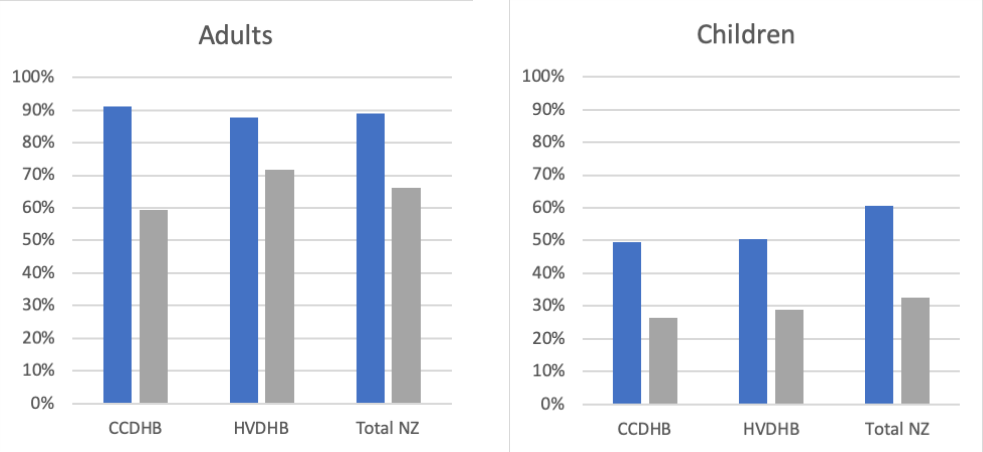
High BMI or excess body weight is a risk factor for a myriad of conditions, ranging from diabetes and heart disease to osteoarthritis and endometrial, breast and liver cancer. The percentage of Pacific people considered to be carrying excess body weight (as defined by a BMI ≥25kg/m²) is significantly higher than other ethnic groups.

Approximately 90% of Pacific adults in the CCDHB and HVDHB regions have excess body weight – the comparable rate for the total population is approximately 65% (see Figure 19). Pacific children (50%) are almost twice as likely to be carrying excess body weight as the total population in the Wellington region (27%) (see Figure 19).

Population data suggests that there are around 9,700 Pacific children aged 2–14 years in the Wellington region. Applying the reported rates of excess body weight from the NZ Health Survey to this population, approximately 4,700 Pacific children are overweight or obese. If the rates for the general population applied to this population of Pacific children, then around 2,700 would be overweight or obese, a difference of 2,000 children.

Applying a similar methodology to the population of Pacific adults indicates that there are around 20,000 Pacific adults who are obese or overweight. If the rates for the general population applied, there would be around 5,800 fewer adults who are overweight or obese.

FIGURE 19: PREVALENCE OF ADULTS AND CHILDREN WHO ARE OVERWEIGHT OR OBESE FOR SELECTED DHBS, BY ETHNICITY, 2014–2017



Source: (MoH, 2019g)

Note: Adults aged ≥15 years with BMI >25kg/m². Children aged 2–14 years with BMI equivalent to an adult BMI >25kg/m². Data not available for the Wairarapa DHB due to the sample sizes. Estimates of the difference in the incidence across the Wellington region population based on the national rates of overweight or obesity for Pacific people.

Smoking

Pacific people in the Wellington region are almost twice as likely to be current cigarette smokers than the total population, a difference of around 3,200 regular smokers.

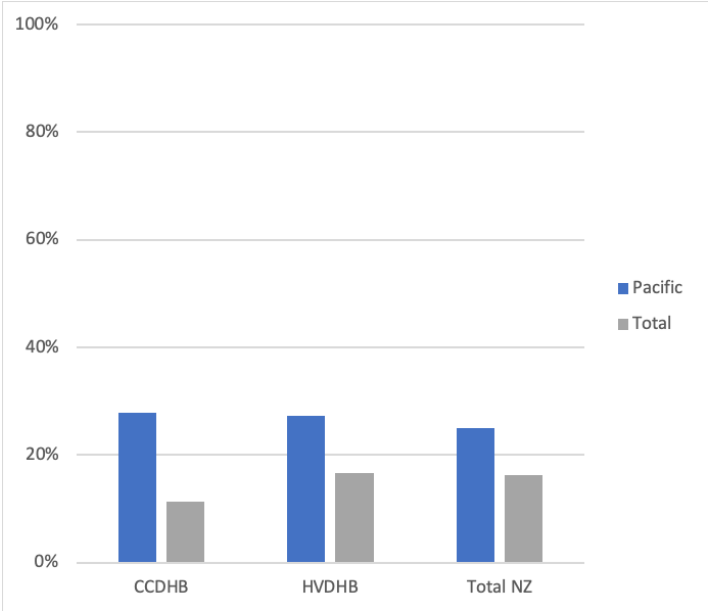
Cigarette smoking is a leading cause of preventable deaths and an important risk factor for chronic airways disease, lung cancer, heart disease and stroke.

Rates of smoking are much higher among Pacific people compared to non-Māori non-Pacific people. Around 28% of Pacific people at CCDHB and HVDHB are current smokers, compared to 11% of the total CCDHB population and 17% of the total HVDHB population (see Figure 20).

Population data suggests that there are around 22,500 Pacific adults aged 15 years or older in the Wellington region. Applying the reported rates of cigarette smoking from the NZ Health Survey to this population, approximately 6,200 Pacific adults regularly smoke cigarettes.

If the rates for the general population were applied to this population, then around 3,000 Pacific people would be regular smokers, a difference of 3,200 people.

FIGURE 20: PERCENTAGE OF PEOPLE WHO ARE CURRENT SMOKERS FOR SELECTED DHBS, 2014–17



Source: (MoH, 2019g)

Pacific Child and Youth Health

Immunisation rates

Around 50 Pacific children aged 24 months each year had not yet received their age-appropriate immunisations.

Immunisation plays an important, cost-effective role in preventing disease. Immunisation coverage rates among Pacific children had increased significantly since 1992 when surveys suggested 53% of children aged 24 months were fully immunised (Paterson, Schluter, Percival, & Carter, 2006).

Pacific children now have among the highest rates of immunisation in NZ at 93.1% (MoH, 2019d), nearing the Ministry of Health's immunisation coverage target of 95% (MoH, 2018a).

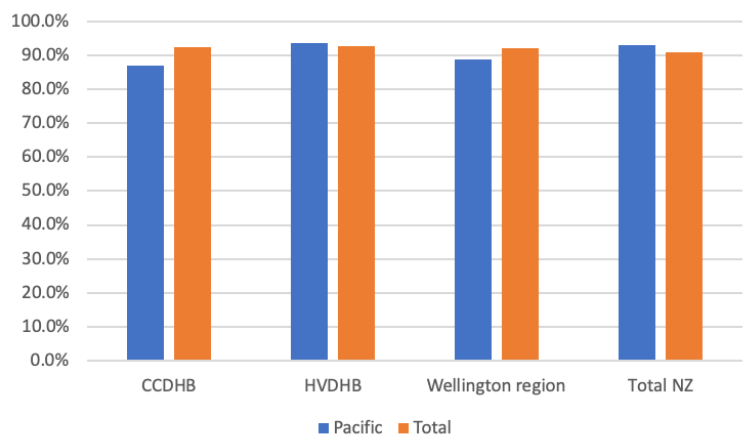
Data on the number and proportion of Pacific children who reached two years of age during the three months ending 30 June 2019 showed that 88.8% in the Wellington region had received their age-appropriate immunisations (see Figure 21).

Pacific children in the Wellington region had an immunisation rate during the period that was 3.4% lower than the rate for the general population in the region and 4.3% lower than the national rate for Pacific children.

There were approximately 125 Pacific children who turned two years of age during the period from 1 March 2019 to 30 June 2019, equivalent to 500 in the full calendar year.

The immunisation rates cited above and those for earlier periods suggest that around 56 Pacific children aged two years had not received their age-appropriate immunisations during the last 12 months (MoH, 2019d).

FIGURE 21: AGE-APPROPRIATE IMMUNISATION COVERAGE AT 24 MONTHS OF AGE, WELLINGTON REGION



Source: (MoH, 2019d)

Notes: The underlying data set uses the concept of prioritised ethnicity so may tend to understate the number of Pacific children who are eligible for immunisation.

No data available for Wairarapa DHB due to the small sample size.

The recent measles outbreak in Auckland has highlighted the importance of immunisation coverage for Pacific communities. In that outbreak, almost half of all reported cases were Pacific people. A number of factors are likely to have contributed to the high rates of measles among Pacific people, including the historically low rates of immunisation among the older age groups (15–29 year olds). Prevention of these vaccine preventable diseases through optimal immunisation coverage must remain a high priority for Pacific health.

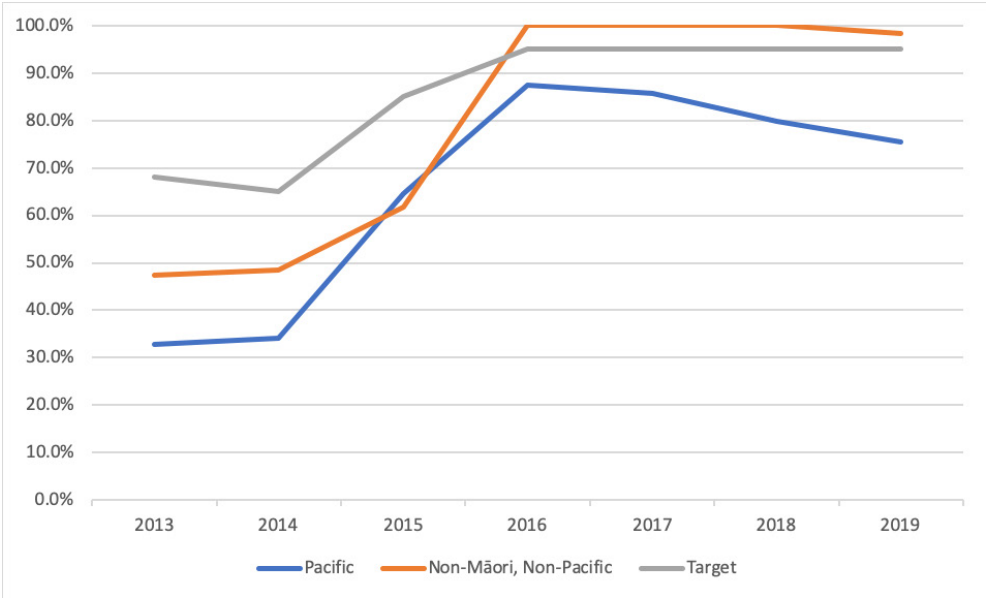
Oral health

Around 580 Pacific pre-school children lacked access to oral health services funded by CCDHB in 2019.

Oral diseases are among the most prevalent chronic diseases in NZ, carrying a significant burden for individuals and society (CBG Health Research, 2015), and dental care is a leading cause of admissions to hospital for young children (Whyman, Mahoney, Stanley, & Morrison, 2012). The prevalence of oral diseases is linked to socioeconomic inequality (Thomson W. , 2012)

There are around 2,400 Pacific children aged under five years in the CCHDB region (CCDHB, 2019c). Of these children, one in four (24.5%) were not enrolled in a DHB-funded oral health service in the year ending 31 March 2019.

FIGURE 22: % OF PRE-SCHOOL CHILDREN ENROLLED IN DHB-FUNDED ORAL HEALTH SERVICES



Source: (CCDHB, 2019)

The rate of enrolment in oral health services is markedly higher in 2019 compared to 2013, when the rate was just 32.7%. Enrolment rates peaked in 2016 at 87.4%.

Data for the 12 months ending 31 March.

No data available for HVDHB and Wairarapa DHB.

Data from CCDHB indicates that enrolment in oral health services for Pacific pre-school children has improved since 2013 but in 2019 remained lower than the DHB's target for such services (95%), as well as the enrolment rate for non-Māori non-Pacific (98.3%) (see Figure 22).

Enrolment is the first stage in access to oral health care, but does not necessarily imply that all enrolled children have been examined or treated by dental services. Utilisation rates for dental services were not available at the time of writing this report, but are an important aspect of care to consider.

Lack of access to oral health care is a general issue across the Wellington region – the NZ Health Survey indicates that an estimated 25.8% of Pacific children aged 0–14 years in the region had not visited a dental health care worker in the past year (MoH, 2019g).

Around 164 Pacific children in the CCDHB region aged five years had permanently damaged areas in their teeth in 2019 and the greatest severity of dental decay of any group.

Dental health outcomes for Pacific children trail those of non-Māori non-Pacific children and are persistently below the targets for the DHB.

In any given year there are around 400 Pacific children aged five years in the CCDHB region. The proportion who were 'caries-free' (that is, had no evidence of dental decay) averaged 42% between 2013 and 2019. This rate is well below the target proportion of Pacific children who are 'caries-free' (69%) and the comparable rate for non-Māori non-Pacific (76%), mirroring patterns nationally.

The proportion of Pacific children aged five who were 'caries-free' in the year ending 31 March 2019 was 59%, an improvement on the level reported in previous years (see Figure 23).

It should be noted that caries-free rates are only reported in children who have been examined by the community oral health service. The rates of caries are likely to be higher (and therefore caries-free rates lower) in the quarter of Pacific children who are not currently able to access the free community dental service (see Figure 22).

FIGURE 23: PERCENTAGE OF CHILDREN CARIES-FREE AT FIVE YEARS OLD, CCDHB, 2013–2019

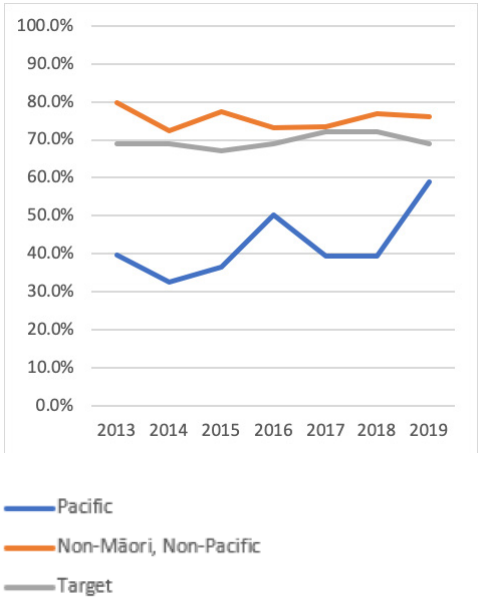
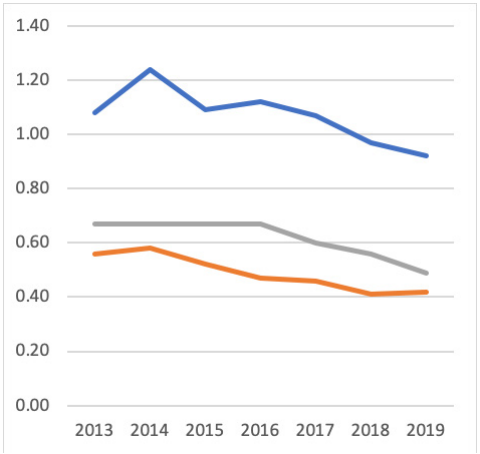


FIGURE 24: MEAN DECAYED, MISSING AND FILLED TEETH SCORE AT 12–13 YEARS OLD, CCDHB, 2013–2019



Source: (CCDHB, 2019)

Note: Results are for the year ended 30 June

The severity of dental decay among children at the end of their primary schooling (year 8 or ages 12–13 years) is measured through the number of permanent teeth that are decayed, missing and filled DMFT score) (MoH, 2019e). The mean DMFT score among Pacific children at year 8 was 0.92 in 2019, a decline of 14.8% from the 1.08 recorded in 2013. Despite this improvement, the mean score among Pacific children is 2.2 times the level recorded among non-Māori non-Pacific children. Over the same period, the DMFT score among non-Māori non-Pacific children fell from 0.56 to 0.42, a decline of 25.0% (see Figure 24).

Long-term conditions

The prevalence of non-communicable diseases such as diabetes, cardiovascular disease, cancer and chronic respiratory disease among Pacific people is high. In this section, we examine the data on the prevalence and management of diabetes and cardiovascular disease among Pacific people in the CCHDB region.

Long-term conditions in this report are presented as discrete diseases, however a significant proportion of Pacific people (13.8%) experience multimorbidity (the co-existence of two or more chronic conditions in a single patient). The comparable rate for the European population is 7.6% (Stanely, Semper, Millar, & Safarti, 2018).

Diabetes Prevalence

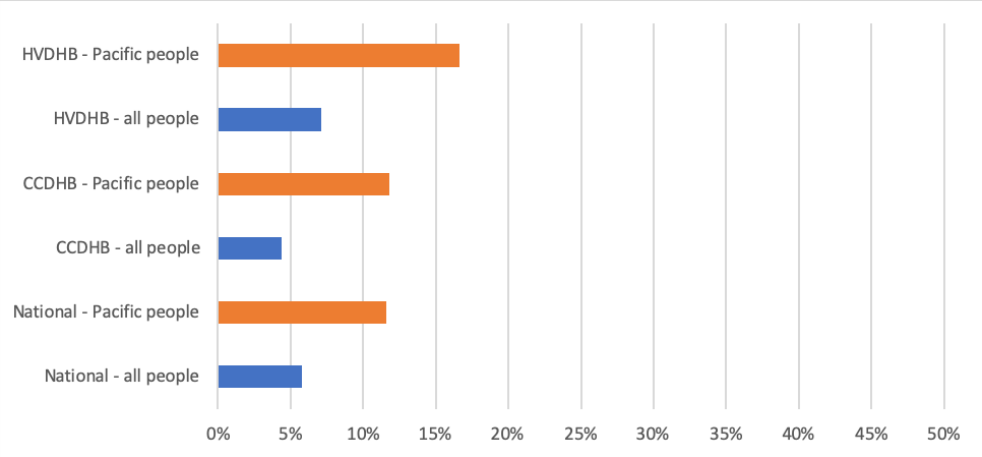
If Pacific people experienced diabetes at the same rate as the general population, then this disease would affect 1,050 fewer people in the CCDHB region.

Around 13.7% of the 22,500 Pacific adults in the Wellington region live with diabetes – the comparable rate for the general population is approximately 5.3% (see Figure 25). After controlling for age and gender, Pacific people are 3.9 times more likely than non-Pacific people to experience diabetes.

Around one in eight (11.8% or 1,700) Pacific adults in the CCDHB region have diabetes compared to 4.4% of the total population. The rate for Pacific adults in the HVDHB region is 16.6% (1,300) compared to 7.1% for that region's general population.

Applying the reported rates of diabetes from the NZ Health Survey to the population of Pacific adults, approximately 3,000 live with diabetes. If the rates for the general population applied to this population, then around 1,200 would have diabetes, a difference of 1,800 people (including 1,050 in the CCDHB region).

FIGURE 25: PROPORTION OF THE POPULATION THAT LIVES WITH DIABETES, SELECTED DHBS, 2014–2017



Source: (MoH, 2019g)

Notes: No data available for the Wairarapa DHB due to the small sample size

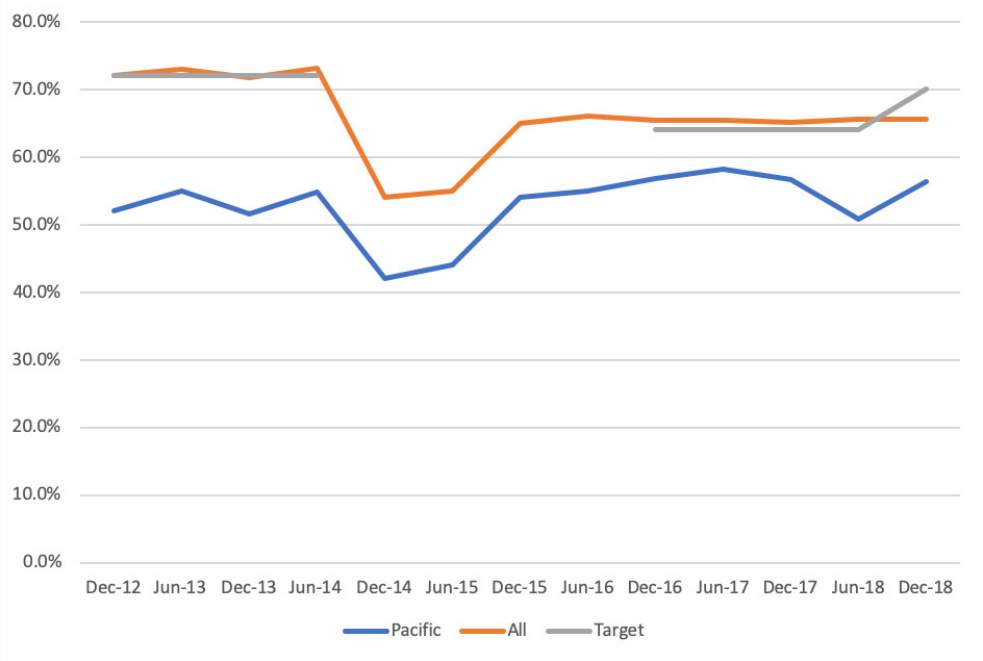
Diabetes Control

Around 740 Pacific people with diabetes in the CCDHB region do not have optimally managed HbA1C levels.

For people with diabetes, glycated haemoglobin (HbA1c) is used to measure blood sugar control over the past three months. A rate of HbA1C at or below 64 mmol/mol (defined as 'optimal management of diabetes') is indicative of long-term control of blood sugar levels. Poor management of HbA1c is associated with a higher risk of amputation, heart failure, blindness and death.

The 2018 MoH target for the proportion of adults with diabetes who have optimally managed HbA1c levels is 70%. The proportion of 1,700 Pacific people who live with diabetes and have optimally managed HbA1c levels in the CCHDB region averaged 52.4% between 2012 and 2018. By contrast, the rate for the general population averaged 65.9% over the same period (see Figure 26).

FIGURE 26: % OF PACIFIC PEOPLE WITH DIABETES ENROLLED IN A PHO WITH DIABETES WITH MANAGED HBA1C LEVELS, 2012 TO 2018



Source: (CCDHB, 2019)

Notes: Results for the preceding six months. Measure based on the proportion of people enrolled with a PHO aged 15–74 years with diabetes and their most recent HbA1C test results in the preceding 12 months.

These results suggest that around 740 Pacific people with diabetes in the CCDHB region do not have good diabetic control. Lifting the proportion of Pacific people to the rate for the general population would reduce this number to 580 people and prevent serious complications associated with the disease.

Rates of foot checks and screening for diabetic eye disease were not available at the time of writing this report. However, this data would be useful for examining equity of access to diabetic services for Pacific people in the region.

Assessment of cardiovascular risk

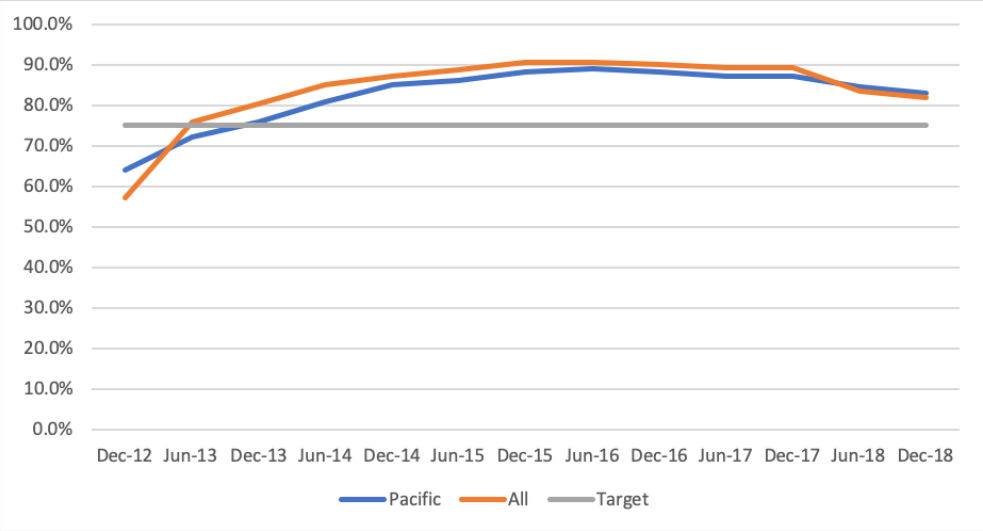
Around 1,300 eligible Pacific people have not had a cardiovascular risk assessment.

Cardiovascular risk assessments enable early detection and management of risks for cardiovascular disease, an important intervention because an estimated 70% of the burden of cardiovascular disease is attributable to modifiable risk factors (CCDHB, 2018).

Pacific people are at higher risk of cardiovascular diseases than the general population (Chen, et al., 2008), and since 2018 risk assessments for Pacific men are recommended from 30 years of age and for Pacific women from 40 years of age (10 years earlier than their European counterparts) (MoH, 2018).

The proportion of eligible people who have received a cardiovascular risk assessment within the last five years has increased markedly since 2012. For Pacific people, this proportion increased from 64.1% in 2012 to 83.0% in 2018. This increase is consistent with that experienced by the total population (from 57.3% to 82.0%). The current rates now exceed the target level (75.0%) for CCDHB as a whole (Figure 27).

FIGURE 27: COMPLETION OF CARDIOVASCULAR RISK ASSESSMENT, CCDHB, 2012 TO 2018



Source: (CCDHB, 2019a)

An estimated 7,500 Pacific people are eligible for cardiovascular risk assessments currently. The most recent rate reported for Pacific people of 83.0% indicates that around 1,300 Pacific people have not yet to have a cardiovascular risk assessment.

However, cardiovascular risk assessment is only useful if accompanied by appropriate cardiovascular risk management. For those at low risk, this will include advice on lifestyle changes (e.g. dietary modification, physical activity and smoking cessation). For those at higher risk, lifestyle advice must also be accompanied by the commencement of cardioprotective medications, primarily blood pressure and lipid lowering medications ('dual therapy'). And for those who have previously experienced a serious cardiovascular event (e.g. unstable angina or myocardial infarction), antiplatelet medications are also indicated ('triple therapy').

The concepts associated with cardiovascular risk assessment can often be difficult to convey, so it is important that healthcare workers check their patients' understanding. Previous research on Samoan patients' understanding of cardiovascular risk assessment found that many patients did not find value in the process due to a lack of understanding of what was required to reduce their cardiovascular disease in the short- and long-term (Su'a, 2017). Given the high rates of cardiovascular hospitalisations and deaths among Pacific populations, it is vital that the health system strengthens its health literacy processes in order to be responsive to the needs of Pacific people.

Access to Primary Healthcare

Primary healthcare services aim to provide essential healthcare based on practical, scientifically sound, culturally appropriate and socially acceptable methods. While there is considerable evidence about the contribution that primary healthcare can make to improved health outcomes, the current system is not well configured to meet the needs of all Pacific people.

This section of the report provides an overview of the rates of enrolment in primary healthcare services, utilisation of these services and barriers to accessing these services for Pacific people.

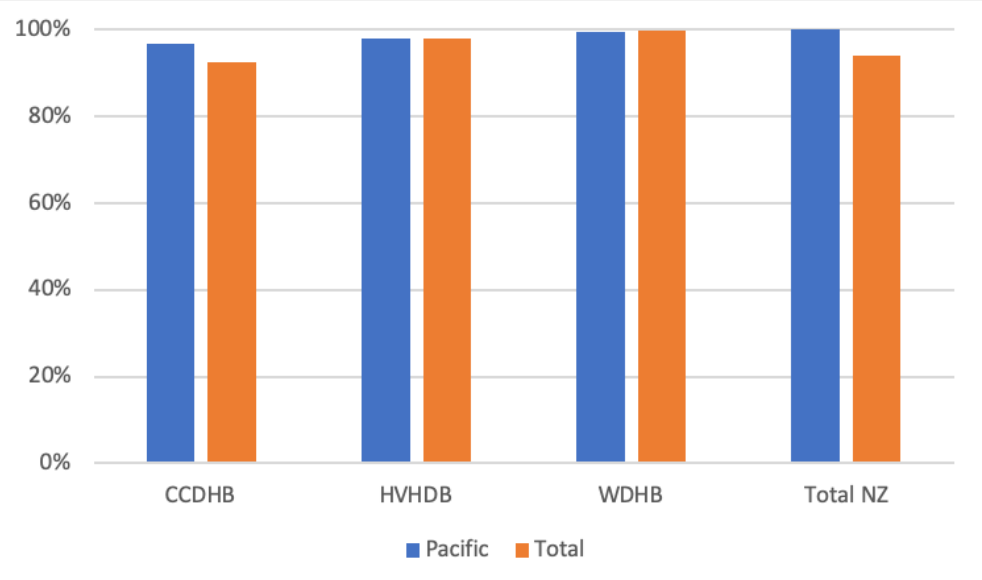
Enrolment in primary healthcare services

Enrolments by Pacific people in primary health organisations are high

Enrolments in primary health organisations (PHOs) are an indicator of access to primary health services. Nationally collated data report PHO enrolment rates greater than 100% (104%) and at several DHBs, such as Counties Manukau Health (115%) (MoH, 2019f).

The PHO enrolment rate for Pacific people as at July 2019 was 97% at CCDHB, 98% at HVDHB and 99% at WDHB (see Figure 28). These rates are lower than the national average for all Pacific people (104%) and approximate the total population rates for HVDHB (98%) and Wairarapa DHB (100%).

FIGURE 28: RATE OF ENROLMENT IN PHOS FOR SELECTED ETHNICITIES, WELLINGTON REGION DISTRICT HEALTH BOARDS, JULY 2019



Source: (MoH, 2019f)

The very high PHO enrolment rates among Pacific people are a salient example of the influence of differences in the way ethnicity data is recorded in the NHI and the census and other estimates of populations (see *Accuracy of population estimates*).

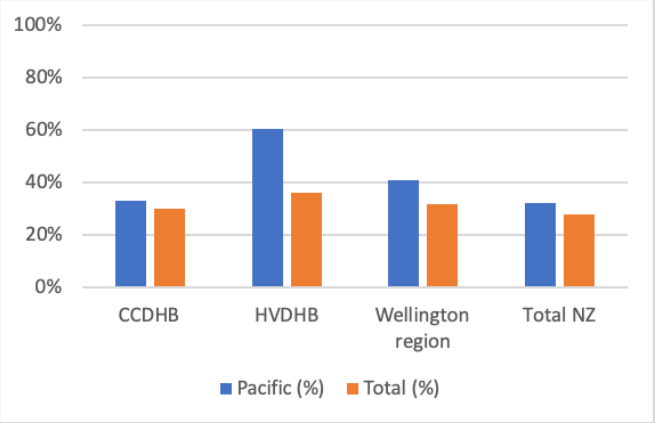
Nonetheless PHO enrolment rates nationally (94%) and among the Wellington region DHBs (a range of 92–100%) for the total population are high, suggesting that almost all people access the benefits of PHO enrolment. However, non-enrolment appears to be unevenly distributed, particularly among Māori, whose enrolment rate is 81% at CCDHB (MoH, 2019f).

Barriers to access

Around 4,600 Pacific people in the CCDHB region experience unmet need for primary health care.

Whether and which Pacific people are affected by the uneven distribution of PHO enrolment is unknown, but high ASH rates and data on unmet need for primary healthcare from the NZ Health Survey suggests that many Pacific people experience greater barriers to access compared to the total NZ population (Southwick, Kenealy, & Ryan, 2012) (Ryan, Grey, & Mischewski, 2019).

FIGURE 29: PERCENTAGE OF PEOPLE WHO EXPERIENCED ONE OR MORE TYPES OF UNMET NEED FOR PRIMARY HEALTH CARE IN THE PAST 12 MONTHS, SELECTED AREAS, 2014–2017



Source: (MoH, 2019g)

Notes: Adults aged 15 years or older

Two in five (41.0%) of Pacific people in the Wellington region reported experiencing one or more types of unmet need for primary health care over a 12-month period (see Figure 29).

This rate compares to 31.5% of the total regional population and 28% of the total NZ population.

This summative view of barriers to access shows that these reported barriers are greater for Pacific people in the HVDHB region (60.5%) than those living in the CCDHB region (33.0%).

The comparable rates for the total population in the relevant DHBs were 36.0% and 30.0%, respectively (see Figure 29).

The most commonly cited reasons for unmet primary health care needs among people living in the CCDHB and HVDHB regions are difficulties obtaining a timely appointment and the cost of accessing GP services or filling prescriptions (see Table 6).

TABLE 6: MOST COMMONLY CITED BARRIERS TO ACCESS FOR PRIMARY HEALTH CARE, SELECTED DHBS, 2014–2017

	Unable to get an appointment within 24 hours	Unmet need for GP because of cost	Unfilled prescription due to cost
CCDHB – Pacific	20.4%	14.9%	11.3%
CCDHB – all	19.8%	7.3%	15.5%
HVDHB – Pacific	46.7%	19.7%	34.3%
HVDHB – all	24.5%	9.2%	20.1%
NZ Total – Pacific	15.4%	17.3%	19.7%
NZ Total – all	17.7%	6.6%	14.1%

Source: (MoH, 2019g)

Notes: Adults aged 15 years or older

Approximately 9,200 Pacific people in the Wellington region experience unmet need for primary health care, including around 4,600 in the CCHDB region. If Pacific people in the CCDHB region reported unmet need at the same rate as the general population then around 400 fewer Pacific people would report barriers to accessing primary health care.

Hospital services utilisation

Utilisation of CCHDB hospital services

There were almost 460,000 emergency department (ED), inpatient and outpatient 'events' recorded at CCDHB facilities during the 2018/19 year. The number of events has increased by 7.0% since 2014/15, from almost 430,000.

There was no appreciable difference overall in the rate of increase among Pacific and non-Pacific people over the period – events for Pacific people increased by 7.1% while those for non-Pacific people increased by 7.0%, or 1.8% per annum on average. On a per capita basis, Pacific and non-Pacific people used CCDHB services at a similar rate (1.55 and 1.61 events per capita respectively) in 2018/19. (see Table 7).

TABLE 7: ALL EVENTS AT CCDHB FACILITIES, 2018/19, PACIFIC AND NON-PACIFIC POPULATION IN THE WELLINGTON REGION

Population	2014/2015	2018/2019	Cumulative growth (%)	Average change p.a. (%)	Per capita (2018/19)
Pacific	33,120	35,479	7.1%	1.8%	1.55
Total non-Pacific	405,249	433,653	7.0%	1.8%	1.61
Total	438,369	469,132	7.0%	1.8%	
Pacific as a share of all events (%)	7.6%	7.6%			

Source: (CCDHB, 2019f)

Notes: Non-standardised data. Patients who attended from the Wellington region only. CCDHB facilities only.

Use of emergency department services

EDs provide episodic 'crisis' care for people who perceive the need for acute or urgent care (MoH, 2011). While the primary role of the ED is the treatment of seriously ill and injured patients, it also provides a significant amount of unscheduled care that might otherwise be delivered through the primary healthcare system (McCraig & Burt, 2005) and cater to patients who experience acute exacerbations of chronic conditions, often due to poorly organised overall care (Asplin, et al., 2003).

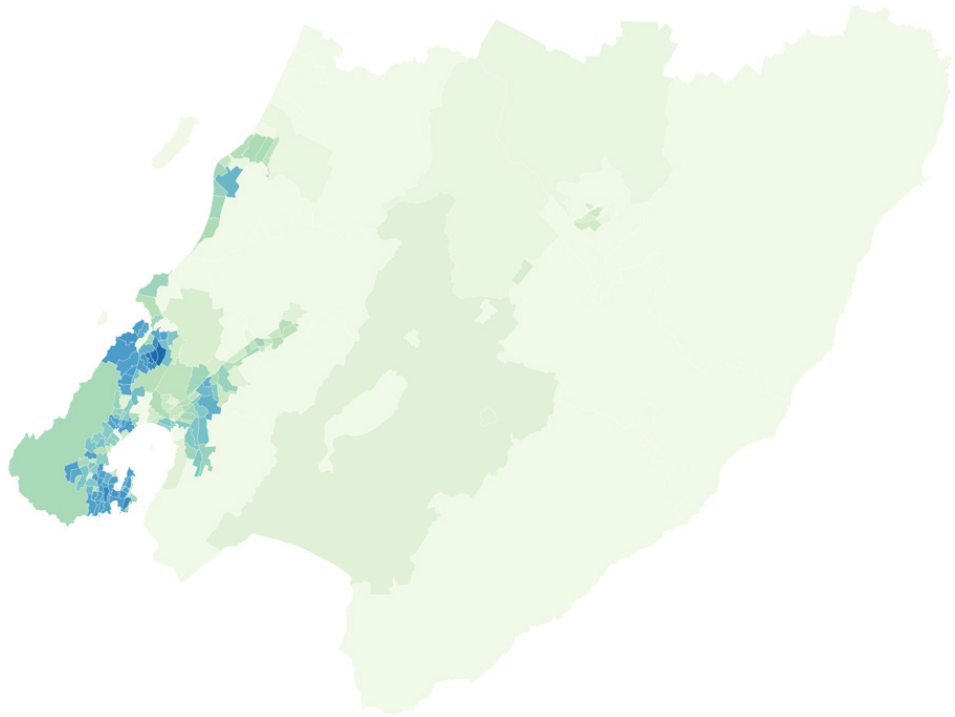
Pacific people access EDs at high rates relative to their share of the population for a variety of reasons including referrals from primary healthcare providers (Thomson, Fogarty, Jones, Ragaban, & Simpson, 2014), perceptions that EDs provide the most appropriate level of care and as a means to address unmet health needs.

> ***Demand for ED services by Pacific people is growing at more than twice the rate of the non-Pacific population.***

Between 2014/15 and 2018/19, there were 313,291 events recorded at the CCDHB ED. Over the period the total number of recorded events increased from 60,118 in 2014/15 to 64,289 in 2018/19, an average increase of 1.7% per year.

Users of the CCDHB ED are predominantly drawn from Wellington City (62.3%), Porirua City (15.0%) and Kapiti Coast District (10.6%). People in the cities of Lower Hutt (4.2%) and Upper Hutt (1.6%) are less common. The balance is comprised of people from communities in the Wairarapa (0.6%) and people from outside of the Wellington region (6.5%) (see Figure 30).

FIGURE 30: ED ADMISSIONS, PACIFIC PEOPLE, 2014/15 TO 2018/19, WELLINGTON REGION



Source: (CCDHB, 2019b)

Notes: All events

Excluding the ED events associated with people outside of the CCDHB region indicates that the number of ED events increased by 3,312 between 2014/15 and 2018/19, from 47,963 to 51,086, an average increase per annum of 1.7%.

While almost two-thirds (62.3%) of this growth came from residents of Wellington City, residents of Porirua City made the greatest contribution relative to the city's population. Growth in ED admissions from the general population of Porirua City was 3.8% per annum on average, while Pacific people in the city recorded an increase per annum of 5.5% on average.

Demand for ED services among Pacific people in the CCDHB region increased faster than the total population. The number of recorded events for Pacific people increased from 5,108 in 2014/15 (8.5% of the total) to 5,819 in 2018/19 (9.1%), an average increase of 3.5%. This rate of increase was more than twice that of the non-Pacific population (1.6%) (see Table 8).

TABLE 8: EMERGENCY DEPARTMENT EVENTS, CCDHB, 2014/15 TO 2018/19, PACIFIC AND NON-PACIFIC POPULATION

Population	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018	2018/ 2019	Cumulative growth (%)	Average change p.a. (%)
Pacific	5,108	5,441	5,525	5,665	5,819	13.9%	3.5%
Total non-Pacific	55,010	56,390	57,534	58,329	58,470	6.3%	1.6%
Pacific (%)	8.5%	8.8%	8.8%	8.9%	9.1%		

Source: (CCDHB, 2019b)

Notes: Non-standardised data. Includes all eligible patients.

Notably, Pacific people living in the Waitangirua-Titahi Bay arc accounted for 12.8% of the increase in ED events originating from the CCDHB region, from a population that makes up 4.3% of the region's total population.

Pacific people in the CCDHB region are 22.3% more likely to have an ED event than non-Pacific people.

Within the CCDHB region, Pacific people overall were 22.3% more likely to have an ED event in the 2018/19 year than non-Pacific people on a per capita basis. Pacific people overall had a per capita rate of emergency department events of 0.23 per annum compared to 0.19 for non-Pacific people.

Geographic proximity appears to influence the per capita ratio of ED events. The highest per capita rate of ED events was recorded among Pacific people in Wellington City at 0.30 in 2018/19. The comparable rate for non-Pacific people in Wellington City was 0.20. Among residents of Porirua City, the rates for Pacific and non-Pacific people were 0.20 and 0.19 respectively (see Table 9).

TABLE 9: EMERGENCY DEPARTMENT EVENTS BY TLA, PACIFIC PEOPLE, CCDHB REGION, 2018/19

TLA	2018/2019	Annualised growth (%)	Population (2013)	Events per capita (2018/19)
Kapiti Coast District	81	0.6%	1,260	0.06
Porirua City	2,589	5.5%	12,738	0.20
Wellington City	2,678	2.1%	8,931	0.30
Grand Total	5,348	3.6%	22,926	0.23

Source: (CCDHB, 2019e)

These patterns are reflected in the rates of ED use among the communities identified. The Pacific population in the community closest to the hospital (the Strathmore-Berhamphore corridor) had a per capita rate of 0.38 per annum, higher than the rate for non-Pacific people in the same community (0.28) (see Table 10).

Residents of the Lower Hutt Valley and Wainuiomata rarely used the ED, with a rate of 0.03 per capita per annum whether Pacific or non-Pacific.

TABLE 10: EMERGENCY DEPARTMENT EVENTS BY TLA, TOTAL POPULATION, CCDHB REGION, 2018/19

TLA	2018/2019	Annualised growth (%)	Population (2013)	Events per capita (2018/19)
Kapiti Coast District	6,596	1.1%	47,844	0.14
Porirua City	7,427	3.8%	38,979	0.19
Wellington City	37,252	1.5%	182,031	0.20
Grand Total	51,275	1.7%	268,854	0.19

Source: (CCDHB, 2019e)

Pacific people in the CCDHB region are twice as likely as their share of the population to be high users of Wellington Hospital's ED.

Almost 160,000 people attended the CCDHB ED between 2014/15 and 2018/19. Each of these people attended twice on average over the period for a total of 313,000 events.

Around 7,300 (4.5%) people attended the ED more than once per year over the period on average, and this group accounted for 72,000 (23.0%) of these events. These high users attended the ED an average of 9.9 times each over the period.

Around 850 Pacific people accounted for 11.7% of the group of high users accounting for 8,500 events or 11.8% of the total number of events associated with high users. Pacific people are accordingly twice as likely to be represented among the highest users of the ED as suggested by their share of the population.

The majority of these Pacific high users (96.1%) live in the CCDHB region, including 38.6% in Waitangirua-Titahi Bay and 24.1% in the Strathmore-Berhamphore corridor.

Use of inpatient services

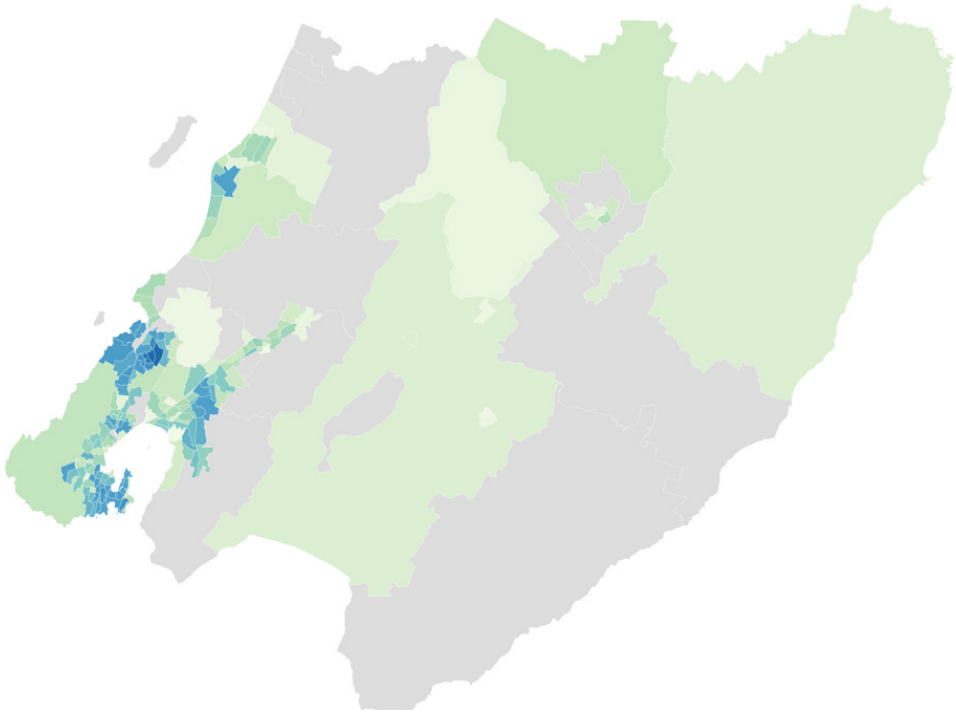
Inpatient care is medical treatment that is provided in a hospital or equivalent facility that involves at least one overnight stay.

Demand for inpatient services by Pacific people is increasing faster than the non-Pacific population.

CCDHB recorded 366,449 inpatient care events during the 2014/15 to 2018/19 period. Over the period the total number of recorded events increased from 70,690 in 2014/15 to 76,142 in 2018/19, an average increase of 1.9% per year.

Users of CCDHB inpatient services are predominantly drawn from Wellington City (46.9%), Porirua City (17.8%) and Kapiti Coast District (14.0%). People in the cities of Lower Hutt (6.9%) and Upper Hutt (2.8%) are less common. The balance is comprised of people from communities in the Wairarapa (2.1%) or outside of the Wellington region (9.4%) (see Figure 31).

FIGURE 31: INPATIENT ADMISSIONS, PACIFIC PEOPLE IN THE WELLINGTON REGION, 2014/15 TO 2018/19



Source: (CCDHB, 2019b)

Notes: All events

The main source of growth in demand for inpatient services was among residents of Wellington City (2,010 additional events) and Porirua City (1,492 additional events).

Eighty percent of the inpatient care events related to people living in the CCDHB region. These events increased by 4,166 between 2014/15 and 2018/19 from 55,861 to 60,027, an average increase per annum of 1.9%.

Demand for inpatient services among Pacific people in the CCDHB region overall increased at a slower rate than the total population. The number of recorded events for Pacific people increased from 5,033 in 2014/15 (9.0% of the total) to 5,547 in 2018/19 (9.2%), an average increase of 2.6% per annum. The rate of increase among the non-Pacific population was 1.8% (see Table 11).

TABLE 11: INPATIENT EVENTS, CCDHB, 2014/15 TO 2018/19, PACIFIC AND NON-PACIFIC POPULATION

Population	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018	2018/ 2019	Cumulative growth (%)	Average change p.a. (%)
Pacific	5,033	5,263	5,163	5,349	5,547	10.2%	2.6%
Non-Pacific	50,828	51,455	51,717	53,637	54,480	7.2%	1.8%
Total	55,861	56,718	56,880	58,986	60,027	7.5%	1.9%
Pacific as a share of all events (%)	9.0%	9.3%	9.1%	9.1%	9.2%		

Source: (CCDHB, 2019g)

Notes: Non-standardised data. Includes all eligible patients.

Admissions for inpatient services among Pacific people living in the Waitangirua-Titahi Bay arc increased by 318 over the period, from 2,800 in 2014/15 to 3,118 in 2018/19, an average increase per annum of 2.8%.

Pacific people at CCDHB are 20% more likely to have an inpatient admission than non-Pacific people.

Within the CCDHB region, Pacific people overall were 20.0% more likely to have an inpatient event in the 2018/19 year than non-Pacific people on a per capita basis. Pacific people had a per capita rate of inpatient events of 0.24 per annum compared to 0.20 for non-Pacific people.

The highest per capita rate of inpatient events was recorded among non-Pacific people in Porirua City at 0.27 in 2018/19. The rate for non-Pacific people in Porirua City was 0.26. Among residents of Wellington City, the rates for Pacific and non-Pacific people were 0.23 and 0.18 respectively.

Pacific people in the Kapiti District Council area had a lower per capita admission rate of 0.09 compared to 0.22 for non-Pacific people.

TABLE 12: INPATIENT EVENTS, PACIFIC PEOPLE, CCDHB REGION, 2018/19

TLA	2018/2019	Annualised growth (%)	Population (2013)	Events per capita (2018/19)
Kapiti Coast District	116	0.6%	1,260	0.09
Porirua City	3,360	5.5%	12,738	0.26
Wellington City	2,071	2.1%	8,931	0.23
Grand Total	5,431	3.6%	22,926	0.24

Source: (CCDHB, 2019g)

The Pacific populations in Waitangirua-Titahi Bay arc and the Strathmore-Berhamphore corridor had 0.27 inpatient admissions per capita in 2018/19. The Pacific populations in Lower Hutt Valley (0.06) and Wainuiomata (0.05) had much lower rates.

TABLE 13: INPATIENT EVENTS, TOTAL POPULATION, CCDHB REGION, 2018/19

TLA	2018/2019	Annualised growth (%)	Population (2013)	Events per capita (2018/19)
Kapiti Coast District	10,404	1.6%	47,844	0.22
Porirua City	10,512	2.9%	38,979	0.27
Wellington City	33,564	1.5%	182,031	0.18
Grand Total	54,480	1.8%	268,854	0.20

Source: (CCDHB, 2019g)

Pacific people in the CCDHB region were 1.4 times more likely than the total population to be high users of Wellington hospital's inpatient services

Almost 167,000 people attended the CCDHB ED between 2014/15 and 2018/19. Each of these people was admitted 2.2 times on average over the period for a total of 366,449 events.

Around 13,500 people (8.9% of the total) were admitted, on average, once per year over the period, and this group accounted for 109,405 or 65.5% of these events. These high users were admitted an average of 8.1 times each over the period.

This group of people included 1,303 Pacific people who made up 9.6% of this subgroup. These Pacific people were associated with 9.9% of the events relating to these higher users of inpatient services.

Pacific people were 1.4 times more likely to be represented among the highest users of inpatient services relative to their share of the CCDHB population (6.7% versus 9.6%).

In the 2018/19 year, the majority of these Pacific high users (99.1%) lived in the CCDHB region, including 57.4% in Waitangirua-Titahi Bay and 16.9% in the Strathmore-Berhamphore corridor.

Use of outpatient services

Outpatient care is medical treatment that is provided in a hospital or equivalent facility that does not involve an overnight stay at hospital. While outpatient care may involve emergency care, this type of care is discussed separately (see Use of Emergency Department Services).

The outpatient data provided gives an indication of the fluidity of outpatient service provision across the lower North Island. People living in the CCDHB region make use of the major CCDHB-run facilities.

Use of outpatient services by Pacific people is growing more slowly than the non-Pacific population.

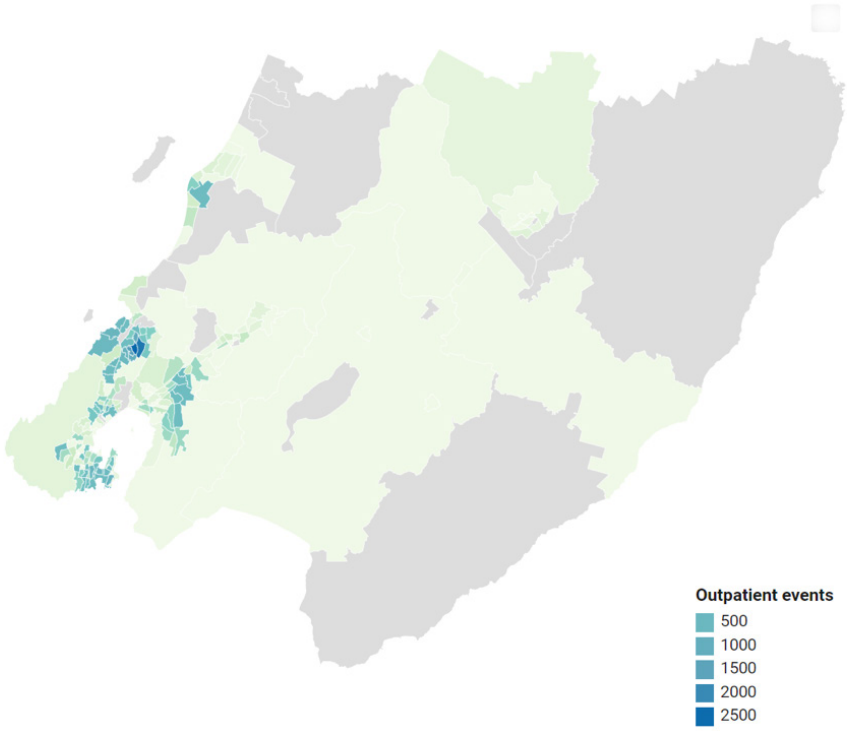
The main CCDHB hospitals (Kenepuru Community Hospital, Paraparaumu Community Hospital and Wellington Hospital) recorded 344,816 outpatient care events attended by patients during the 2018/19 year. A further 28,457 events were not attended by patients – a 'did not attend' (DNA) rate of 7.6%.

The majority (79.6%) of the attended outpatient events involved patients from the CCDHB region. The balance of 20.4% mainly reflects a large number of outpatient events associated with people from HVDHB (41,142 or 11.9%), MidCentral DHB (8,997 or 2.6%) and Wairarapa DHB (8,775 or 2.5%), predominantly (79.9%) offered at Wellington hospital.

Over the period the total number of recorded events increased from 289,078 in 2014/15 to the current level, an average increase of 4.8% per year.

Users of the CCDHB inpatient services are predominantly drawn from Wellington City (47.4%) Porirua City (16.7%) and Kapiti Coast District (15.5%). People in the cities of Lower Hutt (8.3%) and Upper Hutt (3.6%) are less common. The balance is comprised of people from communities in the Wairarapa (2.5%) or outside of the Wellington region (5.9%) (see Figure 30).

FIGURE 32: OUTPATIENT EVENTS, PACIFIC PEOPLE IN THE WELLINGTON REGION, 2018/19



Source: (CCDHB, 2019b)

Notes: All 'attended' outpatient events.

Outpatient events across the Wellington region delivered at the CCDHB facilities increased between 2014/15 and 2018/19 from 322,390 to 344,816. Pacific people experienced an increase of 4.9% over the total period from 22,979 to 24,113, an average of 1.2% per annum. This increase was less than the average annual rate of increase for non-Pacific people of 1.8% (see Table 14).

TABLE 14: OUTPATIENT EVENTS AT CCDHB FACILITIES, 2018/19, PACIFIC AND NON-PACIFIC POPULATION IN THE WELLINGTON REGION

Population	2014/2015	2018/2019	Cumulative growth (%)	Average change p.a. (%)
Pacific	22,979	24,113	4.9%	1.2%
Total non-Pacific	299,411	320,703	7.1%	1.8%
Total	322,390	344,816	7.0%	1.7%
Pacific as a share of all events (%)	7.7%	7.5%		

Source: (CCDHB, 2019f)

Notes: Non-standardised data. Patients who attended from the Wellington region only. CCDHB facilities only.

Admissions for outpatient services among Pacific people living in the Waitangirua-Titahi Bay arc increased by 1,327 over the period from 10,360 in 2014/15 to 11,787 in 2018/19, an average increase per annum of 1.6%.

Pacific people in the CCDHB region are less likely to use outpatient services than non-Pacific people.

Within the CCDHB region, Pacific people overall were 4.2% less likely to have an outpatient department event in the 2018/19 year than non-Pacific people on a per capita basis. Pacific people overall had a per capita rate of outpatient events of 0.9 per annum compared to 0.94 for non-Pacific people (see Table 15).

The highest per capita rate of inpatient events was recorded among non-Pacific people in Porirua City at 1.17 in 2018/19. The comparable rate for non-Pacific people in Porirua City was 0.94. Among residents of Wellington City, the rates for Pacific and non-Pacific people were 0.85 and 0.90 respectively (see Table 16).

Pacific people in the Kapiti District Council area had a lower per capita outpatient event rate of 0.48 compared to 1.11 for non-Pacific people.

TABLE 15: OUTPATIENT EVENTS, PACIFIC PEOPLE, CCDHB REGION, 2018/19

TLA	2018/2019	Annualised growth (%)	Population (2013)	Events per capita (2018/19)
Kapiti Coast District	600	2.8%	1,260	0.48
Porirua City	11,992	2.0%	12,738	0.94
Wellington City	7,995	-0.8%	8,931	0.90
Grand Total	20,587	0.8%	22,926	0.90

Source: (CCDHB, 2019f)

Note: Attended outpatient events at CCDHB facilities only.

The Pacific populations in Waitangirua-Titahi Bay arc and the Strathmore-Berhamphore corridor had a per capita rate of outpatient events of 0.95 and 1.00 respectively in 2018/19. The Pacific population in Lower Hutt valley (0.24) and Wainuiomata (0.25) had a much lower rate.

TABLE 16:OUTPATIENT EVENTS, TOTAL NON-PACIFIC POPULATION, CCDHB REGION, 2018/19

TLA	2018/2019	Annualised growth (%)	Population (2013)	Events per capita (2018/19)
Kapiti Coast District	52,885	0.1%	47,844	1.11
Porirua City	45,666	-0.9%	38,979	1.17
Wellington City	155,347	-1.5%	182,031	0.85
Grand Total	253,898	-1.1%	268,854	0.94

Source: (CCDHB, 2019f)

Almost 70,000 people had an outpatient event associated in 2018/19. Each of these people had 3.9 events on average over the period for a total of 274,485 events.

Around 3,600 people (or 5.1% of the total) had more than one event on average per month over the period, and this group accounted for 74,097 or 26.9% of these events. These high users were admitted an average of 20.1 times each over the period.

This group of people included around 254 Pacific people who made up 7.0% of this subgroup. These Pacific people were associated with 7.3% of the events relating to these higher users of inpatient services.

Pacific people were 1.06 times more likely to be represented among the highest users of inpatient services relative to their share of the CCDHB population (6.7% versus 9.6%).

In the 2018/19 year, 57.5% of these Pacific high users lived in Waitangirua-Titahi Bay and 14.9% in the Strathmore-Berhamphore corridor.

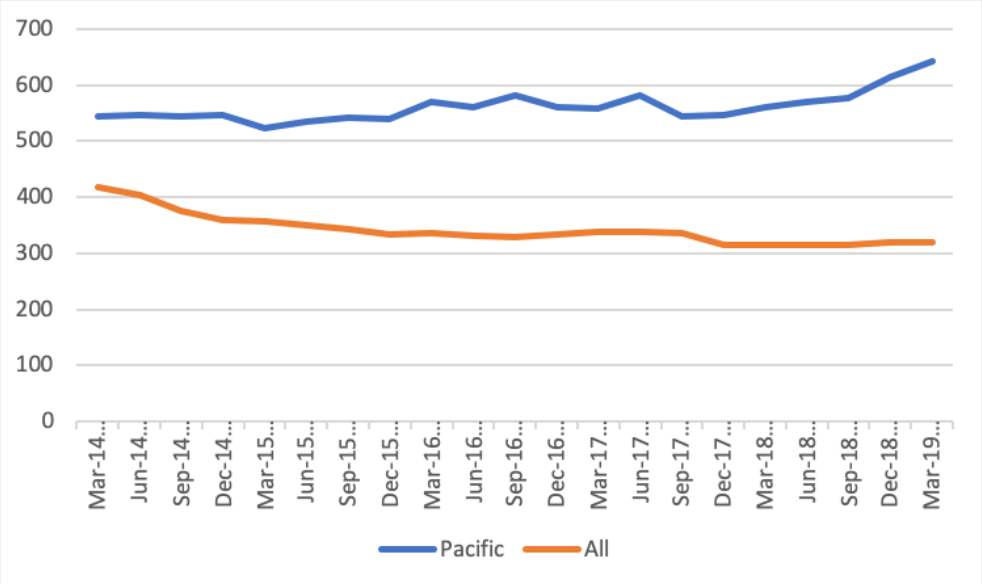
Acute bed days

If Pacific patients had the same acute bed day rate as the total population, there would be 5,000 fewer acute bed days per annum.

Acute bed days is an indicator of strategies to better manage health resources through effective management in primary care, optimising of patient flow in hospitals, discharge planning, community support services and good communication between healthcare providers.

The acute bed day rate for Pacific people has increased by 18% since 2014 (from 545 to 642 per 1,000) while the rate for the general population fell by 23% (from 417 to 319 per 1,000). The main contributor to this change was a marked increase between September 2018 and March 2019 (from 578 to 642 per 1,000) (see Figure 33).

FIGURE 33: STANDARDISED ACUTE BED DAY RATE PER 1,000 DOMICILED POPULATION, CCDHB



Source: (CCDHB, 2019a)

Extrapolating the standardised acute bed day rate across the whole Pacific population suggests that Pacific people occupied around 14,000 bed days in 2019. If the rate for Pacific people had fallen at the same pace as the general population, then the number of acute bed days would have approximately 9,200.

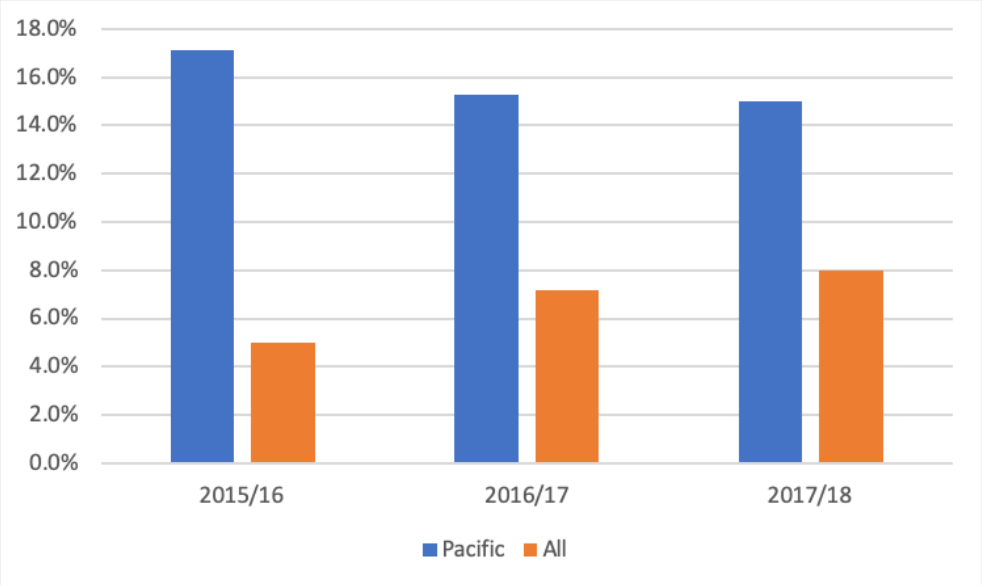
Did Not Attend Rates

Pacific people do not attend around 4,000 appointments for outpatient care each year.

That people 'did not attend' (DNA) outpatient appointments is a widespread issue in the health system which means that scarce heath service resources are not optimally utilised. There are many reasons for DNA events including poor communication, inconvenient appointment times, administrative failings, barriers to access, unavoidable problems and poor experience of health services. Research and analysis at DHBs in the Wellington region suggest that the DNA rate can be reduced by targeted interventions (CCDHB, 2015), (Dayal, Puketapu, & Gush, 2016).

Pacific people have around 25,000 outpatient appointments each year. In 2017/18 17.0% of these appointments were not attended by Pacific people. This DNA rate for Pacific people is at least twice as high as that for the general population (see Figure 34).

FIGURE 34: THE PERCENTAGE OF "DNA" (DID NOT ATTEND) APPOINTMENTS FOR OUTPATIENT SPECIALIST APPOINTMENTS



Source: (CCDHB, 2018), (CCDHB, 2017)

The DNA rate for Pacific people is equivalent to around 4,000 appointments. These missed appointments are concentrated in a relatively small group of people. In 2018/19, for example, outpatient appointments were not attended by 2376 Pacific people, but just 154 people accounted for one-quarter of all missed appointments.

Pacific Workforce at CCDHB

There are around 50 fewer Pacific employees than regional demographics would suggest

The proportion of the workforce employed by CCDHB who identify with one or more Pacific ethnicity (6.0%) is broadly reflective of the portion of Pacific people who live in the DHB's region (6.7%) (see Table 17).

TABLE 17: PERCENTAGE OF WORKFORCE WHO IDENTIFY AS PACIFIC COMPARED TO THE SHARE OF THE CCDHB REGION'S POPULATION WHO IDENTIFY AS PACIFIC, 2017/18 YEAR

Category	%
CCDHB employees	6.0%
Pacific population	6.7%

Source: (CCDHB, 2018)

The approximately 300 people who make up the Pacific workforce of CCDHB are concentrated in non-clinical roles – around 40% of the workforce is employed in 'care and support' roles and a further 27% are employed in 'Corporate and other' roles.

The comparable proportions for the wider CCDHB workforce are 7% and 3% respectively. Notably, around one in four (26%) of the Pacific workforce are employed as nurses. Nurses make up 38% of the total CCDHB workforce (MoH, 2012).

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Appendix one: Matrix of geographical groupings, Wellington region

DHB	Territorial Local Authority	Locality	Area Unit
CCDHB	Porirua City	Waitangirua-Titahi Bay	Titahi Bay North
			Onepoto
			Titahi Bay South
			Elsdon-Takapuwahia
			Porirua Central
			Porirua East
			Ranui Heights
			Cannons Creek North
			Cannons Creek South
			Cannons Creek East
			Waitangirua
			Ascot Park
	Wellington city	Strathmore-Berhamphore	Melrose-Houghton Bay-Southgate
			Berhampore West
			Newtown West
			Berhampore East
			Newtown East
			Kilbirnie East
			Kilbirnie West-Hataitai South
			Lyall Bay-Airport-Moa Point
			Strathmore Park
			Miramar South

DHB	Territorial Local Authority	Locality	Area Unit
HVDHB	Lower Hutt City	Lower Hutt Valley	Tawhai
			Holborn
			Delaney
			Manuka
			Taita North
			Taita South
			Avalon East
			Naenae North
			Naenae South
			Avalon West
			Boulcott
			Epuni West
			Epuni East
			Waterloo West
			Waterloo East
			Waiwhetu North
			Waiwhetu South
			Gracefield
			Moera
			Woburn North
			Woburn South
			Hutt Central
			Melling
			Alicetown
			Esplanade
			Wilford
		Wainuiomata	Glendale
			Parkway
			Fernlea
			Arakura
			Homedale West
			Homedale East

Note: The Area Unit of 'Adelaide' was excluded from the Strathmore-Berhamphore corridor. This area unit includes the site of Wellington hospital.

Appendix two: Population age distribution, Wellington region and selected communities

FIGURE 2A: AGE DISTRIBUTION, PACIFIC PEOPLES BY DHB AND REGIONALLY

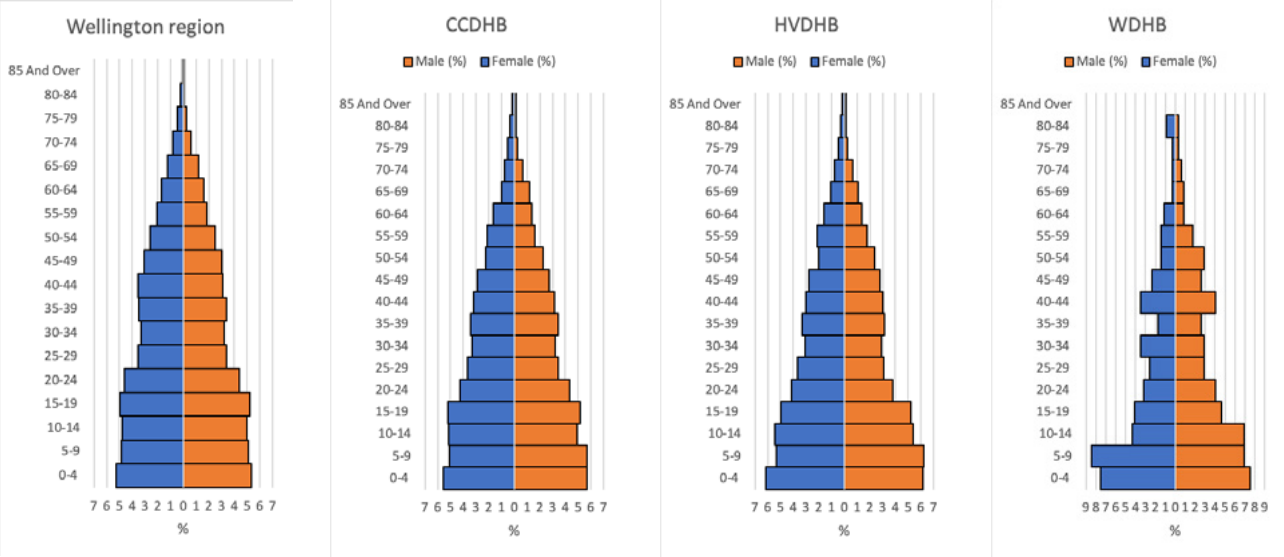
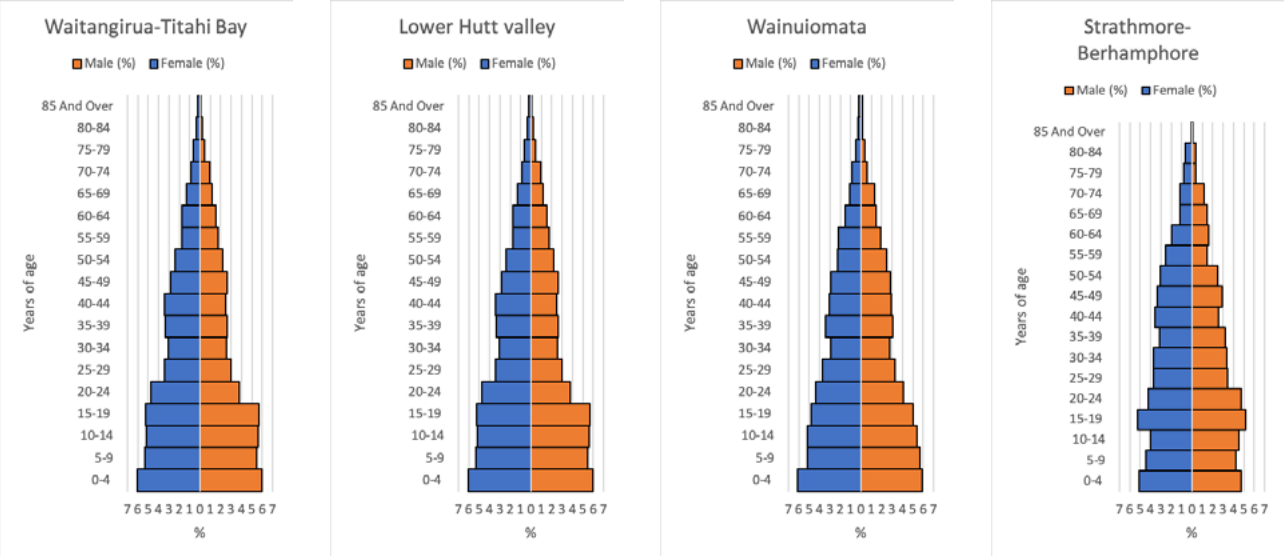


FIGURE 2B: AGE DISTRIBUTION, PACIFIC PEOPLES IN SELECTED COMMUNITIES



pacific perspectives