

The logo for Pacific Perspectives, featuring a stylized geometric pattern of triangles and squares in shades of teal and white, positioned to the left of the text.

pacific perspectives

Health System Review – Pacific Report

Pacific Perspectives Limited

July 2019

**Disclaimer**

Pacific Perspectives Ltd has made every effort to ensure the information in this report is reliable, but makes no guarantee of its completeness.

Acknowledgements

This report was prepared by Pacific Perspectives Ltd. The key contributors are Dr Debbie Ryan, Dr Corina Grey and Brenden Mischewski, with the support of David Nicholson, Lisa Kitione and Jonathan Malifa. We acknowledge Carl Billington and Tim Hansen for their assistance with preparing the publication.

We thank Counties Manukau and Vaka Tautua for their consent to including information about their organisations in the case studies. The information in the cardiovascular case study is based on Dr Corina Grey's doctoral thesis. Any errors or omissions are the responsibility of Pacific Perspectives Ltd.

We acknowledge Dr Ana Koloto and Dr Ausaga Faasalele Tanuvasa for their assistance in collecting the family stories included in this report.

Finally we would like to thank the Pacific people and their families who have shared their experiences willingly and openly in the hope that this will improve care for others in New Zealand. We dedicate this report to you.



Contents

2	Introduction
4	Executive Summary
8	Pacific Peoples' Health in New Zealand at a Glance
10	Pacific Peoples in New Zealand
16	Health Outcomes
27	Access and Use of Healthcare
33	References

Glossary

ASH	Ambulatory Sensitive Hospitalisations
CHF	Congestive heart failure
COPD	Chronic obstructive pulmonary disease
CVD	Cardiovascular disease
DHB	District Health Board
GP	General Practitioner
GRx	Green Prescription
HVAZ	Health Village Action Zones
LE	Life expectancy
LTCs	Long-term conditions
MPP	Ministry of Pacific Peoples
NMNP	Non-Māori Non-Pacific People
NZ	New Zealand
PHO	Primary Health Organisation
SLM	System Level Measure

Introduction

Health and Disability System Review

The New Zealand government has established a review into the New Zealand Health and Disability System (the Review) with the aim of identifying opportunities to improve the performance, structure, and sustainability of the system. The Review Panel will provide recommendations on 'a sustainable and forward looking Health and Disability system' that are designed to achieve better and more equitable health and wellness outcomes for all New Zealanders and ensure improvements in health outcomes for Māori and Pacific peoples. The intent is to improve the quality, effectiveness and efficiency of the Health and Disability System, including institutional, funding and governance arrangements and how these can be implemented.

Pacific health has been a New Zealand health system priority since the publication of the first Pacific Health and Disability Action Plan in 2002. Since that time numerous reports have documented the poor health of Pacific peoples and the worsening trends compared to other New Zealanders. In addition, there is a growing body of evidence including health system performance and organisational reports, research projects and evaluations which include information about Pacific health. The extensive reference list for this report shows what is available.

Pacific Perspectives has been contracted to produce this paper focused on improving equity of health outcomes for Pacific communities. The paper describes the health equity issues faced by Pacific families and communities. In addition to the report, 3 case studies are presented:

- Cardiovascular Disease, a case study in Pacific Health;
- The Fanau Ola Pacific service at Counties Manukau Health; and
- Vaka Tautua: 'for Pacific by Pacific' community services.

The report highlights approaches based on Pacific values and the strengths of Pacific communities. It is informed by the Pacific Aotearoa vision (Ministry of Pacific Peoples, 2019).

Equity: Data Challenges

There are many challenges with presenting a picture of the current state of Pacific health and more importantly identifying why disparities in outcomes and problems with access and quality of services and why unmet need persists. These challenges arise in part due to the disparate sources of information that are collected for different purposes. Successive governments have made explicit policy commitment to improving the health of all New Zealanders and meeting the needs of those with the most need, including Pacific peoples. However, there is a lack of standardised data related to ethnicity, and the ability to access primary care data by ethnicity is subject to ownership disputes – despite government funding of primary care services. There appears to be no secondary care data governance requirements to support national policy on equity for Pacific.

Pacific health data can be difficult to find. One of the reasons for this is that equity measures often group Māori and Pacific data together, or simply present Māori/non-Māori comparisons. The partnership between Crown and Māori embodied in the Treaty of Waitangi demands an appreciation of the effectiveness of the health system for Māori, and Pacific people recognise their obligations, along with all the peoples of New Zealand, to Māori. Yet we must recognise that inequities in the system matter to other groups in society, and Pacific in particular.

A challenge for Pacific health is that standards for ethnicity reporting are variable. The standard approach in the health sector is to use prioritised ethnicity, whereas Statistics New Zealand prefers the 'total response' approach. Prioritised ethnicity categorises people into one ethnic group in the following order: Māori, Pacific, Asian, Other. The advantage of this approach is that the total denominator is never more than the size of the population. Total response ethnicity, on the other hand, categorises people into every ethnic group that they self-identify with (so the total denominator is often more than 100% of the population). The advantage of the prioritised ethnicity approach, where there is no overlap between groups, is that comparisons are relatively straightforward. A disadvantage, however, is that it underestimates



the total size of the Pacific population vis-a-vis Māori. Furthermore, the automatic categorisation of people who identify with more than one ethnicity into a single ethnic group is inconsistent with the concept of self-identification and ignores the complex identities of individuals – an increasingly significant issue given the multi-ethnic identity of Pacific babies born in New Zealand, which we discuss in this report.

We ought to recognise that the administrative conveniences we use to organise groups of people bear little relevance to their own, often overlapping identities. The Pacific Mental Health Review report highlights the importance of taking a multiple voice approach that continues to consider whose voice is being heard and how some voices not captured may be those with the most need.

Inherent in discussions about equity is the need to describe Pacific health in relation to others. The comparator group that is used in many reports is ‘total population’. However this group includes Pacific and in doing so has the effect of underestimating equity issues and the gap in health outcomes.

The approach used in this report is to draw on a range of comparator groups. The comparator group used depends on the data available. If ‘non-Māori non-Pacific’ comparisons are available, these are used, as this is the preferred comparator group for equity and Pacific health. Where this comparator group is not available, ‘European’ group is used as a comparator as a proxy for the majority population. ‘Total population’ is only used where no other comparison has been identified.

Scope

There is limited data included in this report about mental health and disability issues for Pacific peoples. This does not in any way reflect the significance of these issues, but the availability of up to date data. The recent Inquiry on Mental Health included a stand alone report for Pacific that provided a comprehensive account of the perspectives of Pacific mental health service users. The third case study about Vaka Tautua presents some of the issues for Pacific peoples with disabilities. More information is available in the Ministry of Health report *Faiva Ora 2016–2021: National Pasifika Disability Plan*.

Executive Summary

This report summarises available information on the health of Pacific peoples in New Zealand. It has been developed to feed into the review into the New Zealand Health and Disability System that began in 2018. The Review aims to provide recommendations to achieve better and more equitable health and wellness outcomes for all New Zealanders and ensure improvements in health outcomes for Māori and Pacific peoples.

Pacific Perspectives Ltd built on the authors' existing work to write this report on the health equity issues faced by Pacific families and communities. It outlines the demographic and socioeconomic factors impacting on Pacific peoples in New Zealand, key health outcomes, and what is currently known about the barriers and facilitators to accessing health care for Pacific peoples. Three case studies, illustrating some of the key points made in this report, are also presented. These case studies describe issues related to cardiovascular disease for Pacific peoples, the Fanau Ola service at Counties Manukau Health, and Vaka Tautua, a national 'for Pacific by Pacific' community service.

Understanding the demography of the Pacific population in New Zealand, and the socioeconomic factors impacting on Pacific peoples' health, is important.

Approximately 300,000 people in New Zealand (~7% of the population) identify with at least one Pacific ethnic group. The term 'Pacific peoples' is a collective term describing a diverse population of more than 16 distinct ethnic groups, languages and cultures. It is also a population that is becoming increasingly diverse: 25% of Pacific people (and 40% of Pacific children aged 0-4 years) identify with more than one ethnic group (compared to 7% of non-Pacific people).

Despite this increasing diversity, however, there are a set of enduring cultural values that are shared among Pacific groups, including the importance of family, collectivism and communitarianism, spirituality, reciprocity and respect. These values form a strong foundation for thriving and resilient Pacific communities, a vision articulated by the Ministry

of Pacific Peoples following an extensive Pacific community engagement process.

Pacific peoples are highly concentrated geographically in certain parts of New Zealand, which may offer particular opportunities for locally-based and tailored health interventions. More than 85% of Pacific peoples live in the catchment areas of seven District Health Boards (DHBs). These include the three Auckland DHBs, the two Wellington DHBs, Canterbury and Waikato DHBs. Approximately two-thirds live in the Auckland region, and of these, 54% live within the catchment of Counties Manukau DHB. Within Counties Manukau DHB, most Pacific peoples live in the localities of Mangere/Otara and Manukau. Together, these areas house more than 30% of NZ's Pacific population.

Pacific peoples report high levels of wellbeing, despite challenging socioeconomic circumstances. In the 2016/17 social wellbeing survey, Pacific peoples were just as likely as NZ Europeans to rate their overall life satisfaction as high (66%), their life as worthwhile (73%) and their health as very good or excellent (58%). Pacific peoples also report higher levels of social contact than NZ Europeans and those in the total population, and are less likely to report feeling lonely.

However, a greater proportion of Pacific peoples than NZ Europeans and the total population report financial and housing challenges that impact on their well-being. 24% of Pacific peoples (8.5% of Europeans) report not having enough money to meet their everyday needs, 40% (18% of Europeans) live in homes that are always cold, and 10% (5% of Europeans) report having problems with damp and mould.

Of all population groups, Pacific peoples are most affected by inequities in the distribution of the socioeconomic determinants of health. Results from the census and other studies show that, compared to all other ethnic groups, Pacific people are more likely to live in neighbourhoods of 'high deprivation', have the lowest median household incomes, higher unemployment rates, the lowest rates of home ownership, and the highest rates of household crowding.



Qualitative research has identified that Pacific peoples' understandings of health and wellness are strongly underpinned by a narrative of poverty and limited resources. People are clear that unhealthy lifestyles are not due to a lack of knowledge, but a lack of economic resources and the ability to 'make better choices'.

There are persistent and significant inequities in health outcomes for Pacific peoples.

Disparities in health and service outcomes for Pacific compared with non-Māori non-Pacific people in New Zealand have persisted and been reported in health system reports for more than two decades. There has been some improvement, **but the gaps are not closing.**

The proportion of all deaths considered *potentially avoidable* is twice as high in Pacific (47.3%) compared to non-Māori non-Pacific populations (23.2%). Life expectancy at birth for Pacific peoples is more than six years lower than that of non-Māori non-Pacific people. These inequities can be primarily attributed to long-term conditions, including cardiovascular disease, diabetes and cancer.

In 2015, the diabetes prevalence rate was 20% for Pacific adults in NZ (20-79 years), the highest of all ethnic groups (Māori 10%, Asian 8% and NZ European 6%) and far above the OECD average of 7%. These percentages mask substantial disparities in the prevalence of diabetes by age: by the age of 65 years, more than half of all Pacific peoples are living with diabetes.

Death rates from cancer are also significantly higher for Pacific compared to non-Māori non-Pacific people. The top three cancer-related contributors to the life expectancy gap are cancers of the respiratory tract, liver and stomach for Pacific men, and cancers of the uterus, breast and stomach for Pacific women. Drivers of these inequities include differences in rates of smoking, overweight/obesity, certain infections (e.g. hepatitis C) and access to cancer screening.

Many people with long-term conditions have more than one chronic health condition, which is referred to as multimorbidity, and studies have reported the highest rates of multimorbidity among Pacific peoples compared to all other ethnic groups. Multimorbidity is associated with poor physical functioning and mental health outcomes, poor quality of life and high healthcare costs.

These persisting inequities in health are also seen in Pacific children. Rates of hospitalisation for Pacific children are higher than all other ethnic groups for acute and chronic respiratory and infectious diseases and serious skin infections, and Pacific children are reported to present to hospital with more advanced or severe disease. The rate of hospitalisation for rheumatic fever, a potentially preventable condition with serious lifelong consequences, is 50 times higher in Pacific children than NZ European children.

There is an unequal burden of risk factors for Pacific peoples, and health system responses have been inadequate.

Risk factors for long-term conditions include obesity, smoking, hypertension and infectious diseases. Evidence clearly shows that the burden of these risk factors is disproportionately borne by Pacific populations, but there is limited data on how equitably interventions to address these risk factors and conditions are being provided by the health sector.

Rates of adult and childhood obesity are disproportionately higher in Pacific (67% and 30% respectively) compared to the total New Zealand population (32% and 12% respectively). However flagship programmes, such as Green Prescription, do not regularly publicly report participation rates by ethnicity, and there are significant inequities in access to bariatric surgery, with the highest rates in NZ Europeans and the lowest in Pacific peoples. If allowed to continue, inequitable access to evidence-based interventions will ultimately widen the already large inequities between Pacific and other groups.

Pacific peoples have high rates of healthcare utilisation, but also high rates of ambulatory sensitive hospitalisations and unmet need for care.

Pacific enrolments in primary care are high and GP utilisation rates are similar to non-Māori non-Pacific people. However, ambulatory sensitive hospitalisation (ASH) rates are substantially higher in Pacific peoples compared to the rest of the population. ASH rates include conditions that are considered reducible through preventive or therapeutic interventions deliverable in primary care. Data indicates that there have been no significant improvements in Pacific child



ASH rates over the last 10 years, while Pacific adult ASH rates have worsened, increasing the gap between Pacific and the total population. In 2016, child (0-4 year) ASH rates for Pacific (12,079 per 100,000) were *almost double* that of the total New Zealand population (6690 per 100,000) and adult ASH rates for Pacific (8787 per 100,000) were *more than double* that of the total New Zealand population (3789 per 100,000).

Results from the New Zealand Health Survey also shows that Pacific peoples experience very high rates of unmet need for care compared to the total New Zealand population. 33% of Pacific peoples (and 29% of the total population) report not seeing their primary care practitioner when needed, with most of this unmet need (20% of all Pacific people, 15% of the total population) being related to cost. Similarly, 18% of Pacific peoples (8% of the total population) report not filling a prescription because of cost. Given the high rates of chronic conditions and multimorbidity among Pacific peoples, this data indicates that there are significant financial barriers to optimal medical management of long-term conditions in this population.

Cost, location of services, appointment times, cultural and communication factors and family and other commitments all impact on Pacific peoples' access to healthcare.

Good communication between health professionals and their patients is a fundamental component of high-quality health services. In-depth analyses of the experiences of Pacific families with unwell children have highlighted mismatches in the cultural values of families and the system in which their children were being treated. Communication barriers, a clash in cultural worldviews and, at times, discriminatory and culturally insensitive behaviour, have all been shown to affect the way Pacific peoples experience care and influence their health-seeking behaviour in the future.

Pacific families have reported feeling they lacked information from healthcare providers, leading to difficulties negotiating processes within the hospital system, such as knowing the support services available, their eligibility for these services, and what to expect at various stages of care. The use of medical jargon can alienate families, and information in the form of written resources, most often only available in English, can be confusing, long and unappealing.

Communication is a particular challenge for families where English is a second language. Despite hospitals clearly stating that all patients have a right to access translation services, families reported that offers of a translator were rarely made, and never in urgent or emergency situations.

A clash in cultural worldviews, and racism at different levels and across all engagement areas of the health system, has also been highlighted in studies. Cultural support services, where they exist, are often overloaded and under-resourced. Families have noted clear treatment differences between families of different ethnic groups in the way they are treated, the language used, resources offered and assumptions made about them. Having a negative health care experience can have long-lasting consequences. Families' expectations of health services and professionals are often based on negative previous healthcare experiences that undermined their confidence and curtailed their ability to challenge hospital processes where necessary. These findings are mirrored in other research where experiencing a perceived lack of respect or an unresponsive or unsympathetic doctor has been thought to discourage future attendance.

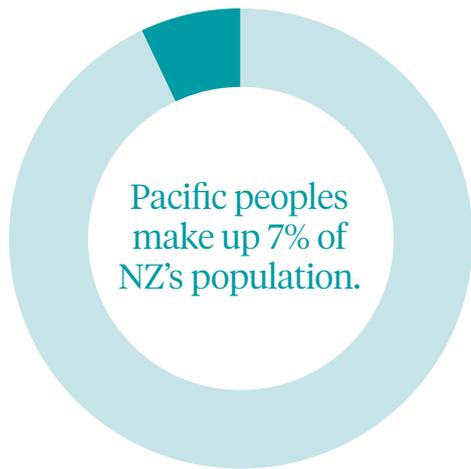
Finally, given the number of socioeconomic challenges that many Pacific peoples and families experience, it is unsurprising that many people have multiple competing priorities, and health is often not the first. Health services need to acknowledge the challenges that many people face, facilitate pathways into both health and social services, and better integrate care so it is seamless for those who need it most.





Pacific Peoples' Health in New Zealand at a Glance

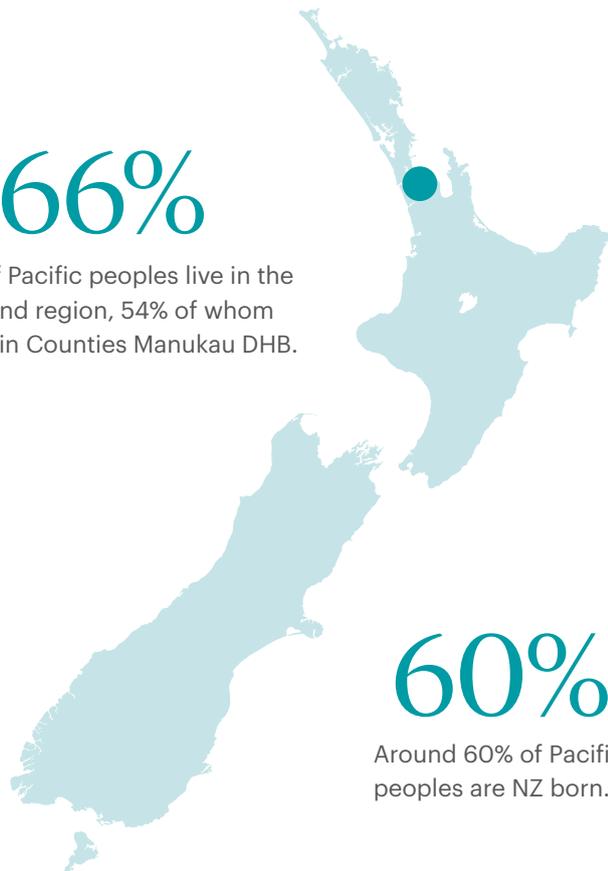
Demographics and Social Indicators



There are very high concentrations of Pacific peoples in Mangere/Otara (making up 59% of the local population) and in Manukau (24% of the local population).

66%

66% of Pacific peoples live in the Auckland region, 54% of whom reside in Counties Manukau DHB.



60%

Around 60% of Pacific peoples are NZ born.



Predominantly a young population: more than 33% are younger than 15 years old (18% for the non-Pacific population). Only 5% are older than 65 years (14% for non-Pacific population).



Pacific peoples rate their overall life satisfaction as high (66%), their life as worthwhile (73%) and their health as very good or excellent (58%) – similar proportions to the total population.



Pacific peoples report having high levels of social contact: 73% report having face-to-face contact with family and 87% face-to-face contact with friends at least once a week – higher than the proportions of people reporting this in the total population (65% and 76% respectively).



Social Challenges



24%

24% of Pacific peoples report not having enough money to meet their everyday needs.



40%

40% of Pacific peoples report living in homes that are always cold.



10%

10% of Pacific peoples report having problems with housing with damp and mould.

Health Outcomes and Health Services

Life expectancy (LE) for Pacific peoples has improved more slowly than other New Zealanders.

The gap in LE between Pacific and NMNP has not changed substantially over time and is approximately six years.

More than 50% of the LE gap between Pacific and NMNP is attributable to cardiovascular disease, diabetes and cancer. The prevalence of diabetes is around three times higher than NMNP.

Pacific peoples have high rates of risk factors for LTCs. The prevalence of obesity is nearly double in Pacific adults and three times higher in Pacific children compared to the European population.

The Pacific population has achieved some of the highest child immunisation rates of all ethnic groups.

Rates of hospitalisation for conditions considered ambulatory sensitive are the highest of any ethnic group and three times higher than NMNP.

Pacific Peoples in New Zealand

This section gives a brief summary of the demographic and socioeconomic factors that impact on Pacific peoples' health in New Zealand (NZ).

Pacific peoples are a youthful and increasingly diverse population

The term 'Pacific peoples' is a collective term describing a young, dynamic and diverse population made up of more than 16 distinct ethnic groups, languages and cultures. The five largest groups are Samoan (49%), Cook Island Māori (21%), Tongan (20%), Niuean (8%) and Fijian (5%) (Pasifika Futures, 2017). Around 300,000 people in NZ (7% of the total population) identify with at least one Pacific group. By the year 2038, the Pacific population in NZ is projected to grow to over half a million people (10% of the population) (Statistics New Zealand, 2017a).

The Pacific population in NZ is youthful and becoming increasingly diverse. More than one-third of Pacific peoples are younger than 15 years old (compared to 18% of the non-Pacific population) and only 5% are older than 65 years (compared to 14% of the non-Pacific population). One in four Pacific people (and 40% of Pacific children aged 0-4 years) identify with more than one ethnic group (compared to 7% of non-Pacific people) (Harrower, King, & Jackson, 2015).

Pacific values form a strong foundation for thriving and resilient communities

Despite this growing diversity, there are a number of enduring cultural values that are shared among Pacific groups (Ministry of Pacific Peoples, 2018b), including:

- the central place of family (which contributes to identity and feelings of belonging)
- collectivism and communitarianism (everyone working together to achieve common goals)
- the importance of spirituality (attributing life events to a higher power)
- reciprocity (mutual help and interdependence)
- respect (particularly towards elders, parents, women, and people in positions of authority).

These values can affect health in a myriad of ways (Kolandai-Matchett, Langham, Bellringer, & Ah-Honi Siitia, 2017), but when respected and upheld, form a strong foundation for what the Ministry of Pacific Peoples (MPP) describes as a 'thriving, resilient and prosperous Pacific Aotearoa' (Ministry of Pacific Peoples, 2018a).

MPP recently engaged with more than one thousand Pacific peoples around NZ about what was most important to them, and their vision for the future. MPP found that

Pacific peoples are self-determining and confident within their communities. They aspire to a better quality of life and healthier lifestyles, not just for themselves, but for their children and families. Rather than focusing on disease, Pacific peoples view health as holistic and inextricably intertwined with the wellbeing of families and communities. Providing a strong foundation for their sense of well-being and belonging were Pacific languages and culture, which facilitated healthy relationships within families and communities (Ministry of Pacific Peoples, 2018a).

Pacific peoples are highly concentrated in urban regions

Pacific peoples are highly urbanised. More than 85% of Pacific peoples live in the catchment areas of seven DHBs. These include the three Auckland and two Wellington DHBs, Canterbury and Waikato DHBs. Two-thirds of NZ's Pacific population live in the Auckland region, with more than half living in Counties Manukau DHB (Table 1).

TABLE 1: PROPORTION OF THE POPULATION WHO IDENTIFY AS PACIFIC, BY TOTAL NZ AND DHB, 2013

	No. of Pacific	% of total Pacific population in NZ	Pacific as % of DHB population
Total District Health Board Areas	295,938	100%	7.0%
Counties Manukau	104,673	35.4%	22.3%
Auckland	51,198	17.3%	11.7%
Waitematā	39,702	13.4%	7.6%
Capital and Coast	22,611	7.6%	8.0%
Waikato	13,317	4.5%	3.7%
Canterbury	12,144	4.1%	2.5%
Hutt	12,114	4.1%	8.8%
All Other DHBs	40,182	13.6%	

NOTES: BASED ON 2013 CENSUS RESULTS. SOURCE: (STATISTICS NEW ZEALAND, 2014)

Within Counties Manukau DHB the localities of Mangere/Otara and Manukau are areas with particularly high concentrations of Pacific peoples. Together, these localities house more than 30% of NZ's Pacific population (Table 2). Almost three in five of the people living in Mangere/Otara and one in four in Manukau are Pacific. The concentrations of Pacific peoples in specific localities provides significant opportunities for locally-based initiatives and tailored health interventions for Pacific. However there are also increasing populations of Pacific peoples in the regions, where there are fewer Pacific-specific services (Ministry of Pacific Peoples, 2018a).

TABLE 2: NUMBERS AND PROPORTION OF PACIFIC PEOPLE IN COUNTIES MANUKAU DHB, BY LOCALITY

Locality	Pacific (no.)	Share of total NZ Pacific pop	% of locality pop that is Pacific
Mangere/Otara	55,590	18.8%	58.7%
Manukau	40,590	13.7%	23.7%
Eastern	5,652	1.9%	4.1%
Franklin	2,844	1.0%	4.4%
Total	104,676	35.4%	22.3%

NOTES: BASED ON 2013 CENSUS POPULATION DATA AT THE CENSUS AREA UNIT LEVEL MAPPED TO COUNTIES MANUKAU DHB LOCALITIES. SOURCES: (COUNTIES MANUKAU HEALTH, 2019; STATISTICS NEW ZEALAND, 2019A).

Pacific people are predominantly New Zealand born

Whilst often described as ‘migrant’ populations, most Pacific peoples (59.3%) are now born in NZ. The proportion of Pacific peoples born overseas varies by DHB (Table 3). Counties Manukau and Auckland DHBs have the highest proportions of overseas-born Pacific people (40%), compared with 34% at the two Wellington DHBs and 29% at Waikato DHBs.

The proportion of people born in the Pacific Islands also varies by ethnic group. A greater proportion of Tongans (37%) and Samoans (35%) were born in the Pacific, compared to Cook Island Māori (21%) and Niueans (18%) (Tanielu & Johnson, 2014). Among Pacific people born overseas, the majority have lived in NZ for many years. Approximately 70% of Samoans and Tongans, 80% of Cook Islanders and 90% of Niueans born overseas have spent 10 or more years in NZ.

TABLE 3: PACIFIC PEOPLES BORN OVERSEAS, BY DHB

DHB	Overseas-born (no.)	Overseas-born (%)
Counties Manukau	42,594	40.7%
Waitematā	14,493	36.5%
Auckland	20,601	40.2%
Capital and Coast	7,761	34.3%
Canterbury	4,560	37.7%
Hutt	4,176	34.4%
Waikato	3,891	29.1%
All other DHBs	9,468	27.9%
All DHBs	42,594	40.7%
Auckland DHBs only	77,688	39.7%
All other DHBs	32,049	31.9%

NOTES: BASED ON 2013 CENSUS RESULTS. SOURCE: (STATISTICS NEW ZEALAND, 2019C)

While the majority of Pacific peoples are NZ-born, there are also regular flows of Pacific peoples from Pacific Island nations into NZ every year. This in-flow is based on two main NZ Immigration schemes with Pacific nations—the Samoan Quota Scheme, and the Pacific Access Category. Pacific peoples are also entering NZ via the Recognised Seasonal Employer work policy. This does not include the in-flow of Pacific migrants through other means NZ citizenship concessions (Tokelau, Cook Islands and Niue) or general immigration policies (Tanielu & Johnson, 2014).

Pacific peoples report high levels of wellbeing, despite challenging socioeconomic circumstances

In the 2016/17 social wellbeing survey, Pacific peoples were just as likely as Europeans to rate their overall life satisfaction as high (66%), their life as worthwhile (73%) and their health as very good or excellent (58%) (Table 4). Similar proportions of Pacific and European people reported feeling safe in their neighbourhood after dark (57% and 60% respectively) and feeling safe at home by themselves at night (88% and 86% respectively); however, Pacific peoples felt less safe making transactions online (70%) compared to Europeans (75%).

Pacific peoples have higher levels of social contact than Europeans and those in the total population. 73% of Pacific peoples (65% of Europeans) have face-to-face contact with family and 87% (76% for Europeans) have face-to-face contact with friends at least once a week. Consequently, they are less likely to report feeling lonely (33% for Europeans).

However, a greater proportion of Pacific peoples than Europeans and the total population report financial and housing challenges that impact on their well-being. One in four Pacific peoples (8.5% for Europeans) report not having enough money to meet their everyday needs, 40% (18% for Europeans) live in homes that are always cold, and 10% (5% for Europeans) report having housing problems with damp and mould (Statistics New Zealand, 2017b).

TABLE 4: SELECTED MEASURES OF WELLBEING (2016/17) FOR PACIFIC AND OTHER PEOPLE

	Pacific	Total pop	European
Overall life satisfaction 8-10 out of 10	66.3%	64.8%	66.0%
Life worthwhile 8-10 out of 10	72.8%	71.5%	72.5%
Self-rated general health very good or excellent	57.9%	58.1%	58.3%
Feel very safe/safe walking in neighbourhood after dark	56.5%	60.6%	59.6%
Feel very safe/safe when home by yourself at night	87.9%	85.3%	85.6%
Feel very safe/safe using the internet for online transactions	69.2%	74.7%	75.0%
Face-to-face contact with family at least once a week	72.7%	64.6%	64.9%
Face-to-face contact with friends at least once a week	86.6%	76.9%	76.4%
Felt lonely in the last 4 weeks – none of the time	67.2%	60.3%	61.5%
Ability to express identity	84.9%	87.0%	89.8%
Experienced discrimination in the last 12 months	17.9%	16.9%	15.5%
Trust held for people in NZ – 7-10 out of 10	52.7%	67.9%	69.9%
Not enough money to meet everyday needs	24.2%	10.9%	8.5%
Housing – immediate/extensive repairs needed	8.60%	6.70%	6.80%
Housing – major problems with damp or mould	10.4%	5.3%	4.8%
Housing – always colder than would like	40.2%	20.7%	18.1%

SOURCE:(STATISTICS NEW ZEALAND, 2017B)

Of all ethnic groups in NZ, Pacific peoples are most affected by inequities in the socioeconomic determinants of health (Table 5). Results from the census and other studies show that, compared to all other ethnic groups, Pacific people are more likely to live in neighbourhoods of ‘high deprivation’, have the lowest median household incomes (Perry, 2017; Statistics New Zealand, 2016b), higher unemployment rates (Salvation Army Social Policy and Parliamentary Unit, 2013), the lowest rates of home ownership (Statistics New Zealand, 2016a), and the highest rates of household crowding (Statistics New Zealand, 2018b). These factors affect health both directly (e.g. through damp, cold and overcrowded conditions increasing the transmission of infectious diseases) and indirectly (e.g. by limiting opportunities to engage in health-promoting behaviours).

NZDep is a commonly used measure of neighbourhood deprivation, based on nine variables from the Census 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 (Atkinson, Salmond, & Crampton, 2014). Approximately 20% of the NZ population lives in each NZDep quintile. Quintile 5 indicates the highest levels of deprivation of an area. Across NZ, 56% of Pacific peoples live in neighbourhoods classified as NZDep quintile 5. However, this percentage varies widely according to DHB, with the highest (83%) in Counties Manukau DHB, followed by Auckland and Waikato DHBs (~50%). Waitematā (29%) and Canterbury (18%) DHBs have the lowest proportions of Pacific people living in deprivation quintile 5 (Statistics New Zealand, 2018a; University of Otago, 2013).

TABLE 5: KEY INDICATORS ON THE SOCIAL DETERMINANTS OF HEALTH, PACIFIC COMPARED TO TOTAL POPULATION

Population group	Labour force participation rate (%)	Unemployment (%)	Living in areas of high deprivation (%)	Median weekly earnings	Home ownership (%)	Overcrowding (%)	English language speakers (%)
Pacific	65.4%	9.0%	55.6%	\$485	18.5%	23.7%	89.0%
Total	70.4%	4.2%	20.0%	\$670*	50.2%	2.7%*	90.1%

Notes:

1. Employment statistics for March 2019 quarter (Statistics New Zealand, 2019b).
2. Deprivation relates to the proportion of people who live in areas with the highest deprivation (9 or 10 on a 10-point scale) based on the NZDep13 index. Based on 2013 census data. (Pasifika Futures, 2017).
3. Median weekly earnings and household overcrowding compared with NZ Europeans.
4. Housing data based on 2013 census data (Pasifika Futures, 2017).
5. English language speakers refers to those people who report being able to speak English. Based on 2013 census data (Statistics New Zealand, 2019c).

Sources: (Pasifika Futures, 2017; Statistics New Zealand, 2019b, 2019c), (Statistics New Zealand, 2017)

Pacific concepts of wellness and the impact of poverty

The literature has often described Pacific peoples' views about health as functional wellbeing, and illness as an interruption to such function. The perceived role of health services, therefore, is for fixing illness, not for maintaining function or preventing illness (Southwick, Kenealy, & Ryan, 2012). Research has found that Pacific peoples commonly feel overwhelmed and disorientated when diagnosed with a health condition. Spirituality is closely related to health and well-being, and fatalism (the subjugation of events and actions to destiny) and denial are commonly reported (Barnes, Moss-Morris, & Kaufisi, 2004; Ryan, Southwick, Teevale, & Kenealy, 2011).

Qualitative research with Pacific peoples has also identified that understandings of wellness are strongly underpinned by a narrative of poverty and limited resources. People are clear that unhealthy lifestyles are not due to a lack of knowledge, but a lack of economic resources and the ability to 'make better choices'. Strong connections are also made between high levels of stress and poor health. Particular sources of stress include complex family dynamics and obligations (particularly financial obligations), not being able to provide for families, and difficult life circumstances (Southwick et al., 2012). Despite these stresses, families are endeavouring to do the best for their children in challenging socio-economic and other circumstances (Pacific Perspectives Ltd, 2015).



Intersectionality and the compounding effects of social and health problems can affect access to services and worsen health outcomes for Pacific peoples

Intersectionality describes a framework used in equity research that considers the multiple and interconnected dimensions of identity (including ethnicity, age, gender and socioeconomic status), as well as issues of power, past experiences and political systems, that interact to create overlapping and interdependent systems of discrimination or disadvantage (Bauer, 2014). These intersecting factors can impact on Pacific peoples' experiences of health and how they access health care. Public health messaging and health service delivery therefore needs to take a sophisticated approach that takes a number of intersecting factors into account.

A study of problem gambling and Pacific people, for example, found that harms were magnified when gambling intersected with Pacific values and cultural practices such as collectivism, gift-giving obligations, fundraising, patriarchy, beliefs about blessings, and idolisation of sports celebrities (Kolandai-Matchett et al., 2017).

Another study in Pacific women found that barriers to cervical screening were multi-level and interdependent, and included factors such as the 'cultural' role of Pacific women within their families and communities, their socioeconomic circumstances, and the resourcing and delivery modes of preventive health services. The authors noted that:

'...a woman's personal health concerns are seen as a low priority, attending to family needs before their own. Rather than women avoiding participating in screening, it is more accurate to view them as prioritising total family care at the expense of their personal care,' (FOLIAKI & MATHESON, 2015).

A South Auckland study of patients with chronic conditions (over half of whom were Pacific) found that low engagement with health services was associated with powerlessness and the compounding jeopardy of chronic illness, poverty, belonging to an ethnic minority group and aging. Participants wanted a relationship with clinicians who demonstrated an understanding of their needs in the context of their lives. The significant power imbalances between clinicians and patients led the authors to argue that the onus is on health professionals to address these barriers to care (Sheridan et al., 2015).

Health Outcomes

This section of the report presents a summary of key health status, risk factors and outcome indicators and information about access and quality of health services.

Persistent and significant inequities in health outcomes for Pacific peoples in NZ

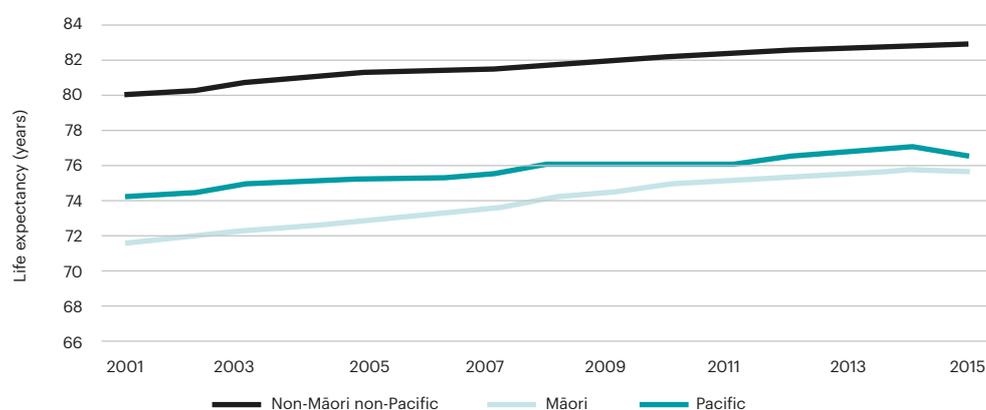
Significant and long-standing inequities in health outcomes between Pacific and non-Māori non-Pacific people (NMNP) in NZ are well-documented in health system reports and research (Ajwani, Blakely, Robson, Tobias, & Bonne, 2003; Ministry of Health, 2012; Ministry of Health and Ministry of Pacific Island Affairs, 2004; Walsh & Grey, 2019).

The unequal health outcomes between population groups are described as inequities because these differences are *avoidable* and therefore unfair (Ministry of Health, 2019a). Recent research examining the life expectancy gap between Pacific and NMNP in NZ found that the proportion of all deaths considered *potentially avoidable* is twice as high in Pacific (47.3%) compared to non-Māori non-Pacific populations (23.2%) (Walsh & Grey, 2019).

The disparities in health and service outcomes for Pacific compared with NMNP in NZ have persisted and been reported in health system reports for more than two decades with some improvement, but the gaps are not closing.

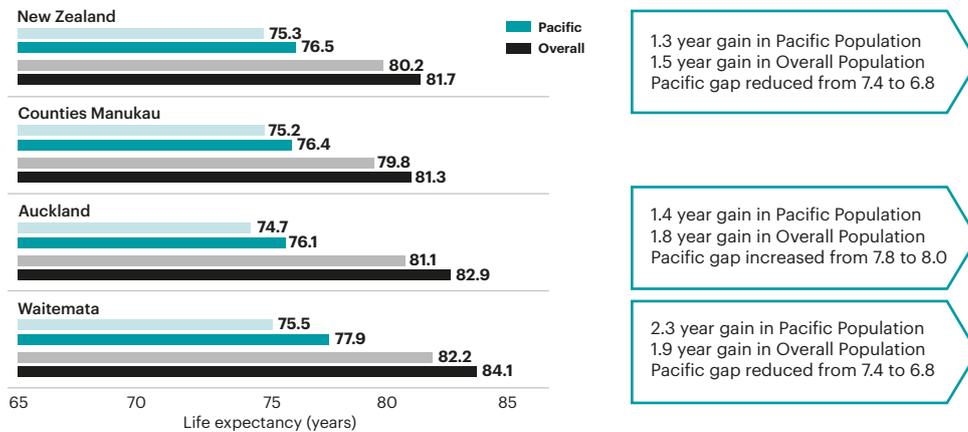
Life expectancy at birth for Pacific peoples has improved over time. However the improvement is lower than other New Zealanders and the gap has not decreased substantially over the last 20 years (Ajwani et al., 2003). Pacific LE is now more than six years lower than that of NMNP (Grey, Sandford, & Walsh, 2019) (see Figures 1 and 2).

FIGURE 1: LIFE EXPECTANCY FOR PACIFIC, MĀORI AND NON-MĀORI NON-PACIFIC PEOPLE IN NZ, 2001-15



SOURCE: MORTALITY COLLECTION (MICHAEL WALSH, EPIDEMIOLOGIST, AUCKLAND DHB AND WAITEMATĀ DHB).

FIGURE 2: CHANGE IN LIFE EXPECTANCY FOR PACIFIC AND TOTAL POPULATION, FROM 2005/07 TO 2015/17



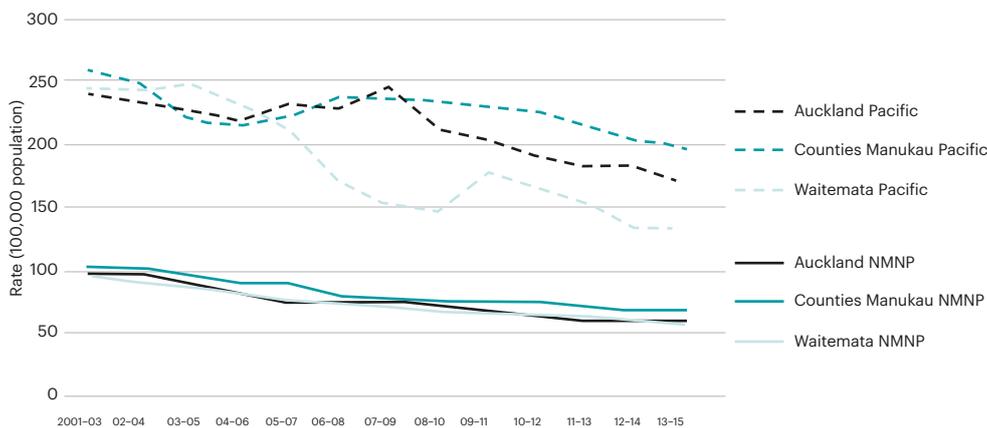
*Top bar for each ethnicity is 2005/07 and bottom bar is 2015/17

**Gap figures use non-Māori/non-Pacific as comparator group (not shown) and compares gap in 2005/07 with 2015/17

SOURCE: (GREY ET AL., 2019)

Amenable mortality is the rate of deaths of people under the age of 75 years that could potentially be avoided with effective and timely health care. Up-to-date national data for Pacific is not available, but data from a recent analysis of the three Auckland DHBs (which include approximately two thirds of the Pacific population) is included here. Figure 3 shows amenable mortality for Pacific and NMNP from 2001 to 2015. Despite a reduction in amenable mortality at all three Auckland region DHBs, amenable mortality rates for Pacific Peoples remain more than double that of NMNP.

FIGURE 3: AMENABLE MORTALITY (2001–2015) FOR PACIFIC AND NMNP PEOPLE AT THE THREE METRO-AUCKLAND DHBs



SOURCE: (GREY ET AL., 2019)

These inequities can be primarily attributed to long-term conditions (LTCs), including cardiovascular disease (CVD), diabetes and cancer (Figure 4).



FIGURE 4: SPECIFIC CONDITIONS CONTRIBUTING TO THE LIFE EXPECTANCY GAP FOR PACIFIC MEN AND WOMEN

	Men	Women
CVD	1.7 years	1.3 years
Diabetes	0.7 years	0.6 years
Renal failure	0.03 years	0.04 years
Cancer	0.8 years	0.9 years
Injuries	0.09 years	0.2 years
Infections	0.02 years	0.1 years

SOURCE: (WALSH AND GREY, 2019).

The pattern of illness for Pacific people reflects a broader, increasing LTC burden in NZ that now accounts for nearly 90% of all health loss (measured in disability adjusted life years) (Ministry of Health, 2018c). However, the evidence shows that Pacific peoples consistently do not experience health gains and improvements in the same way as the total population – at best, evidence is mixed (Health Quality & Safety Commission, 2017; Statistics New Zealand and Ministry of Pacific Island Affairs, 2011).

Furthermore, Pacific peoples experience higher rates of LTCs at a younger age and increasing prevalence of multimorbidity (co-existence of two or more chronic diseases for one person) (Ajwani et al., 2003; Stroke Foundation of New Zealand and New Zealand Guidelines Group, 2010). This is similar to patterns of multimorbidity in vulnerable populations described in international research (K. Barnett et al., 2012; Mercer, Guthrie, Furler, Watt, & Hart, 2012).¹

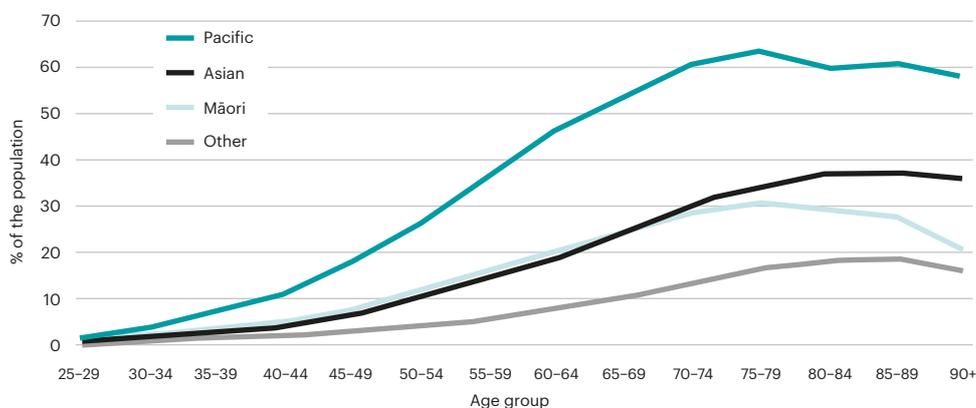
While current LTC data for Pacific peoples is relatively scarce and difficult to find, the evidence that is available shows striking disparities that have remained unchanged for many years. Evidence relating to diabetes, stroke and cancer – conditions where significant disparities have been reported for more than 20 years – provide a picture reflective of broader experiences of LTCs for Pacific peoples.

Diabetes is an important focus area for Pacific health

In 2015, the diabetes prevalence rate was 20% for Pacific adults in NZ (20-79 years), the highest of all ethnic groups (Māori 10%, Asian 8% and NZ European 6%) and far above the OECD average of 7% (Ministry of Health, 2018c; OECD, 2017). These percentages mask substantial disparities in the prevalence of diabetes by age: by the age of 65, more than half of all Pacific peoples will be living with diabetes (Figure 5).

1. Research shows that multimorbidity is more common in the most deprived areas, occurs 10–15 years earlier, and has a greater impact than for people living in the most affluent areas.

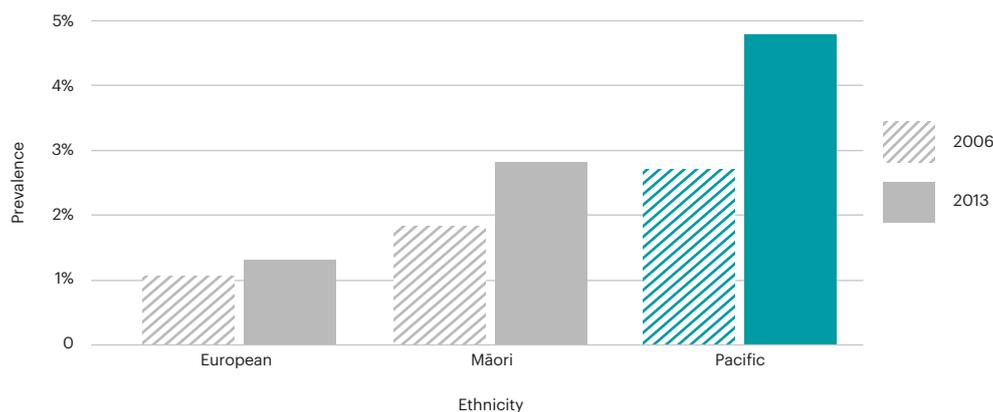
FIGURE 5. ESTIMATED PERCENTAGE OF ADULT POPULATION WITH DIABETES, BY ETHNICITY, 2013–2015.



SOURCE: (MINISTRY OF HEALTH, 2018D)

Furthermore, rates of diabetes, particularly in younger people, have risen over time, with the greatest increases seen in Pacific peoples (Figure 6).

FIGURE 6. PREVALENCE OF DIABETES IN YOUNGER ADULTS (AGED 25–39 YEARS), 2006 AND 2013, BY ETHNICITY



SOURCE: VIRTUAL DIABETES REGISTER AND STATISTICS NEW ZEALAND (BPAC, 2018)

The high rates of diabetes in Pacific peoples in younger age groups is a particular concern: younger people diagnosed with type 2 diabetes (e.g. before the age of 40 years) have a higher risk of premature death, CVD, chronic kidney disease and retinopathy than older adults with type 2 diabetes (Al-Saeed et al., 2016). This is largely because people diagnosed younger have diabetes for longer and are therefore exposed to more risk, but also because glycaemic control tends to be worse and younger people are more likely to have sporadic contact with healthcare services (Beig, Khanolkar, & Cundy, 2018).

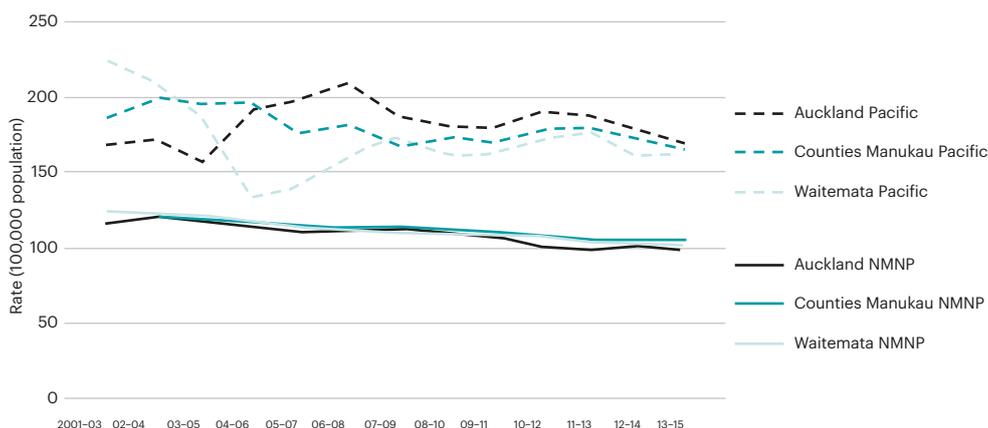
In NZ, people with diabetes live four to five years less on average, and are more likely to have other LTCs and to experience complications including blindness, amputations, kidney failure, as well as mental health problems (Ministry of Health, 2018c). The literature also shows that, in addition to the physical consequences of disease, patients face significant challenges associated with managing the burden of complex treatment (May et al., 2014).

Data about diabetes medication and testing is not routinely publicly reported. However, a 2012 report on the health status of Pacific peoples in the Auckland region reported similar levels of guidelines-based care for Pacific diabetics and the total diabetic population and similar attendance rates for diabetes review (Health Partners Consulting Group, 2012). Other studies, however, have noted that people living in deprived communities are less likely to receive diabetes education and support services from the non-governmental sector (J. R. Barnett, Pearce, & Howes, 2006). Whatever the case, this 'equality' in clinical levels of care has not led to similar outcomes – for example, the proportion of people with good blood sugar control is up to 15% lower than the NMNP diabetic population (Grey et al., 2019). This represents a substantial equity gap for Pacific peoples and an important area for focus for the health system.

Cancer is an important contributor to the life expectancy gap

Cancer mortality is a key component of the life expectancy gap for Pacific peoples. Death rates from cancer have been reducing over time for Pacific, but are significantly higher compared to NMNP (Figure 7). The top three cancer-related contributors to the life expectancy gap are cancers of the respiratory tract, liver and stomach for Pacific men, and cancers of the uterus, breast and stomach for Pacific women (Walsh & Grey, 2019).

FIGURE 7. CANCER MORTALITY 2001/03 TO 2013/15, BY ETHNICITY, METRO AUCKLAND DHBS



SOURCE: (GREY ET AL., 2019)

A national analysis of cancer deaths between 2006 and 2011 found that Pacific men and women were 1.32 and 1.46 times more likely to die from cancer than European/Other groups (Teng et al., 2016). The greatest contributors to absolute inequalities in cancer death rates were lung cancer (Pacific men), breast cancer (Pacific women) and stomach cancers (Pacific men and women). Endometrial cancer in women and liver cancer in both men and women were also important contributors to inequities in cancer incidence over that time. Drivers of these inequities include differences in rates of smoking, overweight/obesity, certain infections (e.g. hepatitis C) and access to cancer screening.

The results of that national analysis was consistent with various studies over the years that have reported lower rates of survival among Māori and Pacific breast and bowel cancer patients (Campbell et al., 2015; Sharples et al., 2018; Tin Tin et al., 2018). These survival differences have been linked to later stage at presentation and post-diagnosis differences in care, which can be explained, at least in part, to differences in both access to and quality of care for Māori and Pacific patients.

Indications of growing inequities in stroke

While there are persistent issues relating to the accuracy of stroke data², the available evidence shows that the patterns of prevalence and access to services for stroke are similar to that for diabetes. The Auckland Regional Community Stroke study (ARCOS) examined stroke incidence and mortality between 1981 and 2012. Over this 30-year period, stroke incidence and mortality rates decreased by 23 percent and 62 percent, respectively, for the total Auckland population, but these gains were mostly seen in NZ Europeans. For Pacific peoples, on the other hand, stroke incidence and mortality increased from 147 to 197 and from 69 to 74 per 100,000 person-years, respectively (age-standardised data). In addition, Pacific and Māori people consistently experienced stroke at a younger age (mean ages 62 and 60 years respectively) than NZ Europeans (mean age 75 years) (Feigin et al., 2015).

Possible factors contributing to the observed stroke disparities between Pacific and other groups include the increase in comorbid conditions, particularly diabetes and coronary heart disease, and risk factors such as obesity and smoking. Although the socioeconomic patterning of these problems is discussed, the study authors noted a lack of research to inform understanding of the relative importance of different factors for different population groups and to support more effective tailoring of services and prevention initiatives (Feigin et al., 2015).

Multimorbidity is increasingly common

Many people with LTCs have more than one chronic health condition, which is referred to as multimorbidity. It is associated with poor physical functioning and mental health outcomes, poor quality of life and high healthcare costs (K. Barnett et al., 2012; Salisbury, Johnson, Purdy, Valderas, & Montgomery, 2011). Multimorbidity analyses have highlighted the quality of life burden of mental health, musculoskeletal and chronic pain issues (Agborsangaya, Lau, Lahtinen, Cooke, & Johnson, 2013).

Multimorbidity is also often associated with polypharmacy – when one person uses multiple medications at one time. Polypharmacy, when appropriate, can be beneficial, improving health outcomes when the risks and benefits of multiple medications are adequately managed. However, ‘problematic polypharmacy’ (typically five or more medicines) is associated with a significantly higher risk of adverse drug reactions, harmful interactions between medicines and treatment ‘non-adherence’. These consequences, in turn, are associated with falls and fractures, dehydration and acute kidney injury, delirium, hypoglycaemia, malnutrition, hospitalisation and death (Millar et al., 2018; Ministry of Health, 2018c).

A recent analysis based on national health data reported much higher rates of multimorbidity among Māori and Pacific, compared to European and Asian, groups. After standardising for age and sex, the prevalence of multimorbidity was 13.4% for Māori and 13.8% for Pacific, compared to 7.6% for Europeans and 6.9% for Asians. Those with multimorbidity in this study were at substantially higher risk of an adverse outcome (death, hospital admission) in the year following hospitalisation (Stanley, Semper, Millar, & Sarfati, 2018). Similarly, a cross-sectional study of patients in a Dunedin general practice reported high levels of multimorbidity among their

2. New Zealand Health Survey data about stroke incidence rates are noted to be estimate, as the information is self-reported (Ministry of Health, 2018c).

Māori (52.5%) and Pacific (64.3%) population. Polypharmacy was also high (13.6% of Māori patients and 32.9% of Pacific patients) (Stokes, Azam, & Noble, 2018). These results are consistent with a recent analysis by the Health Quality and Safety Commission (HQSC), which found that Pacific people aged 65-74 years had the highest rates of polypharmacy at 45%, compared with 32% of Māori, 20% of Asians and 24% of Europeans (Health Quality and Safety Commission, 2017).

These findings are also backed up by a recent analysis of patients with LTCs at Counties Manukau DHB, which used administrative data to examine the prevalence of seven LTCs (diabetes, gout, CVD, chronic obstructive pulmonary disease [COPD], congestive heart failure [CHF], asthma and bronchiectasis) by ethnicity (Table 6) and the co-existence of these LTCs by condition (Table 7).

TABLE 6: ESTIMATED AGE-STANDARDISED* PREVALENCE OF SELECTED LTCS IN 2015, COUNTIES MANUKAU RESIDENTS AGED ≥15 YEARS, BY ETHNICITY

Ethnicity	Overall LTC	Diabetes	Gout	CVD	COPD	CHF	Asthma	Bronchiectasis
Pacific	25.3%	16.3%	9.4%	3.8%	1.4%	1.7%	1.8%	0.4%
Māori	21.3%	10.9%	8.1%	4.6%	3.1%	2.3%	2.4%	0.5%
Indian	17.6%	13.7%	2.7%	3.8%	0.6%	0.9%	0.9%	0.1%
Chinese	7.8%	5.1%	2.2%	1.2%	0.3%	0.2%	0.2%	0.1%
Other Asian	11.7%	7.7%	3.1%	1.9%	0.5%	0.4%	0.5%	0.1%
European/ Other	9.0%	3.9%	2.4%	2.8%	0.9%	0.6%	0.7%	0.1%
Overall	14.4%	8.0%	4.5%	3.1%	1.1%	0.9%	1.1%	0.2%

SOURCE: (CHAN, WINNARD, LEE, & PAPA, 2017)

TABLE 7: NUMBER OF PEOPLE WITH SELECTED LTCS AT COUNTIES MANUKAU DHB IN 2015, BY THE NUMBER OF CO-MORBIDITIES AND CONDITION GROUP

	Index condition only	2 conditions	3 conditions	4 conditions	% people with ≥2 conditions
Diabetes	68%	23%	7%	2%	32%
Gout	58%	29%	9%	3%	42%
CVD	46%	34%	14%	5%	54%
COPD	37%	31%	19%	9%	63%
CHF	17%	33%	30%	15%	83%
Asthma (hospitalised)	65%	19%	9%	4%	35%
Bronchiectasis	28%	30%	23%	12%	72%

SOURCE:(CHAN ET AL., 2017)

Pacific and Māori people had the highest age standardised rates of LTCs, and a high proportion of people with one LTC had one or more comorbid conditions.

Patients with multimorbidity present unique challenges for health services that are largely based on single disease approaches. There is growing evidence that people with multimorbidity experience lower quality of care than those with single diseases and that utilisation, hospitalisation rates and total healthcare costs are higher among multimorbid patients (Millar et al., 2018; Sinnott, Mc Hugh, Browne, & Bradley, 2013). NZ

and international research has shown that patients experience fragmented care, lack of information sharing and liaison between health professionals (resulting in patients attending multiple providers for the same conditions and other patients not receiving care), duplication of tests, harm from incompatible medications, different advice from different providers, and difficulties accessing healthcare due to financial and other constraints (Cumming, 2011; Millar et al., 2018; Ryan et al., 2011; Sinnott et al., 2013).

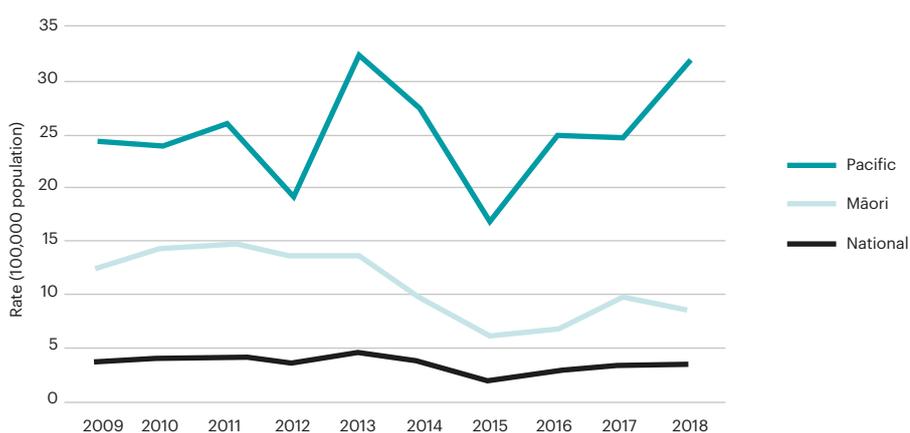
These studies indicate that the health system needs to be reoriented to cater to the needs of a large proportion of patients in primary care with multiple chronic conditions that require active management and affect quality of life. This will require a continued shift from a focus on the management of individual diseases to care of the whole patient (including a consideration of how their social circumstances impact on their ability to manage their conditions and access care).

Persisting inequities in the health of Pacific children

Reports by a number of organisations over the past decades have shown the persisting poor health of Pacific children. The Ministry of Health (2008), the NZ Child and Youth Epidemiology Service (9 reports) and the Child Poverty Action Group (2011, 2014, 2015) show rates of hospitalisation that are higher than all other ethnic groups for acute and chronic respiratory and infectious diseases and serious skin infections (Child Poverty Action Group, 2011; Johnson, 2014; Ministry of Health, 2008b; Simpson et al., 2017; Wynd, 2015). Pacific children are also reported to present to hospital with more advanced or severe disease (Child Poverty Action Group, 2011; Grant, 2001).

The pattern of acute rheumatic fever in Pacific children, a potentially preventable condition with serious long term consequences, provides an illustration of the lack of progress, despite policy commitment and a plethora of activities. The Rheumatic Fever Prevention campaign was launched in 2011, with Pacific children as a priority. However the rate of hospitalisation for rheumatic fever in Pacific children remains at fifty times that of European children and more than three times that of Māori.

FIGURE 8. RHEUMATIC FEVER (FIRST EPISODE) HOSPITALISATIONS, 2009–2018

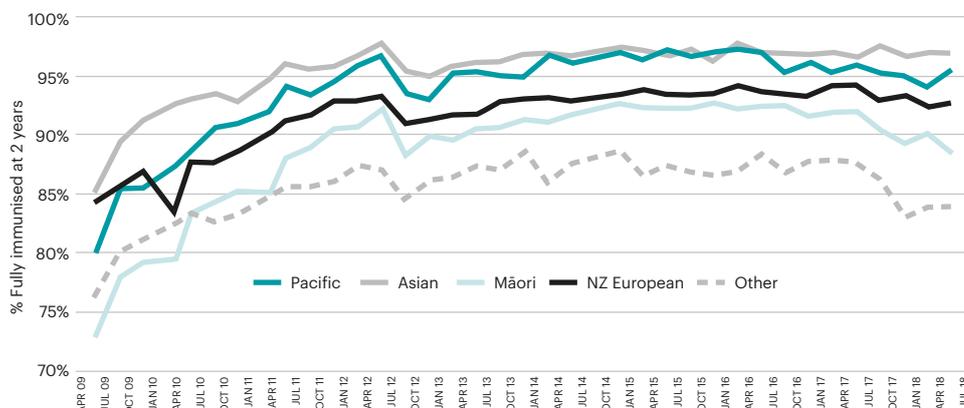


SOURCE: (MINISTRY OF HEALTH, 2019C)

The association of poor child health and poverty is well established in NZ, however little is known about how models of health care can be configured to address these longstanding issues.

There have been some successes, for example Pacific childhood immunisation rates are among the highest of all ethnic groups (Figure 9).

FIGURE 9: PERCENTAGE OF CHILDREN FULLY IMMUNISED AT 2 YEARS OF AGE, APRIL 2009 TO JUNE 2018



SOURCE: (IMMUNISATION ADVISORY CENTRE, 2018)

The Child Poverty Action Group (2011) points to the Meningococcal Immunisation campaign in the early 2000s (O’Hallahan, McNicholas, Galloway, O’Leary, & Roseveare, 2009) and the Healthy Housing programme (Jackson et al., 2011) as other examples of success (Child Poverty Action Group, 2011). However problems with the quality of health care persist, for example Pacific children with moderate to severe asthma did not receive optimal treatment (Crengle, Robinson, Grant, & Arroll, 2011).

Children grow up in families and efforts to improve Pacific child health will be more effective if strategies address the needs of whole families and households, rather than a single person or illness. An approach to health services, which addresses the needs of family members of all ages, also recognises that the most effective health programmes take a ‘life course perspective’. This perspective acknowledges that the basis of good health starts before birth and needs to be maintained at all ages.

Unequal burden of risk factors and inadequate health system responses

Risk factors for LTCs include obesity, smoking, hypertension, hyperlipidaemia, alcohol use and infectious diseases (Meredith, Sarfati, Ikeda, & Blakely, 2012). Evidence clearly shows that the burden of these risk factors is disproportionately borne by Pacific populations, but there is limited data on how health interventions to address these risk factors and conditions are being provided in ways that address equity.

High rates of obesity without a systematic health system response

Rates of adult and childhood obesity are disproportionately higher in Pacific (67% and 30% respectively) compared to the total NZ population (32% and 12% respectively) (Ministry of Health, 2019b). These high rates are related to inequities in exposures to obesogenic environments and limitations in dietary and physical activity choices related to social determinants (Mackay et al., 2018; Tupai-Firestone et al., 2016).

School-based interventions have shown promise in preventing obesity in children (Bleich et al., 2018; Wang et al., 2015), but there is a paucity of evidence for effective interventions that result in long-lasting obesity reduction in other settings (Flynn et



al., 2016; Franz, Boucher, Rutten-Ramos, & VanWormer, 2015; Peirson et al., 2015), particularly for diverse ethnic communities (Ash, Agaronov, Young, Aftosmes-Tobio, & Davison, 2017). There is currently no systematic programme of work to promote healthy weight in schools.

There is a long history of small-scale community health promotion programmes targeting Pacific peoples. A stocktake in 2011 identified more than 20 programmes aimed at improving lifestyles, including community gardens, church based and school based interventions (Pacific Perspectives, 2011). DHB Church programmes, for example Lotu Moui at Counties Manukau DHB, provided small grants to churches for nutrition and exercise programmes and was reported to have reached over 100 churches. Similar programmes are currently being run at Waitemata DHB (the Enea Ola programme with, 35 church groups) and Auckland DHB (Healthy Village Action Zones, HVAZ with 42 churches). Enea Ola and HVAZ have been established for over 10 years and are described as community led development. Although formal evaluations of HVAZ and Lotu Moui have been conducted, this information has not been used for further development of church-based community programmes. Despite the increasing rates of obesity and LTCs in these communities, the Lotu Moui programme has now been discontinued and HVAZ and Enea Ola have been funded at the same levels for many years.

The Green Prescription (GRx) is a nationally-funded physical activity referral programme to facilitate physical activity for weight loss and wellbeing. Available since 1998, referrals for GRx (usually made by GPs or practice nurses) are used to support patients with chronic diseases such as CVD and diabetes. Over three months, trained advisors give nutrition advice and help patients set goals and get into regular physical activities in their local community (Catchpole & Williamson, 2017). Recent research suggests positive results from participation (Hamlin, Yule, Elliot, Stoner, & Kathiravel, 2016). However, while the experience of people who have participated in GRx is reported annually (Wood & Johnson, 2018), statistics on the numbers of people who have been referred to, and completed, GRx by ethnicity and DHB, is not regularly reported or publicly available, so it is not known whether access to the service is equitable. Given that Pacific people are disproportionately affected by obesity, GRx referrals and completion rates should reflect this.

At an individual level, bariatric surgery is the only known effective strategy for long-term weight loss and improvement in obesity-related comorbidities such as diabetes (Ministry of Health, 2017b). However, the surgery is invasive and costly (Gounder et al., 2016) and the number of procedures funded in New Zealand is much lower than the number of people who could benefit from it. There appear to be significant inequities in access to bariatric surgery, with the highest rates of access per 1000 population with morbid obesity in 2013 being 3.4 in Europeans, 1.8 in Māori and 0.9 in Pacific people (Rahiri, Lauti, Harwood, MacCormick, & Hill, 2017). If allowed to continue, this inequitable access to an evidence-based intervention will ultimately widen the already large differences in obesity rates between Pacific and other groups.

Smoking rates are high and not declining substantially

Smoking rates in Pacific people have not changed significantly since 2011. At the 2017/18 NZ Health Survey, 23% of Pacific adults reported being current smokers, compared to 15% of the total population (Ministry of Health, 2019b). In addition, only 45% of Pacific, compared to 67% of non-Māori non-Pacific, babies are living in



smokefree households at the age of six weeks (Ministry of Health, 2018b), which is currently one of the system level measures (SLMs) to direct DHBs and PHOs to improve the performance of the health system (Ministry of Health, 2019d). Despite being an SLM, performance of interventions to support smokefree measures in primary care by ethnicity are not readily publicly available. 'Better help for smokers to quit' is currently a national health target (90% of primary health organisation (PHO) enrolled patients who smoke have been offered help to quit smoking by a health care practitioner in the last 15 months) (Ministry of Health, 2017c), but again, these results are not routinely reported by ethnicity. The only readily-available information on smoking indicators of care by ethnicity was found in a recent population health need analysis by Procure (the largest PHO in Auckland). According to this report, 89% of Pacific (and 90% of European) smokers were offered brief advice to quit, and 24% (compared to 28% of Europeans) were referred to smoking cessation services (Wells, 2018).

Access and Use of Healthcare

High rates of unmet need for health care

Pacific enrolments in PHOs are high and GP utilisation rates are similar to NMNP (Ministry of Health, 2017a). However the NZ Health Survey shows that Pacific people experience very high rates of unmet need for care compared to the total NZ population (Table 8).

TABLE 8: INDICATORS OF UNMET NEED FROM THE NZ HEALTH SURVEY 2014-17, PACIFIC AND TOTAL POPULATION

	Pacific	Total Population
Visited GP in the past 12 months	77.2%	76.5%
Unmet need for primary care in the past 12 months	33.3%	28.8%
Unmet need for primary care due to cost	20.1%	15.2%
Unmet need for after-hours care due to cost	9.5%	5.5%
Unfilled prescription, past 12 months, due to cost	17.8%	7.0%
Unable to get an appointment within 24 hours	7.6%	14.0%

SOURCE: (MINISTRY OF HEALTH, 2017A)

One in three Pacific peoples report not seeing their primary care practitioner in the past 12 months when they needed, with most of this unmet need (one in five of all Pacific people) being related to cost. Unmet need for after-hours care is also higher in Pacific peoples due to cost. Similarly, almost one in five Pacific peoples (compared to fewer than one in ten of the total population) report not filling a prescription because of cost. Given the high rates of LTCs and multimorbidity among Pacific peoples, this data indicates that there are significant financial barriers to optimal medical management of LTCs in this population.

Somewhat counter-intuitively, Pacific people are less likely than the total population to report being unable to get an appointment within 24 hours. However, this does not necessarily reflect ready access to primary care, as Pacific people are more likely to attend very low cost clinics that operate walk-in only services. Current routinely reported indicators do not capture primary care waiting times or the proportion of people who leave before being seen by clinical staff; however these measures may more accurately reflect timeliness of care for Pacific people.

Analysis by the Northern region DHBs of primary care services suggests the need for further investigation of different models of primary care and how this impacts on service outcomes. The number of FTEs per capita is compared with the rate of consultations per GP FTEs in the region. Table 9 shows that the GPFTE per capita at CMH, (home to two thirds of the Pacific population of New Zealand) is lower than ADHB but similar to WDHB. However the consultations per GP FTE at CMH is nearly double that of both Auckland and Waitemata.



TABLE 9: PRIMARY CARE INDICATORS FROM THE NORTHERN REGION PRIMARY CARE DEEP DIVE

	NDHB	WDHB	ADHB	CMH
GP FTE per 100,000	77	62	86	63
Consultations per GP FTE	3,664	3,538	3,319	5,271
Visited a GP in the last 12 months	80%	79%	78%	75%
GP good at explaining health conditions and treatments	91%	91%	89%	90%
Unmet need for primary health care	30	25	23	25

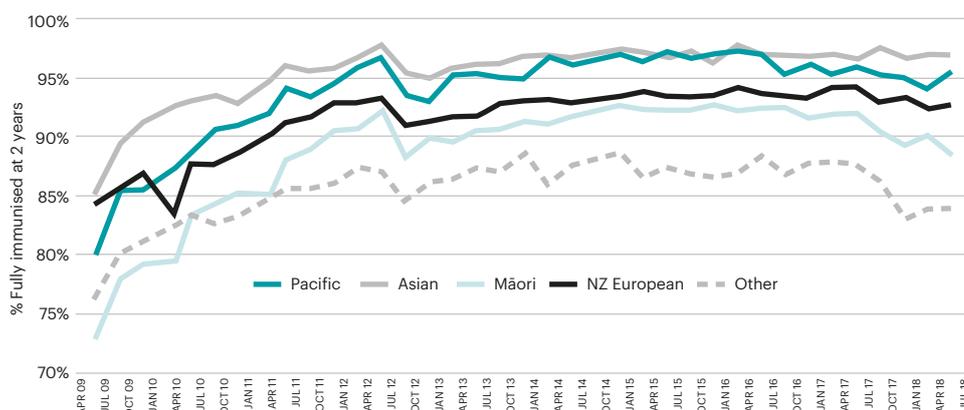
The variation in models of primary care delivery in NZ is well recognised (Downs, 2017), however there is almost no research about how these differences impact on quality of care or patient experience. The lack of evidence about primary care delivery is significant given the data about ASH rates and unmet need and the health system focus on prevention and early intervention to address disparities for Pacific people. Furthermore, the findings of the NATMEDCA study in which GPs reported lower rapport with Pacific people, shorter consultations, and that fewer referrals and tests were ordered (Davis, Suaalii-Sauni, & Lay-Yee, 2005) indicated the need for strengthening the evidence base for general practice delivery to Pacific peoples, but this has not occurred.

High rates of unmet need for primary health care are reflected in ASH rates

Ambulatory sensitive hospitalisations (ASH) are acute admissions that are considered potentially reducible through preventive or therapeutic interventions deliverable in primary care (Jackson & Tobias, 2001). ASH rates are therefore often used as a measure of the effectiveness of the interface between primary and secondary health care and can be seen as a marker of unmet need (Ministry of Health, 2018a). It is estimated that almost half (47.4%) of all acute and semi-acute hospitalisations in children aged up to 14 years are potentially avoidable, while one-third (34.3%) are ambulatory care sensitive (Craig, Anderson, Jackson, & Jackson, 2012).

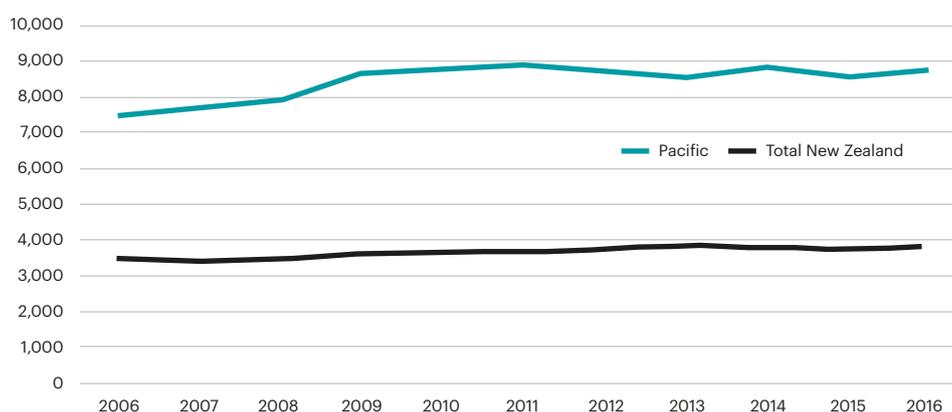
In 2016, child (0-4 year) ASH rates for Pacific (12,079 per 100,000) were *almost double* that of the total New Zealand population (6690 per 100,000). The most common conditions contributing to child ASH rates include gastroenteritis, asthma and respiratory, dental and skin infections (Simpson et al., 2016). Data indicates that there have been no significant improvements in Pacific child ASH rates over the last 10 years (Figure 10), while Pacific adult ASH rates have worsened, increasing the gap between Pacific and the total population (Figure 11).

FIGURE 10: CRUDE ASH RATES PER 100,000 (45–64 YEAR OLDS), 2006–2016



SOURCE: (MINISTRY OF HEALTH, 2018A)

FIGURE 11: CRUDE ASH RATES PER 100,000 (45–64 YEAR OLDS), 2006–2016



SOURCE: (MINISTRY OF HEALTH, 2018A).

In adults, ASH account for approximately one-fifth of all acute and arranged medical and surgical admissions (Health Quality & Safety Commission, 2016). The most common conditions contributing to adult ASH rates include angina/chest pain, asthma, cellulitis/infections, heart failure, gastroenteritis and respiratory infections. In 2016 adult ASH rates for Pacific (8787 per 100,000) were *more than double* that of the total New Zealand population (3789 per 100,000) (Ministry of Health, 2018a).

Local and international literature indicates that strategies to reduce ASH need to ensure that health care is affordable, accessible, of high quality, accommodates patient preferences, and undergoes regular quality monitoring (Craig et al., 2012; Sundmacher et al., 2015). Access to primary care, continuity of care, and having a regular source of care are all associated with lower rates of ASH (Ansari, 2007). The absence of after-hours care, suboptimal monitoring, medication errors and medication ‘non-adherence’, on the other hand, have all been noted to contribute to high ASH rates (Freund et al., 2013).

Qualitative research about Pacific peoples' experience of care

There is a growing body of evidence that a range of factors influence access and use of primary health care (Ministry of Health, 2018c). Problems with practice opening hours, geographical location of services, transport, understanding the nature and necessity of appointments; cultural and communication factors related to language, health literacy as well as family and other commitments, have all been reported (Chang et al., 2010; Foliaki & Matheson, 2015; McKinlay, Graham, & Horrill, 2015; Ministry of Health, 2008a; Southwick et al., 2012). This section synthesises key themes from a review of the literature on barriers and enablers to health care for Pacific patients and their families (PPL, unpublished 2019).

■ Communication

Good communication between health professionals and their patients is a fundamental component of high-quality health services (Association for the Welfare of Child Health, 2005). In-depth analyses of the experiences of Māori and Pacific whanau with children treated for cancer at Starship hospital and of families with children hospitalised with unintentional injury have highlighted mismatches in the cultural values of whanau and the system in which their children were being treated (Arlidge et al., 2009; Brown, 2018). In both studies, families spoke of communication barriers, a clash in cultural worldviews and, at times, discriminatory and racist behaviour.

Communication barriers relate to how, what and where information is relayed, and who is relaying the information. Māori and Pacific whanau reported feeling that they lacked information, leading to difficulties negotiating processes within the hospital system, such as knowing the support services available, their eligibility for these services, and what to expect at various stages of care. Although the hospitals had a variety of ancillary support and cultural services, these and other resources (e.g. parking and food vouchers) appeared to be erratically and unevenly distributed with unclear policies regarding eligibility. Many Māori and Pacific families appeared to be unaware of what services were available for them while in hospital and following discharge (Arlidge et al., 2009; Brown, 2018).

The use of medical jargon, including phrases such as 'evidence-based' and 'clinical trials' and terms such as 'oncologist', 'haematologist' and 'neurosurgeon', served to alienate families, and information in the form of written resources, most often only available in English, was confusing, long and unappealing.

Communication was a particular challenge for families where English was a second language. Despite hospitals clearly stating that all patients had a right to access translation services, offers of a translator were rarely made, and never in urgent or emergency situations. Some Pacific families found themselves in the awkward situation of being asked to translate for other families with sick children, translating private health information that they were uncomfortable being privy to.

Where information was relayed is also important. Families in the Starship study spoke of diagnoses being conveyed by the bedside, in hallways, corridors or other places with limited privacy. Doctors would often state that they had limited time, 'blurt out information' and move on. This lack of privacy and time meant that families were not able to take in information, ask questions or emotionally prepare themselves. The majority of families in both studies reported that they did not want to impinge on doctors' time, and felt that they shouldn't ask questions (Arlidge et al., 2009; Brown, 2018).

■ Cultural Competence

A clash in cultural worldviews was also highlighted in both studies, with many families pointing out that many clinical staff were clearly overseas-trained and did not understand their cultural worldviews (Brown, 2018). Whanau members (other than primary caregivers) were often seen by medical and nursing staff as an annoyance rather than support, and the importance of cultural mechanisms such as karakia and sleeping in the same bed unacknowledged. Although hospital culture went against Māori and Pacific worldviews, most whanau felt that they had to 'accept and comply' out of fear of repercussion impacting on the quality of their children's care (Brown, 2018).

Cultural support services, where they existed, were often overloaded and under-resourced. Families' interactions with cultural support often only when determined by the nurse, and often at crisis point or to act as 'security' (e.g. when whanau perceived to be 'too noisy'), creating negative situations.

■ Stigma and Discrimination

'Institutionalised racism is served up in many health services in and around NZ still. I think you have to be deaf, daft and blind not to spot it on a regular basis in our hospitals. It's all around us I'm afraid; it's rather endemic'. (HOSPITAL-BASED PAEDIATRICIAN IN NEW ZEALAND), (ANDERSON ET AL., 2019)

Racism at different levels and across all engagement areas of the health system has also been highlighted in a number of studies, including families of children with cancer, unintentional injury, a first diagnosis of rheumatic fever and undergoing secondary prophylaxis for rheumatic fever (Anderson et al., 2019; Arlidge et al., 2009; Brown, 2018; Pacific Perspectives Ltd, 2015). Families noted clear treatment differences between families of different ethnic groups in the way they were treated, the language used, resources offered and assumptions made about them.

Pacific families with children admitted for unintentional injuries also reported feeling vulnerable and unsure about how they would be viewed by the hospital staff in light of the negative stereotyping of Pacific people in the media. This added an additional layer of tension for these families within this institutional setting.

Having a negative health care experience can have long-lasting consequences for Māori and Pacific families. Families' expectations of health services and professionals are often based on negative previous healthcare experiences that undermined their confidence and curtailed their ability to challenge hospital processes where necessary (Arlidge et al., 2009). These findings are mirrored in other research where experiencing a perceived lack of respect or an unresponsive or unsympathetic doctor has been thought to discourage future attendance (CBG Health Research Limited, 2008).

■ Competing priorities

In a rare qualitative study exploring the perspectives of 20 Samoan patients in an Auckland general practice setting about adherence to long term medications, Chang et al. (2010) identified personal, social, cultural and environmental influences on taking (or not taking) blood pressure medication (Chang et al., 2010). A lack of transport, family commitments, forgetfulness, church activities, not feeling sick and priorities, were all factors relating to low adherence. Whether answers such as 'busyness' or 'forgetfulness' reflect deeper prioritisation processes, a lack of engagement and information, or denial



or fear, was not examined further. Similarly, the importance of family support and family concerns about the number of different medications (and the contribution of this on the stress of managing LTCs) is raised, though the nature of support provided by families and associated issues are not explored. Good adherence was said to be influenced by prioritising health, previous illness events, time management, supportive family members and the relationship with GP (including language and trust).

In their study examining cultural differences in the way Tongan and European people with Type 2 diabetes conceptualise their illness and treatment, Barnes et al. (2004) found that Tongan had beliefs about diabetes as a cyclical disease. Effective approaches should therefore ask patients about their beliefs; this may provide medical practitioners with an avenue to address poor adherence to self-care (Barnes et al., 2004).

References

- Agborsangaya, C. B., Lau, D., Lahtinen, M., Cooke, T., & Johnson, J. A. (2013). Health-related quality of life and healthcare utilization in multimorbidity: results of a cross-sectional survey. *Quality of Life Research, 22*(4), 791-799. doi: 10.1007/s11136-012-0214-7
- Ajwani, S., Blakely, T., Robson, B., Tobias, M., & Bonne, M. (2003). Decades of Disparity: Ethnic Mortality Trends in New Zealand 1980–1999. Wellington: Ministry of Health.
- Al-Saeed, A. H., Constantino, M. I., Molyneaux, L., D'Souza, M., Limacher-Gisler, F., Luo, C., . . . Wong, J. (2016). An Inverse Relationship Between Age of Type 2 Diabetes Onset and Complication Risk and Mortality: The Impact of Youth-Onset Type 2 Diabetes. *Diabetes Care, 39*(5), 823-829. doi: 10.2337/dc15-0991
- Anderson, A., Peat, B., Ryland, J., Ofanoa, M., Burgess, H., Malungahu, G., . . . Leversha, A. (2019). Mismatches between health service delivery and community expectations in the provision of secondary prophylaxis for rheumatic fever in New Zealand. *Australian and New Zealand Journal of Public Health, 43*(3), 294-299. doi: 10.1111/1753-6405.12890
- Ansari, Z. (2007). The concept and usefulness of ambulatory care sensitive conditions as indicators of quality and access to primary health care. *Australian Journal of Primary Care, 13*(3), 91-110.
- Arlidge, B., Abel, S., Asiasiga, L., Milne, S. L., Crengle, S., & Ameratunga, S. N. (2009). Experiences of whānau/families when injured children are admitted to hospital: a multi-ethnic qualitative study from Aotearoa/New Zealand. *Ethnicity & Health, 14*(2), 169-183.
- Ash, T., Agaronov, A., Young, T. L., Aftosmes-Tobio, A., & Davison, K. K. (2017). Family-based childhood obesity prevention interventions: a systematic review and quantitative content analysis. *International Journal of Behavioral Nutrition and Physical Activity, 14*(1), 113. doi: 10.1186/s12966-017-0571-2
- Association for the Welfare of Child Health. (2005). The psychosocial care of children and their families in hospital. AWCH 2005 National Survey Report. . New South Wales: Australian Association for the Welfare of Child Health.
- Atkinson, J., Salmond, C., & Crampton, P. (2014). NZDep2013 Index of Deprivation. Wellington: Department of Public Health, University of Otago.
- Barnes, L., Moss-Morris, R., & Kaufisi, M. (2004). Illness beliefs and adherence in diabetes mellitus: a comparison between Tongan and European patients. *New Zealand Medical Journal, 117*(1188), 1-9.
- Barnett, J. R., Pearce, J., & Howes, P. (2006). 'Help, educate, encourage?': Geographical variations in the provision and utilisation of diabetes education in New Zealand. *Social Science & Medicine, 63*(5), 1328-1343. doi: <https://doi.org/10.1016/j.socscimed.2006.03.044>
- Barnett, K., Mercer, S. W., Norbury, M., Watt, G., Wyke, S., & Guthrie, B. (2012). Epidemiology of multimorbidity and implications for health care, research, and medical education: a cross-sectional study. *The Lancet, 380*(9836), 37-43. doi: [https://doi.org/10.1016/S0140-6736\(12\)60240-2](https://doi.org/10.1016/S0140-6736(12)60240-2)
- Bauer, G. R. (2014). Incorporating intersectionality theory into population health research methodology: Challenges and the potential to advance health equity. *Social Science & Medicine, 110*, 10-17. doi: <https://doi.org/10.1016/j.socscimed.2014.03.022>
- Beig, J., Khanolkar, M., & Cundy, T. (2018). Type 2 diabetes in young adults in Central Auckland: demography and complications. . *Internal Medicine Journal, 48*, 67-73.

- Bleich, S. N., Vercammen, K. A., Zatz, L. Y., Frelier, J. M., Ebbeling, C. B., & Peeters, A. (2018). Interventions to prevent global childhood overweight and obesity: a systematic review. *The Lancet Diabetes & Endocrinology*, 6(4), 332-346. doi: [https://doi.org/10.1016/S2213-8587\(17\)30358-3](https://doi.org/10.1016/S2213-8587(17)30358-3)
- BPAC. (2018). A rising tide of type 2 diabetes in younger people: what can primary care do? <https://bpac.org.nz/2018/docs/diabetes.pdf>.
- Brown, R. M. (2018). *Surviving the System: Māori and Pacific whānau coping strategies to overcome health system barriers.*, Auckland University of Technology, Auckland.
- Campbell, I., Scott, N., Seneviratne, S., Kollias, J., Walters, D., Taylor, C., & Roder, D. (2015). *Breast Cancer Characteristics and Survival Differences between Maori, Pacific and other New Zealand Women Included in the Quality Audit Program of Breast Surgeons of Australia and New Zealand* (Vol. 16).
- Catchpole, L., & Williamson, F. (2017). Green Prescription Effectiveness of Service Delivery. Report to the Auckland DHB and Waitemata DHB Community and Public Health Advisory Committee. Auckland: Auckland DHB and Waitemata DHB.
- CBG Health Research Limited. (2008). Improving access to primary health care: An evaluation of 35 reducing inequalities projects. Wellington: CBG Health Research.
- Chan, W. C., Winnard, D., Lee, M., & Papa, D. (2017). People identified with selected Long Term Conditions in CM Health in 2015 (unpublished analysis). Auckland: Counties Manukau Health.
- Chang, W. K., Elley, C., Nosa, V., Kennelly, J., Mabotuwana, T., & Warren, J. (2010). Perspectives on adherence to blood pressure-lowering medications among Samoan patients: qualitative interviews. *Journal of Primary Health Care*, 2(3), 217-224.
- Child Poverty Action Group. (2011). *Left Further Behind: How New Zealand is failing its children.* Auckland: Child Poverty Action Group.
- Counties Manukau Health. (2019). Health Domicile 2013 in CMDHB by Localites. URL: <https://www.google.com/maps/d/u/OJewer?mid=1lducdLLu6bJr3yw7Da9hMc318Fk>. Auckland: Counties Manukau Health.
- Craig, E., Anderson, P., Jackson, G., & Jackson, C. (2012). Measuring potentially avoidable and ambulatory care sensitive hospitalisations in New Zealand children using a newly developed tool. *New Zealand Medical Journal*, 125(1366), 38-50.
- Crengle, S., Robinson, E., Grant, C., & Arroll, B. (2011). Pharmacological management of children's asthma in general practice: findings from a community-based cross-sectional survey in Auckland, New Zealand. *New Zealand Medical Journal*, 124(1346), 44-56.
- Cumming, J. M. (2011). Integrated Care in New Zealand. *International Journal of Integrated Care*, 11(5).
- Davis, P., Suaalii-Sauni, T., & Lay-Yee, R. (2005). The National Primary Medical Care Survey (NatMedCa): 2001/02, Report 7: Pacific patterns in primary health care: A comparison of Pacific and all patient visits to doctors. . Auckland: Health Research Council of New Zealand.
- Feigin, V. L., Krishnamurthi, R. V., Barker-Collo, S., McPherson, K. M., Barber, P. A., Parag, V., . . . ARCOS IV Group. (2015). 30-Year trends in stroke rates and outcome in Auckland, New Zealand (1981-2012): A multi-ethnic population-based series of studies. *Plos One*, 10(8), e0134609.
- Flynn, A. C., Dalrymple, K., Barr, S., Poston, L., Goff, L. M., Rogozińska, E., . . . for the i-WIP Collaborative Group. (2016). Dietary interventions in overweight and obese pregnant women: a systematic review of the content, delivery, and outcomes of randomized controlled trials. *Nutrition Reviews*, 74(5), 312-328. doi: 10.1093/nutrit/nuw005
- Foliaki, S., & Matheson, A. (2015). Barriers to cervical screening among Pacific women in a New Zealand urban population. *Asia Pacific Journal of Cancer Prevention*, 16(4), 1565-1570.

- Franz, M. J., Boucher, J. L., Rutten-Ramos, S., & VanWormer, J. J. (2015). Lifestyle Weight-Loss Intervention Outcomes in Overweight and Obese Adults with Type 2 Diabetes: A Systematic Review and Meta-Analysis of Randomized Clinical Trials. *Journal of the Academy of Nutrition and Dietetics*, 115(9), 1447-1463. doi: <https://doi.org/10.1016/j.jand.2015.02.031>
- Freund, T., Campbell, S. M., Geissler, S., Kunz, C. U., Mahler, C., Hum, D. S., . . . Szecsenyi, J. (2013). Strategies for reducing potentially avoidable hospitalizations for ambulatory care-sensitive conditions. *Annals of Family Medicine*, 11(4), 363-370.
- Gounder, S. T., Wijayanayaka, D., Murphy, R., Armstrong, D., Cutfield, R., Kim, D. D., . . . Booth, M. W. C. (2016). Costs of bariatric surgery in a randomised control trial (RCT) comparing Roux en Y gastric bypass vs sleeve gastrectomy in morbidly obese diabetic patients. *NZMJ*, 129, 43-52.
- Grant, C. (2001). Ethnic comparisons of disease severity in children hospitalized with pneumonia in New Zealand. *Journal of Paediatrics and Child Health*, 37(1), 32-37.
- Grey, C., Sandford, L., & Walsh, M. (2019). Pacific Health Snapshot in the Auckland Region. A report to the Auckland DHB and Waitematā DHB Community and Public Health Advisory Committee. Auckland: Auckland DHB and Waitematā DHB.
- Downs, A. (2017). From theory to practice: The promise of primary care in New Zealand. Fullbright New Zealand. Hamlin, M. J., Yule, E., Elliot, C. A., Stoner, L., & Kathiravel, Y. (2016). Long-term effectiveness of the New Zealand Green Prescription primary health care exercise initiative. *Public Health*, 140, 102-108. doi: <https://doi.org/10.1016/j.puhe.2016.07.014>
- Harrower, J., King, R., & Jackson, C. (2015). Pacific Demographic Profile: Census 2013 Auckland Usual Residents. Auckland: Auckland Regional Public Health Service.
- Health Partners Consulting Group. (2012). Metro-Auckland Pacific Population Health Profile. <https://www.health.govt.nz/system/files/documents/publications/metro-auckland-pacific-population-health-profile-april2103.pdf>. Auckland: HPCG.
- Health Quality & Safety Commission. (2016). <https://www.hqsc.govt.nz/our-programmes/health-quality-evaluation/projects/atlas-of-healthcare-variation/childhood-ambulatory-sensitive-hospitalisations> and <https://www.hqsc.govt.nz/our-programmes/health-quality-evaluation/projects/atlas-of-healthcare-variation/childhood-ambulatory-sensitive-hospitalisations> (Accessed 18 September, 2018).
- Health Quality & Safety Commission. (2017). A window on the quality of New Zealand's Health Care. Wellington: Health Quality & Safety Commission.
- Health Quality and Safety Commission. (2017). Polypharmacy in people aged 65 and over <https://www.hqsc.govt.nz/our-programmes/health-quality-evaluation/projects/atlas-of-healthcare-variation/polypharmacy/> Wellington: HQSC.
- Immunisation Advisory Centre. (2018). National Immunisation Coverage for New Zealand. <https://www.immune.org.nz/sites/default/files/publications/Immunisation%20coverage%20to%20June%202018.pdf>. Auckland: University of Auckland.
- Jackson, G., Thornley, S., Woolston, J., Papa, D., Bernacchi, A., & Moore, T. (2011). Reduced acute hospitalisation with the healthy housing programme. *Journal of Epidemiology & Community Health*, 65, 588-593.
- Jackson, G., & Tobias, M. (2001). Potentially avoidable hospitalisations in New Zealand, 1989-98. *Australian and New Zealand Journal of Public Health*, 25(3), 212-221.
- Johnson, A. (2014). Our children, our choice: priorities for policy series. Part 4: Housing market changes and their impact on children. Auckland: Child Poverty Action Group.

- Kolandai-Matchett, K., Langham, E., Bellringer, M., & Ah-Honi Siitia, P. (2017). How gambling harms experienced by Pacific people in New Zealand amplify when they are culture-related. *Asian Journal of Gambling Issues and Public Health*, 7(5), <http://dx.doi.org/10.1186/s40405-40017-40026-40403>.
- Mackay, S., Buch, T., Vandevijvere, S., Goodwin, R., Korohina, E., Funaki-Tahifote, M., . . . Swinburn, B. (2018). Cost and Affordability of Diets Modelled on Current Eating Patterns and on Dietary Guidelines, for New Zealand Total Population, Māori and Pacific Households. *International Journal of Environmental Research and Public Health*, 15(6), 1255.
- May, C. R., Eton, D. T., Boehmer, K., Gallacher, K., Hunt, K., MacDonald, S., . . . Shippee, N. (2014). Rethinking the patient: using Burden of Treatment Theory to understand the changing dynamics of illness. *BMC Health Services Research*, 14(1), 281. doi: 10.1186/1472-6963-14-281
- McKinlay, E., Graham, S., & Horrill, P. (2015). Culturally and linguistically diverse patients' views of multimorbidity and general practice care. *Journal of Primary Health Care*, 7(3), 228-235.
- Mercer, S. W., Guthrie, B., Furler, J., Watt, G. C. M., & Hart, J. T. (2012). Multimorbidity and the inverse care law in primary care. *BMJ : British Medical Journal*, 344, e4152. doi: 10.1136/bmj.e4152
- Meredith, I., Sarfati, D., Ikeda, T., & Blakely, T. (2012). Cancer in Pacific people in New Zealand. *Cancer Causes & Control*, 23, 1173-1184.
- Millar, E., Stanley, J., Gurney, J., Stairmand, J., Davies, C., Semper, K., . . . Sarfati, D. (2018). Effect of multimorbidity on health service utilisation and health care experiences. *Journal of Primary Health Care*, 10(1), 44-53. doi: <https://doi.org/10.1071/HC17074>
- Ministry of Health. (2008a). Improving quality of care for pacific peoples. <https://www.health.govt.nz/system/files/documents/publications/improving-quality-of-care-for-pacific-peoples-may08.pdf>. Wellington: Ministry of Health.
- Ministry of Health. (2008b). Pacific child health. A paper for the Pacific health and disability action plan review. Wellington: Ministry of Health.
- Ministry of Health. (2012). Tupu Ola Moui: Pacific Health Chart Book 2012. Wellington: Ministry of Health.
- Ministry of Health. (2017a). Annual Data Explorer 2016/17: New Zealand Health Survey [Data File]. URL: <https://minhealthnz.shinyapps.io/nz-health-survey-2016-17-annual-update>. Retrieved Accessed 16/03/2018
- Ministry of Health. (2017b). Clinical guidelines for weight management in New Zealand adults. Wellington: Ministry of Health.
- Ministry of Health. (2017c). How is my DHB performing? https://www.health.govt.nz/system/files/documents/pages/healthtarges-q4-201617-resultssummary_1.pdf.
- Ministry of Health. (2018a). 'Ala Mo'ui Progress Report: Pacific Health care utilisation. Wellington: Ministry of Health.
- Ministry of Health. (2018b). Babies living in smokefree homes SLM data. <https://nsfl.health.govt.nz/dhb-planning-package/system-level-measures-framework/data-support-system-level-measures/babies> (Accessed 6 July 2019).
- Ministry of Health. 2017. Faiva Ora 2016–2021: National Pasifika Disability Plan. Wellington: Ministry of Health.
- Ministry of Health. (2018c). Health and Independence Report 2017. The Director-General of Health's Annual Report on the State of Public Health. Wellington: Ministry of Health.
- Ministry of Health. (2018d). Health and Independence Report 2017: The Director-General of Health's Annual Report on the State of Public Health. Wellington: Ministry of Health.
- Ministry of Health. (2019a). Achieving Equity. <https://www.health.govt.nz/about-ministry/what-we-do/work-programme-2018/achieving-equity>. Wellington: Ministry of Health.
- Ministry of Health. (2019b). Annual Data Explorer 2017/18: New Zealand Health Survey [Data File]. URL: <https://minhealthnz.shinyapps.io/nz-health-survey-2017-18-annual-data-explorer>.

- Ministry of Health. (2019c). Reducing rheumatic fever. <https://www.health.govt.nz/our-work/diseases-and-conditions/rheumatic-fever/reducing-rheumatic-fever>. Wellington: Ministry of Health.
- Ministry of Health. (2019d). System Level Measures Annual Plan Guidance 2019/20. <https://nsfl.health.govt.nz/dhb-planning-package/system-level-measures-framework/system-level-measures-annual-plan-guidance> (Accessed 6 July 2019).
- Ministry of Health and Ministry of Pacific Island Affairs. (2004). Tupu Ola Moui: Pacific Health Chart Book 2004. Wellington: Ministry of Health.
- Ministry of Pacific Peoples. (2018a). Pacific Aotearoa. Lalanga Fou. Wellington: Ministry of Pacific Peoples.
- Ministry of Pacific Peoples. (2018b). Yavu. Foundations of Pacific engagement. Wellington: Ministry of Pacific Peoples.
- O’Hallahan, J., McNicholas, A., Galloway, Y., O’Leary, E., & Roseveare, C. (2009). Delivering a safe and effective strain specific vaccine to control an epidemic of group B Meningococcal disease. *New Zealand Medical Journal*, 122(1291), 48-59.
- OECD. (2017). Diabetes Prevalence (pp 66-67). *Health at a glance 2017. OECD Indicators*. https://www.oecd-ilibrary.org/social-issues-migration-health/health-at-a-glance-2017/diabetes-prevalence_health_glance-2017-15-en. Paris: OECD.
- Pacific Perspectives. (2011). A Dynamic Evidence-Base: Service and Clinical Quality Initiatives addressing Pacific Peoples’ Health Needs. Wellington: Pacific Perspectives.
- Pacific Perspectives Ltd. (2015). Health care experiences of Pacific families who have children with rheumatic fever: Report to Counties Manukau Health. [Unpublished].
- Pasifika Futures. (2017). Pasifika people in New Zealand. How are we doing? Auckland: Pasifika Futures.
- Peirson, L., Fitzpatrick-Lewis, D., Morrison, K., Warren, R., Usman Ali, M., & Raina, P. (2015). Treatment of overweight and obesity in children and youth: a systematic review and meta-analysis. *CMAJ Open*, 3(1), E35-E46.
- Perry, B. (2017). Household incomes in New Zealand: Trends in indicators of inequality and hardship 1982 to 2016. Wellington: Ministry of Social Development.
- Rahiri, J.-L., Lauti, M., Harwood, M., MacCormick, A. D., & Hill, A. G. (2017). Ethnic disparities in rates of publicly funded bariatric surgery in New Zealand (2009–2014). *ANZ J Surg*, 88, E366-369.
- Ryan, D., Southwick, M., Teevale, T., & Kenealy, T. W. (2011). Primary Care for Pacific People: A Pacific and Health Systems View. Wellington: Pacific Perspectives Ltd.
- Salisbury, C., Johnson, L., Purdy, S., Valderas, J. M., & Montgomery, A. A. (2011). Epidemiology and impact of multimorbidity in primary care: a retrospective cohort study. *British Journal of General Practice*, 61(582), e12-e21. doi: 10.3399/bjgp11X548929
- Salvation Army Social Policy and Parliamentary Unit. (2013). More than just Churches, Rugby and Festivals – a report on the state of Pasifika People in New Zealand. Auckland: Salvation Army.
- Sharples, K., Firth, M., Hinder, V., Hill, A., Jeffery, M., Sarfati, D., . . . Findlay, M. (2018). The New Zealand PIPER Project: colorectal cancer survival according to rurality, ethnicity and socioeconomic deprivation—results from a retrospective cohort study. *New Zealand Medical Journal*, 131(1476), 25-39.
- Sheridan, N. F., Kenealy, T. W., Kidd, J. D., Schmidt-Busby, J. I. G., Hand, J. E., Raphael, D. L., . . . Rea, H. H. (2015). Patients’ engagement in primary care: powerlessness and compounding jeopardy. A qualitative study. *Health Expectations*, 18(1), 32-43. doi: 10.1111/hex.12006

- Simpson, J., Duncanson, M., Oben, G., Adams, J., Wicken, A., Pierson, M., & Gallagher, S. (2017). *The Health Status of Pacific Children and Young People in New Zealand 2015 (Pacific Child and Youth Health)*. Dunedin: New Zealand Child and Youth Epidemiology Service. .
- Sinnott, C., Mc Hugh, S., Browne, J., & Bradley, C. (2013). GPs' perspectives on the management of patients with multimorbidity: systematic review and synthesis of qualitative research. *BMJ Open*, 3(9), e003610. doi: 10.1136/bmjopen-2013-003610
- Southwick, M., Kenealy, T., & Ryan, D. (2012). *Primary care for Pacific people: a Pacific and health systems approach*. Report to the Health Research Council and the Ministry of Health. Wellington: Pacific Perspectives.
- Stanley, J., Semper, K., Millar, E., & Sarfati, D. (2018). Epidemiology of multimorbidity in New Zealand: a cross-sectional study using national-level hospital and pharmaceutical data. *BMJ Open*, 8(5), e021689. doi: 10.1136/bmjopen-2018-021689
- Statistics New Zealand. (2014). *Census district health board*. URL: <http://archive.stats.govt.nz/Census/2013-census/data-tables/dhb-tables.aspx>. Wellington: Statistics New Zealand.
- Statistics New Zealand. (2016a). *Changes in home-ownership patterns 1986–2013: Focus on Māori and Pacific people*. <https://www.stats.govt.nz/reports/changes-in-home-ownership-patterns-1986-2013-focus-on-Māori-and-pacific-people>. . Wellington: Statistics New Zealand.
- Statistics New Zealand. (2016b). *Household Net Worth Statistics: Year ended June 2015*. http://archive.stats.govt.nz/browse_for_stats/people_and_communities/Households/HouseholdNetWorthStatistics_HOTPYeJun15.aspx. Wellington: Statistics New Zealand.
- Statistics New Zealand. (2017a). *Subnational Ethnic Population Projections: 2013(base)-2038 update*. http://archive.stats.govt.nz/browse_for_stats/population/estimates_and_projections/SubnationalEthnicPopulationProjections_HOTP13base-2038update.aspx.
- Statistics New Zealand. (2017b). *Well-being statistics: 2016*. URL: <http://archive.stats.govt.nz/-/media/Statistics/Browse%20for%20stats/WellbeingStatistics/HOTP16/gss16-well-being-measures-tables.xlsx>. Wellington: Statistics New Zealand.
- Statistics New Zealand. (2018a). *Geographic Concordance SA to AU and Urban Rural 2018 Master*. Wellington: Statistics New Zealand.
- Statistics New Zealand. (2018b). *Living in a crowded house: Exploring the ethnicity and well-being of people in crowded households*. <https://www.stats.govt.nz/reports/living-in-a-crowded-house-exploring-the-ethnicity-and-well-being-of-people-in-crowded-households>. Wellington: Statistics New Zealand.
- Statistics New Zealand. (2019a). *Dataset: Birthplace (New Zealand or overseas) and ethnic group (grouped total responses) by languages spoken (total responses), for the census usually resident population count, 2001, 2006, and 2013 Censuses (RC, TA, AU)*. URL: <http://nzdotstat.stats.govt.nz/WBOS/Index.aspx?DataSetCode=TABLECODE8050>. Wellington: Statistics New Zealand.
- Statistics New Zealand. (2019b). *Labour market statistics: March 2019 quarter, New Zealand Government*. URL: <https://www.stats.govt.nz/information-releases/labour-market-statistics-march-2019-quarter>. Wellington: Statistics New Zealand.
- Statistics New Zealand. (2019c). *Selected ethnic groups (total responses) by language spoken (total responses), for the census usually resident population count, 2001, 2006, and 2013 Censuses (RC, TA, AU)*. Wellington: Statistics New Zealand.
- Statistics New Zealand and Ministry of Pacific Island Affairs. (2011). *Health and Pacific peoples in New Zealand*. Wellington: Statistics New Zealand.
- Stokes, T., Azam, M., & Noble, F. (2018). Multimorbidity in Māori and Pacific patients: cross-sectional study in a Dunedin general practice. *Journal of Primary Health Care*, 19(1), 39-43.

- Stroke Foundation of New Zealand and New Zealand Guidelines Group. (2010). Clinical guidelines for stroke management 2010. Wellington: Stroke Foundation of New Zealand. Retrieved from <https://www.health.govt.nz/publication/new-zealand-clinical-guidelines-stroke-management-2010>. Wellington: New Zealand Guidelines Group.
- Sundmacher, L., Fischbach, D., Schuettig, W., Naumann, C., Augustin, U., & Faisst, C. (2015). Which hospitalisations are ambulatory care-sensitive, to what degree, and how could the rates be reduced? Results of a group consensus study in Germany. *Health Policy, 119*(11), 1415-1423.
- Tanielu, R., & Johnson, A. (2014). This Is Home: An update on the state of Pasifika People in New Zealand. Auckland: The Salvation Army Social Policy and Parliamentary Unit.
- Teng, A. M., Atkinson, J., Disney, G., Wilson, N., Sarfati, D., McLeod, M., & Blakely, T. (2016). Ethnic inequalities in cancer incidence and mortality: census-linked cohort studies with 87 million years of person-time follow-up. *BMC Cancer, 16*(755).
- Tin Tin, S., Elwood, J. M., Brown, C., Sarfati, D., Campbell, I., Scott, N., . . . Lawrenson, R. (2018). Ethnic disparities in breast cancer survival in New Zealand: which factors contribute? *BMC Cancer, 18*(1), 58. doi: 10.1186/s12885-017-3797-0
- Tupai-Firestone, R., Tuisano, H., Manukia, M., Kaholokula, K., Foliaki, S., Kingi, T. K., . . . Ellison-Loschmann, L. (2016). Understanding Pasifika youth and the obesogenic environment, Auckland and Wellington, New Zealand. *New Zealand Medical Journal, 129*(1434), 23-35.
- University of Otago. (2013). NZDep2013 census Area Unit data. <https://www.otago.ac.nz/wellington/otago069926.xls>. Dunedin: University of Otago.
- Walsh, M., & Grey, C. (2019). The contribution of avoidable mortality to the life expectancy gap in Māori and Pacific populations in New Zealand—a decomposition analysis. *New Zealand Medical Journal, 132*(1492), 46-60.
- Wang, Y., Cai, L., Wu, Y., Wilson, R. F., Weston, C., Fawole, O., . . . Segal, J. (2015). What childhood obesity prevention programmes work? A systematic review and meta-analysis. *Obesity Reviews, 16*(7), 547-565. doi: 10.1111/obr.12277
- Wells, S. (2018). Our Picture of Health, needs assessment of the ProCare network enrolled population. Auckland: ProCare Networks Ltd.
- Wood, A., & Johnson, M. (2018). Green Prescription Patient Survey 2018 Report. Wellington: Research NZ.
- Wynd, D. (2015). 'It shouldn't be this hard': children, poverty and disability. Auckland: Child Poverty Action Group.





The background of the page is a watercolor-style illustration. It features a central vertical stem with several large, pointed leaves. The leaves are rendered in various shades of green and blue, with soft, blended edges. The overall effect is a delicate, artistic pattern that fills the entire page.

pacific perspectives