



PACIFIC ISLAND COMMUNITY HEALTH PROFILE **2022**



A BOLDER HEALTHIER BIRMINGHAM

Foreword

The Pacific Islander Community Health Profile was commissioned by Birmingham City Council to review the evidence on the Pacific Islander community in Birmingham and nationally. The report synthesises evidence on the experiences, needs and outcomes of the Pacific Islander community across a range of health and well-being indicators, including education, employment, housing, mental health, disabilities, substance (mis)use and physical activity. It illustrates the multi-layered barriers and inequalities faced by Pacific Islander people in relation to their health and everyday lives and highlights gaps in the existing evidence base. The report demonstrates the public health need for comprehensive monitoring, research, and engagement with Pacific Islander communities at a local and national level.

The Pacific Islander Community Health Profile is part of a wider series of evidence summaries produced by Birmingham City Council which focus on specific communities of interest.

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Community Evidence Summaries

As part of the Public Health Divisions work to improve the understanding of the diverse communities of Birmingham, we are developing a series of short evidence summaries to improve awareness of these communities and their needs.

There are common objectives for each of the evidence summaries which are:

- To identify and summarise the physical health, mental health, lifestyle behavioural, and wider determinants of health-related issues that are affecting the specific community both nationally and locally
- To identify and summarise gaps in knowledge regarding the physical health, mental health, lifestyle behavioural and wider determinants of health-related issues that may be affecting the specific community both nationally and locally.
- To collate and present this information under the 10 key priority areas identified in the Health and Wellbeing Strategy for Birmingham 2021
- To engage with the local communities on the evidence found and any gaps
- To promote the use of these summaries for Local Authority and wider system use for community and service development.



Executive Summary

This Pacific Islander Community Health Profile identifies and summarises the national and local evidence concerning the health, lifestyle behaviours and wider determinants of health that affect the communities from the Pacific Islands, both in Birmingham and across the UK. The focus countries for this profile are: Fiji, Kiribati, Papua New Guinea, Nauru, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu.

The profile covers various health topics, including health status risk factors such as diabetes, cardiovascular disease, cancer screening, and dementia; and other themes such as knowledge and understanding of health issues affecting the communities.

The Pacific Ocean covers nearly a third of the world's surface, of the 9 countries included in this list, all are members of the Commonwealth. The Pacific Island communities have a rich history and vibrant culture, which differ amongst each island. Britain has a longstanding history with the Pacific Island countries and today there are large populations of people from Pacific Islands or of cultural heritage in Britain.

The majority of the UK population of those from Antarctica and Oceania reside in England (8,423) and 63% of 25 to 44-year-olds make up 63% of the communities in the UK population. There was limited data specific to the UK, West Midlands, and Birmingham. However, health data identified amongst Antarctica and Oceanian-born individuals in the U.K and other nations who have a relevant population showed:

- Obesity prevalence is nearly double in Pacific adults compared to the European population.
- 50% of Antarctica and Oceania-born men are in full-time employment, this figure decreases to 28% for women.
- 45% of Pacific Islanders in the UK are University graduates and 35% are College graduates.
- 84% of those from Antarctica and Oceania living in the West Midlands reported their long-term health problem or disability did not impact their day-to-day activities.

Much of the data for examining health outcomes in this profile has been taken from open-source research and health records. It is worth noting that the sample sizes, coverage and quality of some studies are imperfect. As found in the Kings Fund report, the picture is complex, both between different ethnic groups and across different conditions, and understanding is limited by a lack of good quality data. This health profile aims to highlight the available health data and the current gaps in our knowledge and understanding.

Methodology

An exploratory search was undertaken by the Public Health Communities Team using a range of databases such as National Data Sources, NOMIS (Office for National Statistics), and PubMed to identify information on the Pacific Islander community for this profile. Keyword search terms and subject headings relevant to the themes were identified. All references used within this profile are outlined in the endnotes. Focus within the Pacific Islands were: Fiji, Kiribati, Papua New Guinea, Nauru, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu.

As an initial exploratory search, the following avenues were examined:

a. National data sources

NOMIS data:

Data has been extracted by ethnicity from the 2011 Census available at <https://www.nomisweb.co.uk/>. It should be noted that the most recent ethnicity data available is from the 2001 and 2011 census, so any conclusions from using this data and information should be made with caution. The next census data will be released in Summer 2022.

National Public Health (PHE fingertips) and government data sources (ons.gov.uk and gov.uk):

Data has been extracted where relevant Pacific Islander community-level information was available.

National voluntary and community sector reports:

These have been identified through Google Scholar and national websites, specifically where relevant community-level data and information were available, such as:

- Diabetes UK (<https://www.diabetes.org.uk/>)
- Public Health England (now replaced by UK Health Security Agency and Office for Health Improvement and Disparities (<https://www.gov.uk/government/organisations/public-health-england>))

b. PubMed search

In addition, a PubMed search conducted on <https://pubmed.ncbi.nlm.nih.gov/> was performed. All searches contained keywords related to the select Pacific Island country as well as words that were specific to the topic theme. Examples of this are included in the search strategy (Appendix 1).

c. Grey Literature

Where information sources had not been identified through a or b, further searching through Google, Google Scholar, and PubMed using topic-specific search terms was carried out. Papers that were relevant to the UK were included i.e., data and information stemming from local or national-level reports and/ or surveys.

Findings from international and national systematic reviews and large-scale epidemiological and qualitative research studies were also considered for inclusion. International research findings were included if they were deemed to be comparable or relevant to the national population.

In addition, “snowballing” - a technique where additional relevant research

is identified from the reference list and citations of the initial search or published article - was also applied. Additional papers were identified from reference lists using this approach, where these additional resources enhanced the knowledge base. Generally, searches were limited to the year 2000 onwards, however, older information was occasionally considered where information was scarce.

d. Data consolidation and analysis

Results retrieved from the initial searches were reviewed by the Public Health Communities Team against the search strategy (Appendix 1). The articles utilised in this document were then analysed, identified, and cross-referenced with other themes throughout the report.

To note, most of the emigrants from the Pacific nations within the region of Oceania covered in this paper have migrated to one of four countries: USA, Canada, New Zealand and Australia. As the population size in the UK is relatively low and subsequently there is limited UK-based research on the communities, studies and papers from these four nations have been used as proxies, where suitable and comparable. It is worth noting that each destination country uses different terminology for the ethnic origin of migrants. In New Zealand, for example, Indo Fijians are classified as Asian owing to their cultural heritage, while iTaukei Fijians are classified as Pacific Islanders. We have taken these variations in terminology into account when including research into this community profile.



ACCORDING TO THE 2011 CENSUS, THERE ARE **8,604** Antarctica and Oceania-born people in England and Wales. Fillians account for the largest proportion **73%**

ACCORDING TO THE 2011 CENSUS THERE ARE **728** people born in the nine nations across the West Midlands and **97** IN BIRMINGHAM

63% of the communities' UK population are 25 to 44 year olds, which is a significantly larger proportion compared to the general population

There are sizable populations around British arm bases, with **1,300** SERVING FIJIANS IN UK ARMED FORCES 

INTERNATIONAL CONTEXT

The Pacific Islands is a vast and unique region, made up of three subregions: Melanesia, Micronesia and Polynesia. 

IT SPANS ACROSS **15%** OF THE EARTH'S SURFACE A COMBINED POPULATION OF **2.3** MILLION PEOPLE

According to the UNESCAP figures, over **430,000** people have emigrated from the nine Pacific nations covered in this community profile, with approximately **50%** (222,000) emigrating from Fiji.

Pacific Islanders have overwhelmingly migrated to four countries: Australia, New Zealand, USA and Canada

1.0 Introduction

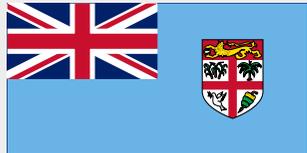
1.1. Overview of the Pacific Islander Community

1.1.1. Outline and history

The Pacific Islands is a large and unique region, made up of three subregions: Melanesia, Micronesia and Polynesia. It spans across 15%¹ of the earth's surface and has a combined population of around 2.3million people². The nations and peoples that live within it have a close relationship with the environment around them. As the region is comprised of thousands of islands, the number of countries in the region is widely debated, however according to the World Health Organization there are fifteen countries in the Pacific. This report focuses on the international diaspora for nine of them, particularly on the communities in the UK, where information and data is available. The focus countries in the report are: Fiji, Kiribati, Papua New Guinea, Nauru, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu (brief descriptions below).

Table 1: Pacific Islands – brief outline of the nine focus countries

Source: The Commonwealth; Flags footnoted in table



Fiji³

Fiji is an archipelago in the South Pacific. It is made up of almost 300 islands, 100 of which are inhabited, and has a population of 900,000.



Kiribati⁴

Kiribati, pronounced Kiribas, is made of 33 atolls that occupy almost 4000km across in the equatorial Pacific. It has a population of 103,000 and is home to the South Pacific's largest marine reserve.



Papua New Guinea⁵

Papua New Guinea makes up the eastern part of the world's largest island. It has a population of 8.9 million and is linguistically one of the world's most diverse country, with more than 700 native languages.



Nauru⁶

Nauru is the world's smallest republic. It has a population of 10,000 and a geographic area of just 21 square kilometres.



Samoa⁷

Samoa is made of nine volcanic islands. Two of these, Savai'i and Upolu, make up more than 99% of the land. It has a population of 195,000.



Solomon Islands⁸

The Solomon Islands consist of two parallel chains of volcanic islands in the south-western Pacific. There are six major islands and over 900 smaller ones, with a total population of 386,000.



Tonga⁹

Tonga is made of over 170 islands in the South Pacific. It has four active volcanoes, is the last Polynesian monarchy and has a population of 107,000.



Tuvalu¹⁰

Tuvalu is made of nine small coral islands in the west-central Pacific. Its highest point is only 4.5 metres above sea level, making it particularly vulnerable to climate change. It has no rivers or streams, a land area of just 26 square kilometres and a population of 11,200.



Vanuatu¹¹

Vanuatu is made of more than 80 islands in the south-western Pacific. The islands are mountainous with tropical rainforests and some active volcanoes. It has a population of 307,000.

1.1.2 Demography and migration

According to the 2011 census¹², there are 8,604 Antarctica and Oceania¹³-born people in England and Wales. As shown in table 2 below, of the nine Pacific Island countries studied in this health profile, residents from Fiji account for the largest proportion (5,847; 73%¹⁴), followed by those from Papua New Guinea (1,025; 13%).

Table 2: Population of select Pacific Island countries in England and Wales

Country	Population in England and Wales (number)
Fiji	5,847
Kiribati	158
Nauru	Exact number unknown; recorded within 'rest of the world' category
Papua New Guinea	1,025
Samoa	214
Solomon Islands	308
Tonga	268
Tuvalu	Exact number unknown; recorded within 'rest of the world' category
Vanuatu	144

Source: 2011 Census, CT0265

Migration is an increasingly important issue for the development of the Pacific Islands region, with a sizeable proportion of the population emigrating (discussed in section 1.2) - Pacific Islanders are known as one of the most mobile groups anywhere in the world. While majority of the migration from these nine countries is predominantly to Australia, New

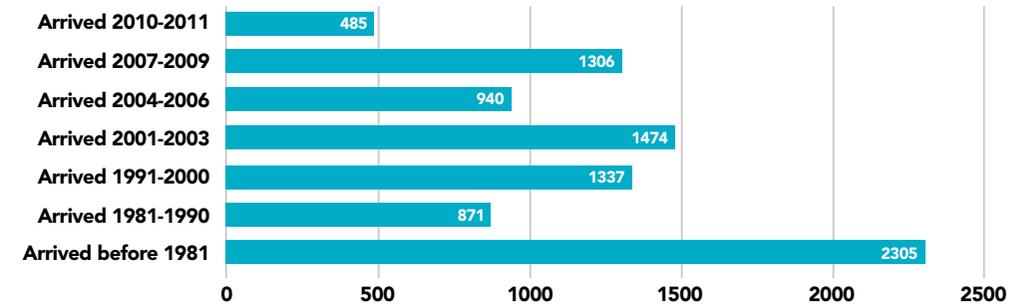
Zealand, USA and Canada (discussed further in section 1.2), the UK also has a small Pacific Islander community.

According to the 2011 Census, the main wave of migration (figure 1) from the Pacific Islands region to England and Wales was before 1981, with a smaller wave from 2001 to 2003 likely prompted by the coup in Fiji in the year 2000. Those of Hindu, Muslim and Sikh faiths made up 11% of the migrants from the Pacific Islands in the pre-1981 migration wave. These were likely Indo-Fijians migrating in search of employment opportunities and descendents of South Asian workers brought to Fiji by the British as labourers in the late 1800s to early 1900s.

In contrast, according to the UN International Migrant Stock figures (shown in figure 2) there has been a steady year-on-year rise in migrants from the nine focus countries, with Fijians comprising majority of the migrants to the UK. The discrepancy between the two migration graphs (2011 Census compared to the UN migrant stock) is likely definition differences for short-term migrants, circular migrants and overseas visitors.

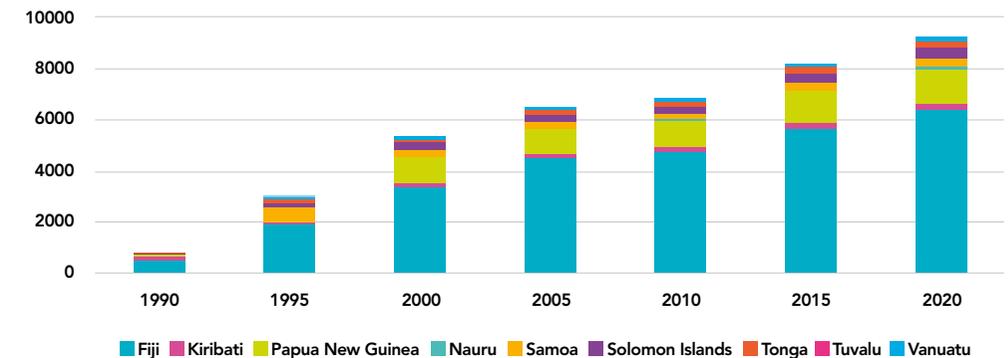
As shown in figure 3, the data from the UN's International Migrant Stock reveals the most sizeable increase in migrants among the nine Pacific Islander countries to be from Fiji. The reasons are likely multifold: three coups in 13 years has impacted the economy prompting Fijians to look for opportunities outside the country; legacy of the British Colonial rule; and post-2000 changes (pursued by the Constitutional Review Committee) which demoted Indo-Fijians, prompting them to seek opportunities elsewhere¹⁵.

Figure 1: Migration patterns of those from Antarctica and Oceania (excluding Australia and New Zealand) to England and Wales



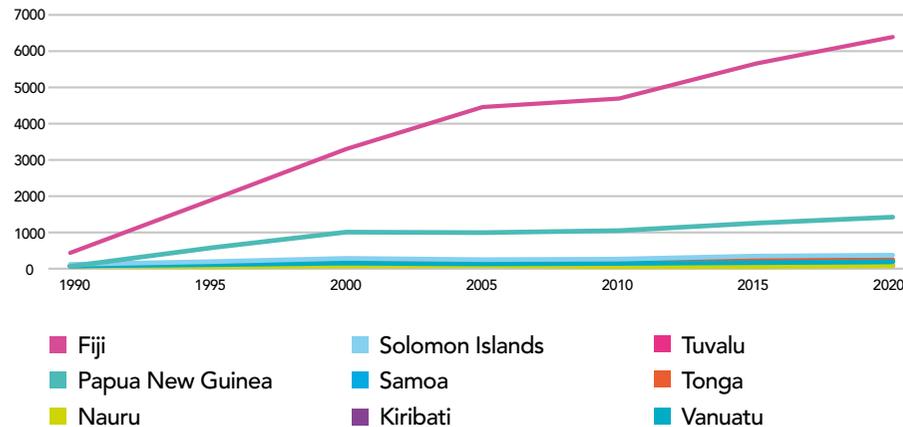
Source: 2011 Census, Table CT0562

Figure 2: Migration from the nine Pacific Island nations to UK, from 1990 to 2020



Source: United Nations Department of Economic and Social Affairs – International Migrant Stock 2020¹⁶

Figure 3: Migration from 1990 to 2020 from the nine Pacific Island countries



Source: United Nations Department of Economic and Social Affairs - International Migrant Stock 2020¹⁷



1.1.3. Languages

While English is an official language in all nine countries across the Pacific Islands studied in this report, they all also have a second or third official language (shown below). For instance, English is spoken by both Native Fijians and Indo-Fijians. However, Native Fijians also speak Fijian as their first language, and Indo-Fijians speak Fiji-Hindi (a distinct language, dissimilar to Hindi spoken by Indians from India) as their first language.

Another language to note is Pidgin/ Pijin, which is spoken in the Solomon Islands and is closely related to Bislama spoken in Vanuatu and Tok Pisin in Papua New Guinea. Pidgin languages represent speech-forms which do not have native speakers and are therefore primarily used as a means of communication among people who do not share a common language¹⁸. The vocabulary of pidgins spoken by the various Pacific Islands nations originally derived from English. Around 1,500 English words make up approximately 90% of the basic vocabulary that is used in most varieties of Pidgin¹⁹.

Table 3: Official languages of the nine Pacific Island countries

Country	Official language(s)
Fiji	English, Fijian, Fiji-Hindi
Kiribati	English, Gilbertese
Nauru	English, Nauruan
Papua New Guinea	Tok Pisin, English, Hiri Motu, Papua New Guinean Sign Language
Samoa	Samoan, English
Solomon Islands	English, Pidgin (lingua franca)
Tonga	Tongan, English
Tuvalu	Tuvaluan, English
Vanuatu	French, Bislama, English

Source: Britannica

1.1.4. Food and culture

Culturally Pacific Islanders have a strong family identity, with self-identity being strongly tied to position in the wider community; ancestral heritage and family reputation are both deeply valued. Among the Christian Pacific Island community, concepts of fellowship and ties related to a common belief hold importance.

The food from the region takes inspiration from the environment and natural ingredients are a prominent feature in Pacific Islander cuisine. Food and cuisine from the region is diverse and rich, with seafood being a staple food usually paired with vegetables. The main vegetables, specifically starch, include potatoes, sweet potato, taro and yams. Using an earth oven gives the food a more distinct taste – this cooking method involves laying food on hot rocks and burying it in earth.

1.1.5. Sport

Teamwork is an important aspect of Pacific Islander culture, and the preferred choice of sports are those which involve teams. Rugby is popular in Papua New Guinea, Tonga, Samoa and Fiji. Football is also a popular, particularly in Kiribati and Vanuatu, where it is called the national sport. Overall, sport plays a prominent role in the Pacific Islander communities, for instance, the Fijian diaspora in France is mainly comprised of the approximately 300 professional rugby players who participate in the country’s various rugby leagues²⁰.



1.2. International Context

1.2.1. World Demography

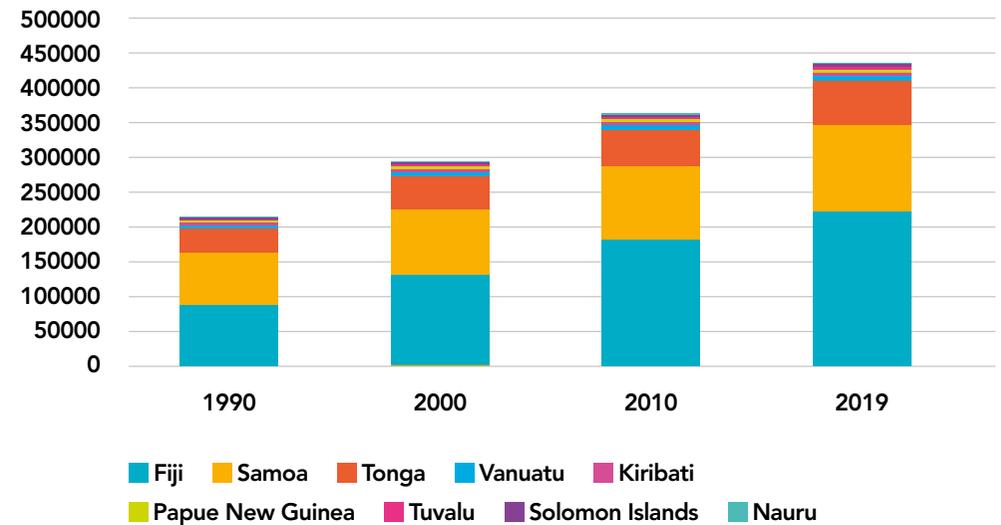
According to the UNESCO²¹ figures, over 430,000 people have emigrated from the nine Pacific nations covered in this community profile, with approximately 50% (222,000) emigrating from Fiji. The level of emigration has remained fairly constant since 1990.

Pacific Islanders have overwhelmingly migrated to four countries: Australia, New Zealand, USA and Canada. In the USA there are 1.4million Hawaiians and Pacific Islanders, representing 0.4% of the population²²; in New Zealand there are 380,000 Pacific Peoples, representing 8% of the population²³; in Australia there are 214,000 with Pacific Islanders ancestry, representing, 0.9% of the population²⁴; and in Canada 54,000 are from Oceania, representing 0.8% of the population²⁵.

Fiji, the country with the largest international diaspora, has seen a rapid rise in emigration since the late 1980s. By mid-2019 over 222,000 Fijians had emigrated globally, with almost 7,000 Fijians moving to the UK. Of the global diaspora, it is estimated that over 80% of emigrants between 1978 and 2012 were Fiji-Indian who left in response to a difficult political environment and the expiration of land leases. In recent years the percentage of iTaukei (Fijian) heritage has increased.

Emigration has had a profound impact on the demographics of the nations they have left. In some estimates there are more Tongans living abroad than there are living in Tonga. In Fiji, emigration of the Indo-Fijian community has shifted the population balance towards the iTaukei²⁶.

Figure 4: International emigration from Pacific Islands (aggregated)



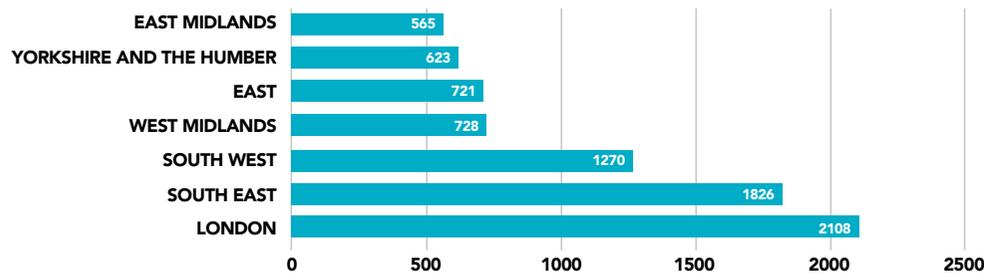
Source: UNESCAP²⁷

1.3. National Context

1.3.1. National Demography

There are 8,604 Antarctica and Oceania²⁸ born people across England and Wales. The majority of those from Antarctica and Oceania reside in England (8,423), with a small number in Wales (181)²⁹. Within the UK, the most sizeable presence of the Pacific Islander community is in London (figure 5).

Figure 5: UK regions with the greatest number of residents with Oceania as country of birth



Source: 2011 Census, Table QS203EW_Numbers

British Army's infantry, such as Catterick and Salisbury Plain, have pockets of Pacific Islander communities, indicating the history of recruitment from the region³⁰. Fijians – one of the largest cohort of foreign nationals serving the British army – make up around 1,300 serving personnel in the UK Armed forces³¹.

1.3.2. Ethnicity and National Identity

There is no information on the national identity of the Pacific Islander communities in the UK. However, the 2011 Census ethnicity data shows within the nine Pacific Island communities in the UK, 18% identified as White (English/ Welsh/ Scottish/ Northern Irish/ British), 16.5% as Indian, 15% as Other Black (not African or Caribbean), and 8% as Mixed/ multiple ethnic group³².

Specifically among Fijians, White (English/ Welsh/ Scottish/ Northern Irish/ British) and Other White account for 13.5% of the Fijian-born population in the UK, less than those who identify as Indian (22%) and Other Black (19%)³³. The significant proportion of those who identify as Indian are likely Indo-Fijians coming to the UK in search of opportunities due to a difficult political environment in Fiji.

1.3.3. Religion

According to the 2011 Census, majority of Pacific Islanders³⁴ in the UK are Christian (63%)³⁵. A minor proportion of the community are of Hindu (12%), Muslim (3%) and Sikh (3%) faiths³⁶. It is worth noting, almost all (97%) migrants from the Pacific Islands of the Hindu, Muslim and Sikh faith are specifically from Fiji, with 85% arriving before 2000.

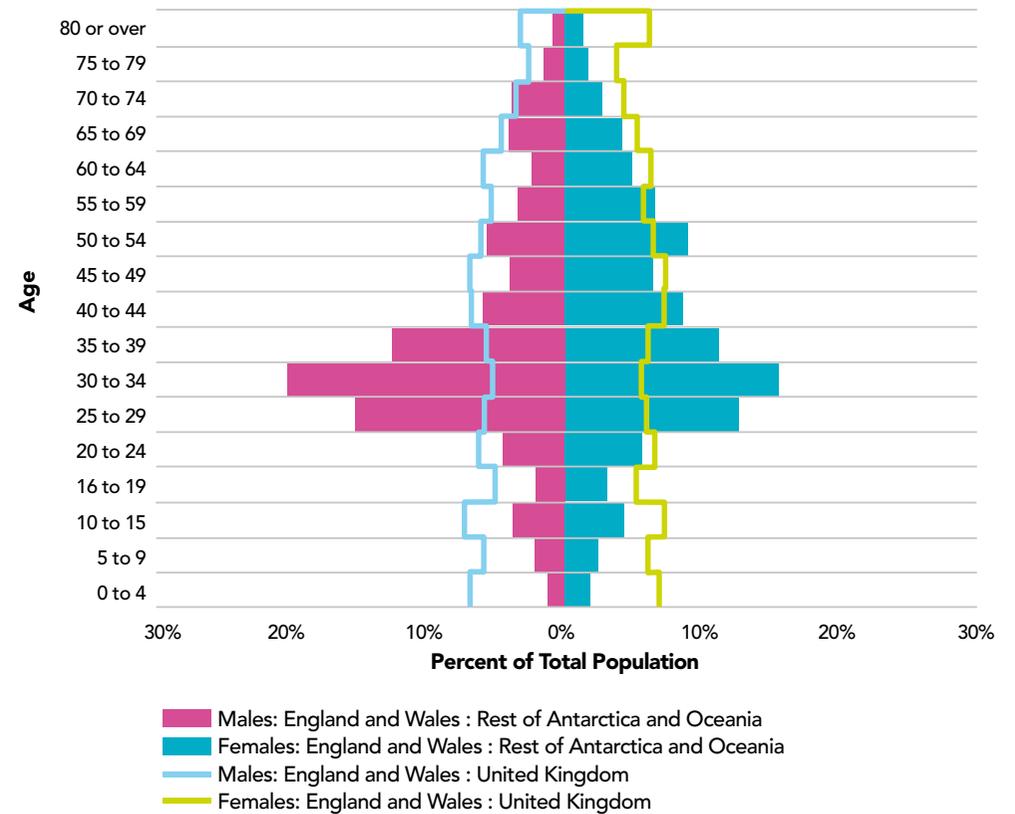
This mirrors the religious makeup of the Pacific Islands where, aside from Fiji, all other countries are predominantly Christian (Kiribati: 97%; Papua New Guinea: 99%; Samoa: 97%; Solomon Islands: 97%; Tonga: 99%; Vanuatu: 93%; Tuvalu: 97%; Nauru: 79%). As is reflected in the religious makeup of the Fijian community in the UK, in Fiji Christians account for 64% of the population, followed by Hindu (28%) and Muslim (6%).

1.3.4. Age Profile

The Antarctica and Oceania-born group in the UK has a young age profile compared to the general population. As shown earlier in figure 2, 25 to 44 year olds make up 63% of the communities' UK population, which is a significantly larger proportion compared to the general population (the age group accounts for 25% of the general population). Over 55 year-olds account for 19% of the Antarctica and Oceania-born group in Britain, compared to 29% in the general population.



Figure 6: Age profile of Antarctica and Oceania-born residents in England and Wales



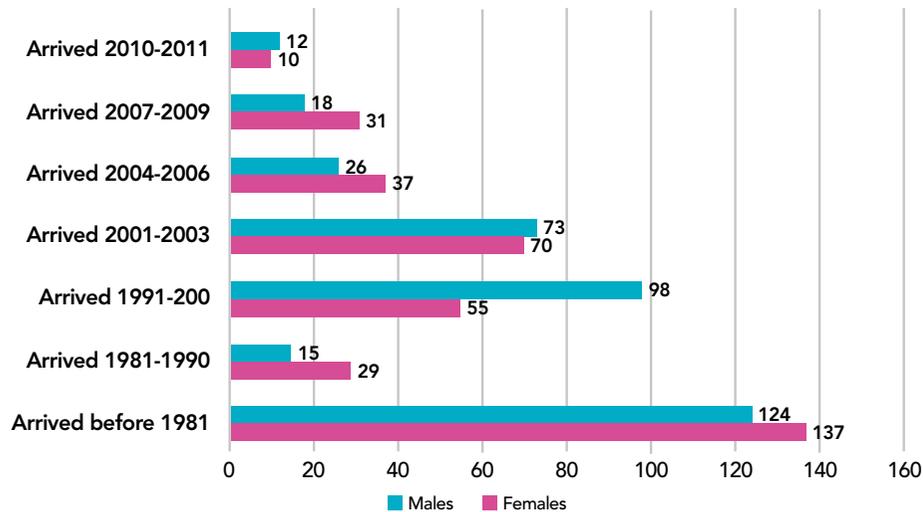
Source: 2011 Census, Table CT0561

1.4. Birmingham Context

1.4.1. Demographics

The 2011 Census recorded 728³⁷ Oceania-born residents across the West Midlands and 97 in Birmingham³⁸. Unlike in other datasets, this statistic does not include residents from Antarctica. As shown below, the migration patterns of residents from Antarctica and Oceania mirrors that of England and Wales, with the most prominent wave of migration occurring before 1981. The population of the community is too low to capture ward-level data in Birmingham.

Figure 7: Migration patterns of residents from Antarctica and Oceania (excluding Australia and New Zealand) to the West Midlands, by gender



Source: 2011 Census, Table CT0562



1.4.2. Languages

According to the 2011 Census, 11 people have recorded 'Oceanic / Australian language' as their main language in Birmingham^{39 40}. Overall in England, there are 1,729 people who have recorded 'Oceanic / Australian language' as their main language, with 149 of these people resident in the West Midlands⁴¹.



1.4.3. Age Profile

Compared to the age profile of the Antarctica and Oceania-born group in England and Wales, except for the 30 to 39 year old age group, the overall age profile of the community in the West Midlands is closer to the region's overall age make up. Over 55 year olds account for 26% of the Antarctica and Oceania-born group in the West Midlands, which is similar to the overall population of the region (the age group accounts for 29% of the general population of the West Midlands). However, as shown below, 30 to 39 year olds make up a greater proportion of the communities: this age group accounts for 27% of the communities' West Midlands population, which is significantly more compared to the general population of the region (the age group comprises 11% of the general population in the West Midlands).

Figure 8: Age profile of Antarctica and Oceania-born residents in West Midlands



Source: 2011 Census, Table CT0561⁴²

88 CHILDREN WERE REGISTERED AS ANTARCTICA AND OCEANIA-BORN IN THE WEST MIDLANDS IN THE 2011 CENSUS 

CHILDHOOD OBESITY **48.2%**
3x 35.3% of Pacific Island children in New Zealand are obese, and are 3 times more likely to be obese than non-Pacific children 
 48.2% of Native Hawaiian and Pacific Islander high school students in USA are either overweight or obese, compared to 26.5% for the non-Hispanic white community

ONLY 50% OF PREGNANT PACIFIC WOMEN RECEIVED PRENATAL CARE IN THE FIRST TRIMESTER

INFANT MORTALITY RATE **MORE THAN 2x**
 Native Hawaiians and Pacific Islander infant mortality rate in USA is more than double the non-Hispanic White population

MATERNAL MORTALITY RATE **23.88**
 Pacific pregnant mothers in New Zealand have the highest mortality rate in the country at 23.88 per 100,000 **PER 100,000**

95% **VACCINE TAKE-UP** Immunisation rates for two-year-old Pacific Island children in New Zealand is over 95%, higher than the national average 

2.0 Community Health Profile

Significant health differences exist between minority ethnic groups and White populations, a pattern which is reflected in the Pacific Islander community. The following sections present and highlight key health statistics and data from a collection of sources. Each section features key findings in bullet point format, before presenting detailed evidenced information. All findings are essential for informing policy, which can be used to address health concerns for Pacific Islander within the UK and specifically Birmingham.

2.1 Getting the Best Start in Life

Key findings

- There is limited data on the maternal health of Pacific Island mothers in the UK. Looking at the global diaspora and the countries of origin, we see a picture of larger families and high fertility rates.
- In the USA the infant mortality rate for Native Hawaiians and Pacific Islander infants is 9.4 per 1,000. This is more than double the rate for the non-Hispanic white population.
- There are 88 children registered as Antarctica and Oceania-born in the West Midlands – there is no data specifically on the presence of the nine Pacific Island nations in Birmingham or the West Midlands.

2.1.1. Maternal health

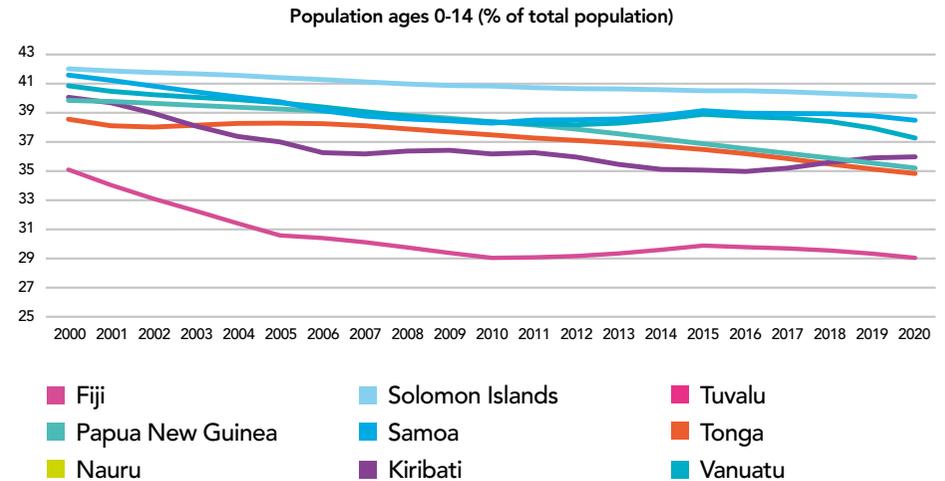
There is limited data on the maternal health of Pacific Island mothers in the UK. Looking at the global diaspora and the countries of origin, we see a picture of larger families and high fertility rates. In Australia, 27.6% of Pacific families have a natural or adopted child under the age of 15, compared to 16.9% of the general population, while 1.8% of Pacific households have a stepchild under 15, double the rate for the general population⁴³. In addition, more than 20% of Pacific households have at least six people in their family unit, more than four times the average⁴⁴.

A similar trend is seen in New Zealand, where Pasifika/ Pacific women have one of the highest birth rates of any community in the country, at 92 per 1,000. This compares to 54 per thousand among people of European ancestry⁴⁵. In the nine Pacific nations fertility rates tend to lie between 3.5 and 4.5 births per woman, having fallen from 4.0-5.0 over the past twenty years⁴⁶.

One outlier to this is Fiji, where the average fertility rate is lower at 2.7 births per woman, a rate that has remained stable over the last decade. Interestingly, over the same period the fertility rate for adolescent women aged 15-19 has increased in Fiji and The Solomon Islands, going against broader regional and global trends⁴⁷.

This difference is reflected in the age profiles of the home country populations. In eight of the nine home nations 34% to 40% of the total population are under 15. Fiji in contrast still has a very youthful population, but is comparatively lower at 29%⁴⁸. Considering the UK-based Pacific Islander community has a young age profile, this pattern may also be true for the diaspora in Britain (figures 6 and 8 above).

Figure 9: Percentage of Pacific Island population, age group 0 to 14



Source: World Bank

Among the diaspora there are high rates of maternal mortality during pregnancy. In New Zealand Pacific women have the highest maternal death rate of any of the major ethnic groups, at 23.88 per 100,000 pregnancies⁴⁹. A range of indicators provide some context. Pacific pregnant women are:

- 46% less likely to register with a lead maternity carer in the first trimester than mothers of European ancestry⁵⁰
- 35% more likely to have a genital tear during birth⁵¹
- 37% more likely to suffer a 3rd or 4th degree perineal tear⁵²
- 64% more likely to require a blood transfusion during caesarean section⁵³
- 115% more likely to require a blood transfusion during vaginal birth⁵⁴

- 54% more likely to receive an HDU or ICU notification⁵⁵
- 336% more likely to require ventilation when in ICU⁵⁶

In New Zealand, they have found a correlation between social deprivation and maternal death. As the Pacific community in the country tend to live in areas of high deprivation there may also be correlation. In the nine Pacific countries the risk of maternal death remains high for some nations but there have been significant reductions in recent years. This is particularly the case in The Solomon Islands and Papua New Guinea, where the rates have fallen from a 1.2% lifetime maternal death rate of all mothers down to almost 0.5% in less than twenty years.⁵⁷

The MBRRACE-UK 'Enquiries into Maternal deaths and morbidity' 2020 report provides some useful insight. While it does not provide statistics specifically on mothers from the Pacific Islands, it highlights several disparities in maternal outcome statistics, including race, geography and socio-economic positioning. Similarly, other emerging themes from the Lessons learned to inform maternity care from the UK and Ireland Confidential Enquiries into Maternal Deaths and Morbidity 2017-19 report⁵⁸ include ethnic minority mothers feeling unsafe, ignored or dismissed, denial of pain relief due to racial stereotypes, and pervasive microaggressions causing harm or distress⁵⁹.

The 2011 Confidential Enquiries into Maternal Deaths in the UK⁶⁰ identified pregnant migrants who may not be familiar with the British language or culture as potentially vulnerable. It found just under a quarter of women who died in 2017-19 (23%) whose place of birth was known were born outside the UK; 22% of these women were known not to be UK citizens and citizenship was not recorded for a further 20%⁶¹. Overall 6% of the women who died were not UK citizens, although this may be an underestimate since citizenship was not recorded for 7%.⁶² This insight is particularly useful for recent migrant women from the Pacific Islands.

2.1.2. Stillbirths and Infant Mortality

There is limited information on stillbirths and infant mortality within the Pacific Islander communities in the UK. Looking at similar communities internationally we see very high but falling rates. It is difficult to extrapolate of these findings to the UK because our different health system

In the USA the infant mortality rate for Native Hawaiians and Pacific Islander infants is 9.4 per 1,000. This is more than double the rate for the non-Hispanic white population⁶³. One reason for this may be that only 50% received prenatal care in the first trimester and they were also 4.6 times more likely to receive no or late prenatal care compared to the non-Hispanic white population⁶⁴. These high rates are also in spite of the fact that Native Hawaiians and Pacific Islander pregnant women are less than half as likely to smoke as the non-Hispanic white population.⁶⁵

In the Pacific countries, infant and under-5 mortality rates are high, but with significant differences between nations. In Papua New Guinea and Kiribati infant mortality rates are both above 35 per 1,000 lives births, at least ten percentage points higher than the other seven nations, and more than three times higher than Vanuatu. This trend is also reflected for under-5s, where the mortality rate in Papua New Guinea and Kiribati is more than four times the rate of Vanuatu⁶⁶. In light of this, it would be valuable to study infant mortality rates among the community in the UK and whether the statistics are similar for the diaspora in Britain.

In New Zealand, it has been noted that the rate of hospitalisation for rheumatic fever in Pacific Island children is fifty times higher than children of European heritage.

2.1.3. Childhood Vaccinations, Poverty, Obesity, and School Readiness

There are 88 children registered as Antarctica and Oceania-born in the West Midlands – there is no data specifically on the presence of the nine Pacific Island nations in Birmingham or the West Midlands. As shown earlier in figure 8, the 0 to 19 year old age group accounts for a fraction of the Antarctica and Oceania-born population in the West Midlands (12%). This can be compared with the general population of the West Midlands for whom the age group comprises 26% of the region's overall population.

There is no data or information from published research related to uptake of childhood vaccinations, child poverty and obesity within the Pacific diaspora in the UK, nor data on the educational attainment of pupils from the community.

Childhood obesity

Obesity is a growing challenge among Pacific Island children, both among the diaspora and the countries of origin. In New Zealand, 35.3% of Pacific Island children are obese and are three times more likely to be obese than non-Pacific children⁶⁷. In America 48.2% of Native Hawaiian and Pacific Islander high school students are either overweight or obese, compared to 26.5% for the non-Hispanic white community.⁶⁸ In many of the countries of origin, obesity has also become an increasing challenge, particularly for girls.⁶⁹ In Fiji, obesity is 24.9% among boys aged 13 to 17, but 32.1% for girls. In Samoa the rates are 52.4% and 63.9% respectively for the same age group.⁷⁰

At the same time, some of the countries also have very high rates of stunting among under-5s, measured by height relative to age. In Papua New Guinea it is estimated that almost 50% of children have a low height relative to their age.⁷¹ Changing diets, exercise patterns and potentially income inequality are likely to play important roles in the growth of these

trends. Research into the community based in the UK would provide useful insight into whether the community have similar obesity rates and / or high prevalence to stunting.

Childhood vaccination

Data on child immunisation is limited outside of the countries of origin. The data available indicates a picture of rapid progress, but sporadically applied.

In New Zealand immunisation rates for two-year-olds are over 95%, higher than the national average⁷². This is an interesting contrast to many other metrics for the Pacific community in New Zealand, and can in part be attributed to a major campaign and initiative focused on the issue. Rates for the community increased rapidly between 2009 and 2012, rising 15 percentage points in only three years.

In the countries of origin vaccination rates vary significantly by condition, nation and year. Vaccination rates for DPT among children aged 12 to 23 months have risen to over 90% in several nations, but have fallen in Papua New Guinea to below 40%⁷³. There is a similar trajectory for measles immunisation among the same age group, with rates in several countries again above 90%, fluctuating between 90% and 30% in Samoa across only a few years, and falling from above 80% to below 40% in Papua New Guinea. There are also similar trends among Hepatitis B3 immunisation among 1 year olds⁷⁴. In addition, in Papua New Guinea there was a strong drive to combat polio, with an outbreak in 2018, 18 years after the nation had been polio free.⁷⁵

MENTAL HEALTH

Research from the United States found community rarely seek mental health treatment and the need to culturally tailor anti-stigma interventions to appropriately target mental health attitudes and beliefs within the community



2019 DATA FROM NEW ZEALAND REVEALS

63.5%

of Pacific adults had consumed alcohol in the previous year, significantly lower than the total New Zealand population



81.5%

DRUG USE

Research commissioned by Australia has found cannabis to be the most common and widespread illicit drug in six Pacific Island countries. Heroin, methamphetamines and cocaine are not used commonly due to high cost compared to the average income



SMOKING

PACIFIC ISLANDS HAVE HIGH LEVELS OF SMOKING PREVALENCE

2017/18 New Zealand Health Survey shows current smokers reported compared to the total population

23%

PACIFIC ADULTS

15%

TOTAL POPULATION



2.2 Mental Wellness and Balance

2.2.1 Mental Health

Key findings

- There is no data or information on the mental health of the Pacific Islander community in the UK. Research from the United States has found the Pacific community rarely seek mental health treatment and the need to culturally tailor anti-stigma interventions to appropriately target mental health attitudes and beliefs within the community.
- While there is no data or information about smoking prevalence within the Pacific Island community in the UK, research suggests for all ethnic minority communities the different cultural approach to tobacco use and potentially a higher smoking rate in their birth country usually mirrors their UK-based community. With this in mind, data from all Pacific Island countries reveals high levels of smoking prevalence, with particularly concerning youth smoking rates.

There is no data or information on the mental health of the Pacific Islander community in the UK. Even considering wider research on the Pacific Islands reveals that while a variety of health concerns have been documented, little is presently known about the mental health challenges facing the community⁷⁶.

A published research on the community in the United States provides some useful insight; the research⁷⁷ found the Pacific community rarely seek mental health treatment and the need to culturally tailor anti-stigma interventions to appropriately target mental health attitudes and beliefs within the community. The study's data revealed that compared to the general public

in the United States, participants from the Pacific Islander community reported greater stigma toward mental illness which likely impedes help-seeking. This included less frequently perceiving disorders as serious, and more commonly desiring social distance from people with depression⁷⁸.

Similarly, another published research, specifically on the Samoan community in the United States, found a low level of mental health awareness and an urgent unmet mental health need. The study recommends integrating mental health care services with traditional Pacific Islander concepts of mental health to more effectively promote an increase in service use⁷⁹.

2.2.2 Drug Use

There is no information on the Pacific community and drug use in the UK. However, research on the Pacific diaspora from other nations provides some useful insight. A United States-based study reveals, as an aggregate group the lowest rates of alcohol, tobacco, and other drug use are often reported for Pacific Islanders, compared to other ethnic groups⁸⁰. However, the low rates are often based upon samples with small representations of the Pacific community with inclusion of only one or two Pacific Islander groups.

A published research identified that amongst Pacific Islanders living in Australia, parental disciplinary methods impacted heavily upon the likelihood of youth involvement in problematic behaviours, particularly substance use⁸¹. Kava is also another key substance which plays an important part in Pacific life, particularly in the context of ceremony and ritual; research has found social, familial, and financial burdens associated with regular and excess kava consumption⁸². It also suggests that amongst the Fijian and Tongan communities in New Zealand, a connection between the consumption of kava at “kava clubs” and a “washdown” process where alcohol is consumed to encourage intoxication⁸³. Overall the study found a

need to explore the context, patterns, and consequences of consumption. It would be valuable to study whether the UK-based community consumes kava and the patterns of consumption.

Published research on illicit drug use in six⁸⁴ Pacific Island countries commissioned by the Australian National Council on Drugs Asia Pacific Drug Issues Committee also provides useful insights. It found cannabis to be the most common and widespread illicit drug used in the six countries. Drugs such as heroin, methamphetamines and cocaine are not used commonly due to their high cost compared to the average income⁸⁵.

2.2.3 Smoking

There is no data or information about smoking prevalence within the Pacific Island community in the UK. However, ASH⁸⁶ has found when people immigrate to the UK, many come from countries with a different legal framework for tobacco control, a different cultural approach to tobacco use and potentially a higher smoking rate, all of which mirror within their UK-based diaspora.

All countries across the Pacific Islands show high levels of smoking prevalence, with youth smoking rates particularly concerning⁸⁷. Although age-standardized prevalence of current smoking varies widely, overall smoking is high among Pacific men; almost three-quarters of the male population smoke in Kiribati⁸⁸. Research⁸⁹ has found there is a wide range of prevalence among women from the Pacific Islands, with minimal smoking in Vanuatu (<5%), to the highest prevalences of current smoking in Nauru (56.1%).

Also considering smoking prevalence data on the diaspora based on the 2017/18 New Zealand Health Survey shows, 23% of Pacific adults reported being current smokers, compared to 15% of the total population. 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 weeks⁹⁰. It is therefore likely the community in the UK from the Pacific Islands have high levels of smoking prevalence.

2.2.4. Alcohol

Harmful use of alcohol is one of the main factors contributing to premature deaths and disability in the UK, and has a major impact on public health⁹¹. In addition, alcohol misuse is estimated to cost the NHS about £3.5 billion per year and society as a whole £21 billion annually.⁹²

There is no data or information on alcohol consumption levels of the Pacific community in the UK. While there is an absence of data on alcohol consumption within the Pacific UK-based community, data from the Pacific Islands and the community in New Zealand provides some useful insight. Research has found alcohol use is a leading risk factor for disease and injury in Pacific Island countries and territories⁹³.

Published research has found alcohol consumption varies widely between the various Pacific Island countries and territories. Focusing on 13 to 15 year olds, prevalence of current drinking is highest in Kiribati and Samoa, where over 43% of male students consume alcohol. Alcohol consumption among 13 to 15 year old female students also varies widely: 5.1% in Tuvalu, 11.1% in Fiji, 19.3% in Kiribati, 17.6% in Nauru and 25.4% in Samoa. Generally, a higher percentage of males than females 'recently consumed alcohol'; in Tonga, however, the point prevalence of current drinking is higher in females⁹⁴.

However, diaspora-related research provide useful insights which may be closer to the alcohol consumption patterns of the UK-based Pacific community. 2019 data from New Zealand's Ministry of Health-funded Alcohol Healthwatch reveals 63.5% of Pacific adults had consumed

alcohol in the previous year, significantly lower than the total New Zealand population (81.5%)⁹⁵. 70.9% and 57.5% of Pacific men and women consumed alcohol, respectively. Non-drinking is also more common among those who report being born overseas than in New Zealand⁹⁶. Another published research⁹⁷ on the Pacific diaspora in New Zealand has found the proportion of Pacific drinkers is lower than the proportion of drinkers in the general New Zealand population. However, Pacific drinkers consume larger annual volumes and typical occasion amounts of absolute alcohol than drinkers in the general New Zealand population⁹⁸.

The findings from New Zealand's Pacific community are in line with the findings from a Joseph Rowntree Foundation (JRF) 2010 report on Ethnicity and Alcohol which found most minority ethnic groups have higher rates of abstinence and lower levels of drinking compared to people from white backgrounds⁹⁹. It is therefore likely the alcohol consumption levels of the Pacific community in the UK are lower than those of the general White population.



DIET NEW ZEALAND HEALTH SURVEY 2006/07
FOUND APPROXIMATELY

1 in 4 Pacific children aged two to 14 years had three to four fizzy drinks in a typical week



NEW ZEALAND HEALTH SURVEY 2006/07 REPORTED
PACIFIC CHILDREN WERE

TWICE AS LIKELY

to have eaten take-away food, three or more times in the previous week, compared to children in the total population in New Zealand



OBESITY PREVALENCE

 PREVALENCE OF OBESITY IS NEARLY **2x**
in Pacific adults compared to the European population



2.3 Healthy and affordable food

Key findings

- While there is an absence of data and information on the obesity prevalence within the Pacific community in the UK, research on the diaspora from other countries has found the prevalence of obesity is nearly double in Pacific adults compared to the European population.

2.3.1 Obesity

There is no data or information on the Pacific community in the UK focusing on obesity prevalence. However, research from New Zealand's Pacific Island community provides some useful insight; research¹⁰⁰ has found 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). Overall it concludes the prevalence of obesity is nearly double in Pacific adults and three times higher in Pacific children compared to the European population¹⁰¹.

Similarly, another published paper¹⁰² from New Zealand has found approximately 95% of Pacific men and 100% Pacific women were 'overweight or obese'. Proportions of obesity were for men: all Pacific 53%, Samoan 58%, Tongan 60%, and Niuean 49%; and for women: all Pacific 74%, Samoan 75%, Tongan 78%, and Niuean 76%.

Research on perceptions on ideal body sizes within the Samoan community reports that although Samoans in both Samoa and New Zealand display high population levels of obesity, ideal body sizes are slim and weight loss

and body dissatisfaction were common in these populations¹⁰³. However, women and men above normal weight did not characteristically perceive themselves as obese, were as positive about their body size, weight and health, and obese women were no more likely to be attempting to lose weight than their slimmer peers¹⁰⁴.

2.3.2 Diet

There is no data or published research on the diet of the Pacific Islander community in the UK, though research¹⁰⁵ has found living abroad appears to have influenced dietary habits of the diaspora in other nations.

Research¹⁰⁶ from New Zealand has found healthy food choices are considered costly, compared to fast foods which are considered more affordable and convenient. Take-away “meal deals” are perceived as better value for money; the New Zealand Health Survey 2006/07 reported that Pacific children were twice as likely to have eaten take-away food three or more times in the previous week, compared to children in the total population in New Zealand¹⁰⁷.

The study¹⁰⁸ also highlights results of the National Health Survey 2006/07, which reports Pacific children were less likely to have eaten breakfast at home every day in the previous seven days compared to children in the total population. Missing breakfast may increase the probability of consuming easy-to-access take away “meal deals” later in the day, which likely contain unhealthy levels of fat, sugar and salt levels. In addition, the New Zealand Health Survey 2006/07 reported that approximately one in four Pacific children aged two to 14 years had three to four fizzy drinks in a typical week¹⁰⁹.

A research found that lifestyle of the Pacific diaspora in New Zealand, with many busy at work sometimes employed at two or more jobs, results in little time to make healthy meals¹¹⁰. Importantly, research¹¹¹ has

found consumption of large meals / portion sizes to be common within Pacific communities; a study of over 4,000 people in Auckland found that Pacific peoples consumed more food per day than any other ethnic group¹¹². US-based research¹¹³ found family upbringing within the Pacific community and social events influenced the participants’ diet; participants revealed encouragement within the family to “eat as much as possible”. It also found that as previous generations faced economic hardship, they encourage younger generations to not waste food and offer large quantities of food at gatherings.

It is worth noting, in another study¹¹⁴ 47% of people returning to live in the Pacific Islands planted non-starchy vegetables, including beans, cabbage, cucumbers and eggplants, all previously rarely cultivated and indicating a broadening of diet.



PHYSICAL ACTIVITY
RESEARCH FROM NEW ZEALAND REVEALS **52.6%** 

of Pacific adults meet the physical activity guidelines of 30 minutes of moderate intensity physical activity on five or more days of the week similar to the level for all New Zealand adults of 48.2%

2.4. Active at Every Age and Ability

Key findings

- There is no data or published research on physical activity levels of the Pacific community in the UK. Research from New Zealand reveals 52.6% of Pacific adults meet the physical activity guidelines of 30 minutes of moderate intensity physical activity on five or more days of the week, which is similar to the level for all New Zealand adults of 48.2%.

2.4.1 Physical activity

There is no data or published research on physical activity levels of the Pacific Islander community in the UK. Research from New Zealand has found the cost of structured exercise such as a gym membership or personal trainer is prohibitive for most within the community¹¹⁵. In terms of perception of physical activity and exercise¹¹⁶, a fundamental aspect emphasised by the community included sweating and physical exertion, as well as competition and winning.

Other published research¹¹⁷ highlights, when looking at physical activity levels, the Active New Zealand Survey found that 52.6% of Pacific adults meet the physical activity guidelines of 30 minutes of moderate intensity physical activity on five or more days of the week, which is similar to the level for all New Zealand adults of 48.2%¹¹⁸. The survey also found¹¹⁹ that 10.9% of Pacific adults were inactive (that is they did less than 30 minutes of moderate intensity activity over seven days), again which was similar to the total New Zealand adult population of 12.7%¹²⁰.

The Active New Zealand Survey 2007/08 found¹²¹ that 80% of Pacific adults (aged 16 and over) took part in some sport and recreation in the previous month, which is lower than the participation for all adults at 90% for all New Zealand adults. Pacific adults participated in four activities over twelve months on average compared to 4.6 for all New Zealand adults¹²². According to the Active New Zealand survey, popular sport and recreation activities among Pacific adults included swimming, dance, volleyball, rugby, running/ jogging and basketball¹²³.



FULL-TIME EMPLOYMENT



Antarctica and Oceania-born residents in the West Midlands

PROFESSIONS

The overwhelming majority of males from the nine Pacific Islands in the UK define their occupation as



TECHNICIAN AND ASSOCIATE PROFESSIONAL

EDUCATION



45%

UNIVERSITY GRADUATES

35%

COLLEGE GRADUATES

A detailed breakdown on the UK-based Pacific Islander communities' qualifications is not available. Data from a Marama Alliance UK survey provides useful insight

HOME OWNERSHIP

21%

of residents from Antarctica and Oceania own their property outright

34%

own their property with a mortgage / loan or shared ownership



2.5. Working and Learning Well

Key findings

- Demographics of respondents of a survey by a UK-based organisation on Fijian women conducted in 2021, revealed less than half of respondents were university and college graduates (45% and 35%, respectively), and 55% of the respondents self-identified as English-speaking.
- According to the 2011 Census, 50% of Antarctica and Oceania-born male residents in the West Midlands are in full-time employment, compared to 28% of females. However, a sizeable proportion of females from the region (37%) are economically inactive, compared to 20% males; 20% females are in part-time employment, compared to 8.7% males.
- According to the 2011 Census, more than half of those from Antarctica and Oceania (55%) who are resident in the West Midlands own a property, either the property is owned outright or with a mortgage/ loan or shared ownership.

2.5.1 Education

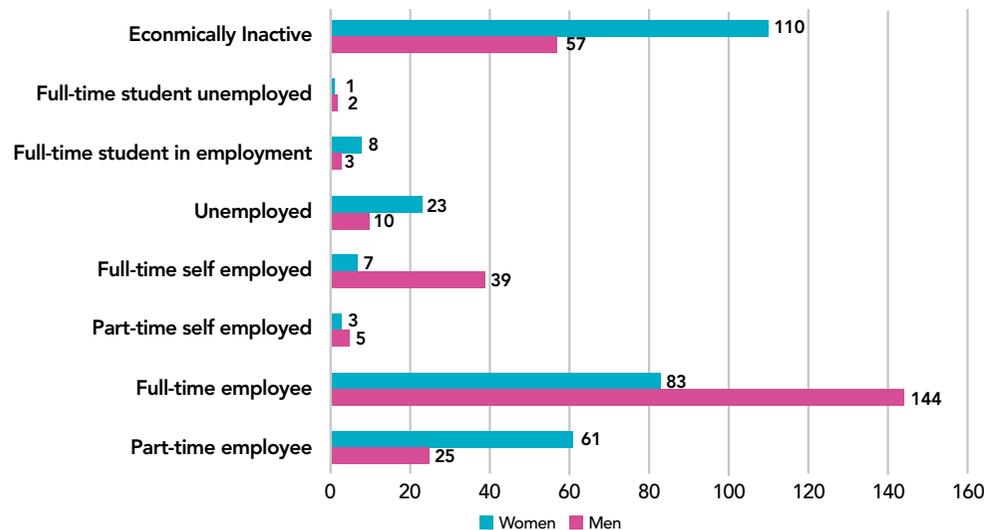
A granular breakdown specifically on the UK-based Pacific Islander communities' highest level of qualification is not available. However, the demographics of a survey¹²⁴ conducted by the Marama Alliance UK, an organisation for Fijian women, provides some useful insight. Conducted in 2021, it revealed less than half of respondents were University and college graduates (45% and 35%, respectively), and 55% of the respondents self-identified as English-speaking.

Also, according to HESA data¹²⁵ there are higher education students enrolled at HE institutes in the UK from the Pacific Islands. Specifically there are 15 from Fiji, 20 from Papua New Guinea (5 of the students are enrolled at the University of St Andrews), and 5 each from the Solomon Islands, Tonga, Tuvalu and Vanuatu¹²⁶.

2.5.2 Economic Activity

According to the 2011 Census, 50% of Antarctica and Oceania-born male residents in the West Midlands are in full-time employment, compared to 28% of females¹²⁷. However, a sizeable proportion of females from the region (37%) are economically inactive, compared to 20% males¹²⁸; 20% females are in part-time employment, compared to 8.7% males¹²⁹.

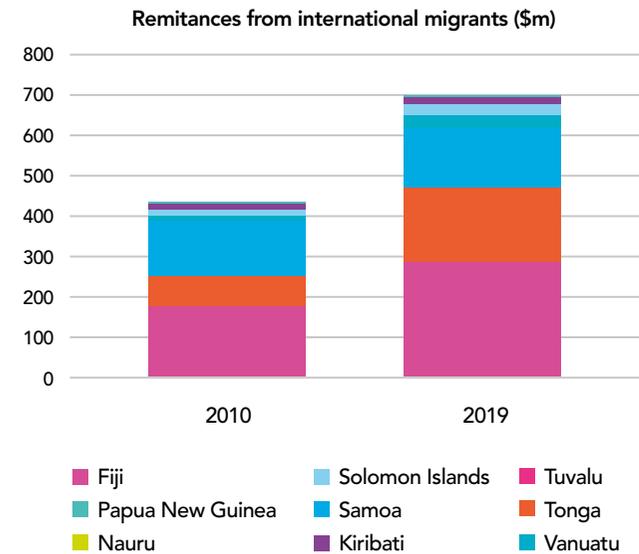
Figure 10: Percentage of Pacific Island population, age group 0 to 14



Source: 2011 Census Table CT0566

The international Pacific Islander diaspora plays an increasingly important economic role in their home countries. International remittances have increased strongly over recent years. This has been driven by factors such as existing family links and temporary work visa schemes¹³⁰. In Tonga and Samoa, four out of every five households receive remittances from abroad. For Tonga this is equal to almost 38% of GDP¹³¹. In 2019, Tonga remained the country with the highest share of remittances as a percentage of its GDP worldwide, at 38.5%. Other countries such as Fiji, Samoa, and Kiribati rely heavily on diaspora remittances. On average, remittances account for 10.5% of GDP in the twelve Pacific countries, compared to a world average of 5.2%.¹³²

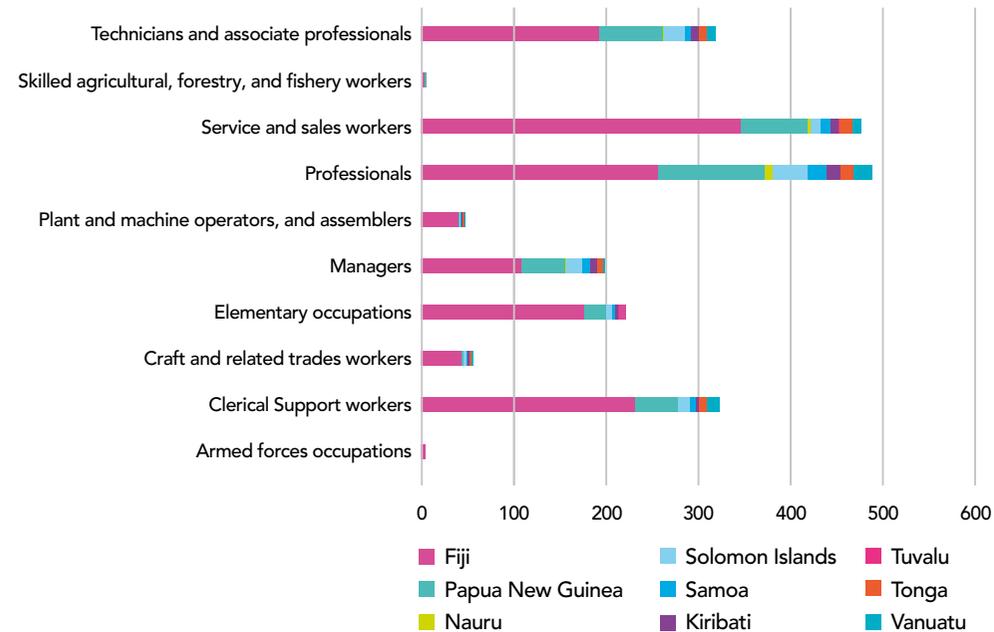
Figure 11: Remittances from international migrants to Pacific Islands, by specific country for 2010 and 2019



Source: UNESCAP¹³³

According to the 2011 Census, the overwhelming majority of males from the nine Pacific Islands in the UK define their occupation as technician and associate professional. While a sizeable proportion of females from the community are in service and sales, almost none among male Pacific Islanders are employed in this occupation. It is also worth noting, of the nine Pacific Island nations, only Fijian men are employed by the British Armed Forces.

Figure 12: Occupation of female residents from the nine Pacific Islands, across UK

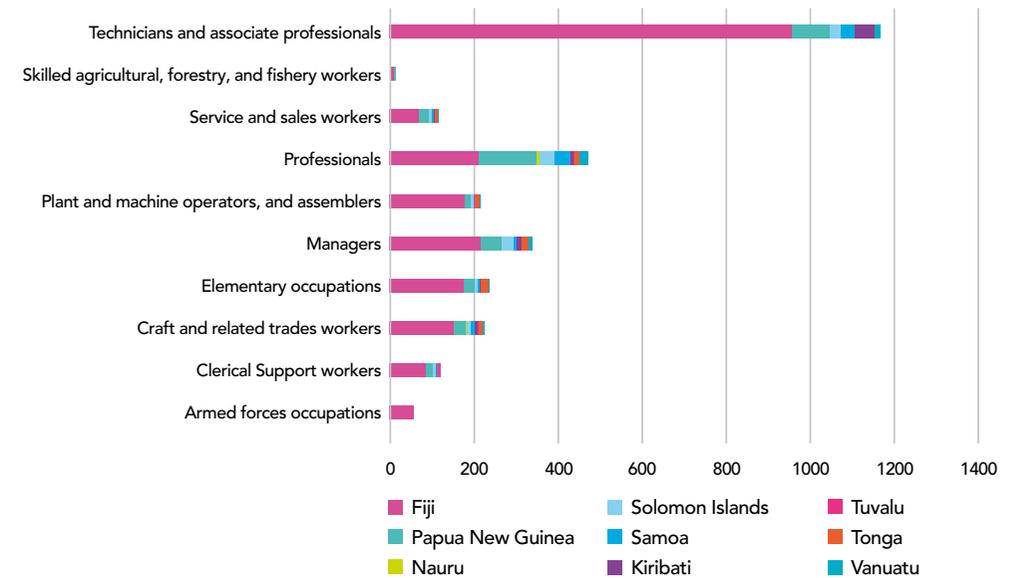


Source: 2011 Census, Table CT0255

Figure 13: Occupation of male residents from

A BOLDER HEALTHIER BIRMINGHAM

the nine Pacific Islands, across UK



Source: 2011 Census, Table CT0255

2.5.3 Housing

According to the 2011 Census¹³⁴, more than half of those from Antarctica and Oceania (55%) who are resident in the West Midlands own a property, either the property is owned outright or with a mortgage/ loan or shared ownership (21% of residents from Antarctica and Oceania own their property outright, and 34% own their property with a mortgage/ loan or shared ownership¹³⁵). This can be compared to England and Wales where 17% of residents from the region own their property outright and 27% own their property with a mortgage/ loan or shared ownership.

According to the 2011 Census, households with an Oceania passport in

England and Wales do not have challenges with overcrowding. Around 38% of households have “up to 0.5 persons per room”, 54% “over 0.5 and up to 1.0 person per room”, and only 2% have “over 1.5 persons per room”¹³⁶.

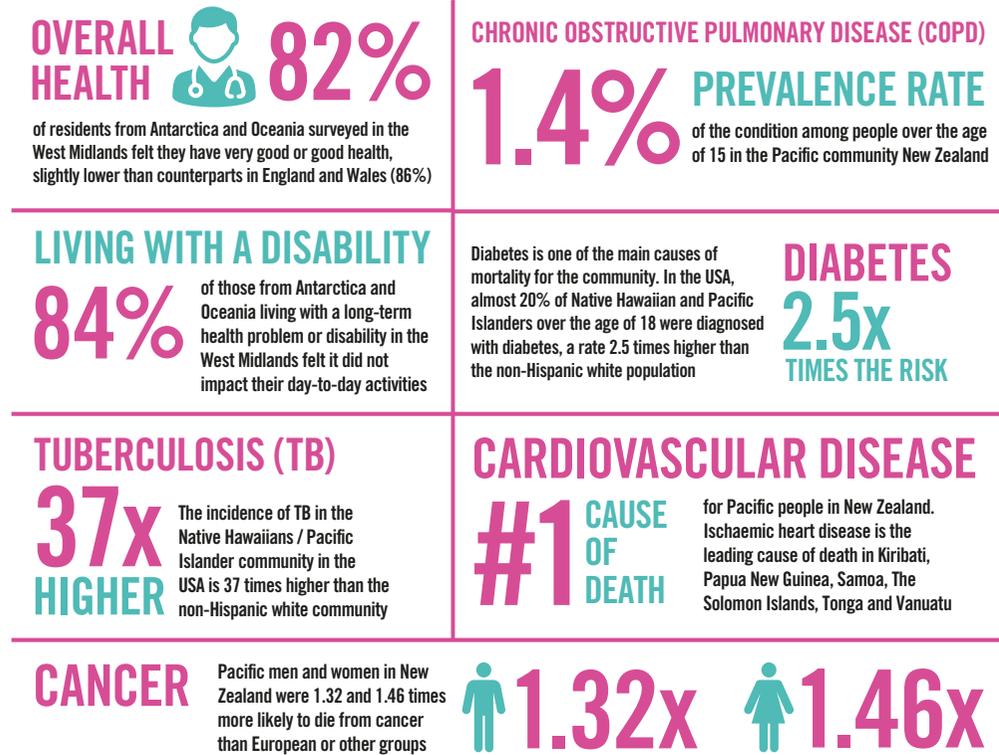
2.5.4 General health

In terms of general health, 82% of residents from Antarctica and Oceania surveyed in the West Midlands felt they have very good or good health, slightly lower than 86% in England and Wales. In the West Midlands, 7.3% felt they have bad or very bad health, more than those living across England and Wales (4.8%)¹³⁷. Of those from Antarctica and Oceania in the West Midlands, 15% of 55 to 64-year-olds felt they have bad or very bad health, similar to 14.5% among their counterparts across England and Wales in that age group.

2.5.5 Long-standing health impairment, illness or disability

According to the Long-term Health Problem or Disability survey, 84% of those from Antarctica and Oceania living with a long-term health problem or disability in the West Midlands felt it did not impact their day-to-day activities, compared to 15% who felt it did¹³⁸. In slight contrast, in England and Wales, 87% of those from the region living with a long-term health problem or disability felt it did not impact their day-to-day activities, higher than in the West Midlands; 13% felt it did impact their day-to-day activities, less than in the West Midlands. Findings in sections 2.5.4. and 2.5.5 indicate the community in the West Midlands generally express feeling more poorly than their counterparts across England and Wales. It would be valuable to conduct a qualitative study to determine the reason for this finding.





2.6. Protect and Detect

Key findings

- While there is no data on the tuberculosis rate within the UK-based Pacific community, 2019 data for the United States revealed TB was 37 times higher for Native Hawaiians/ Pacific Islanders, with an incidence rate of 17.6, as compared to 0.5 for the white population.
- There is no data for the UK-based community on diabetes; In New Zealand, the rate of diabetes among the Pacific population has remained stable at around 9-12% of the adult population. However, this is approximately double the rate of the non-Pacific population. For Pacific women, the rate is more than three times the rate of non-Pacific women.
- In New Zealand, cardiovascular disease is the leading cause of death for Pacific people. More than 7,000 Pacific people live with heart disease. 2.1% of Pacific people suffer from ischemic heart disease, a rate slightly below the non-Pacific population.

2.6.1 Tuberculosis

Tuberculosis (TB) is a bacterial disease caused by Mycobacterium tuberculosis (M.tb), which most commonly affects the lungs¹³⁹. TB can affect any part of the body, but a risk of transmission only arises where the disease is in its active form in the lungs. Migrants and ethnic minorities in the UK have higher rates of TB compared with the general population¹⁴⁰.

While there is no data on the tuberculosis rate within the UK-based Pacific community, 2019 data for the United States revealed TB was 37 times higher for Native Hawaiians/Pacific Islanders, with an incidence rate of 17.6, as compared to 0.5 for the white population¹⁴¹. The higher burden of TB observed among foreign-born individuals in the UK could be due to arrival of migrants with active TB, reactivation of remotely-acquired latent tuberculosis infection (LTBI) post-arrival to the UK, or local transmission; several studies suggest a more prominent role of the reactivation of remotely-acquired LTBI post-arrival¹⁴². While there are signs of a decreasing trend in new TB cases, the UK still has high rates compared to most other European countries¹⁴³. There is considerable variation by country of birth in the median time between a person's first entry into the UK and the time of their TB notification.

It is worth noting that the incidence of TB is growing faster in Birmingham¹⁴⁴. Cases grew by 107% between 1999 and 2009 in Birmingham compared to England as a whole, where it grew by 57% between 1987 and 2008¹⁴⁵. TB admissions in Birmingham have been concentrated in wards with a higher proportion of ethnic minority groups.

2.6.2 Diabetes

The number of adults with diabetes in the UK has risen from 2.3 million (1980) to 4.7 million¹⁴⁶ (2019), with 1 million people undiagnosed¹⁴⁷, of which type 2 diabetes contributes to 90.4% (prevalence, 4.5%)¹⁴⁸. Diabetes is a long-term condition that can cause serious secondary complications and premature death if it is not well managed. It causes a person's blood sugar level to become too high and can lead to serious secondary complications. There are two types of diabetes: type-1 diabetes when the body makes no insulin at all, and type-2 diabetes when the body does not produce enough insulin or when it does not react to the insulin. Being overweight, abdominal obesity and physical inactivity are risk factors for diabetes.

There is no data or information from published research related to diabetes within the Pacific diaspora in the UK. In the diaspora and the countries of origin, diabetes is a prevalent condition affecting the lives of a large percentage of the population.

In the USA, almost 20% of Native Hawaiian and Pacific Islanders over the age of 18 were diagnosed with diabetes, a rate 2.5 times higher than the non-Hispanic white population¹⁴⁹. These elevated rates were also reflected in the mortality figures, with a death rate of 48.1 per 100,000 again 2.5 times higher than the non-Hispanic white population¹⁵⁰. Within this there was a marked difference by gender, with a death rate of 56.5 per 100,000 for men compared to 40.1 per 100,000 for women.¹⁵¹

In New Zealand, the rate of diabetes among the Pacific population has remained stable at around 9-12% of the adult population. However, this is approximately double the rate of the non-Pacific population. For Pacific women, the rate is more than three times the rate of non-Pacific women.¹⁵²

In the countries of origin, diabetes is one of the leading causes of death, with rates rising in seven of the nine states over the last decade. In Fiji diabetes prevalence among 20 to 79 year olds has risen from 11% to 18% in only 10 years.¹⁵³ The mortality rate from diabetes is also significantly higher than many other Pacific nations.

2.6.3 Cardiovascular disease

Cardiovascular disease (CVD) is a leading cause of death nationally and in ethnic minority groups, causing 24% of all deaths in England and Wales in 2019. Cardiovascular disease (CVD) is the collective term for diseases affecting the circulatory system, i.e., heart, arteries, and blood vessels. Diabetes increases the risk of CVD almost two-fold. The main forms of CVD are heart disease and stroke. It is a significant contributor to inequalities in life expectancy and a risk factor for poor outcomes from Covid-19.

There is no data or information from published research related to CVD within the Pacific community in the UK. In the diaspora and the countries of origin, cardiovascular disease is the leading cause of death for the community. More broadly, in the Western Pacific 5.7million people die every year from CVD and 82,000 people die from rheumatic heart disease¹⁵⁴.

In New Zealand, cardiovascular disease is the leading cause of death for Pacific people.¹⁵⁵ More than 7,000 Pacific people live with heart disease¹⁵⁶. 2.1% of Pacific people suffer from ischemic heart disease, a rate slightly below the non-Pacific population¹⁵⁷. 1% of the population suffered from heart failure, approximately the same as the non-Pacific population. 11.9% of people also suffer from medicated high blood pressure, while 28.1% have raised blood pressure¹⁵⁸. Overall, almost one in three deaths among Pacific people are from CVD. This is likely to be affected by higher rates of smoking and obesity in the community.

This is a trend also seen in the countries of origin. Ischaemic heart disease is the leading cause of death in Kiribati, Papua New Guinea, Samoa, The Solomon Islands, Tonga and Vanuatu¹⁵⁹. This is also reflected in high death rates from the condition, with levels significantly above 100 per 100,000 for five of the nations.

2.6.4 Respiratory Disease

There are no research studies on the Pacific community and COPD in the UK. Chronic respiratory diseases (CRDs) are diseases of the airways and other structures of the lung. Some of the most common are COPD, asthma, occupational lung diseases and pulmonary hypertension.

The risk factors for COPD are exposure to tobacco smoke¹⁶⁰, air pollution, occupational chemicals and dust, and frequent lower respiratory infections during childhood¹⁶¹. COPD accounts for 30,000 deaths a year. Globally, over 3 million people die each year from COPD, an estimated 6% of all

deaths worldwide, 235 million people suffer from asthma, a common disease among children and 90% of COPD deaths occur in low-income and middle-income countries.

In New Zealand, COPD is one of the main conditions of concern for the Pacific community. There is a 1.4% prevalence rate of the condition among people over the age 15, significantly higher than most other ethnic groups.¹⁶² There is some indication that there may be challenges around awareness of the condition. In one study 736 people were referred for pulmonary testing. Of these, 16% tested positive for COPD, with 23% of Maori testing positive.¹⁶³ Pacific Islanders are more than three times as likely to be admitted to hospital for COPD than European or Other ethnic groups.

In the countries of origin, COPD is one of the main causes of death. There is variation in the mortality rate, with the rate for Papua New Guinea significantly higher than for the other nations.

2.6.5 Cancer

The incidence of cancer overall is generally lower among ethnic minority groups in England than in white groups. There is no data or information from published research related to cancer within the Pacific community in the UK. In the diaspora and countries of origin there is a mixed picture.

In the USA, cancer rates in the Native Hawaiian and Pacific Islander community aged over 18 were 5.7%, significantly below the rate for the non-Hispanic white population at 9.2%.¹⁶⁴

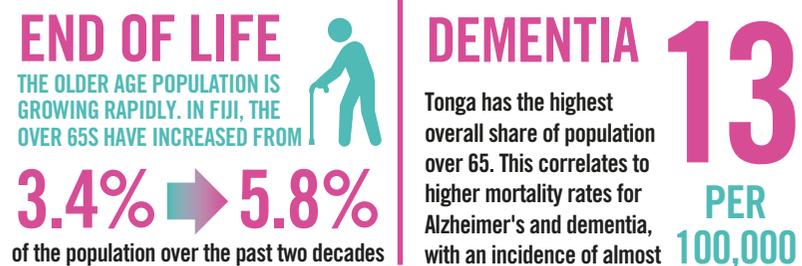
In New Zealand similarly, there is a lower incidence of breast cancer among women than European ethnic groups. However there is a higher mortality rate and a lower five year survival rate¹⁶⁵. A separate study found that Pacific men and women were 1.32 and 1.46 times more likely to die from cancer than European or other groups¹⁶⁶. The main contributors to this inequality in

death rates were lung cancer for men, breast cancer for women and stomach cancers for both. In New Zealand this is consistent with other studies conducted over recent years.

Two of the key factors impacting mortality rates in New Zealand are believed to be access to the healthcare system and the quality of care for the Pacific community.¹⁶⁷ In recent years screening levels in the community have generally been in line with the wider population. However Pacific women are less likely to have their cancer identified through screening, with diagnosis tending to come at a more advanced stage.

In most of the countries of origin breast cancer is the largest cause of death of the different cancer types. The mortality rates for the condition vary significantly, with rates in Fiji more than double the incidence in Papua New Guinea, Solomon Islands and Vanuatu.





2.7 Ageing and Dying Well

2.7.1 Dementia & End of Life

Dementia and Alzheimer's disease are leading causes of death in the general population and featured in the five most common causes for most ethnic groups and both sexes since 2012 to 2014. This cause represents 12.9% (200,111 deaths from 2017 to 2019) of death registrations in the latest period.

There is no data or information from published research related to dementia and end of life within the Pacific community in the UK, and limited data in the diaspora. In New Zealand one study found that Pacific peoples are diagnosed with dementia at an earlier age and at a more advanced stage than patients of European origin. However more research is required to infer whether dementia onsets earlier in the community.¹⁶⁸

In the countries of origin, the older age population is growing rapidly. In Fiji, the over 65s have increased from 3.4% of the population to 5.8% over the past two decades. This will increase the incidence of age-related conditions and associated mortality¹⁶⁹.

Tonga has the highest overall share of population over 65. This correlates to the higher mortality rates for Alzheimer's and dementia, with an incidence of almost 13 per 100,000.¹⁷⁰

A BOLDER HEALTHIER BIRMINGHAM

In New Zealand it also appears that Pacific Islanders use available hospice and palliative care less than people of European ethnicity. In a study from 2020, it was found attitudes towards hospices tend to be negative, in part due to the strong focus placed on family within the community and its role in caring for the sick and elderly. However, attitudes are gradually changing over time.¹⁷¹

A literature review¹⁷² on palliative care services found that low uptake of palliative and end of life care services was commonly reported among minority ethnic groups. The review argues this to be due to a lack of referrals, the lack of knowledge about services, religious traditions and family values in conflict with the idea of palliative/ hospice care. It also found other factors to be structural barriers such as the geographical location of inpatient hospices, social segregation and previous negative experiences of care¹⁷³.

2.7.3 Cerebrovascular Diseases

There is no data or information from published research related to Cerebrovascular Disease within the Pacific community in the UK, and limited data in the diaspora.

From 2017 to 2019¹⁷⁴, cerebrovascular diseases, which are conditions that affect the blood supply to the brain such as stroke, appeared in the five most common leading causes for all ethnic groups and for all sexes except the White male group. Cerebrovascular diseases represent 5.8% of deaths registered from 2017 to 2019 (90,106 deaths)¹⁷⁵.

2.7.4 End of Life

A literature review¹⁷⁶ on palliative care services found that low uptake of palliative and end of life care services was commonly reported among minority ethnic groups. The review argues this to be due to a lack of referrals, the lack of knowledge about services, religious traditions and family values in conflict with the idea of palliative/ hospice care. It also found other factors to be structural barriers such as the geographical location of inpatient hospices, social segregation and previous negative experiences of care¹⁷⁷.

2.8 Closing the gaps

2.8.1. Deprivation

While there is data on deprivation levels within the Pacific Island communities in other countries, this information is not available for the UK-based diaspora. Using data on employment and housing as proxies to assess deprivation levels, the fact that 50% of Antarctica and Oceania-born male residents in the West Midlands are in full-time employment, and more than half of those from the region (55%) resident in the West Midlands own a property, indicate the community most likely does not face high levels of deprivation in the UK.

2.8.2 Life Expectancy

While there is data on the life expectancy of those within the Pacific Island communities in other countries, this information is not available for the UK-based diaspora.

Global data from the United Nations Population Division¹⁷⁸ identifies that for small Pacific states, life expectancy was 72.22 years for females and 68.37 years for males as of 2020.

2.9 Contributing to a Green and Sustainable Future

The Environmental Justice map¹⁷⁹ combines 5 indicators, namely, the index of Years of Life Lost (YLL), Urban Heat Island effect (UHI), the Indices of Multiple Deprivation (IMD), Public green spaces access and Flood Risk. The indicators are combined and scaled in a range of 0-1, with 0 being the most preferred and 1 being the least.

Of the 97 Oceania-born residents in Birmingham, we saw the highest amounts of those who were Oceanic/Australian language speakers in Washwood Health and Stockland Green but also in wards such as Aston; Bordesley Green; Edgbaston; Hodge Hill; Perry Barr; Sparkbrook and Springfield.

2.10 Mitigating the legacy of COVID-19

Communities from Black, Asian multi-ethnic backgrounds were more likely to contract and die from COVID-19, obesity and concurrent disease was also identified as a risk factor for harm from Covid. The potential impacts of COVID-19 on the Pacific Island community is currently not clear as data is unavailable. The impacts on Birmingham communities overall is substantial and the wards in which Oceanic/Australian language speakers were identified were among some of the wards disproportionately impacted by Covid-19.

3.0 Conclusion

This report has highlighted that the data and evidence concerning the Pacific Island community and the inequalities they experience are very limited in a UK context, however the international research and proxy data presented highlights some areas of potential inequality. The intention of the document is to support the council, communities, and partners to better understand the inequalities affecting the Pacific Island community. The factors that have been identified by the report can be used to inform the work to address inequalities across the city.



4.0 Appendix

Appendix 1: Search strategy

Getting the best start in life	Mental wellness and balance	Healthy and affordable food	Active at every age and ability	Working and learning well
<p>General: "Pacific Islands" OR "Papua New" OR "Guinea" OR "Samoa" OR "Nauru" OR "Tonga" OR "Solomon Islands" OR "Tuvalu" OR "Kiribati" OR "Vanuatu" OR "Fiji" and "children" or "young people" or "youth" or "child" or "babies" or "childhood"</p> <p>Specific: "Pacific Islands" OR "Papua New" OR "Guinea" OR "Samoa" OR "Nauru" OR "Tonga" OR "Solomon Islands" OR "Tuvalu" OR "Kiribati" OR "Vanuatu" OR "Fiji" and "vaccination" or "measles" or "obesity" or "health check" or "maternity care" or "breast feeding" or home visits" or "rituals" or "vaccine" or pertussis vaccine" or "belonging" or "bullying" or "fostering" or "care"</p>	<p>General: "Pacific Islands" OR "Papua New" OR "Guinea" OR "Samoa" OR "Nauru" OR "Tonga" OR "Solomon Islands" OR "Tuvalu" OR "Kiribati" OR "Vanuatu" OR "Fiji" and "mental health" or "mental" or "health" or "wellbeing" or wellness" or "access" or "balance"</p> <p>Specific: "Pacific Islands" OR "Papua New" OR "Guinea" OR "Samoa" OR "Nauru" OR "Tonga" OR "Solomon Islands" OR "Tuvalu" OR "Kiribati" OR "Vanuatu" OR "Fiji" and "mental illness" or "depression" or "suicide" or "shame" or "stigma" or "stress" or "racial harassment" or "honour" or "disability" or "alcohol" or "drinking" or "abstention" or "drinking frequency" or "drinking intensity" or "alcohol problem" or "alcohol support" or "alcohol consumption" or "substance abuse" or "addiction" or "tobacco" or "cannabis" or "recreational drugs" or "drugs" or "smoking" or drug use"</p>	<p>General: "Pacific Islands" OR "Papua New" OR "Guinea" OR "Samoa" OR "Nauru" OR "Tonga" OR "Solomon Islands" OR "Tuvalu" OR "Kiribati" OR "Vanuatu" OR "Fiji" and "food" or "diet" or "obesity" or "meat" or "vegetarian"</p> <p>Specific: "Pacific Islands" OR "Papua New" OR "Guinea" OR "Samoa" OR "Nauru" OR "Tonga" OR "Solomon Islands" OR "Tuvalu" OR "Kiribati" OR "Vanuatu" OR "Fiji" and "common food" or "festival food" or "dietary laws" or "food practices" or "traditional food" or "obesity" or "physical activity" or "overweight" or "BMI" or "weight" "Waist Height Ratio"</p>	<p>General: "Pacific Islands" OR "Papua New" OR "Guinea" OR "Samoa" OR "Nauru" OR "Tonga" OR "Solomon Islands" OR "Tuvalu" OR "Kiribati" OR "Vanuatu" OR "Fiji" and "physical activity" or "activity" or "exercise"</p> <p>Specific: "Pacific Islands" OR "Papua New" OR "Guinea" OR "Samoa" OR "Nauru" OR "Tonga" OR "Solomon Islands" OR "Tuvalu" OR "Kiribati" OR "Vanuatu" OR "Fiji" and "vigorous exercise" or "moderate exercise" or "walking" or "running" or "sports" or "cardiovascular" or "elderly exercise" or "health promotion"</p>	<p>General: "Pacific Islands" OR "Papua New" OR "Guinea" OR "Samoa" OR "Nauru" OR "Tonga" OR "Solomon Islands" OR "Tuvalu" OR "Kiribati" OR "Vanuatu" OR "Fiji" and "working" or "education" or "housing" or "living" or "economic activity" or "general health" or "health" or "illness" or "disability" or "long term disability" or "long standing health"</p> <p>Specific: "Pacific Islands" OR "Papua New" OR "Guinea" OR "Samoa" OR "Nauru" OR "Tonga" OR "Solomon Islands" OR "Tuvalu" OR "Kiribati" OR "Vanuatu" OR "Fiji" and "apprenticeships" or "Level 1,2,3,4 qualifications" or "degree" or "NEET" or "secondary school" or "primary school" or "full time education" or "profession" or "career choice" or "household income" or "home ownership" or "Bad health" or "learning disability" or "hearing impairment" or "communication impairment"</p>

Appendix 2: Raw Data Table for Figure 1 Migration patterns of those from Antarctica and Oceania (excluding Australia and New Zealand) to England and Wales

Date	Total
Arrived 2010-2011	485
Arrived 2007-2009	1306
Arrived 2004-2006	940
Arrived 2001-2003	1474
Arrived 1991-2000	1337
Arrived 1981-1990	871
Arrived before 1981	2305

Appendix 3: Raw Data Table for Figure 2: Migration from the nine Pacific Island nations to UK, from 1990 to 2020

Country	Year: 1990	Year: 1995	Year: 2000	Year: 2005	Year: 2010	Year: 2015	Year: 2020
Fiji	483	1900	3349	4488	4737	5669	6397
Kiribati	24	95	168	159	167	199	222
Papua New Guinea	147	580	1023	1003	1058	1266	1428
Nauru	0	2	6	16	16	18	18
Samoa	38	149	264	226	238	284	319
Solomon Islands	42	170	302	301	317	379	425
Tonga	19	77	137	194	204	243	273
Tuvalu	N/A						
Vanuatu	16	67	121	130	136	161	181

Appendix 4: Raw Data Table for Figure 3: Migration from the nine Pacific Island nations to UK, from 1990 to 2020

Country	Year: 1990	Year: 1995	Year: 2000	Year: 2005	Year: 2010	Year: 2015	Year: 2020
Fiji	483	1900	3349	4488	4737	5669	6397
Kiribati	24	95	168	159	167	199	222
Papua New Guinea	147	580	1023	1003	1058	1266	1428
Nauru	0	2	6	16	16	18	18
Samoa	38	149	264	226	238	284	319
Solomon Islands	42	170	302	301	317	379	425
Tonga	19	77	137	194	204	243	273
Tuvalu	N/A						
Vanuatu	16	67	121	130	136	161	181

Appendix 5: Raw Data Table for Figure 4: International emigration from Pacific Islands (aggregated)

Country	Year: 1990	Year: 2000	Year: 2010	Year: 2019
Nauru	1419	1600	2146	2421
Solomon Islands	2212	2728	3348	4234
Tuvalu	2350	2611	3011	3276
Papua New Guinea	3111	4556	4238	4753
Kiribati	4053	3991	3556	4370
Vanuatu	5060	6423	7846	7346
Tonga	32,666	46,714	52,049	63,652
Samoa	74,861	94,541	104,817	124,266
Fiji	90166	131,917	182,913	222,728

Appendix 6: Raw Data Table for Figure 5: UK regions with the greatest number of residents with Oceania as country of birth

Region	Total
East Midlands	565
Yorkshire and the Humber	623
East Midlands	721
West Midlands	728
South West	1270
South East	1826
London	2108

Appendix 7: Raw Data Table for Figure 6: Age profile of Antarctica and Oceania-born residents in England and Wales

Age	Male: England and Wales: Rest of Antarctica and Oceania	Females: England and Wales: Rest of Antarctica and Oceania	Males: England and Wales: United Kingdom	Females: England and Wales: United Kingdom
0 to 4	1%	1%	7.25%	6.73%
5 to 9	2%	2%	6.49%	6.03%
10 to 15	4%	4%	8%	7.44%
16 to 19	2%	2%	5.69%	5.32%
20 to 24	4%	5%	5.32%	6%
25 to 29	16%	14%	6.1%	5.80%
30 to 34	20%	16%	6%	6%
35 to 39	13%	13%	14%	8%
40 to 44	9%	12%	11%	9%
45 to 49	5%	7%	8%	10%
50 to 54	9%	12%	6.26%	11%
55 to 59	4%	8%	6.18%	5.55%
60 to 64	2%	4%	5.14%	6.08%
65 to 69	5%	3%	3.92%	5.16%
70 to 74	5%	2%	2.98%	4.18%
75 to 79	2%	1%	3.48%	3.50%
80 or over	1%	1%	3.48%	5.92%

Appendix 8: Raw Data Table for Figure 7: Migration patterns of residents from Antarctica and Oceania (excluding Australia and New Zealand) to the West Midlands, by gender

Date	Total: Male	Total: Female
Arrived 2010-2011	12	10
Arrived 2007-2009	18	31
Arrived 2004-2006	26	37
Arrived 2001-2003	73	70
Arrived 1991-2000	98	55
Arrived 1981-1990	15	29
Arrived before 1981	124	137

Appendix 9: Raw Data Table for Figure 8: Age profile of Antarctica and Oceania-born residents in West Midlands

Age	Male: England and Wales: Rest of Antarctica and Oceania	Females: England and Wales: Rest of Antarctica and Oceania	Males: England and Wales: United Kingdom	Females: England and Wales: United Kingdom
0 to 4	1%	1%	7.25%	6.73%
5 to 9	2%	0%	6.49%	6.03%
10 to 15	4%	4%	8%	7.44%
16 to 19	2%	5%	5.69%	5.32%
20 to 24	4%	3%	5.32%	6%
25 to 29	16%	7%	6.1%	5.80%
30 to 34	20%	18%	6%	6%
35 to 39	13%	13%	14%	8%
40 to 44	9%	10%	11%	9%
45 to 49	5%	5%	8%	10%
50 to 54	9%	6%	6.26%	11%
55 to 59	4%	5%	6.18%	5.55%
60 to 64	2%	5%	5.14%	6.08%
65 to 69	5%	2%	3.92%	5.16%
70 to 74	5%	8%	2.98%	4.18%
75 to 79	2%	2%	3.48%	3.50%
80 or over	1%	1%	3.48%	5.92%

Appendix 10: Raw Data Table for Figure 9: Percentage of Pacific Island population, age group 0 to 14

Country	Year: 2000	Year: 2001	Year: 2002	Year: 2003	Year: 2004	Year: 2005	Year: 2006	Year: 2007	Year: 2008	Year: 2009	Year: 2010
Fiji	35.032	33.977	33.059	32.21	31.367	30.534	30.361	30.081	29.271	29.342	29
Kiribati	39.976	39.603	33.887	38.019	37.305	36.921	36.199	36.109	36.31	36.362	36.101
Papua New Guinea	39.761	39.684	39.568	39.431	39.297	39.179	39.03	38.891	38.745	38.544	38.302
Nauru	N/A										
Samoa	40.755	40.381	40.147	39.984	39.815	39.605	39.31	39.01	38.69	38.44	38.309
Solomon Islands	41.921	41.781	41.679	41.585	41.4721	41.315	41.186	41.032	40.885	40.787	40.752
Tonga	38.484	38.042	37.945	38.066	38.19	38.206	38.172	38.037	37.827	37.613	37.408
Tuvalu	N/A										
Vanuatu	41.5	41.14	40.742	40.345	39.987	39.676	39.064	38.692	38.504	38.369	38.215

Appendix 11: Raw Data Table for Figure 9: Percentage of Pacific Island population, age group 0 to 14 continued

Country	Year: 2011	Year: 2012	Year: 2013	Year: 2014	Year: 2015	Year: 2016	Year: 2017	Year: 2018	Year: 2019	Year: 2020	Year: 2010
Fiji	29.04	29.131	29.306	29.559	29.848	29.745	29.651	29.513	29.294	29.011	29
Kiribati	36.203	35.895	35.397	35.049	35.006	34.912	35.146	35.54	35.838	35.917	36.101
Papua New Guinea	38.085	37.804	37.478	37.136	36.797	36.464	36.138	35.816	35.486	35.146	38.302
Nauru	N/A										
Samoa	38.309	38.15	38.097	38.204	38.47	38.825	38.654	38.321	37.864	37.198	38.309
Solomon Islands	40.635	40.572	40.541	40.5	40.43	40.427	40.354	40.242	40.131	40.03	40.752
Tonga	37.191	37.029	36.85	35.635	36.407	36.131	35.783	35.416	35.073	34.765	37.408
Tuvalu	N/A										
Vanuatu	38.429	38.449	38.492	38.711	39.072	38.896	38.862	38.848	38.711	38.41	38.215

Appendix 12: Raw Data Table for Figure 10: Economic activity of Antarctica and Oceania-born residents in the West Midlands, by gender

Economic Activity Type	Gender: Male	Gender: Female
Economically inactive	57	110
Full-time student unemployed	2	1
Full-time student in employment	3	8
Unemployed	10	23
Full-time self-employed	39	7
Part- self-employed	5	3
Full-time employee	144	83
Part-time employee	25	61

Appendix 13: Raw Data Table for Figure 11: Remittances from international migrants to Pacific Islands, by specific country for 2010 and 2019

Country	Year: 2010	Year: 2019
Papua New Guinea	4	3
Kiribati	16	20
Solomon Islands	14	25
Vanuatu	12	35
Samoa	139	147
Tonga	74	183
Fiji	176	287

Appendix 14: Raw Data Table for Figure 12: Occupation of female residents from the nine Pacific Islands, across UK

Country	Occupation: Armed Forces	Clerical Support Workers	Craft and related trades workers	Elementary occupations	Mangers	Plant and machine operators and assemblers	Professionals
Fiji	Total: 4	Total: 232	Total: 43	Total: 177	Total:108	Total: 40	Total: 257
Papua New Guinea	Total: 0	Total: 47	Total: 2	Total: 23	Total: 48	Total: 1	Total: 116
Nauru	Total: 0	Total: 0	Total: 0	Total: 0	Total: 1	Total: 0	Total: 9
Solomon Islands	Total: 0	Total: 12	Total: 2	Total: 7	Total: 18	Total: 1	Total: 37
Samoa	Total: 0	Total: 7	Total: 3	Total: 3	Total: 8	Total: 1	Total: 21
Kiribati	Total: 0	Total: 3	Total: 2	Total: 3	Total: 8	Total: 1	Total: 16
Tuvalu	Total: 0	Total: 0	Total: 0	Total: 1	Total: 0	Total: 0	Total: 6
Tonga	Total: 0	Total: 9	Total: 2	Total: 1	Total: 6	Total: 2	Total: 12
Vanuatu	Total: 0	Total: 13	Total: 2	Total: 7	Total: 2	Total: 1	Total: 20

Appendix 15: Raw Data Table for Figure 12: Occupation of female residents from the nine Pacific Islands, across UK, continued

Country	Service and sales workers	Skilled Agricultural, forestry and fishery workers	Technicians and associate professionals
Fiji	Total: 347	Total: 3	Total: 193
Papua New Guinea	Total:	Total:	Total:
Nauru	Total: 3	Total: 0	Total: 1
Solomon Islands	Total:12	Total: 0	Total: 23
Samoa	Total:10	Total: 0	Total: 7
Kiribati	Total: 9	Total: 0	Total: 8
Tuvalu	Total: 1	Total: 0	Total: 0
Tonga	Total: 14	Total: 0	Total: 9
Vanuatu	Total: 9	Total: 0	Total: 9

Appendix 16: Raw Data Table for Figure 13: Occupation of male residents from the nine Pacific Islands, across UK

Country	Occupation: Armed Forces	Clerical Support Workers	Craft and related trades workers	Elementary occupations	Mangers	Professionals
Fiji	Total: 59	Total: 86	Total: 154	Total: 178	Total:218	Total: 214
Papua New Guinea	Total: 0	Total: 19	Total: 29	Total: 27	Total: 50	Total: 138
Nauru	Total: 0	Total: 0	Total: 2	Total: 0	Total: 1	Total: 5
Solomon Islands	Total: 0	Total: 6	Total: 9	Total: 5	Total: 27	Total: 38
Samoa	Total: 0	Total: 2	Total: 10	Total: 7	Total: 8	Total:36
Kiribati	Total: 0	Total: 2	Total: 7	Total: 1	Total: 11	Total: 9
Tuvalu	Total: 0	Total: 0	Total: 2	Total: 0	Total: 0	Total: 1
Tonga	Total: 0	Total: 1	Total: 11	Total: 18	Total: 18	Total: 12
Vanuatu	Total: 0	Total: 5	Total: 3	Total: 2	Total: 8	Total: 20

Appendix 17: Raw Data Table for Figure 13: Occupation of male residents from the nine Pacific Islands, across UK, continued

Country	Service and sales workers	Skilled Agricultural, forestry and fishery workers	Technicians and associate professionals
Fiji	Total: 72	Total: 7	Total: 966
Papua New Guinea	Total: 24	Total: 6	Total: 91
Nauru	Total: 0	Total: 0	Total: 0
Solomon Islands	Total: 5	Total: 0	Total: 26
Samoa	Total: 6	Total: 0	Total: 32
Kiribati	Total: 3	Total: 0	Total: 13
Tuvalu	Total: 0	Total: 0	Total: 0
Tonga	Total: 5	Total: 0	Total: 35
Vanuatu	Total: 2	Total: 0	Total: 14

5.0 Acknowledgements

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6.0 References

- 1 The World Bank, The world Bank in Pacific Islands, [internet] [cited 25 April 2022] Accessed here: <https://www.worldbank.org/en/country/pacificislands/overview#1>
- 2 The World Bank, The world Bank in Pacific Islands, [internet] [cited 25 April 2022] Accessed here: <https://www.worldbank.org/en/country/pacificislands/overview#1>
- 3 Wikimedia Commons, Flag of Fiji, [internet] [cited 25 April 2022] Accessed here: https://commons.wikimedia.org/wiki/File:Flag_of_Fiji.svg
- 4 Wikimedia Commons, Flag of Kiribati, [internet] [cited 25 April 2022] Accessed here: https://commons.wikimedia.org/wiki/File:Flag_of_Kiribati.svg
- 5 Wikimedia Commons, Flag of Papua New Guinea, [internet] [cited 25 April 2022] Accessed here: https://commons.wikimedia.org/wiki/File:Flag_of_Papua_New_Guinea.svg
- 6 Wikimedia Commons, Flag of Nauru, [internet] [cited 25 April 2022] Accessed here: https://commons.wikimedia.org/wiki/File:Flag_of_Nauru.svg
- 7 Wikimedia Commons, Flag of Samoa, [internet] [cited 25 April 2022] Accessed here: https://commons.wikimedia.org/wiki/File:Flag_of_Samoa.svg
- 8 Wikimedia Commons, Flag of Solomon Islands [internet] [cited 25 April 2022] Accessed here: https://commons.wikimedia.org/wiki/File:Solomon_islands_flag.png
- 9 Wikimedia Commons, Flag of Tonga, [internet] [cited 25 April 2022] Accessed here: https://commons.wikimedia.org/wiki/File:Flag_of_Tonga.svg
- 10 Wikimedia Commons, Flag of Tuvalu, [internet] [cited 25 April 2022] Accessed here: https://en.wikipedia.org/wiki/Flag_of_Tuvalu
- 11 Wikimedia Commons, Flag of Vanuatu, [internet] [cited 25 April 2022] Accessed here: https://commons.wikimedia.org/wiki/File:Flag_of_Vanuatu.svg
- 12 ONS 2011 Census Table number QS213EW, [internet] [cited 25 April 2022] Accessed here: <https://webarchive.nationalarchives.gov.uk/ukgwa/20160105160709/http://www.ons.gov.uk/ons/rel/census/2011-census/quick-statistics-for-england-and-wales-on-national-identity--passports-held-and-country-of-birth/rft-qs213ew.xls>
- 13 Oceania is a region in the Pacific Ocean and consists of 4 subregions: Australia and New Zealand, Polynesia, Melanesia, and Micronesia. Most of the countries of Oceania consist of many tiny islands and nearly three quarters of Oceania's people live in Australia and New Zealand.
- 14 Proportion based on total population of residents from the nine focus Pacific Island countries studied in this health profile. Numbers are unknown for residents from Nauru and Tuvalu as these are recorded in the aggregate 'rest of the world' category.
- 15 Lal B V, Fiji Islands: From Immigration to Emigration, Migration Policy Institute, 2003, [internet] [cited 23 March 2022] Available at: <https://www.migrationpolicy.org/article/fiji-islands-immigration-emigration>
- 16 United Nations Department of Economic and Social Affairs: International Migrant Stock 2020 – Destination and origin, [internet] [cited 23 March 2022] Available at: https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwjU-tOOkd_r3AhWknVwKHW0pDhkQFnoECAwQAQ&url=https%3A%2F%2Fwww.un.org%2Fdevelopment%2Fdesa%2Fpd%2Fsites%2Fwww.un.org.development.desa.pd%2Ffiles%2Fundesa_pd_2020_international_migrant_stock_documentation.pdf&usg=AOvVaw0cz3Kz6ZWHAV9BocKzSP0U

- 17 United Nations Department of Economic and Social Affairs: International Migrant Stock 2020 – Destination and origin, [internet] [cited 23 March 2022] Available at: https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwjU-tOOkd r3AhWknVwKHW0pDhkQFnoECAwQAQ&url=https%3A%2F%2Fwww.un.org%2Fdevelopment%2Fdesa%2Fpd%2Fsites%2Fwww.un.org.development.desa.pd%2Ffiles%2Fundesa_pd_2020_international_migrant_stock_documentation.pdf&usg=AOvVaw0cz3Kz6ZWHAV9BocKzSP0U
- 18 Smith N and Muysken P, The study of oidgin and creole languages (2008) In Arends, Jacques; Muijsken, Pieter; Smith, Norval (eds.). Pidgins and Creoles: An Introduction. John Benjamins. pp. 3–14.
- 19 Britannica, The Editors of Encyclopaedia. “Melanesian pidgins”. Encyclopedia Britannica, 29 Apr. 2011, [Internet] [cited 23 March 2022] Accessed here: <https://www.britannica.com/topic/Melanesian-pidgins>
- 20 Porteret A, Diaspora Engagement Mapping: Fiji, International Centre for Migration Policy Development, May 2020, [Internet] [cited 23 March 2022] Accessed here: https://diasporafordevelopment.eu/wp-content/uploads/2021/10/CF_Fiji-v.5.pdf
- 21 United Nations, Economic and Social Commission for Asia and the Pacific (ESCAP) (2020). Asia-Pacific Migration Report 2020: Assessing Implementation of the Global Compact for Migration (ST/ESCAP/2801). [Internet] [Cited 23 March 2022] Accessed here: https://www.unescap.org/sites/default/files/APMR2020_FullReport.pdf
- 22 U.S. Department of Health and Human Services Office of Minority Health (OMH), Profile: Native Hawaiians/ Pacific Islanders, [Internet] [cited 23 March 2022] Accessed here: <https://minorityhealth.hhs.gov/omh/browse.aspx?lvl=3&lvlid=65#1>
- 23 Stats NZ Tatauranga Aotearoa – New Zealand’s official data agency, Pacific Peoples ethnic group, [Internet] [cited 23 March 2022] Accessed here: <https://www.stats.govt.nz/tools/2018-census-ethnic-group-summaries/pacific-peoples>
- 24 Australian Bureau of Statistics, The three largest ancestries in Australia in 2016 were English, Australian and Irish, [Internet] [Cited 23 March 2022] Accessed here: <https://profile.id.com.au/australia/ancestry>
- 25 Statistics Canada. Focus on Geography Series: 2016 Census. Statistics Canada Catalogue no. 98-404-X2016001. Ottawa, Ontario. Data products, 2016 Census. [Internet] [Cited 23 March 2022] Accessed here: <https://www12.statcan.gc.ca/census-recensement/2016/as-sa/fogs-spg/Facts-can-eng.cfm?Lang=Eng&GK=CAN&GC=01&TOPIC=7>
- 26 United Nations, Economic and Social Commission for Asia and the Pacific (ESCAP) (2020). Asia-Pacific Migration Report 2020: Assessing Implementation of the Global Compact for Migration (ST/ESCAP/2801). [Internet] [Cited 23 March 2022] Accessed here: https://www.unescap.org/sites/default/files/APMR2020_FullReport.pdf
- 27 United Nations, Economic and Social Commission for Asia and the Pacific (ESCAP) (2020). Asia-Pacific Migration Report 2020: Assessing Implementation of the Global Compact for Migration (ST/ESCAP/2801). [Internet] [Cited 23 March 2022] Accessed here: https://www.unescap.org/sites/default/files/APMR2020_FullReport.pdf
- 28 Oceania is a region in the Pacific Ocean and consists of 4 subregions: Australia and New Zealand, Polynesia, Melanesia, and Micronesia. Most of the countries of Oceania consist of many tiny islands and nearly three quarters of Oceania’s people live in Australia and New Zealand.

- 29 ONS 2011 Census Table number QS213EW, [internet] [cited 25 April 2022] Accessed here: <https://webarchive.nationalarchives.gov.uk/ukgwa/20160105160709/http://www.ons.gov.uk/ons/rel/census/2011-census/quick-statistics-for-england-and-wales-on-national-identity--passports-held-and-country-of-birth/rft-qs213ew.xls>
- 30 BBC Born Abroad series: Kenya, [internet] [cited 25 April 2022] Accessed here: http://news.bbc.co.uk/1/shared/spl/hi/uk/05/born_abroad/countries/html/kenya.stm
- 31 Chanel S and Dohery B, 'Where is the fairness?' Fiji's British Army veterans fight for a life in UK, *The Guardian*, December 2020 [internet] [cited 25 April 2022] Available here: <https://www.theguardian.com/world/2020/dec/05/where-is-the-fairness-fijis-british-army-veterans-fight-for-a-life-in-uk>
- 32 Office for National Statistics, 2011 Census, CT0263 - Country of birth by year of arrival by ethnic group
- 33 Office for National Statistics, 2011 Census, CT0263 - Country of birth by year of arrival by ethnic group
- 34 Based on data on UK residents from Fiji, Kiribati, Papua New Guinea, Samoa, Solomon Islands, Tonga and Vanuatu.
- 35 2011 Census CT0265 Country of birth by year of arrival by religion, England and Wales, [internet] [cited 23 March 2022] Accessed here: <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/internationalmigration/adhocs/003486ct02652011censuscountryofbirthbyyearofarrivalbyreligionenglandandwales>
- 36 2011 Census CT0265 Country of birth by year of arrival by religion, England and Wales, [internet] [cited 23 March 2022] Accessed here: <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/internationalmigration/adhocs/003486ct02652011censuscountryofbirthbyyearofarrivalbyreligionenglandandwales>
- 37 Table QS203EW [internet] [cited 23 March 2022] Accessed here: <http://www.ons.gov.uk/ons/rel/census/2011-census/key-statistics-for-local-authorities-in-england-and-wales/rft-table-qs203ew.xls>
- 38 Table QS203EW [internet] [cited 23 March 2022] Accessed here: <http://www.ons.gov.uk/ons/rel/census/2011-census/key-statistics-for-local-authorities-in-england-and-wales/rft-table-qs203ew.xls>
- 39 2011 Census QS204, pp.9. [internet] [cited 23 March 2022] Available from: https://www.birmingham.gov.uk/downloads/file/4593/census_2011_qs204_detailed_language
- 40 2011 Census QS204EW, [internet] [cited 23 March 2022] Available from: https://www.nomisweb.co.uk/census/2011/QS204EW/view/1946157186?rows=cell&cols=rural_urban
- 41 2011 Census QS204, pp.9. [internet] [cited 23 March 2022] Available from: https://www.birmingham.gov.uk/downloads/file/4593/census_2011_qs204_detailed_language
- 42 2011 Census Country of Birth- Population Pyramid Tool, Commissioned Table CT0561, [internet] [cited 23 March 2022] Available from: <https://data.london.gov.uk/dataset/country-of-birth---population-pyramid-tool>
- 43 Ravulo J, Pacific Communities in Australia, Western Sydney University [internet] 2015 [cited 23 March 2022] Accessed here: <https://ro.uow.edu.au/cgi/viewcontent.cgi?article=4901&context=sspapers>
- 44 Ravulo J, Pacific Communities in Australia, Western Sydney University [internet] 2015 [cited 23 March 2022] Accessed here: <https://ro.uow.edu.au/cgi/viewcontent.cgi?article=4901&context=sspapers>

- 45 Pasifika women's choice of birthplace, New Zealand College of Midwives Journal, Issue 54, 2018 [internet] [cited 23 March 2022] Accessed here: <https://www.midwife.org.nz/wp-content/uploads/2018/08/Jnl-54-article-2-Pasifika-women.pdf>
- 46 The World Bank, Fertility rate, total (births per woman) [internet] [cited 23 March 2022] Accessed here: <https://data.worldbank.org/indicator/SP.DYN.TFRT.IN>
- 47 World Bank, Adolescent fertility rate, [internet] [cited 23 March 2022] Accessed here: <https://data.worldbank.org/indicator/SP.ADO.TFRT>
- 48 World Bank, Population Ages 0-14 (% of total population) [internet] [cited 23 March 2022] Accessed here: <https://data.worldbank.org/indicator/SP.POP.0014.TO.ZS>
- 49 New Zealand's response to the United Nations High Commissioner for Human Rights on the request for good practices and the challenges to respecting, protecting and fulfilling all human rights in the elimination of preventable, maternal mortality and morbidity [internet] [cited 23 March 2022] Accessed here: https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwiEgOO1yuL3AhU6R_EDHTCVck4QFnoECAyQAAQ&url=https%3A%2F%2Fwww.ohchr.org%2Fsites%2Fdefault%2Ffiles%2FDocuments%2FIssues%2FWomen%2FWRGS%2FTechnicalGuidanceMMM%2FGovernments%2FNewZealand.docx&usg=AOvVaw0CNIEE-DiOVvckZ6VTDa7r
- 50 Calculations based on New Zealand Maternity Clinical Indicators 2019, [internet] [cited 23 March 2022] Accessed here: <https://www.health.govt.nz/publication/new-zealand-maternity-clinical-indicators-2019>
- 51 Calculations based on New Zealand Maternity Clinical Indicators 2019, [internet] [cited 23 March 2022] Accessed here: <https://www.health.govt.nz/publication/new-zealand-maternity-clinical-indicators-2019>
- 52 Calculations based on New Zealand Maternity Clinical Indicators 2019, [internet] [cited 23 March 2022] Accessed here: <https://www.health.govt.nz/publication/new-zealand-maternity-clinical-indicators-2019>
- 53 Calculations based on New Zealand Maternity Clinical Indicators 2019, [internet] [cited 23 March 2022] Accessed here: <https://www.health.govt.nz/publication/new-zealand-maternity-clinical-indicators-2019>
- 54 Calculations based on New Zealand Maternity Clinical Indicators 2019, [internet] [cited 23 March 2022] Accessed here: <https://www.health.govt.nz/publication/new-zealand-maternity-clinical-indicators-2019>
- 55 New Zealand's response to the United Nations High Commissioner for Human Rights on the request for good practices and the challenges to respecting, protecting and fulfilling all human rights in the elimination of preventable, maternal mortality and morbidity [internet] [cited 23 March 2022] Accessed here: https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwiEgOO1yuL3AhU6R_EDHTCVck4QFnoECAyQAAQ&url=https%3A%2F%2Fwww.ohchr.org%2Fsites%2Fdefault%2Ffiles%2FDocuments%2FIssues%2FWomen%2FWRGS%2FTechnicalGuidanceMMM%2FGovernments%2FNewZealand.docx&usg=AOvVaw0CNIEE-DiOVvckZ6VTDa7r
- 56 Calculations based on New Zealand Maternity Clinical Indicators 2019, [internet] [cited 23 March 2022] Accessed here: <https://www.health.govt.nz/publication/new-zealand-maternity-clinical-indicators-2019>
- 57 World Bank, Lifetime risk of maternal death (%), [internet] [cited 23 March 2022] Accessed here: <https://data.worldbank.org/indicator/SH.MMR.RISK.ZS>

- 58 Knight M, Bunch K, Tuffnell D, Patel R, Shakespeare J, Kotnis R, Kenyon S, Kurinczuk JJ. Saving Lives, Improving Mothers' Care: Lessons learned to inform maternity care from the UK and Ireland Confidential Enquiries into Maternal Deaths and Morbidity 2017-19, MBRRACE-UK, November 2021, pp.i, [internet] [cited 23 March 2022] Accessed here: https://www.npeu.ox.ac.uk/assets/downloads/mbrance-uk/reports/maternal-report-2021/MBRRACE-UK_Maternal_Report_2021_-_FINAL_-_WEB_VERSION.pdf
- 59 New MBRRACE report shows Black women still four times more likely to die in pregnancy and childbirth, Birthrights, 11 November 2021, [internet] [cited 23 March 2022] Accessed here: <https://www.birthrights.org.uk/2021/11/11/new-mbrance-report-shows-black-women-still-four-times-more-likely-to-die-in-pregnancy-and-childbirth/>
- 60 Nuffield Department of Population Health. MBRRACE-UK: Saving Lives, Improving Mothers' Care Rapid report: Learning from SARS-CoV-2-related and associated maternal deaths in the UK March-May 2020 [internet] [cited 23 March 2022] Accessed here: <https://www.npeu.ox.ac.uk/mbrance-uk/reports>.
- 61 Nuffield Department of Population Health. MBRRACE-UK: Saving Lives, Improving Mothers' Care Rapid report: Learning from SARS-CoV-2-related and associated maternal deaths in the UK March-May 2020 [internet] [cited 23 March 2022] Accessed here: <https://www.npeu.ox.ac.uk/mbrance-uk/reports>.
- 62 Nuffield Department of Population Health. MBRRACE-UK: Saving Lives, Improving Mothers' Care Rapid report: Learning from SARS-CoV-2-related and associated maternal deaths in the UK March-May 2020 [internet] [cited 23 March 2022] Accessed here: <https://www.npeu.ox.ac.uk/mbrance-uk/reports>.
- 63 DC 2020. Infant Mortality Statistics from the 2018 Period Linked Birth/Infant Death Data Set. National Vital Statistics Reports. Table 2. [internet] [cited 23 March 2022] Accessed here: <https://www.cdc.gov/nchs/data/nvsr/nvsr69/NVSR-69-7-508.pdf>
- 64 US Department of Health and Human Service, Infant Mortality and Native Hawaiians/Pacific Islanders, [internet] [cited 23 March 2022] Accessed here: <https://minorityhealth.hhs.gov/omh/browse.aspx?lvl=4&lvlid=83>
- 65 CDC 2021 Births: Final Data for 2019 National Vital Statistics Reports. Table 13. [internet] [cited 23 March 2022] Accessed here: <https://www.cdc.gov/nchs/data/nvsr/nvsr70/nvsr70-02-508.pdf>
- 66 World Bank, Mortality rate, under-5 (per 1000 live births) [internet] [cited 23 March 2022] Accessed here: <https://data.worldbank.org/indicator/SH.DYN.MORT>
- 67 Annual Update of Key Results 2020/21: New Zealand Health Survey, [internet] [cited 23 March 2022] Accessed here: <https://www.health.govt.nz/publication/annual-update-key-results-2020-21-new-zealand-health-survey>
- 68 High School Youth Risk Behavior Survey Data. [internet] [cited 23 March 2022] Accessed here: <https://nccd.cdc.gov/youthonline>.
- 69 World Bank, Prevalence of child overweight and obesity, [internet] [cited 23 March 2022] Accessed here: <https://data.worldobesity.org/tables/prevalence-of-child-overweight-including-obesity-3/>
- 70 World Bank, Prevalence of child overweight and obesity, [internet] [cited 23 March 2022] Accessed here: <https://data.worldobesity.org/tables/prevalence-of-child-overweight-including-obesity-3/>
- 71 World Bank, Prevalence of stunting, height for age, [internet] [cited 23 March 2022] Accessed here: <https://data.worldbank.org/indicator/SH.STA.STNT.ZS>
- 72 Immunisation Advisory Centre, National immunisation Coverage for New Zealand, [internet] [cited 23 March 2022] Accessed here: <https://www.immune.org.nz/sites/default/files/publications/Immunisation%20coverage%20to%20June%202018.pdf>

- 73 World Bank, Immunisation, DPT [internet] [cited 23 March 2022] Accessed here: <https://data.worldbank.org/indicator/SH.IMM.IDPT>
- 74 World Bank, Immunisation, HepB3, [internet] [cited 23 March 2022] Accessed here: <https://data.worldbank.org/indicator/SH.IMM.HEPB>
- 75 UNICEF, Health Minister declares 2019 as the Year of Immunization in Papua New Guinea, May 2019 [internet] [cited 23 March 2022] Accessed here: <https://www.unicef.org/png/press-releases/health-minister-declares-2019-year-immunization-papua-new-guinea>
- 76 Yamada, Ann-Marie et al. "Addressing Mental Health Challenges of Samoan Americans in Southern California: Perspectives of Samoan Community Providers." *Asian American journal of psychology* vol. 10,3 (2019): 227-238. doi:10.1037/aap0000140
- 77 Subica AM, Aitaoto N, Sullivan JG, Henwood BF, Yamada AM, Link BG. Mental illness stigma among Pacific Islanders. *Psychiatry Res.* 2019 Mar;273:578-585. doi: 10.1016/j.psychres.2019.01.077. Epub 2019 Jan 26. PMID: 30716597; PMCID: PMC6561790.
- 78 Subica AM, Aitaoto N, Sullivan JG, Henwood BF, Yamada AM, Link BG. Mental illness stigma among Pacific Islanders. *Psychiatry Res.* 2019 Mar;273:578-585. doi: 10.1016/j.psychres.2019.01.077. Epub 2019 Jan 26. PMID: 30716597; PMCID: PMC6561790.
- 79 Yamada, Ann-Marie et al. "Addressing Mental Health Challenges of Samoan Americans in Southern California: Perspectives of Samoan Community Providers." *Asian American journal of psychology* vol. 10,3 (2019): 227-238. doi:10.1037/aap0000140
- 80 Wong, Mamie M et al. "Alcohol, tobacco, and other drug use among Asian American and Pacific Islander Adolescents in California and Hawaii." *Addictive behaviors* vol. 29,1 (2004): 127-41. doi:10.1016/s0306-4603(03)00079-0
- 81 Wong, Mamie M et al. "Alcohol, tobacco, and other drug use among Asian American and Pacific Islander Adolescents in California and Hawaii." *Addictive behaviors* vol. 29,1 (2004): 127-41. doi:10.1016/s0306-4603(03)00079-0
- 82 Power, R., Schmich, L. & Nosa, V. A response for substance and harm reduction in Pacific Island countries and territories. *Harm Reduct J* 12, 48 (2015). <https://doi.org/10.1186/s12954-015-0080-z>
- 83 Power, R., Schmich, L. & Nosa, V. A response for substance and harm reduction in Pacific Island countries and territories. *Harm Reduct J* 12, 48 (2015). <https://doi.org/10.1186/s12954-015-0080-z>
- 84 Fiji, Papua New Guinea, Samoa, Solomon Islands, Tonga and Vanuatu
- 85 Devaney, Madonna L et al. "Illicit drug use and responses in six Pacific Island countries." *Drug and alcohol review* vol. 25,4 (2006): 387-90. doi:10.1080/09595230600741396
- 86 Tobacco and Ethnic minorities, ASH, August 2019, [internet] [cited 23 March 2022] Accessed here: <https://ash.org.uk/wp-content/uploads/2019/08/ASH-Factsheet-Ethnic-Minorities-Final-Final.pdf>
- 87 Rasanathan K, Tukuitonga CF. Tobacco smoking prevalence in Pacific Island countries and territories: a review. *N Z Med J.* 2007 Oct 12;120(1263):U2742. PMID: 17972962.
- 88 Kessaram T, McKenzie J, Girin N, Roth A, Vivili P, Williams G, et al. Tobacco Smoking in Islands of the Pacific Region, 2001–2013. *Prev Chronic Dis* 2015;12:150155. DOI: <http://dx.doi.org/10.5888/pcd12.150155>
- 89 Kessaram T, McKenzie J, Girin N, Roth A, Vivili P, Williams G, et al. Tobacco Smoking in Islands of the Pacific Region, 2001–2013. *Prev Chronic Dis* 2015;12:150155. DOI: <http://dx.doi.org/10.5888/pcd12.150155>

- 90 Ryan D., Grey C., Mischewski B. (2019). *Tofa Saili: A review of evidence about health equity for Pacific Peoples in New Zealand*. Wellington: Pacific Perspectives Ltd.
- 91 Jovanovic M and Antunovic M (2016) *Person- and People-Centered Integrated Health Care for Alcohol Dependence – Whether It Is Real in the Present Moment*. *Front. Public Health* 4:264. doi: 10.3389/fpubh.2016.00264
- 92 Public Health England. *Public Health Outcomes Framework: Health Equity Report* [Internet]. 2017 [cited 2022 March 7]. Available here: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/733093/PHOF_Health_Equity_Report.pdf
- 93 Kessaram T, McKenzie J, Girin N, Roth A, Vivili P, Williams G, Hoy D. Alcohol use in the Pacific region: Results from the STEPwise approach to surveillance, Global School-Based Student Health Survey and Youth Risk Behavior Surveillance System. *Drug Alcohol Rev.* 2016 Jul;35(4):412-23. doi: 10.1111/dar.12328. Epub 2015 Sep 10. PMID: 26358376; PMCID: PMC5049666.
- 94 Kessaram T, McKenzie J, Girin N, Roth A, Vivili P, Williams G, Hoy D. Alcohol use in the Pacific region: Results from the STEPwise approach to surveillance, Global School-Based Student Health Survey and Youth Risk Behavior Surveillance System. *Drug Alcohol Rev.* 2016 Jul;35(4):412-23. doi: 10.1111/dar.12328. Epub 2015 Sep 10. PMID: 26358376; PMCID: PMC5049666.
- 95 Action Point, Alcohol harm to pacific people: Many Pacific people do not drink, Results [internet] May 2021 [cited 23 March 2022] Accessed here: <https://www.actionpoint.org.nz/alcohol-harm-to-pacific-people>
- 96 Action Point, Alcohol harm to pacific people: Many Pacific people do not drink, Results [internet] May 2021 [cited 23 March 2022] Accessed here: <https://www.actionpoint.org.nz/alcohol-harm-to-pacific-people>
- 97 Huakau J, Asiasiga L, Ford M, Pledger M, Casswell S, Suaalii-Sauni T, Lima I. New Zealand Pacific peoples' drinking style: too much or nothing at all? *N Z Med J.* 2005 Jun 3;118(1216):U1491. PMID: 15937526.
- 98 Huakau J, Asiasiga L, Ford M, Pledger M, Casswell S, Suaalii-Sauni T, Lima I. New Zealand Pacific peoples' drinking style: too much or nothing at all? *N Z Med J.* 2005 Jun 3;118(1216):U1491. PMID: 15937526.
- 99 Hurcombe R, Bayley M and Goodman A, Ethnicity and alcohol: A review of the UK literature, Joseph Rowntree Foundation (JRF), [internet] July 2010 [cited 23 March 2022] Accessed here: <https://www.jrf.org.uk/sites/default/files/jrf/migrated/files/ethnicity-alcohol-literature-review-summary.pdf>
- 100 Ryan D., Grey C., Mischewski B. (2019). *Tofa Saili: A review of evidence about health equity for Pacific Peoples in New Zealand*. Wellington: Pacific Perspectives Ltd. ISBN 978-0-473-48927-4
- 101 Ryan D., Grey C., Mischewski B. (2019). *Tofa Saili: A review of evidence about health equity for Pacific Peoples in New Zealand*. Wellington: Pacific Perspectives Ltd. ISBN 978-0-473-48927-4
- 102 Sundborn G, Metcalf PA, Gentles D, Scragg R, Dyal L, Black P, Jackson R. Overweight and obesity prevalence among adult Pacific peoples and Europeans in the Diabetes Heart and Health Study (DHAHS) 2002-2003, Auckland New Zealand. *N Z Med J.* 2010 Mar 19;123(1311):30-42. PMID: 20360794.
- 103 A A Brewis, S T McGarvey, J Jones, B A Swinburn, Perceptions of body size in Pacific Islanders, *International Journal of Obesity and related Metabolic Disorders* 1998, 22 (2): 185-9
- 104 A A Brewis, S T McGarvey, J Jones, B A Swinburn, Perceptions of body size in Pacific Islanders, *International Journal of Obesity and related Metabolic Disorders* 1998, 22 (2): 185-9

- 105 Taylor J and Lee H, (2017) *Mobilities if return: Pacific Perspectives*, ANU Press. ISBN 9781760461683
- 106 Bailey A et al, *Promoting healthy lifestyles for Pacific peoples*, [internet] 2010 [cited 23 March 2022] Accessed here: https://bpac.org.nz/bpj/2010/november/docs/BPJ_32_promoting_pages_32-40.pdf
- 107 Bailey A et al, *Promoting healthy lifestyles for Pacific peoples*, [internet] 2010 [cited 23 March 2022] Accessed here: https://bpac.org.nz/bpj/2010/november/docs/BPJ_32_promoting_pages_32-40.pdf
- 108 Bailey A et al, *Promoting healthy lifestyles for Pacific peoples*, [internet] 2010 [cited 23 March 2022] Accessed here: https://bpac.org.nz/bpj/2010/november/docs/BPJ_32_promoting_pages_32-40.pdf
- 109 Bailey A et al, *Promoting healthy lifestyles for Pacific peoples*, [internet] 2010 [cited 23 March 2022] Accessed here: https://bpac.org.nz/bpj/2010/november/docs/BPJ_32_promoting_pages_32-40.pdf
- 110 Bailey A et al, *Promoting healthy lifestyles for Pacific peoples*, [internet] 2010 [cited 23 March 2022] Accessed here: https://bpac.org.nz/bpj/2010/november/docs/BPJ_32_promoting_pages_32-40.pdf
- 111 Bailey A et al, *Promoting healthy lifestyles for Pacific peoples*, [internet] 2010 [cited 23 March 2022] Accessed here: https://bpac.org.nz/bpj/2010/november/docs/BPJ_32_promoting_pages_32-40.pdf
- 112 Bailey A et al, *Promoting healthy lifestyles for Pacific peoples*, [internet] 2010 [cited 23 March 2022] Accessed here: https://bpac.org.nz/bpj/2010/november/docs/BPJ_32_promoting_pages_32-40.pdf
- 113 Braginsky N, Inouye J, Wang CY, Arakaki R. Perceptions related to diet and exercise among Asians and Pacific Islanders with diabetes. *Hawaii Med J.* 2011 Sep;70(9):196-9. PMID: 22162615; PMCID: PMC3233401.
- 114 Taylor J and Lee H, (2017) *Mobilities if return: Pacific Perspectives*, ANU Press. ISBN 9781760461683
- 115 Bailey A et al, *Promoting healthy lifestyles for Pacific peoples*, [internet] 2010 [cited 23 March 2022] Accessed here: https://bpac.org.nz/bpj/2010/november/docs/BPJ_32_promoting_pages_32-40.pdf
- 116 Gordon B, et al. *Sport and recreation in New Zealand*, Victoria University of Wellington [internet] November 2010 [cited 23 March 2022] Accessed here: <http://www.communityresearch.org.nz/wp-content/uploads/formidable/SPORTANDRECREATIONINNEWZEALANDpasifikacommunities.pdf>
- 117 Gordon B, et al. *Sport and recreation in New Zealand*, Victoria University of Wellington [internet] November 2010 [cited 23 March 2022] Accessed here: <http://www.communityresearch.org.nz/wp-content/uploads/formidable/SPORTANDRECREATIONINNEWZEALANDpasifikacommunities.pdf>
- 118 Gordon B, et al. *Sport and recreation in New Zealand*, Victoria University of Wellington [internet] November 2010 [cited 23 March 2022] Accessed here: <http://www.communityresearch.org.nz/wp-content/uploads/formidable/SPORTANDRECREATIONINNEWZEALANDpasifikacommunities.pdf>
- 119 Gordon B, et al. *Sport and recreation in New Zealand*, Victoria University of Wellington [internet] November 2010 [cited 23 March 2022] Accessed here: <http://www.communityresearch.org.nz/wp-content/uploads/formidable/SPORTANDRECREATIONINNEWZEALANDpasifikacommunities.pdf>
- 120 Gordon B, et al. *Sport and recreation in New Zealand*, Victoria University of Wellington [internet] November 2010 [cited 23 March 2022] Accessed here: <http://www.communityresearch.org.nz/wp-content/uploads/formidable/SPORTANDRECREATIONINNEWZEALANDpasifikacommunities.pdf>

- 121 Gordon B, et al. Sport and recreation in New Zealand, Victoria University of Wellington [internet] November 2010 [cited 23 March 2022] Accessed here: <http://www.communityresearch.org.nz/wp-content/uploads/formidable/SPORTANDRECREATIONINNEWZEALANDpasifikacommunities.pdf>
- 122 Gordon B, et al. Sport and recreation in New Zealand, Victoria University of Wellington [internet] November 2010 [cited 23 March 2022] Accessed here: <http://www.communityresearch.org.nz/wp-content/uploads/formidable/SPORTANDRECREATIONINNEWZEALANDpasifikacommunities.pdf>
- 123 Gordon B, et al. Sport and recreation in New Zealand, Victoria University of Wellington [internet] November 2010 [cited 23 March 2022] Accessed here: <http://www.communityresearch.org.nz/wp-content/uploads/formidable/SPORTANDRECREATIONINNEWZEALANDpasifikacommunities.pdf>
- 124 Marama Alliance UK, MAUK Survey Results [internet] May 2021 [cited 23 March 2022] Accessed here: <https://www.maramaalliance.com/mauk-survey-results?pgid=kpmihee2-ebc04895-60ff-496f-9d2d-aefff9c9b161>
- 125 Non-UK domiciles students, HESA, [internet] [cited 23 March 2022] Accessed here: <https://www.hesa.ac.uk/data-and-analysis/students/where-from>
- 126 Non-UK domiciles students, HESA, [internet] [cited 23 March 2022] Accessed here: <https://www.hesa.ac.uk/data-and-analysis/students/where-from>
- 127 2011 Census, Table CT0566
- 128 2011 Census, Table CT0566
- 129 2011 Census, Table CT0566
- 130 Doan D, Dornan M, Parsons K, Petrou K and Yi S, Pacific Labor Mobility, Migration and Remittances in Times of COVID-19, World Bank [internet] 2020 [cited 23 March 2022] Accessed here: <https://documents1.worldbank.org/curated/en/430961606712129708/pdf/Pacific-Labor-Mobility-Migration-and-Remittances-in-Times-of-COVID-19-Interim-Report.pdf>
- 131 United Nations, Economic and Social Commission for Asia and the Pacific (ESCAP) (2020). Asia-Pacific Migration Report 2020: Assessing Implementation of the Global Compact for Migration (ST/ESCAP/2801). [Internet] [Cited 23 March 2022] Accessed here: https://www.unescap.org/sites/default/files/APMR2020_FullReport.pdf
- 132 Porteret, A., Diaspora engagement: The Pacific. Regional Series. EUDiF. [Internet] 2021 [Cited 23 March 2022] Accessed here: https://www.icmpd.org/file/download/52579/file/EUDiF_Regional%2520Overview_Pacific%2520%2528v.4%2529.pdf
- 133 United Nations, Economic and Social Commission for Asia and the Pacific (ESCAP) (2020). Asia-Pacific Migration Report 2020: Assessing Implementation of the Global Compact for Migration (ST/ESCAP/2801). [Internet] [Cited 23 March 2022] Accessed here: https://www.unescap.org/sites/default/files/APMR2020_FullReport.pdf
- 134 2011 Census, Table CT0565
- 135 2011 Census, Table CT0565
- 136 2011 Census, Table CT0154
- 137 2011 Census, Table CT0563
- 138 2011 Census, Table CT0564
- 139 Hayward S, Harding RM, McShane H, Tanner R. Factors influencing the higher incidence of tuberculosis among migrants and ethnic minorities in the UK. *F1000Res.* 2018 Apr 13;7:461. doi: 10.12688/f1000research.14476.2. PMID: 30210785; PMCID: PMC6107974.
- 140 Hayward S, Harding RM, McShane H, Tanner R. Factors influencing the higher incidence of tuberculosis among migrants and ethnic minorities in the UK. *F1000Res.* 2018 Apr 13;7:461. doi: 10.12688/f1000research.14476.2. PMID: 30210785; PMCID: PMC6107974.

- 141 U.S. Department of Health and Human Services Office of Minority Health (OMH), Profile: Native Hawaiians/ Pacific Islanders, [Internet] [cited 23 March 2022] Accessed here: <https://minorityhealth.hhs.gov/omh/browse.aspx?lvl=3&lvlid=65#1>
- 142 Hayward S, Harding RM, McShane H, Tanner R. Factors influencing the higher incidence of tuberculosis among migrants and ethnic minorities in the UK. *F1000Res*. 2018 Apr 13;7:461. doi: 10.12688/f1000research.14476.2. PMID: 30210785; PMCID: PMC6107974.
- 143 Public Health England. Local action on health inequalities [Internet]. 2018 [cited 2022 March 7]. Available here: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/730917/local_action_on_health_inequalities.pdf
- 144 Birmingham City Council. Tuberculosis in Birmingham [Internet]. 2012 [cited 23 March 2022] Accessed here: https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKewjaqp3L-Ob2AhWPIVwKHfVrA8MQFn0ECBkQAQ&url=https%3A%2F%2Fwww.birmingham.gov.uk%2Fdownload%2Fdownloads%2Fid%2F452%2Ftb_strategy_in_birmingham_january_2012.pdf&usq=AOvVaw3MTdL_qfkJvIH-xtnoAhhH
- 145 Birmingham City Council. Tuberculosis in Birmingham [Internet]. 2012 [cited 23 March 2022] Accessed here: https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKewjaqp3L-Ob2AhWPIVwKHfVrA8MQFn0ECBkQAQ&url=https%3A%2F%2Fwww.birmingham.gov.uk%2Fdownload%2Fdownloads%2Fid%2F452%2Ftb_strategy_in_birmingham_january_2012.pdf&usq=AOvVaw3MTdL_qfkJvIH-xtnoAhhH
- 146 Hanif W, Khunti K, Bellary S, et al. Type 2 Diabetes in the UK South Asian Population. An update from the South Asian Health Foundation. Birmingham: South Asian Health Foundation; 2014
- 147 Diabetes UK – Know Diabetes, Fight Diabetes (The British Diabetic Association). Us, diabetes and a lot of facts and stats. [Internet] 2019 [cited 23 March 2022] Accessed here: https://www.diabetes.org.uk/resources-s3/2019-02/1362BFacts%20and%20stats%20Update%20Jan%202019-LOW%20RES_EXTERNAL.pdf.
- 148 Holman N, Young B, Gadsby R. Current prevalence of Type 1 and Type 2 diabetes in adults and children in the UK. *Diabet Med*. 2015;32(9):1119-1120
- 149 CDC 2021. Summary Health Statistics: National Health Interview Survey. Table A-4a. [Internet]. 2018 [cited 2022 March 7]. Available here <http://www.cdc.gov/nchs/nhis/shs/tables.htm>
- 150 CDC 2021. National Vital Statistics Report, Vol. 69, No. 13. Table 10. [Internet] [cited 2022 March 7]. Available here <https://www.cdc.gov/nchs/data/nvsr/nvsr69/nvsr69-13-508.pdf>
- 151 CDC 2021. National Vital Statistics Report, Vol. 69, No. 13. Table 10. [Internet] [cited 2022 March 7]. Available here <https://www.cdc.gov/nchs/data/nvsr/nvsr69/nvsr69-13-508.pdf>
- 152 Annual Update of Key Results 2020/21: New Zealand Health Survey, [Internet]. 2021 [cited 2022 March 7]. Available here <https://www.health.govt.nz/publication/annual-update-key-results-2020-21-new-zealand-health-survey>
- 153 World Bank, Diabetes prevalence, [Internet]. 2021 [cited 2022 March 7]. Available here <https://data.worldbank.org/indicator/SH.STA.DIAB.ZS>
- 154 World Heart Federation, Western Pacific, [Internet]. 2021 [cited 2022 March 7]. Available here <https://world-heart-federation.org/where-we-work/western-pacific/>

- 155Heart Foundation, Pacific Heart Health [Internet] [cited 2022 March 7]. Available here <https://www.heartfoundation.org.nz/your-heart/pacific-heartbeat/pacific-heart-health-statistics>
- 156Ministry of Health, Prevalence of selected topic [Internet] [cited 2022 March 7]. Available here https://minhealthnz.shinyapps.io/nz-health-survey-2020-21-annual-data-explorer/_w_e1eaa81a/#!/explore-topics
- 157Annual Update of Key Results 2020/21: New Zealand Health Survey, [Internet] [cited 2022 March 7]. Available here <https://www.health.govt.nz/publication/annual-update-key-results-2020-21-new-zealand-health-survey>
- 158Annual Update of Key Results 2020/21: New Zealand Health Survey, [Internet] [cited 2022 March 7]. Available here <https://www.health.govt.nz/publication/annual-update-key-results-2020-21-new-zealand-health-survey>
- 159WHO, Global Burden 2000-2019, [Internet] [cited 2022 March 7]. Available here <https://www.who.int/data/gho/data/themes/mortality-and-global-health-estimates/global-health-estimates-leading-causes-of-dalys>
- 160BPAC Better Medicine, Diagnosis and management of COPD in Māori and Pacific peoples [Internet]. 2021 [cited 2022 March 7]. Available here: <https://bpac.org.nz/bpj/2012/april/copd.aspx>
- 161Republic of Kenya: Ministry of Health, National Non-Communicable Diseases Strategic Plan, [Internet]. 2021 [cited 2022 March 7]. Available here <https://www.health.go.ke/wp-content/uploads/2021/07/Kenya-Non-Communicable-Disease-NCD-Strategic-Plan-2021-2025.pdf>
- 162Ryan D., Grey C., Mischewski B. (2019). Tofa Saili: A review of evidence about health equity for Pacific Peoples in New Zealand. Wellington: Pacific Perspectives Ltd.
- 163BPAC Better Medicine, Diagnosis and management of COPD in Māori and Pacific peoples [Internet]. 2021 [cited 2022 March 7]. Available here: <https://bpac.org.nz/bpj/2012/april/copd.aspx>
- 164US Department of Health and Human Services Office of Minority Health, [Internet]. 2021 [cited 2022 March 7]. Available here: <https://minorityhealth.hhs.gov/omh/browse.aspx?lvl=4&lvlid=76>
- 165Brown C, Lao C, Lawrenson R, Tin Tin S, Schaaf M, Kidd J, Allan-Moetaua A, Herman J, Raamsroop R, Campbell I, Elwood M. Characteristics of and differences between Pasifika women and New Zealand European women diagnosed with breast cancer in New Zealand. *N Z Med J.* 2017 Dec 15;130(1467):50-61. PMID: 29240740.
- 166Brown C, Lao C, Lawrenson R, Tin Tin S, Schaaf M, Kidd J, Allan-Moetaua A, Herman J, Raamsroop R, Campbell I, Elwood M. Characteristics of and differences between Pasifika women and New Zealand European women diagnosed with breast cancer in New Zealand. *N Z Med J.* 2017 Dec 15;130(1467):50-61. PMID: 29240740.
- 167Ryan D., Grey C., Mischewski B. (2019). Tofa Saili: A review of evidence about health equity for Pacific Peoples in New Zealand. Wellington: Pacific Perspectives Ltd.
- 168Cullum S, Mullin K, Zeng I, Yates S, Payman V, Fisher M, Cheung G. Do community-dwelling Māori and Pacific peoples present with dementia at a younger age and at a later stage compared with NZ Europeans? *Int J Geriatr Psychiatry.* 2018 Aug;33(8):1098-1104. doi: 10.1002/gps.4898. Epub 2018 May 15. PMID: 29766582.
- 169World Bank, Population ages 65 and above, [Internet] [cited 2022 March 7]. Available here: <https://data.worldbank.org/indicator/SP.POP.65UP.TO.ZS>

- 170WHO, Global Burden 2000-2019, [Internet] [cited 2022 March 7]. Available here: <https://www.who.int/data/gho/data/themes/mortality-and-global-health-estimates/global-health-estimates-leading-causes-of-dalys>
- 171BMC Palliative Care, Pacific meets west in addressing palliative care for Pacific populations in Aotearoa/New Zealand: a qualitative study, [Internet] [cited 2022 March 7]. Available here: <https://bmcpalliatcare.biomedcentral.com/articles/10.1186/s12904-020-00604-2>
- 172Public Health England. Local action on health inequalities [Internet]. 2018 [cited 2022 March 7]. Available here: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/730917/local_action_on_health_inequalities.pdf
- 173Public Health England. Local action on health inequalities [Internet]. 2018 [cited 2022 March 7]. Available here: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/730917/local_action_on_health_inequalities.pdf
- 174Office for National Statistics. Mortality from leading causes of death by ethnic group, England and Wales: 2012 to 2019 [Internet]. 2021 [cited 2022 March 7]. Available here: <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/mortalityfromleadingcausesofdeathbyethn icgroupenglandandwales/2012to2019>
- 175Office for National Statistics. Mortality from leading causes of death by ethnic group, England and Wales: 2012 to 2019 [Internet]. 2021 [cited 2022 March 7]. Available here: <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/mortalityfromleadingcausesofdeathbyethn icgroupenglandandwales/2012to2019>
- 176Public Health England. Local action on health inequalities: Understanding and reducing ethnic inequalities in health [Internet]. 2018 [cited 2022 March 7]. Available here: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/730917/local_action_on_health_inequalities.pdf
- 177Public Health England. Local action on health inequalities: Understanding and reducing ethnic inequalities in health [Internet]. 2018 [cited 2022 March 7]. Available here: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/730917/local_action_on_health_inequalities.pdf
- 178United Nations Population Division. World Population Prospects: 2019 Revision. (2) Census reports and other statistical publications from national statistical offices, (3) Eurostat: Demographic Statistics, (4) United Nations Statistical Division. Popu
- 179City of Nature Plan must be accepted by Cabinet to meet Birmingham's net-zero carbon target, Birmingham City Council, [Internet]. 2021 [cited 2022 March 7]. Available here: https://www.birmingham.gov.uk/news/article/1057/city_of_nature_plan_must_be_accepted_by_cabinet_to_meet_birminghams_net-zero_carbon_target