



**STATE OF
THE NGĀI TAHU NATION | 2021**





He Kōrero Timatanga | Foreword

*He rangi tā matawhāiti, he rangi tā matawhānui.
Ko ngā ngā waipuke ka eketia, ko te maonga āwha ka karohia e te
wakamātauranga, e te waka matatau.*

Welcome to the Ngāi Tahu State of the Nation report 2021, a snapshot of the social and economic wellbeing of Ngāi Tahu whānau.

Now, more than ever, we have to continuously adapt and pivot our thinking, with the success of our decision-making being driven by data.

Data is a powerful taonga that enables us greater insight and understanding of how Ngāi Tahu whānau are positioned economically, culturally and socially. It helps identify trends and where we need to focus our attention to ensure that our strategies and initiatives achieve desired whānau outcomes and aspirations.

The data captured in this report has been gathered from a variety of government sources: Inland Revenue, the Ministry of Health, and the Ministry of Education. It also includes information from the Statistics New Zealand Te Kupenga survey and Census 2018.

Moving forward, these reports will be produced annually in an interactive digital format that will allow users to filter information based on their preferences. We trust you find the information valuable and welcome your feedback.

Mō tātou

Arihia Bennett MNZM
CHIEF EXECUTIVE OFFICER

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STATE OF THE NGĀI TAHU NATION
Introduction

Introduction

The State of the Ngāi Tahu Nation report gives a high level overview of our whānau across a range social, economic, and cultural pou (domains). It provides important guidance on how well we have worked towards our previous goals, while allowing us to plan for the future. The report focuses on our unique Ngāi Tahu population and uses a broad range of data sources. A large amount of supplementary data has also been provided alongside this report.

Background

This is the third iteration of the State of the Ngāi Tahu report first published in 2016. We have made considerable changes to the structure and indicators included, drawing from administrative data as well as census. Administrative data is data kept on record by government agencies, such as tax records from Inland Revenue and health records from the Ministry of Health. The data is hosted by Statistics New Zealand (Stats NZ) on a system called the Integrated Data Infrastructure (IDI). These new sources of data, although not perfect or complete, allow more timely reporting and a broader range of indicators.

Data quality

Administrative data sources inherently have error, but testing by Stats NZ has demonstrated that the change over time is reliable despite the likelihood we are underestimating counts. One major reason for error is record linkage, when the identifying information in one record does not closely match the same person's record in the IDI.

Measuring our population

An IDI population

We have to identify the iwi population differently depending on the data source. In the IDI, we have used Census 2013 to identify a Ngāi Tahu population. We have then added any pēpi born since 2013 to Ngāi Tahu parents. Unfortunately Census 2018 was not available in the IDI at the time of this report, and as such the IDI population is around 15,000 people lower than Census 2018. The IDI population is used for the majority of measures presented in this report. We consider that the trends and proportions for IDI measures accurate, but the counts will be lower than the true Ngāi Tahu population.

A Census 2018 population

Due to well publicized problems with Census 2018, there was a significant number of Ngāi Tahu missing from the census based population. Stats NZ have since created a model that can account for missing individuals based on administrative data and a statistical process known as 'weighting'. Because of this, Census 2018 data has a much higher population count compared with the IDI data. We use the Census 2018 population to measure household tenure and household income.

Our Whakapapa database population

The most accurate estimate of our population is the whakapapa database maintained by Te Rūnanga o Ngāi Tahu. Data was aggregated into age groups by sex and region to protect the individual identity of whānau members before inclusion in this report. The population counts are as of June 2021. You will notice that population counts in 2021 are similar to the estimated population in Census 2018 and much higher than the IDI. We use the whakapapa database to report the populations for each region and for the iwi on the next two pages.

Our Growing Iwi

To understand the demographics and geographies of whānau members we use data from the Ngāi Tahu whakapapa database of registrations. We have made small adjustments to account for whānau members who did not have an address on record or may have supplied an invalid address. The international population of whānau members is likely an overestimate, due to international deaths not being removed from our records.

The Ngāi Tahu nation is made up of 61,500 whānau members all across the motu, and 8,700 whānau members beyond the shores of the motu, with a total Ngāi Tahu population of 70,200 as at July 2021.

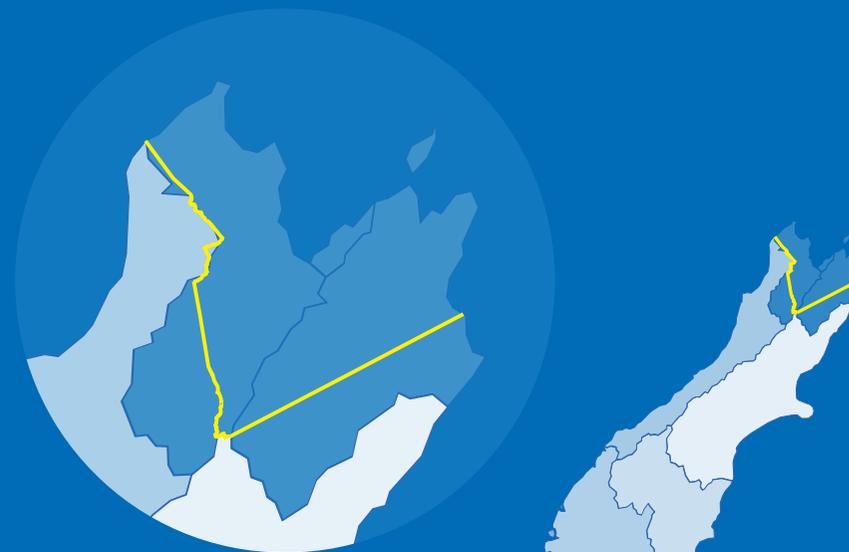
The Ngāi Tahu population as reported through weighted census counts stands at 74,100 as at March 2018. However, within administrative data, we estimate the population of Ngāi Tahu to be 58,000 within the motu as at June 2020. This indicates that some Ngāi Tahu have missing iwi affiliation information in the administrative data. The eventual addition of Census 2018 results to the administrative data should improve this.

Throughout this report we have used regional council boundaries to split Te Waipounamu into regions. The boundaries therefore differ to those stipulated in the Te Rūnanga o Ngāi Tahu Act 1996.

The map to the right shows the regional council boundaries with a yellow line depicting the takiwā boundary line. Somewhere around 0.1% of whānau members are affected in that they will not be counted as being within the takiwā.

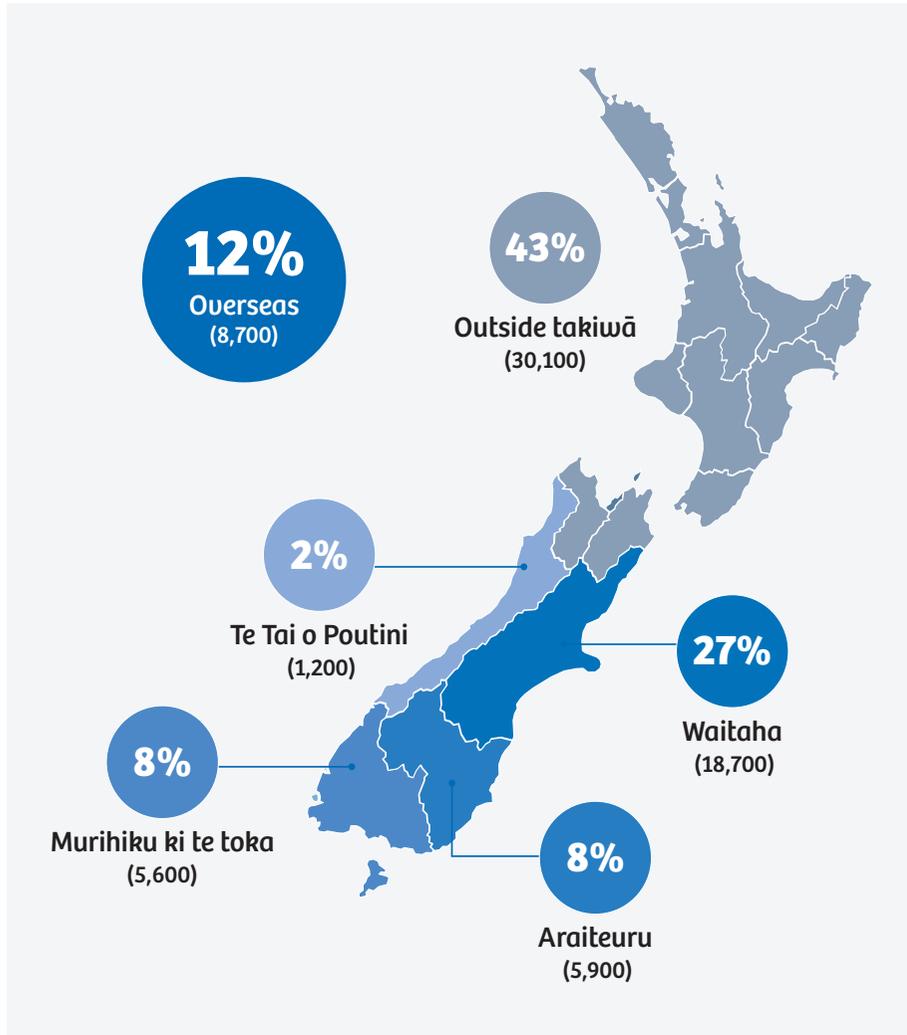
70,200

70,200 Ngāi Tahu are registered with Te Rūnanga o Ngāi Tahu, **12% of our people** are living outside the motu.



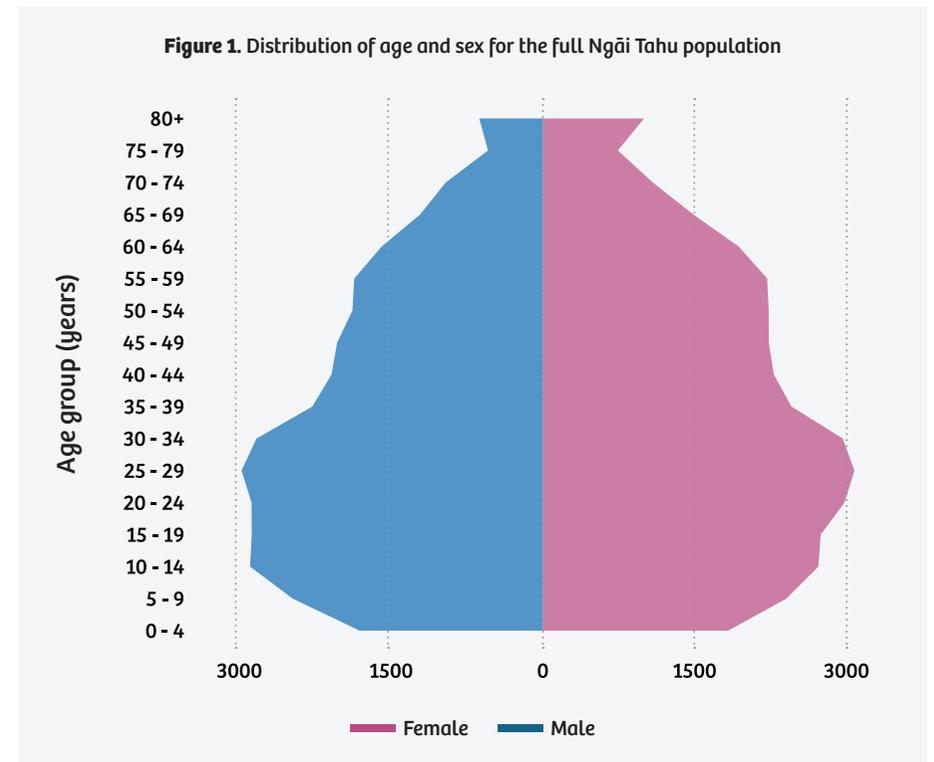
Boundaries stipulated in the Te Rūnanga o Ngāi Tahu Act 1996

Whānau members across the Ngāi Tahu Nation, and the motu



Demographic profile of Ngāi Tahu

The demographic profile of whānau members is presented in the 'population pyramid' below. The population pyramid shows the number of whānau members of a particular age group and sex, and allows for a quick interpretation of the structure of a given population.



The Ngāi Tahu nation has a population that is young. This thriving rangatahi population is well positioned to take leading positions in the workforce should we assure they have all the resources and opportunities they need. The typical concerns of societies with aging populations will not apply to Ngāi Tahu.



NGĀI TAHU
Regional summaries

REGIONAL SUMMARIES

Introduction

Here we present brief summaries of regions within the takiwā, and an overall summary of the situation outside the takiwā. We present four indicators; population, income, health, and housing within the region.

We have investigated regional populations using a series of population pyramids. Each pyramid shows the overall distribution by age and sex. You will see a lighter shade on each plot, this is the national population distribution and shows where differences lie within each region relative to the iwi as a whole.

In each region we present median wages, and compare how they track against the overall national wage trends. The solid lines represent the regional values for the demographics indicated by the colours of the lines. The dotted lines indicate the national median values for the same demographics.

Health data focuses on the rates of acute hospitalisations within each region, compared to national rates. While a true measure of the health of whānau members requires a broad exploration of a range of indicators, we highlight rates of acute hospitalisations here as an indicator of the relative health of whānau members in the region. The black lines on the hospitalisation plots indicate the national hospitalisation rate for each age-sex combination.

Housing measures consist of ownership rates, rental rates, and median rents within the region. These rates are derived from Census 2018 data (unfortunately these data cannot be compared to Census 2013). We have included whānau members living in homes owned by their family trusts in the ownership rates. We estimate this covers 10% to 15% of whānau members from Ngāi Tahu households.



CANTERBURY Waitaha

Waitaha was defined as the Canterbury regional council boundaries in 2021. A significant number of our whānau members live in this region and it represents nine of our eighteen papatipu rūnanga.

Rents have been steadily increasing in Waitaha but so have incomes. Wāhine in particular have been leading wage growth, contributing the greatest to the iwi's closing gender pay gap.

In terms of need, the large population correlates with higher need as a proportion. For example, 230 whānau members were on the waitlist for a social home at some point in 2020 (second only to whānau members outside the takiwā at over 500).

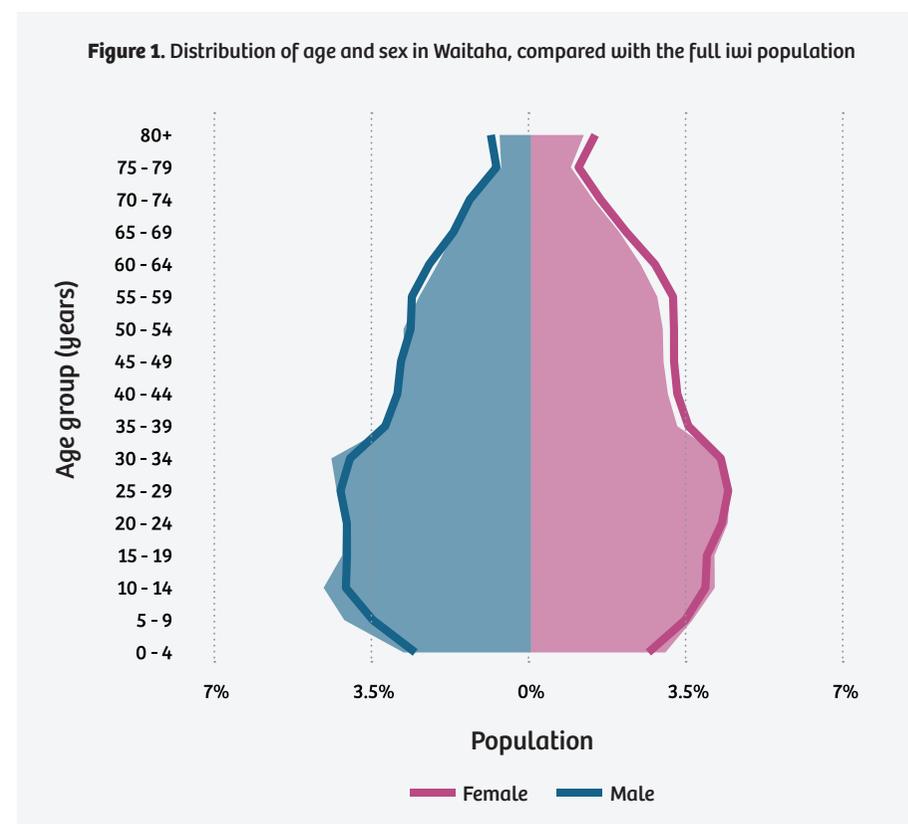
Relatively speaking Waitaha compares quite well to the iwi as a whole. Acute hospitalisation rates are comparable with the rest of the iwi but we note younger wāhine had higher rates (perhaps for child birth) and middle aged tāne had slightly higher rates.

27%

Proportion of Ngāi Tahu who call **Waitaha** home. **18,700** whānau members who live in the motu reside in Waitaha.

Demographic structure of whānau members

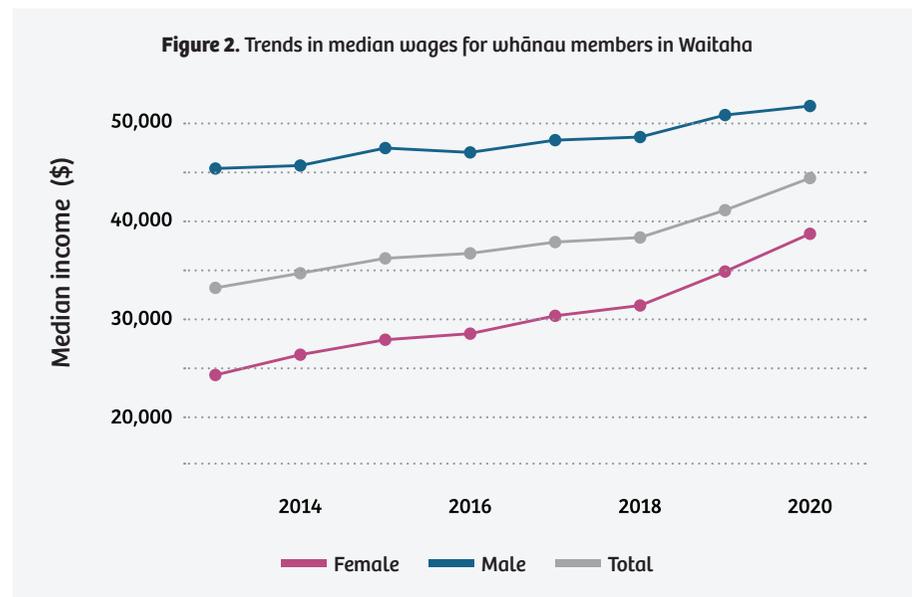
Whānau members in Waitaha have a very similar age and sex profile to the national profile of Ngāi Tahu. Given the relatively large population within the region this is expected. However, the population of Waitaha do have a smaller proportion of tamariki compared to the total iwi. As with the iwi itself, Waitaha has a younger population.



NOTE: The shaded area shows a given regions' population distribution whereas the darker line shows the total iwi distribution. The proportion of the population is used in order to compare between regional and national population distributions.

Income of whānau members

Median incomes for both wāhine and tāne kept pace with national wage changes. Interestingly tāne started off above the national median for tāne, while wāhine started below their national median. However, by 2020 this had reversed.

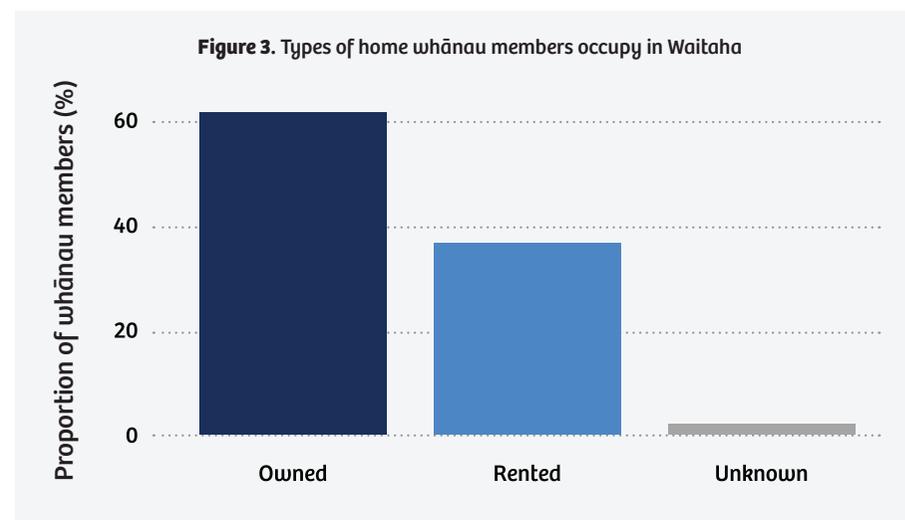


Wāhine enjoyed a 59% growth (compared with the national growth of 50%), while tāne had a more subdued 14% growth (compared with national growth of 17%). This means that while the income gap remains between the sexes, it closed more in Waitaha than in the rest of the nation. Perhaps it's prudent to examine why?

i **34% Growth** of median wages for whānau members in Waitaha between 2013 and 2020. This reflects an increase in median wages of **\$11,100**.

How whānau members live

While most whānau members live in homes they or their family owns, Waitaha has a marginally lower rate of home ownership than the national average for Ngāi Tahu, with 61% of whānau members owning their home, compared with 63% nationally. Thirty-seven percent of Whānau members are renters.



While most whānau members have a secure living situation, there are a growing number whose needs are not being properly resourced. Whānau members on the Kāinga Ora waitlist grew by 64% in Waitaha, from 141 in 2013, to 231 in 2020.

i **\$395** – The median weekly rent that our whānau members who are renting were paying in 2018. This is a **27% increase** from 2013.

OTAGO Araiteuru

Araiteuru is being captured using Otago regional council boundaries. Three of our papatipu rūnanga sit within Araiteuru, but it also has a lot of rangatahi from outside the region for university.

Incomes have been climbing steadily but they sit quite a bit lower than the rest of the iwi. This may, once again, be a student driven effect whereby a lot of people are studying and trying to work part time to support study. It may be necessary to make sure these whānau members are getting enough hours and money, whilst balancing full-time study.

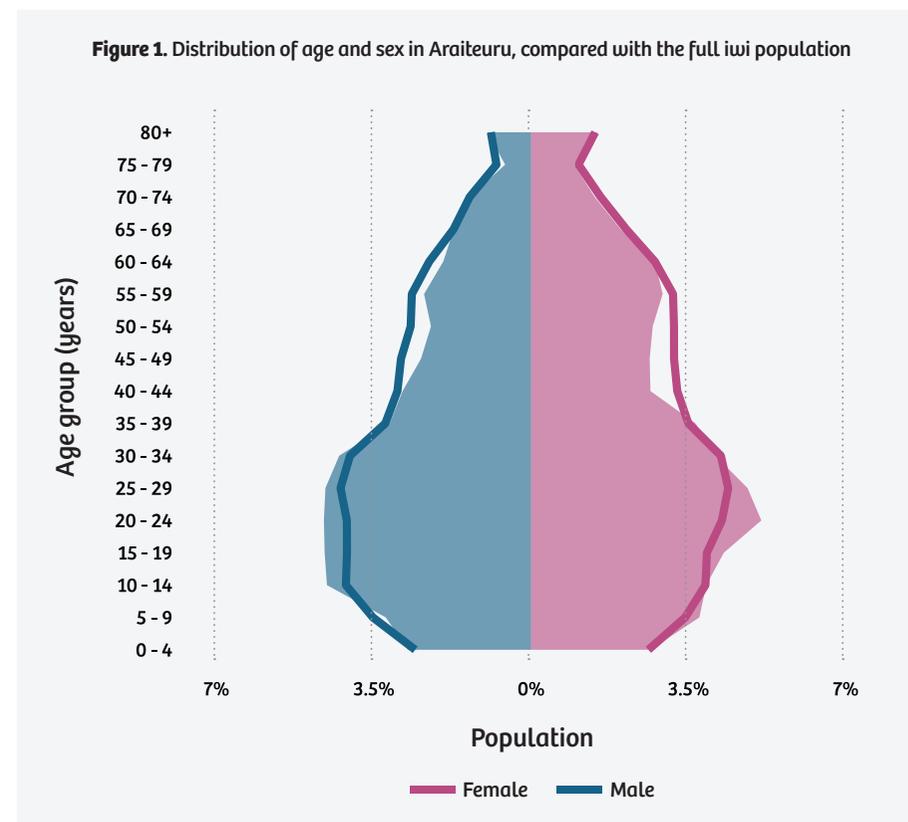
Hospitalisation rates across most age groups in Otago are lower than the national values, although hospitalisation of wāhine aged 15 to 24, and 35 to 44 are happening at slightly elevated rates, when compared to all of Ngāi Tahu.

8%

Proportion of Ngāi Tahu who call **Araiteuru** home. **5,800** Ngāi Tahu who live in the motu reside here.

Demographic structure of whānau members

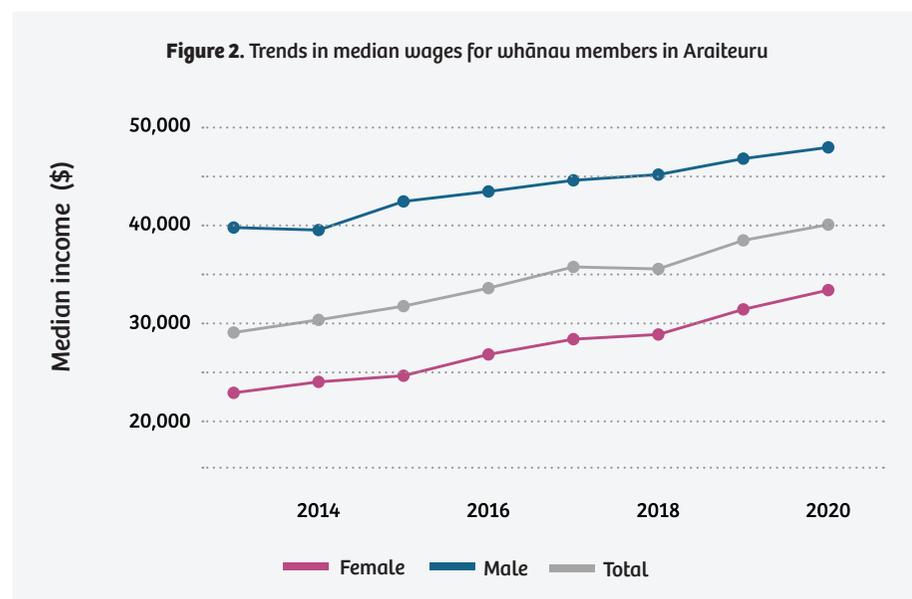
Whānau members in Otago have a similar age and sex profile to the national profile of Ngāi Tahu. However, we see that there are a lot of rangatahi in Otago, most likely the student population. In later life we see these numbers drop off by around 40 years old. Perhaps this is whānau members finding higher paying jobs in the larger cities.



NOTE: The shaded area shows a given region's population distribution whereas the darker line shows the total iwi distribution. The proportion of the population is used in order to compare between regional and national population distributions.

Income of whānau members

Whānau members in Otago have median wages consistently lower than the national medians, even as the growth in wages has outpaced the national changes. This has led to the total median income sitting \$4,300 below the national median. Perhaps this is driven by students in relatively low paid work.

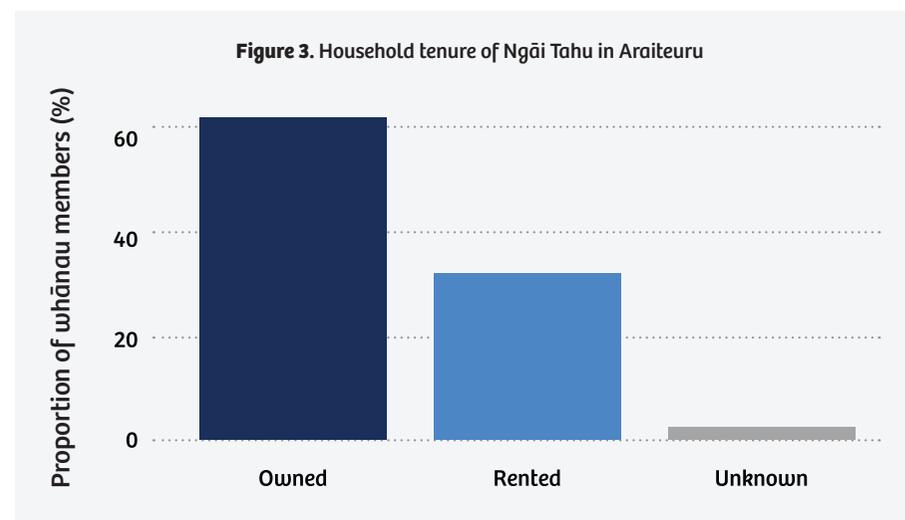


Wāhine experienced a growth rate of 46% (below the national rate of 50%), and tāne experienced a growth rate of 21% (above the national rate of 17%). The more marked increase in tāne could be due to lower paid students experiencing a more direct impact to minimum wage changes.

i **38%** Growth in total median incomes Otago between 2013 and 2020. This reflects a **\$10,900 increase** in median wages.

How whānau members live

Most whānau members live in homes they or their family owns. Otago has a slightly higher rate of home ownership than the national average for Ngāi Tahu, with 64% of whānau members owning their home, compared with 63% nationally. Conversely, it has a lower rate of renting, with 33% of whānau members renting, compared with the national rate of 35%



While most whānau members have a secure living situation, there are a small number whose needs are not being properly resourced. The number of whānau members on the Kāinga Ora waitlist in 2020 was 42, up from 32 in 2013.

i **\$370** – The median weekly rent in 2018. This is a **30% increase** from 2013, one of the highest increases across the motu.

SOUTHLAND

Murihiku ki te toka

Murihiku ki te toka is captured as the Southland regional council in this report. It consists of four papatipu rūnanga. Murihiku ki te toka has a lower proportion of rakatahi, likely who have moved on for higher studies or employment opportunities outside the takiwā.

We have noted that household ownership is one of the highest across the takiwā, with almost 70% of whānau members coming from owner occupied homes. Similarly incomes appear to be increasing year on year.

One thing to be mindful of in future are acute hospitalisations. Tāne in the 15-24 and the 65+ age brackets had much higher rates of acute hospitalisation than rates for the same age groups at an all of iwi level.

8%

Proportion of Ngāi Tahu who call **Murihiku ki te toka** home. **5,600** Ngāi Tahu who live in the motu reside here.

Demographic structure of whānau members

The population of Southland has a higher proportion of tamariki compared to the nation as a whole, and this is especially evident in young males. However there are fewer whānau members between the ages of 19 – 34, in both sexes. This is very likely rangatahi leaving Southland for university, many of whom may not be able to return for work.

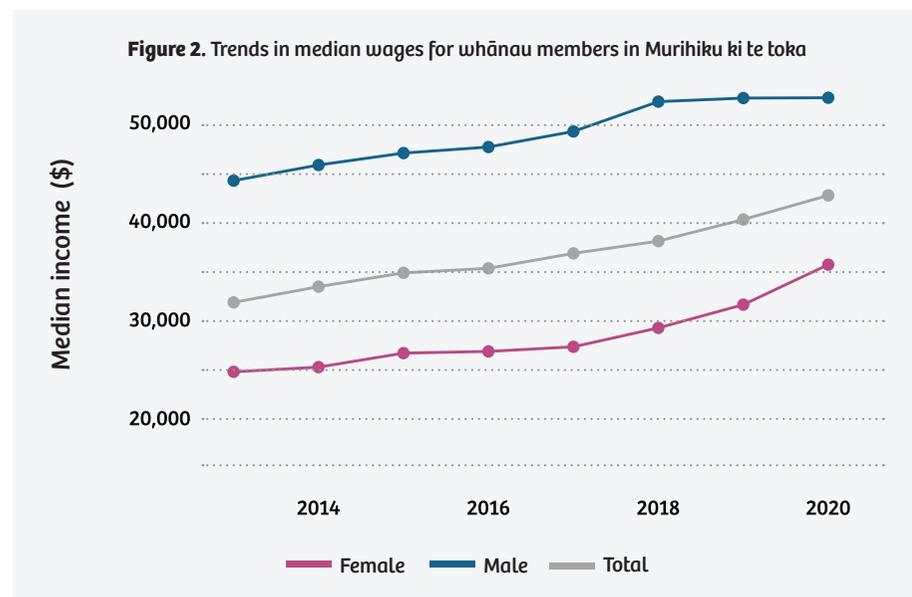
Figure 1. Distribution of age and sex in Murihiku ki te toka, compared with the full iwi population



NOTE: The shaded area shows a given regions' population distribution whereas the darker line shows the total iwi distribution. The proportion of the population is used in order to compare between regional and national population distributions.

Income of whānau members

The overall median incomes for whānau members in Southland are lower than the nation as a whole. However, the incomes of tāne in Southland consistently sit above the national median for tāne. Conversely the incomes of wāhine sits well below the national median, leading to a bigger income gap between wāhine and tāne in Southland compared to the rest of the nation.

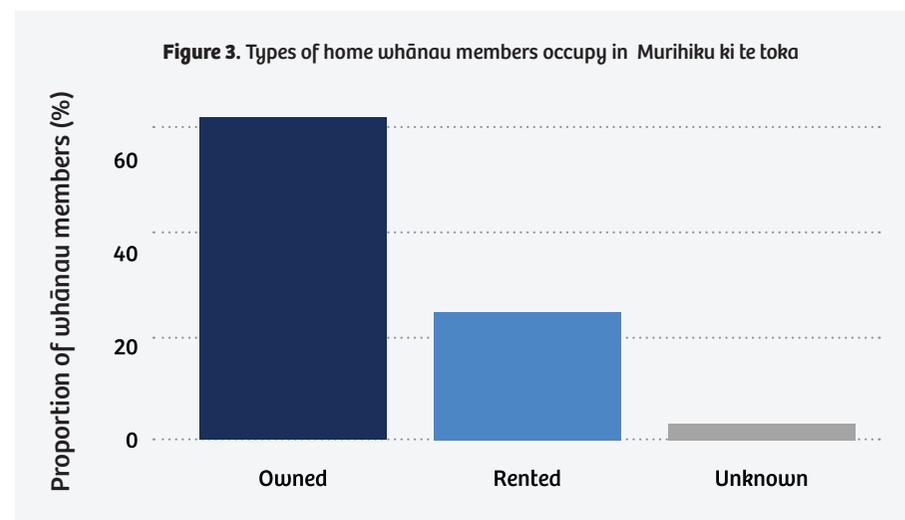


Wāhine saw their income growth not keeping pace with the national trends, with a 44% growth between 2013 and 2020, compared with 50% for the nation. For tāne, the equivalent is a 19% growth, compared to the national growth of 17%.

i **\$16,900** – The wage gap in Southland in favour of tāne is the largest in Ngāi Tahu. This is a **47% gap** between the sexes.

How whānau members live

Most whānau members live in homes they or their family own. Southland has the highest rate of home ownership in the iwi, with over 69% of whānau members owning their home, compared with 63% nationally. Only 27% of whānau members in Southland live in a home they rent.



While most whānau members have a secure living situation, there are a small number whose needs are not being properly resourced. The number of whānau members on the Kāinga Ora waitlist in 2020 was 48, up from 15 in 2013. While the number is small, the 220% increase between the years may indicate an emerging problem.

i **\$290** – The median rent in Southland. This is a **26% increase** from 2013, very slightly lower than the overall national increase.

WEST COAST Te Tai o Poutini

Te Tai o Poutini best overlaps with the West Coast Regional Council. This region consists of two of our papatipu rūnanga and is one of our smallest regions in terms of population size (this means there is more suppression in the data than in other regions).

Incomes appeared to be slightly lower but this was offset by slower growth in weekly rent since 2013. Clearly there has been disruption to industries such as mining in Te Tai o Poutini and we see very clear effects on the economy and population demographics of Ngāi Tahu within the area.

2%

Proportion of Ngāi Tahu who call **Te Tai o Poutini** home. **1,250** whānau members who live in the motu reside here.

Demographic structure of whānau members

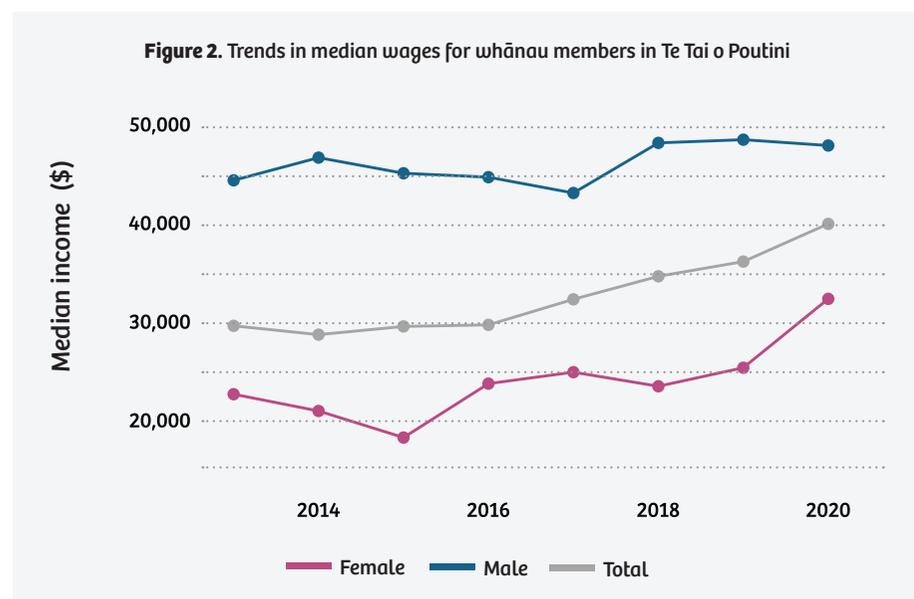
Whānau members in the West Coast are generally older across both sexes, compared with all of Ngāi Tahu. The jagged nature of the distribution is likely due to the small number of whānau members residing on the West Coast.



NOTE: The shaded area shows a given regions' population distribution whereas the darker line shows the total iwi distribution. The proportion of the population is used in order to compare between regional and national population distributions.

Income of whānau members

The overall median wages for whānau members in the West Coast are lower than the nation as a whole. For tāne, wages dipped below the national median in 2015, and have remained below ever since. For wāhine wages have always sat well below the national median.



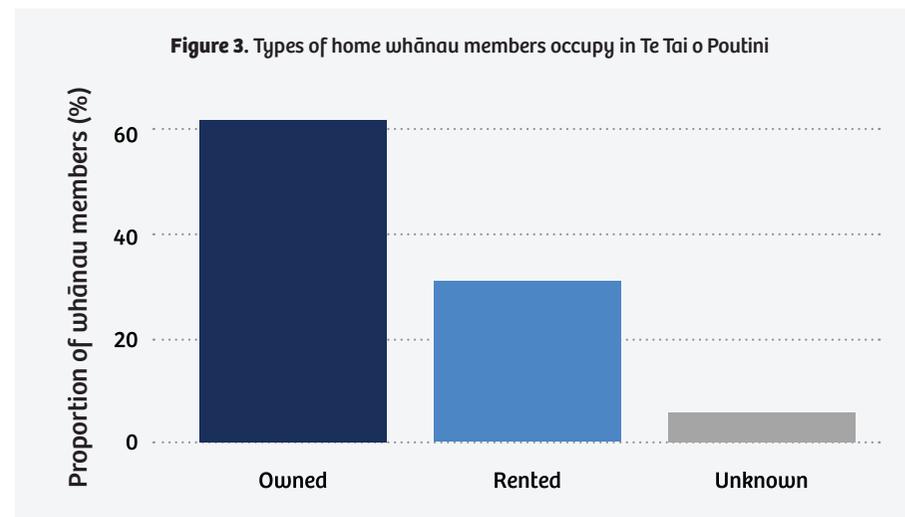
The wage reductions for tāne may indicate they are having to shift industries as the sectoral make-up on the West Coast changes.



\$4,200 - The amount median wages in the West Coast lag the overall median wages across the nation. This reflects a 11% gap between the region and the nation.

How whānau members live

The West Coast has a similar rate of home ownership to the national average for Ngāi Tahu, with 63% of whānau members owning their home. About one third of whānau members live in rented accommodation.



The rate of whānau members for which there is no known tenure information is 6%, higher than any other region in the motu. This may simply indicate missing information, or possibly whānau members in precarious living situations. In addition, there were 27 whānau members on the Kāinga Ora waitlist in 2020, up from zero in 2013.



\$310 – The median rent in the West Coast in 2018. This increase of 24% from 2013, is lower than the increase observed nationwide.

OUTSIDE OUR IWI LAND

Outside the takiwā

Areas outside of our takiwā make up a large portion of our population. In this population we unfortunately only follow whānau members within the motu so cannot draw conclusions on the wellbeing of our overseas whānau members.

Given the large proportion of whānau members living outside our takiwā, most indicators align with the total iwi population. We should note that because the population is large, even small percentages can indicate a pressing need. For example, over 500 whānau members were on the waitlist for social housing at some time in 2020.

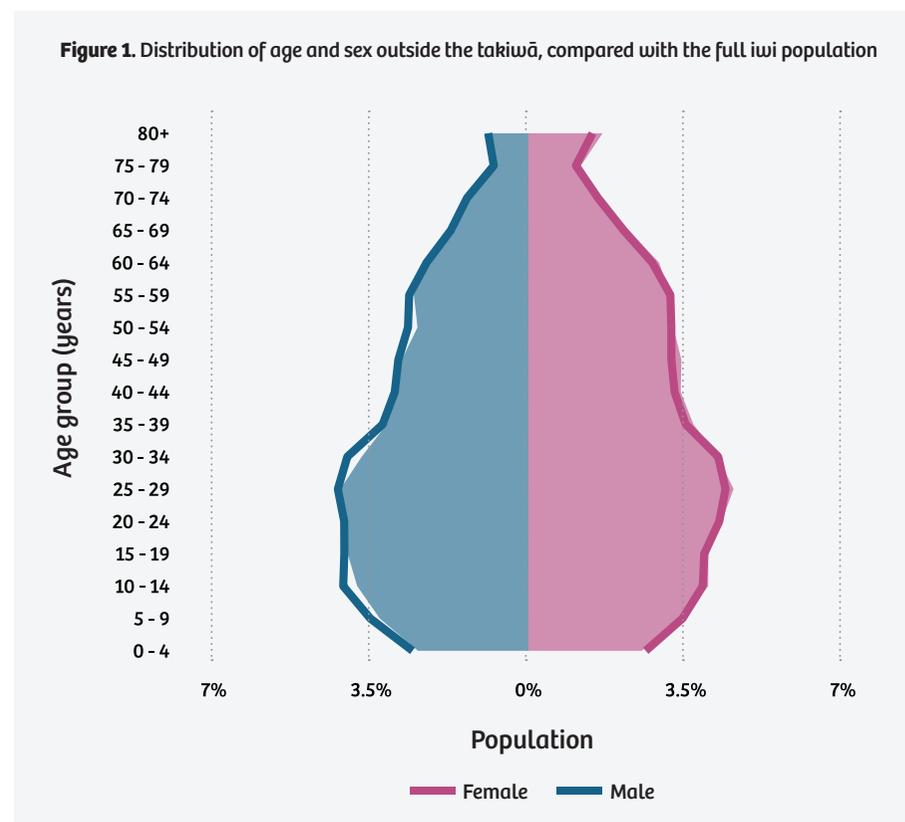
Despite some evidence of need, whānau members outside the takiwā otherwise have good economic standing. They have higher than average incomes, likely reflective of Wellington and Auckland populations where higher paying jobs are attainable relative to the regions within Te Waipounamu.

49%

Proportion of Ngāi Tahu who live outside the takiwā. **27,700 whānau members** who live in the motu reside outside the takiwā.

Demographic structure of whānau members

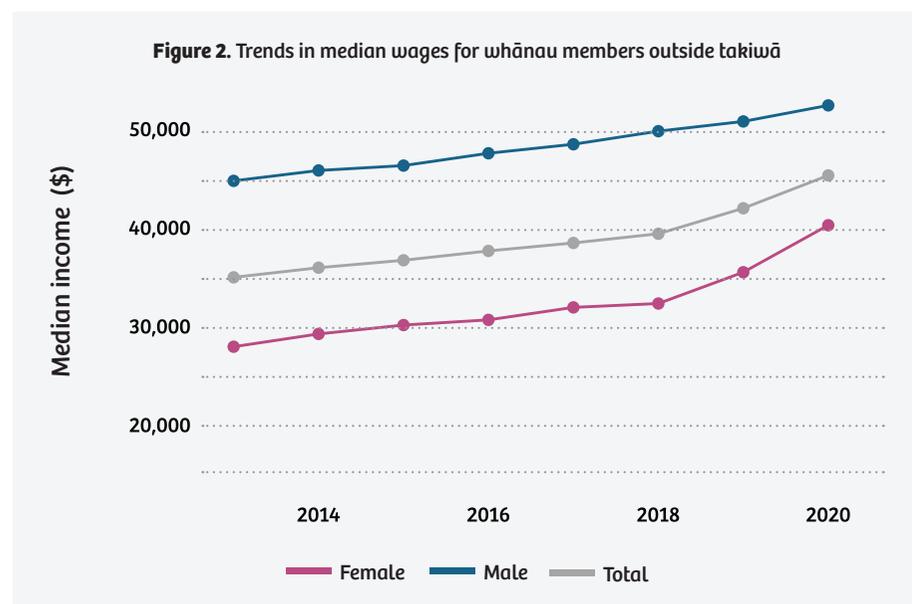
Because so many whānau members live outside the takiwā, the demographic distribution matches closely with all of Ngāi Tahu. It should be noted though, that the population outside the takiwā appears very slightly older, with the overall Ngāi Tahu profile displaying a greater proportion of tamariki than is observed outside the takiwā.



NOTE: The shaded area shows a given regions' population distribution whereas the darker line shows the total iwi distribution. The proportion of the population is used in order to compare between regional and national population distributions.

Income of whānau members

The overall median incomes for whānau members outside the takiwā are higher than the nation as a whole, and changes track the national trends. However, the median incomes being higher than the national median indicates that the wages inside the takiwā as a whole are lower than those outside.

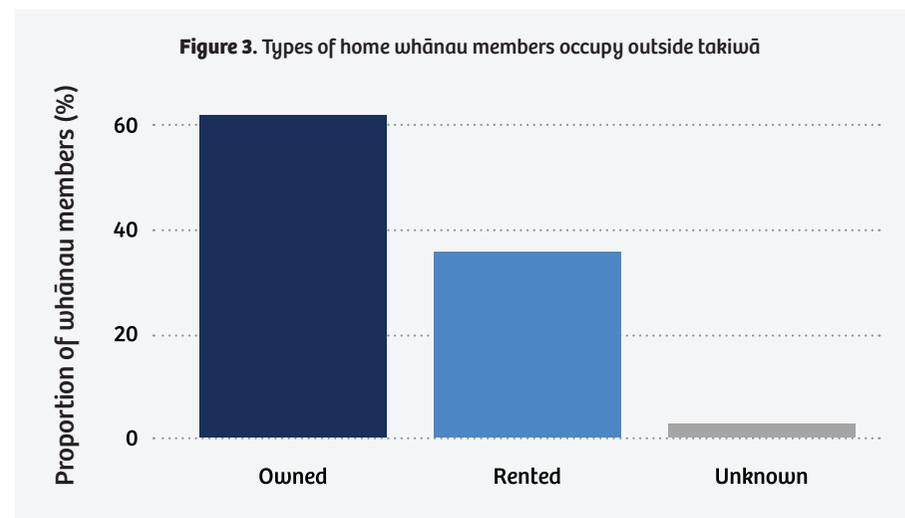


The income gap between the sexes remains here as well. wāhine saw their income growth not keeping pace with the national trends, with a 44% growth between 2013 and 2020, compared with 50% for the nation. For tāne, the equivalent is a 17% growth, same as the national figure.

i **30%** - The wage growth outside the takiwā, compared to 32% nationwide. While wage growth is slightly slower, the starting point for wages was higher outside the takiwā.

How whānau members live

Sixty-two percent of whānau members live in homes they or their family own. This is very slightly lower than the national rate of 63%. Conversely, the rate of rental is higher outside the takiwā, at 36%, compared to the national rate of 35%.



Partially driven by the large population, the number of whānau members on the waitlist of Kāinga Ora outside the takiwā is the highest across the nation. There are 549 whānau members whose needs are not being properly met. This is a worrying 316% increase since 2013.

i **\$395** – The median rent outside the takiwā in **2018**. This is a **23% increase** since 2013.



EDUCATION
Mātauranga

EDUCATION

Mātauranga

Education information is sourced from a combination of enrolments and qualifications from the Ministry of Education, and highest qualifications reported in Census 2013. We explore both NCEA achievement among whānau members and post secondary qualifications.

NCEA achievements are limited to secondary age taurira who are enrolled in schooling. When considering the rates in tertiary study, we have limited ourselves to whānau members aged 15 – 34 years old, who are engaging in NZQA qualifications above secondary school level. Whereas the highest qualifications that a person has achieved is constrained to working age whānau members (15 – 64 year olds).

Overall, NCEA achievement rates are steady, and NCEA level three attainment appears to be slowly increasing. Examining the overall qualifications pattern among Ngāi Tahu revealed a gender gap in higher qualifications in favour of wāhine.

Priorities for further inquiry

1. We should seek to develop an understanding between three particular groups of people for comparison. That is, those who do not attempt NCEA, those that attempt but do not achieve, and those that achieve with various endorsements. This may reveal if whānau members are shying away from attempting NCEA altogether.
2. A deeper dive into the gender gap in higher education is recommended to understand possible drivers. One option may be that tāne are encouraged into trades rather than university level qualifications.

KEY INSIGHTS

2x

More than **twice as many wāhine** have a Bachelors' degree or higher compared to tāne as at 2020.

70%

Overall rate of achievement for all NCEA levels in 2018. These **rangatahi taurira achieved** the relevant NCEA level for their school year.

NCEA achievements

NCEA information is sourced from Ministry of Education data through the IDI. We explore NCEA qualifications through general achievement trends, breakdown of level of achievement, and endorsements (e.g. a merit or excellence grade on a particular level of credit).

We have constructed an “achievement rate” using the counts of Ngāi Tahu achieving NCEA credits, compared with the total number of Ngāi Tahu enrolled in the corresponding year at school (e.g. NCEA level 1 corresponds to year 11). Note that this will underestimate achievement rates because not every enrolled student will attempt NCEA credits in that year. However, the rates are still informative as a low achievement rate also gives an indication of possible low attempt rates.

Overall achievement rates remain steady across the years. The number of Ngāi Tahu gaining NCEA credits decreases as NCEA level increases, though a gradual increase in NCEA level 3 attainment was observed.

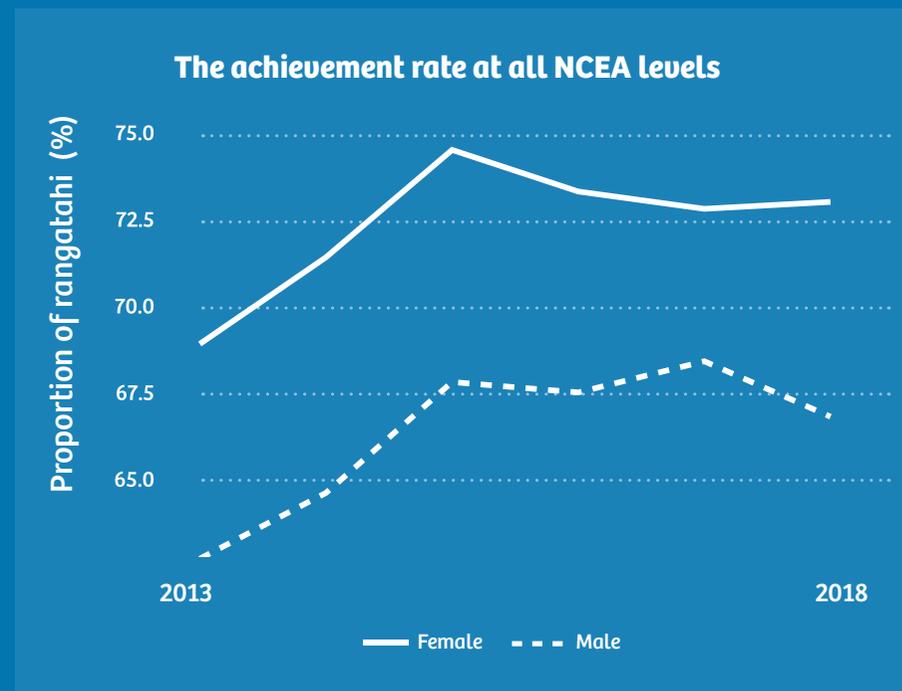
Possible next steps

We should investigate the taura in three separate cohorts, those that don't attempt NCEA, those that attempt but do not achieve NCEA, and those that achieve with various levels of endorsement. This would also indicate the rates of taura who “go for” credits, as a low rate here may indicate access problems or a lack of support, which may stifle future opportunities.

Exploring the nature of the credits attempted, and the cohorts of rangatahi who achieve them may illuminate the needs for intervention to boost the proportions gaining higher endorsements, merit and excellence.

Performance of whānau members through NCEA

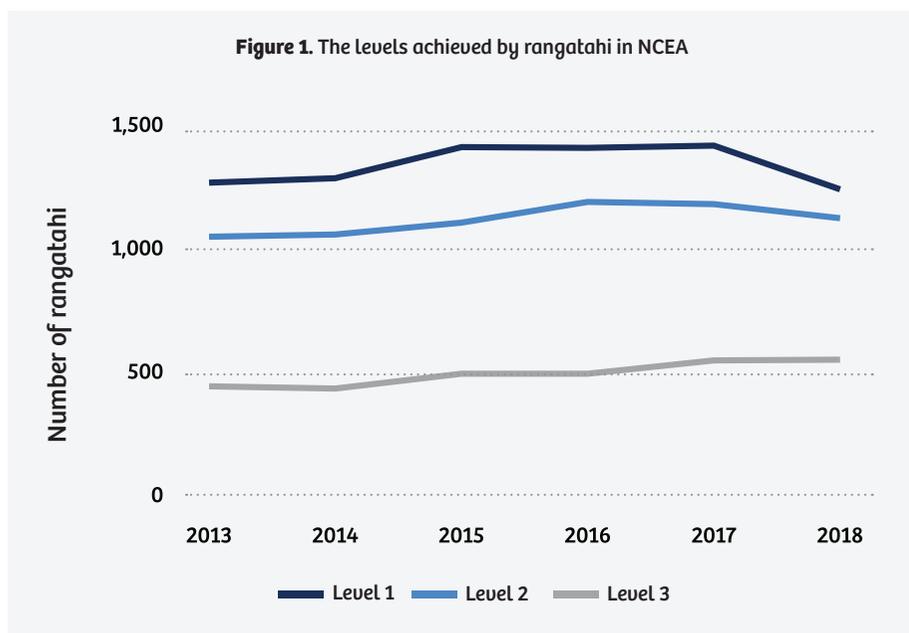
The sparkline below shows the constructed “achievement rate” measure discussed in the introduction. We see that taura wāhine have a higher achievement rate than taura tāne. While the levels move about, there is no discernable long term trend.



Achievement rates for taura wāhine hover around the 72% mark, with tāne coming in at a lower rate around the 67% mark. As we see in the next plot, these rates are partially driven by school leavers and lower achievement at higher NCEA levels. However, we must keep in mind the limitations of the measure itself, which may explain some of the observed low achievement rate.

NCEA level break down for Ngāi Tahu

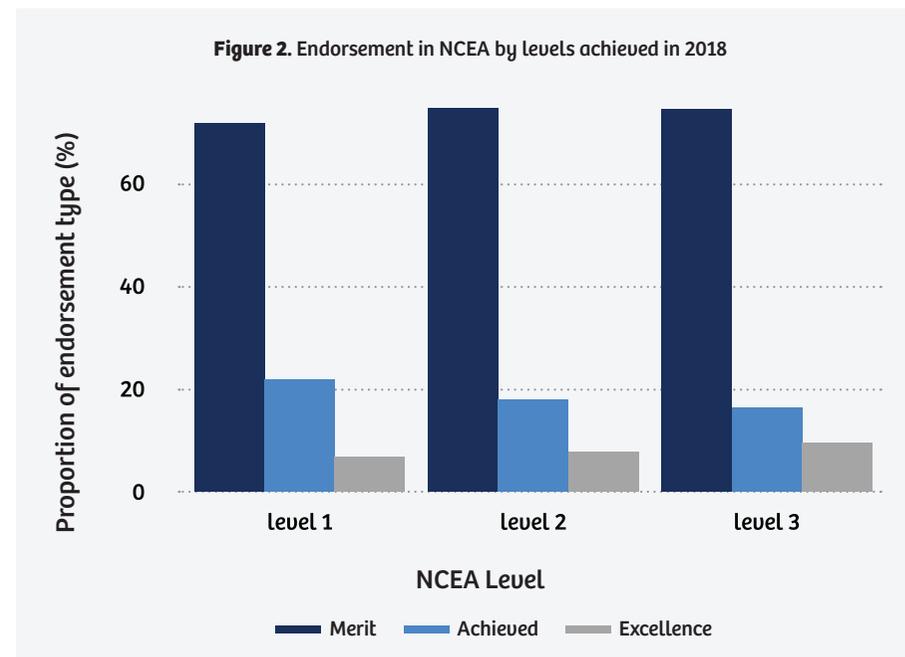
In a given year most achievements of NCEA are at level 1, followed closely by level 2, with level 3 achievement numbers lagging behind. This pattern is unsurprising given that higher level credits have the achievement at the previous level as a prerequisite for entry.



The trends in the achievement numbers at the three levels are fairly stable. The slight variation in the last data point is small, and may be due to incomplete data in the administrative records. Level 3 achievement numbers have shown a gradual increase through the years, and investigating the correlation between this and university enrolments through studying specific cohorts of taurira may inform areas of intervention.

How well are whānau members achieving NCEA?

A deeper dive into the data shows how well whānau members are performing when it comes to NCEA achievements. **Figure 2.** below is a snapshot of the 2018 results broken down by the endorsement received for credits.



Over 70% of whānau members who are successful in gaining an NCEA qualification do so with the most basic “Achieved” grade. The proportion completing NCEA with an “Excellence” endorsement increases as the qualification levels get more difficult.

Exploring the nature of the credits, and the cohorts of rangatahi who achieve them may illuminate the need for intervention to boost the proportion gaining higher grades - which will in turn provide better access to higher education opportunities such as scholarships.

Post secondary education

Higher education information is sourced from post secondary enrollment and qualifications data provided by the Ministry of Education through the IDI. Increasingly whānau members are achieving greater levels of post secondary qualifications, with those attaining higher level qualifications increasing over time.

While this is not unexpected, given qualification numbers are cumulative (e.g. anyone who achieved a qualification in say 2013, will still have that in 2019), it is a good sign that whānau members are continuing to pursue and obtain high level education.

There are some areas of concern, particularly around the low numbers of tāne engaging in tertiary qualifications. Unlike with income, the gap in tertiary enrolments (and achievement of qualifications) is reversed, with wāhine leading tāne.

Possible next steps

A deeper examination of the gender gap in higher education is warranted given observed discrepancies in tertiary qualifications between the sexes. We see from the NCEA data that wāhine and tāne have only slight differences in overall achievement rates.

Exploring the quality of these achievements between the sexes may shed light on whether tāne are choosing not to engage in tertiary study, or whether their NCEA results are excluding them from the opportunity.

In addition, direct surveying may indicate industry preferences for wāhine and tāne, which would also be enlightening in establishing how much of the observations are driven by choice vs. lack of opportunity.

11%

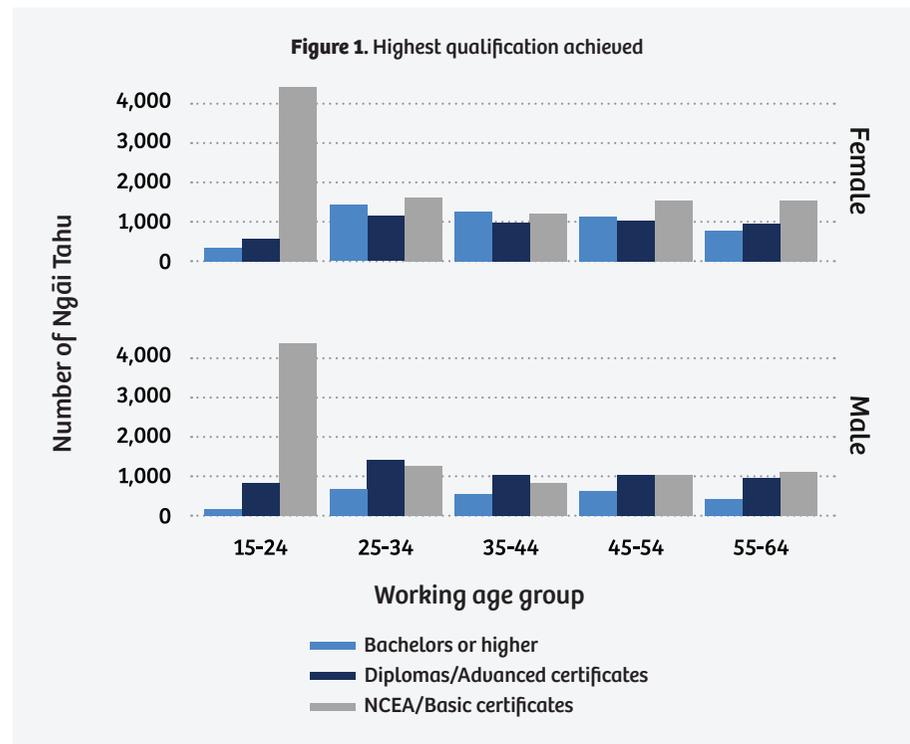
The overall proportion of younger taurua above school age (between 15 and 34 year olds) who were studying at **Bachelors' or higher level** in 2019.

25%

Of working age wāhine hold a **bachelors' degree or higher**, compared to only 15% of tāne. There is a gender gap in higher qualification levels.

Highest qualification levels achieved

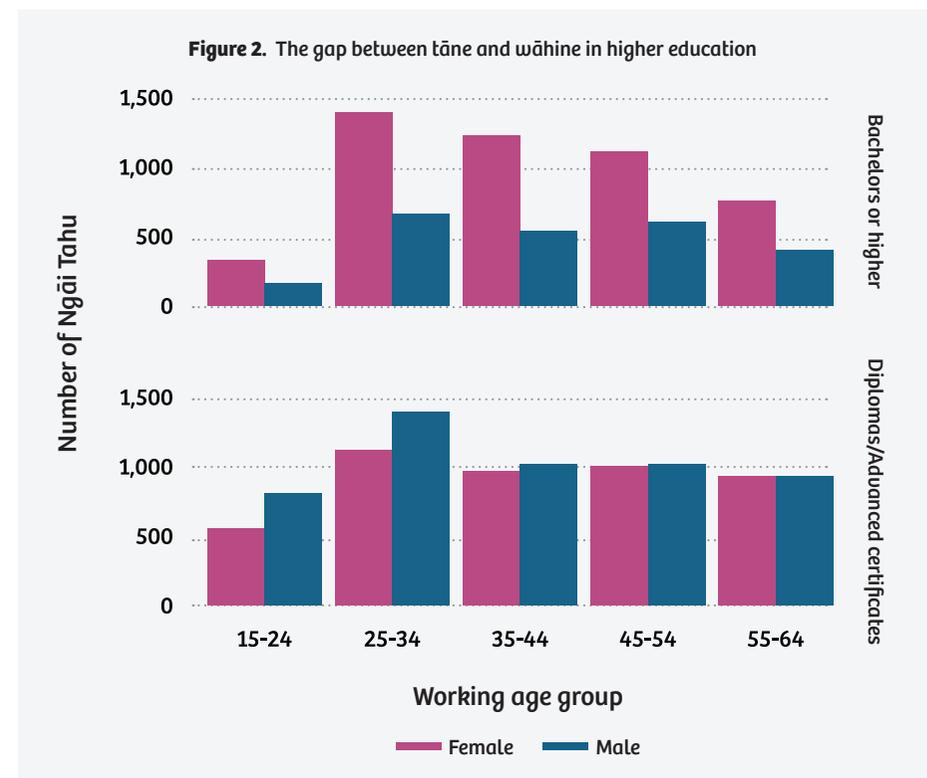
Most of our working age whānau members who hold a qualification have NCEA or basic certificates. However, this is skewed by the youngest working age group (15 – 24 year olds), as we both have a large population within that group, and the majority of them hold basic qualifications.



In the older age groups more people tend to hold diplomas or bachelors and higher qualifications. **Figure 2**, these findings as of 2020. We can see that there is a disparity between the numbers of males and females who achieve high level qualifications, which is explored in the next section.

Gender gap in higher education

Figure 2, highlights the “higher education gap”, where more wāhine hold a bachelors or higher qualification compared to tāne. Nearly 25% of working age wāhine hold a bachelors or higher, compared with only 15% of tāne. When considering diplomas/ advanced certificates, there is greater parity between the two sexes.



This is likely driven by tāne gravitating towards trade-based employment compared with wāhine. However, it may be worthwhile examining initiatives to encourage young tāne towards tertiary education as well as whether issues at the secondary school level are excluding some tāne from accessing tertiary study.



INCOME

Whiwhinga moni

INCOME

Whiwhinga moni

This section covers various types of income and benefits from a number of sources. Overall income is presented from all sources, then we focus on wages and salaries, and self-employed income. Benefit information focuses on job seeker and living assistance benefits.

In this analysis we focus on the working age population (Ngāi Tahu aged 15 to 64 years old). We do not make any adjustments for Ngāi Tahu that are not participating in the labour force.

Wages are steadily increasing and the gap between income for wāhine and tāne are slowly closing. We also see that more whānau members are entering self-employment. However, we see some evidence that whānau members are in unstable job situations.

Priorities for further inquiry

1. The gender gap is closing but still sizeable. Investigating hours worked and industry differences will shed light on where differences are emerging.
2. Sole-parent household incomes are disproportionately low. We should investigate sources of sole-parent hardships to develop interventions.
3. Whānau members spend short amounts of time on job seeker benefits. This may be indicative of unstable employment which warrants investigation.

KEY INSIGHTS

\$10,800 

Total median wages increased by **32%** between 2013 and 2020.

4,200

Ngāi Tahu received the **jobseeker benefit** at some point in 2020. A lot of this was likely due to disruptions from COVID-19.

26% 

Increase in the number of Ngāi Tahu earning a self employed income between 2013 and 2019.

Annual individual income

Annual income is sourced from tax return data. We explore overall wage trends, shifts in the population between income brackets over time, and the income breakdown across the different demographics of whānau members. For analysis of income, we only consider the working age population (aged 15 to 64).

Overall we see an increase in what whānau members are earning, in particular for wages and salaries. We should take note of the gap in earning that seems to exist between our wāhine and tāne. Another area to keep track of is the reduced income shown by whānau members closer to retirement.

Possible next steps

We can glean further information on the gender gap by investigating hours worked and industry type. Analysis may also highlight the extent to which wāhine engage in unpaid labour, such as child care.

It also appears that incomes reduce as whānau members approach retirement age. The drivers for this should be examined, as it could highlight the need for assistance as whānau members prepare for retired life.

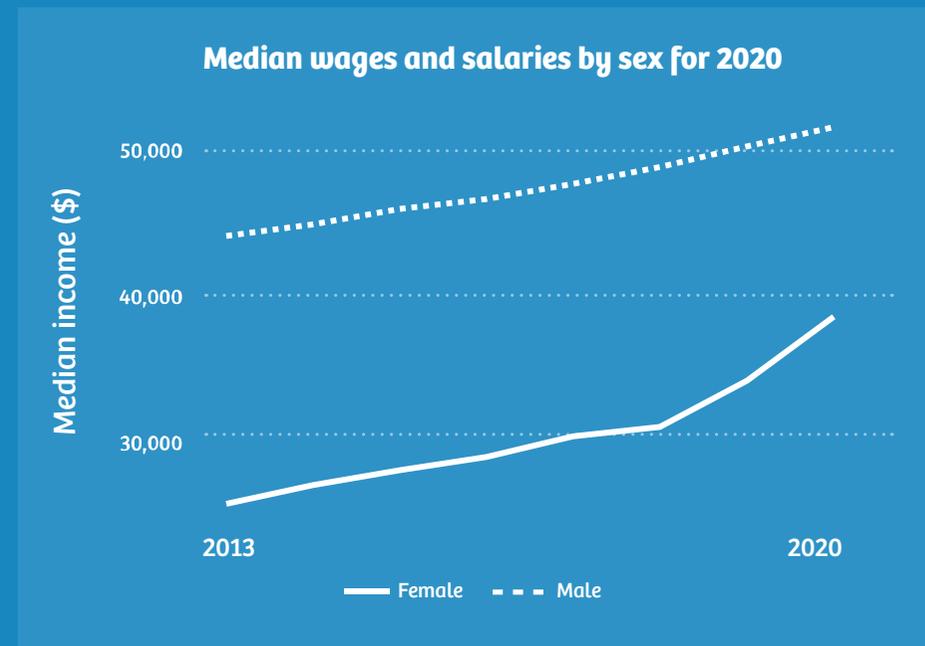


34%

Gender wage gap in annual incomes from wages and salaries. However, there are signs that this has decreased in recent years.

Median wages steadily increase

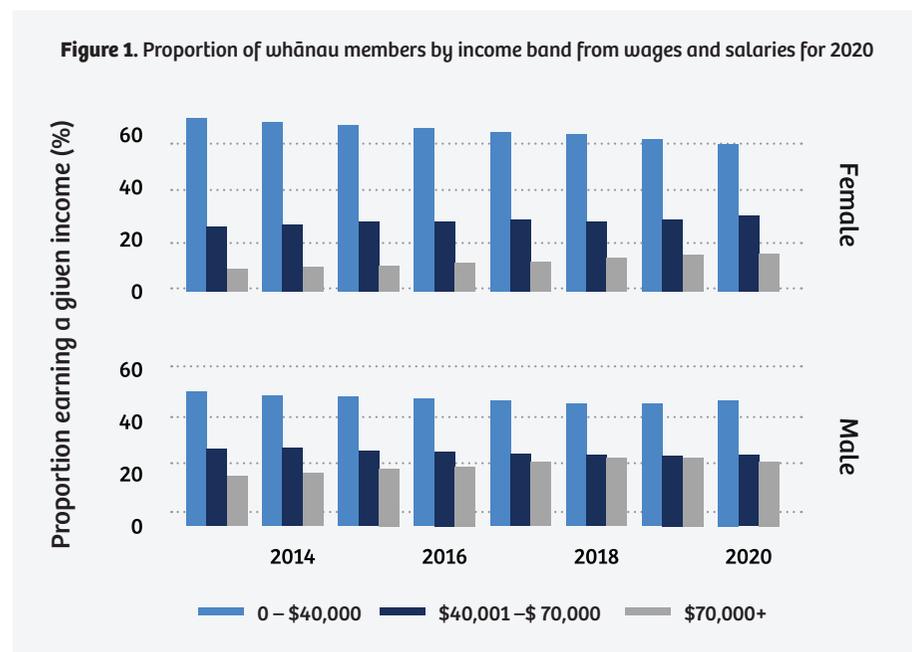
The median wages of our whānau members increased by 32% (\$10,800) between 2013 and 2020. Encouragingly, wāhine saw their median income increase by 50%, while tāne saw a 17% increase over the seven years.



It is important to note that tāne started off with a much higher base in 2013, earning \$18,300 more than wāhine. While this gap closed over the years, in 2020 a sizeable gap of \$13,000 remains between the sexes.

Trends in personal income brackets

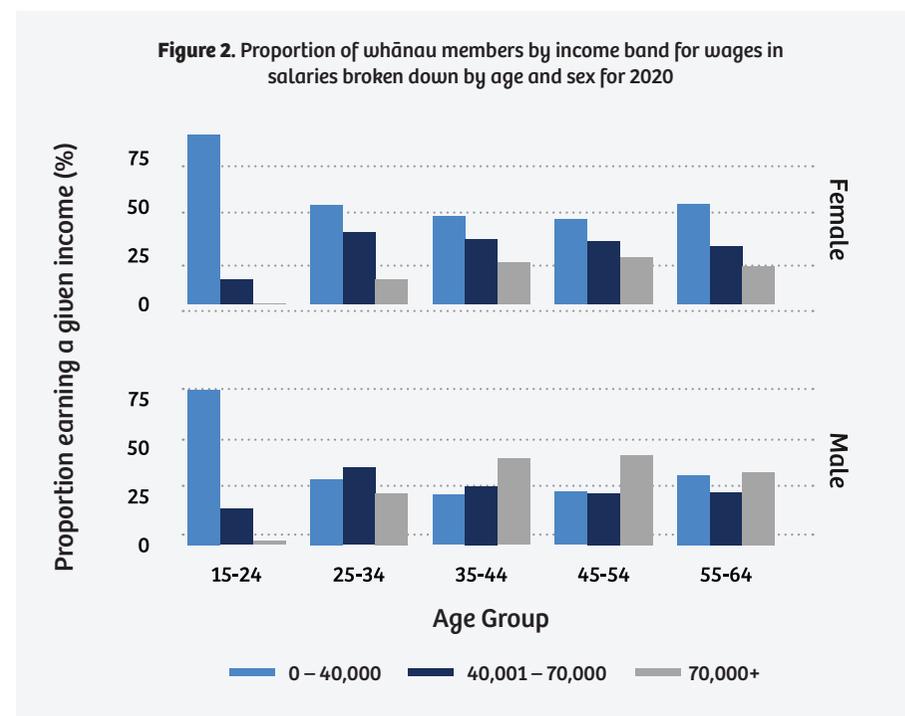
More than 50% of working age whānau members are currently earning less than \$40,000 annually, but this proportion has been falling steadily since 2013. In the year 2020, 14% of wāhine, and 25% of tāne enjoyed incomes exceeding \$70,000.



Trends are promising across all income bands but for tāne the proportion earning less than \$40,000, has remained stubbornly consistent over time.

Demographics of personal income

Over three quarters of whānau members aged 15 - 24 years old earned less than \$40,000 in 2020. In the older age groups, wages steadily increase, until the 55-64 year old age group. The younger population are more likely to be enrolled in study, or other non-work related activities, and this is reflected in their earning profiles. Similarly, it may be that the older population is preparing for retirement by reducing hours.



NOTE: We use 2019 data to avoid complications arising from 2020/2021 tax information not being available for self-employed whānau members within the IDI.

Breakdown of income types

We now explore the way our whānau members earn, by looking at a breakdown of the types of income received by whānau members. Again, we limit our analysis to working aged whānau members (aged 15 to 64).

The types of income are sourced from tax return data. We focus on wages and salaries, and self employment. Self-employed tax filings often occur many months after the end of the tax year. Therefore we cannot reliably estimate self-employed or total income for 2020, and use 2019 where appropriate. We should also consider that self-employed income will be after claiming any expenses, i.e., the profit for a sole trader or business.

Overall we see that most whānau members are salaried or receive income through wages, although whānau members giving it a go on their own is increasing.

Possible next steps

A deeper dive into tax return information, with a focus on self employed income may shed light on why the median incomes for self employed whānau members appear so much lower than wages.

33% 

Increase in self-employed wāhine since 2013, leading the overall increase in the total number of self-employed individuals for Ngāi Tahu.

580

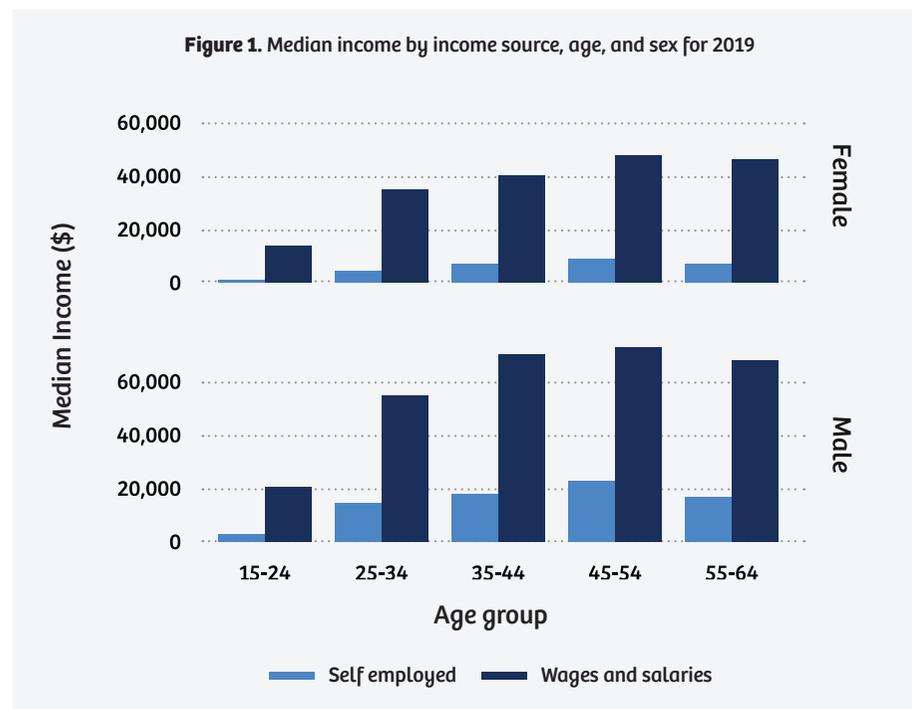
More tāne have entered self-employed work. This reflects a **20% increase** since 2013.

In 2019 more of our whānau members were on the journey of self-employment compared to 2013. Our wāhine drove this, as 900 more joined the ranks, between 2013 and 2019, representing an increase of 25%.

Our tāne also kept up, with 580 of them taking up self employment between 2013 and 2019, an increase of 17%. In 2019 there were more wāhine self-employed than tāne, a reversal from the situation in 2013.

How well the different income types pay

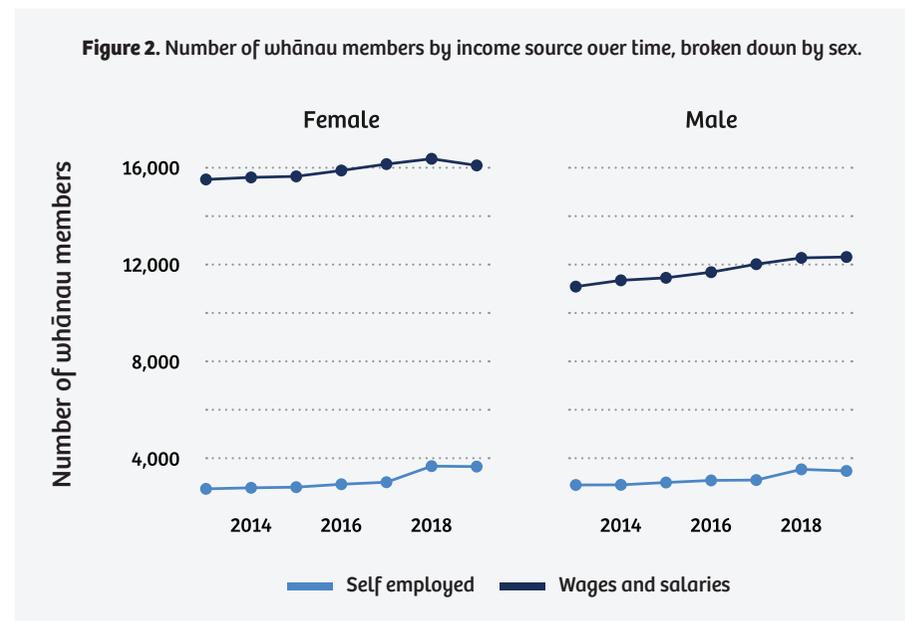
Wages and salaries remain the major source of income for both wāhine and tāne. **Figure 1**, shows that median incomes through salaries were consistently higher across all age groups when compared to other sources in 2019.



Lower median earnings through self employment (when compared with wages and salaries) could be for a variety of reasons. Such as a large number of expenses being claimed, self-employment alongside salaried work (i.e., a 'side hustle'), or businesses carrying forward a loss to facilitate growth.

How are most whānau members earning

Most of the income earned by our whānau members collectively, have come from wages and salaries. In 2019, the number of wāhine earning wages and salaries is 33% greater than tāne (mainly because there are more wāhine in the working age population).



In general there has been a gradual, but steady increase in the number of wāhine and tāne earning wages and salaries, as well as those seeking the path of self employment. This is likely driven by population increase, although the trends in self-employment may indicate more whānau members engaging in extra work for themselves, outside of their salaried employment.

Household income

Having looked at individual earnings and income, we now explore household incomes, with data sourced from Census 2018. Due to methodological differences in the estimation process within census data, 2018 and 2013 household income data cannot be directly compared.

Overall we see that one-parent households have a substantially lower level of income, compared with couples with children. This may embed further inequity, and perpetuate generational hardship.

Possible next steps

It appears that households with one adult have disproportionately lower income, even when considering the number of earners in a household. There is a need for a deeper dive into disparities in household income for single-parent households.

In addition, research into why one-person households are earning less than the minimum wage equivalent by examining hours worked would be appropriate.

\$93,000

Median household income for Ngāi Tahu across all household compositions in **Census 2018**. A median likely driven by two-parent households.

\$13.50

The full time equivalent hourly rate for a one-person household. This was less than the **minimum wage** in 2018.

1/3 Single-parent households earned only a third of what a couple with children earn.

Large differences in household earnings

Nationally, there are large differences in household earnings between household types. Some of this is expected, for example, a household with two earners will generally have greater income than a household with one earner. However, there is disparity beyond what can be explained by the number of earners alone.

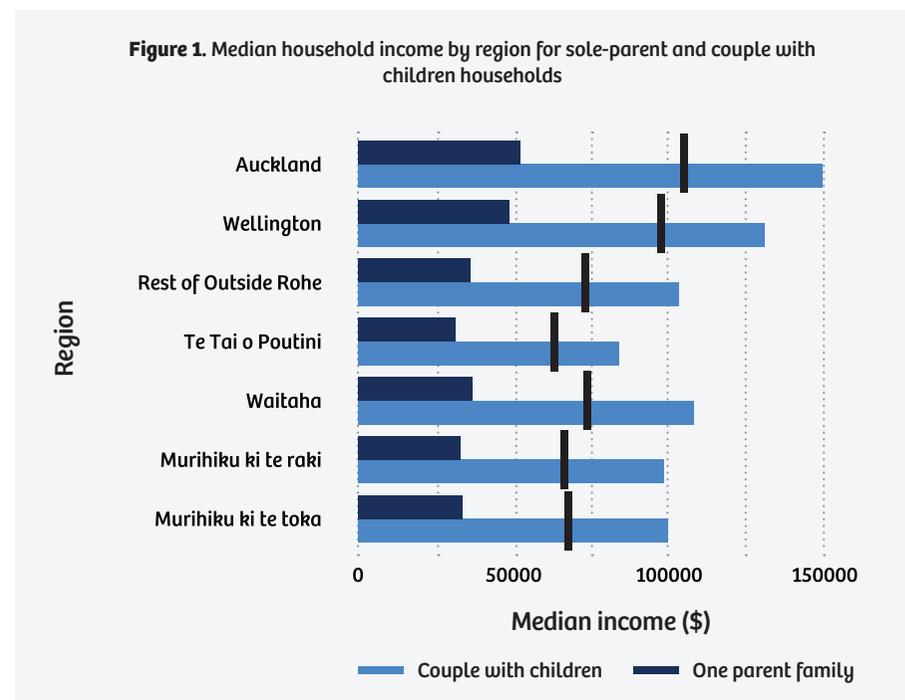
Household composition	Median household income (\$)	Earnings relative to one-person household	Estimated working age earners
Couple only	89,800	3.15	2
Couple with children	110,300	3.87	2
One-parent family	37,400	1.31	1
Other family household	125,300	4.40	Unknown
One-person household	28,500	1.00	1
Non-family household	79,200	2.78	Unknown
Total	93,700	3.29	N/A

Table 1. Unadjusted median income of households in 2018. The median incomes have not had any adjustment made to account for the number of earners, or dependents in a household.

In the table above, we have calculated how many earners can be in a house, and how many times higher the median household income was relative to a single earner. It is clear that household income does not simply track with the number of earners. This indicates that having more than one income tends to amplify the ability to earn, though the reasons for this cannot be speculated from the data. It is worth an in-depth exploration to establish possible causes.

Less income for single parents

Single-parent households have lower median wages relative to household size even when controlling for the number of earners. The effect is evident across the motu. In **figure 1**, the black line represents double the median income of the single-parent household (i.e. the earnings if there was an identical income from a second parent). However, even doubling single-parent incomes doesn't even come close to two-parent incomes.



Single-parent households will have much greater hardship, possibly leading to difficult outcomes for tamariki. We also know from benefits data (**pg 35**) that sole parents tend to be our wāhine. Investigations into the hardships faced by these wāhine should be conducted, as this could inform policy-based interventions.

Whānau members receiving benefits

In this section we explore trends and patterns in the main benefits received by whānau members. The data used for this analysis is obtained through the IDI, and is derived from Ministry of Social Development data. All figures are for whānau members of working age (15 – 64 years old).

While we provide summary analysis on the overall distribution of whānau members receiving different benefits, we are primarily focussing on the job seeker benefit and whānau members that receive living support assistance.

Overall, a sizeable proportion of whānau members receive some sort of main benefit, and with COVID-19 hitting our shores in 2020, reliance on benefits increased significantly.

Possible next steps

Over a quarter of whānau members receive some type of benefit. We should investigate how stable their situations are over time.

In general whānau members are only on job seeker benefits for a short time. This may indicate that some whānau members have disrupted income through a given year - which decreases their income security. Further investigation into this effect is recommended.

27% 

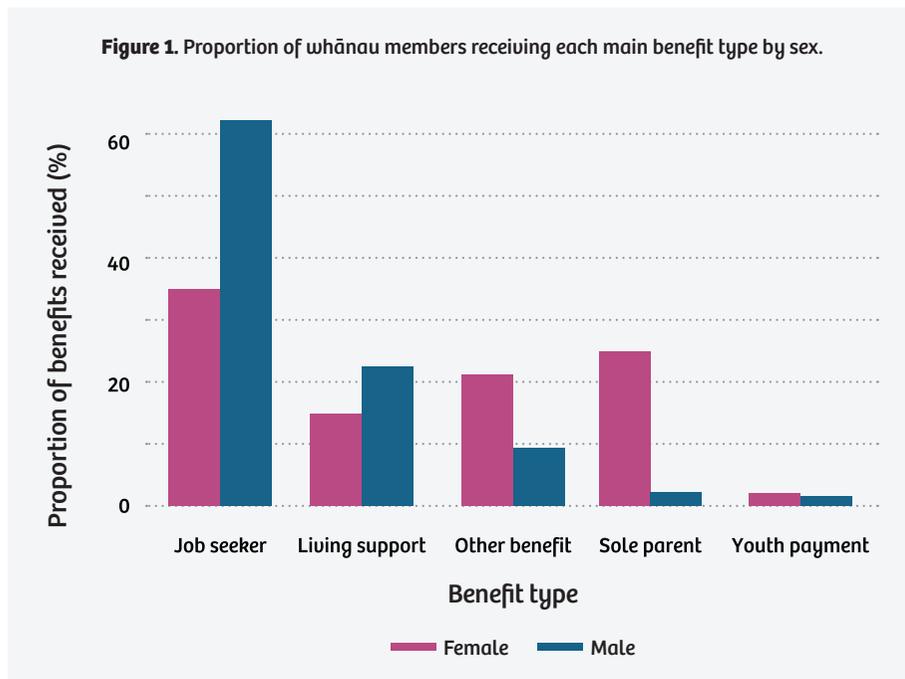
Increase in whānau members receiving the job seeker benefit between **2019** and **2020** as the effects of **COVID-19** started to bite.

13% 

Increase in whānau members receiving living assistance between **2013** and **2020**.

Types of benefits received by whānau members

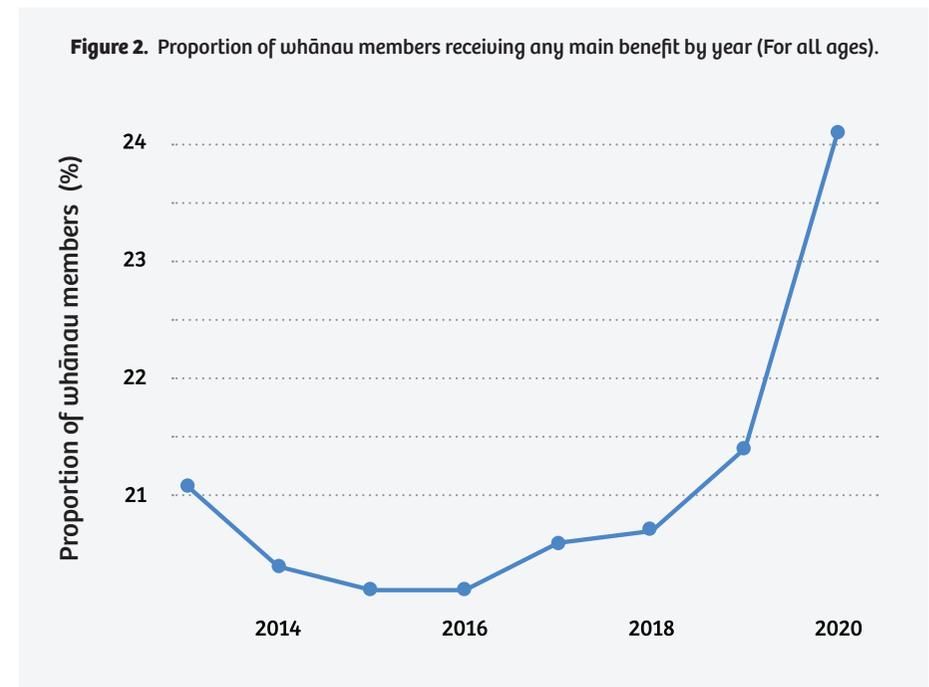
Figure 1. shows the distribution of all benefits received by whānau members. Forty-five percent were jobseeker benefits, making it the most common benefit accessed by whānau members. Over 60% of tāne that accessed a benefit received the jobseeker benefit. For wāhine, this made up 36% of all benefits received.



Sole parent benefits made up 25% of benefits received by wāhine, but only 2% of those received by tāne. It is worth considering how their need for sole parent benefits may be indicative of household pressures pulling them away from finding paid work or even further qualifications if desired.

Trends in benefits received by whānau members

The proportion of Ngāi Tahu that received at least one main benefit was relatively steady at around 21%. However, this shot up to 24% during 2020 as the effects of COVID-19 set in. While this may appear to be a small increase, it represents almost 1,700 more Ngāi Tahu that are needing help.

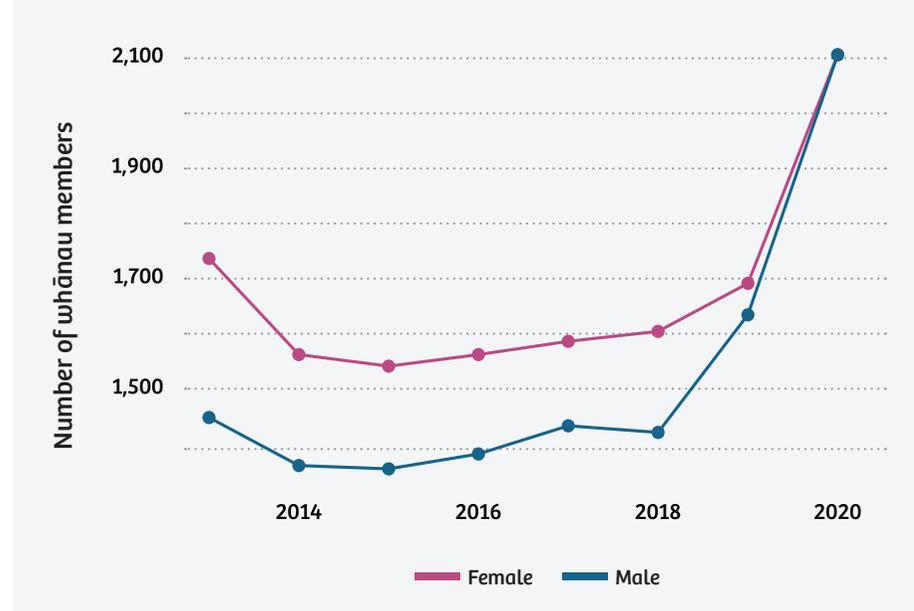


Given the relatively high overall proportion of whānau members receiving some type of benefit, a deep dive comparing the amount of time spent earning, on a benefit, or both may shed light onto the instability of their economic position.

Job seeker benefits rise

Whānau members receiving Jobseeker benefits increased by 27% between 2019 and 2020. This drove the increase seen in overall benefit counts..

Figure 3. Number of whānau members receiving job seeker benefit by year broken down by sex

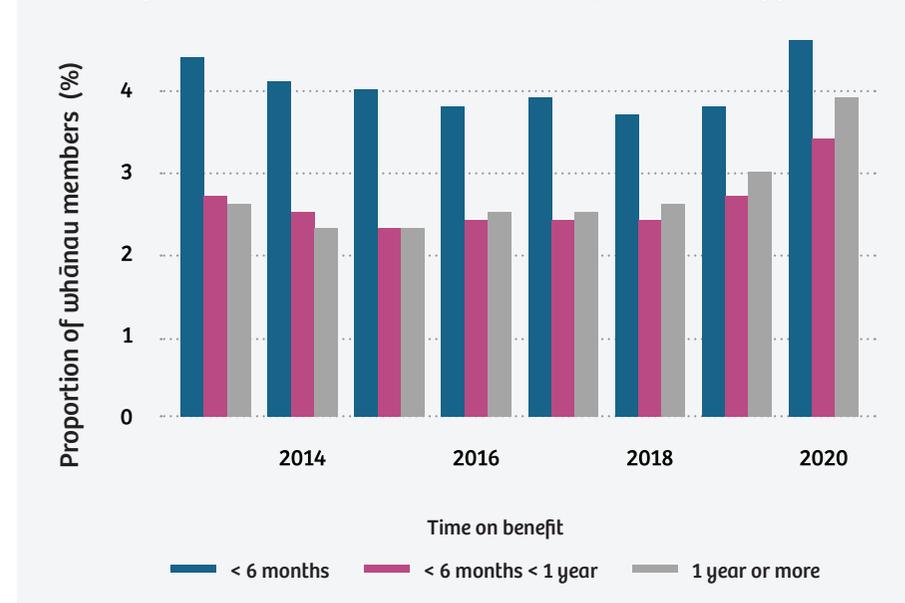


The story of the job seeker benefit is a story of COVID-19's effects on our whānau. In 2020, 4,200 whānau members received this benefit. Our tāne saw a 30% increase in those receiving the benefit between 2019 and 2020. For our wāhine this change was a similar 25% increase. **Figure 3**, shows the rapid rise observed in 2020.

Amount of time spent on the jobseeker

As **figure 4**, demonstrates, the vast majority of recipients remain on the benefit for less than a year, with most of those receiving the benefit for less than 6 months. Therefore at any given point, the number of Ngāi Tahu on this benefit is likely lower than the total number reported for the year.

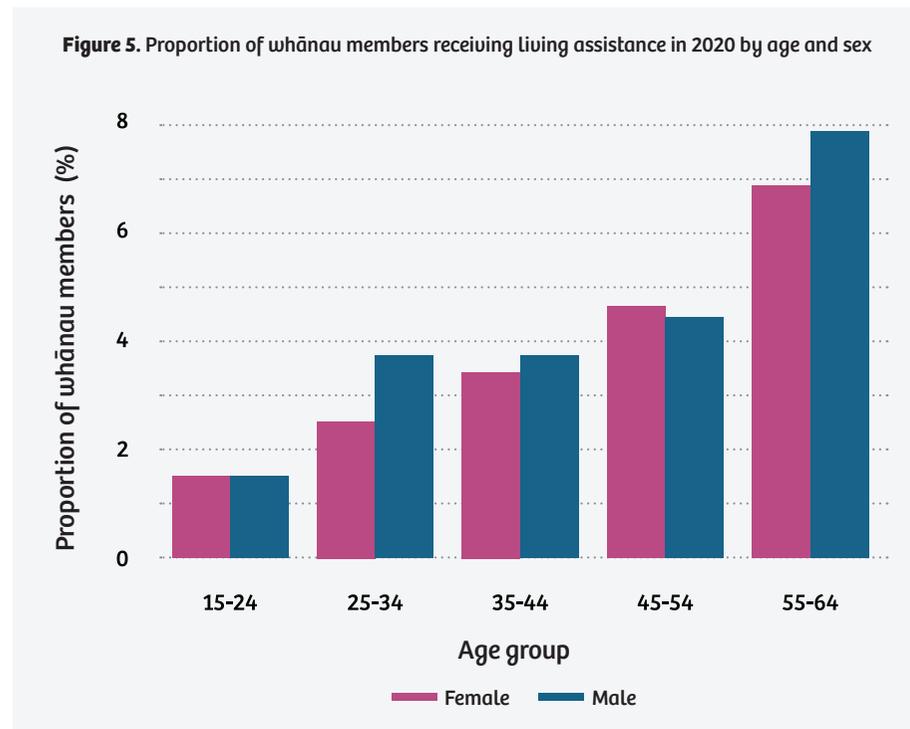
Figure 4. Proportion of whānau members by time on jobseeker benefit by year.



This pattern of short periods on the job seeker benefit may indicate that some whānau members have disrupted income due to fixed term work. Exploring the number of times whānau members need to access these benefits over a given period of time will provide further insight.

Whānau members receiving living assistance

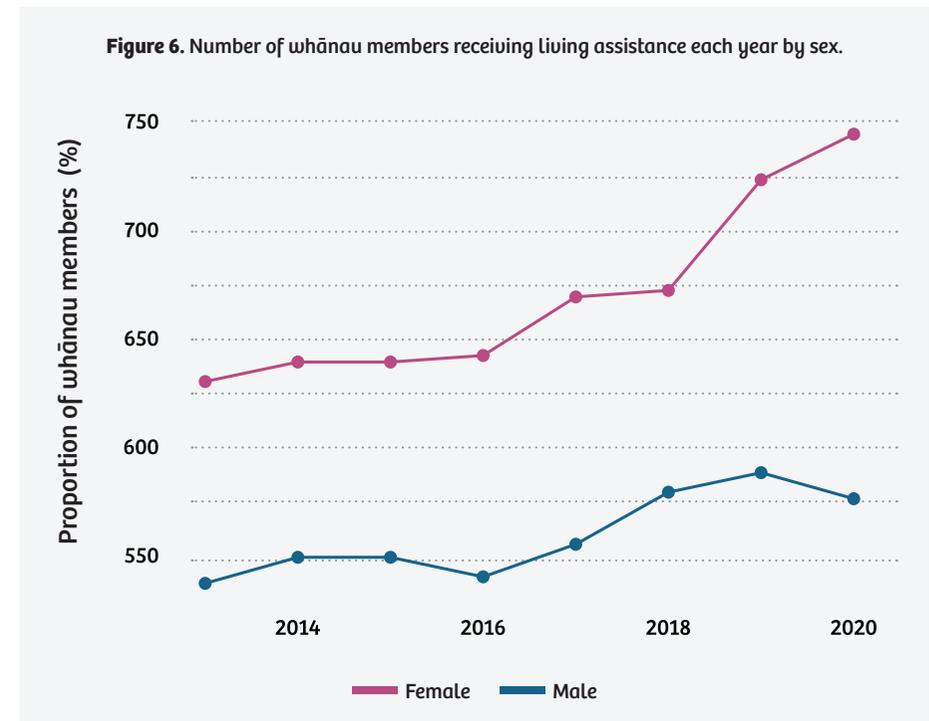
Unsurprisingly the uptake of living assistance among whānau members increases with age. Beyond 65, the types of benefits rendered change, and a meaningful comparison is not possible with the data at hand.



We should make sure older whānau members who have high assisted living rates, are having their needs adequately met by the health system. The difference between sexes observed for 25 – 34 year old tāne also warrants examination and could be related to workplace injury.

Trends in living assistance accessed by whānau members

Figure 6. shows that more wāhine access living assistance compared to tāne, and over time, this gap has widened. This may seem surprising given **figure 5**, indicates that a greater proportion of tāne access living assistance. However, Ngāi Tahu have more wāhine than tāne, which explains the proportions observed.



Wāhine saw an 18% increase in assisted living demand between 2013 and 2020, compared to a moderate 7% increase for tāne.



CULTURE CONNECTEDNESS
Tō tātou Ngāi Tahutanga

CULTURE CONNECTEDNESS

Tō tātou Ngāi Tahu tangā

Information on the cultural connectedness of whānau members is derived from responses to the Stats NZ Te Kupenga survey from 2013 and 2018. We examined some features within this information and compared the changes between 2013 and 2018.

The small sample size of Ngāi Tahu in the survey means detailed breakdowns can have large uncertainty. Therefore, we have analysed the data at a national level with no demographic breakdowns. In the future we could use statistical models to make these demographic comparisons.

Priorities for further inquiry

1. Given the survey is high level, and aimed at all Māori modelling specific research questions against the Te Kupenga data, or potentially supplementing responses with further information sources will enable greater insight.
2. Whānau members are more likely to explore their whakapapa rather than general Māori history and culture. We should consider whether we can aid learning by demonstrating the connection between Māori history, culture, and whakapapa.
3. Passive proficiency (e.g. reading/understanding) in te reo seems higher than active proficiency (i.e. writing/speaking). Exploring the reasons behind this could highlight areas of intervention to improve te reo proficiency in general.

KEY INSIGHTS

8,000

Whānau members can read Te reo fairly well or better. Our more **competent reo speakers** have improved since 2013.

60%

Of Ngāi Tahu explore their **whakapapa**. We also note **60% of whānau members** say they know their marae tipuna.

Questions on culture are asked generally in Te Kupenga and are not Ngāi Tahu specific. Furthermore, if an individual has whakapapa from multiple iwi, we do not know if their responses are with respect to Ngāi Tahu. More detail on the caveats and the exact questions asked can be found on **page 45**.

Culture and connection

To understand whānau members' engagement with Māoritanga we examine three broad indicators, namely cultural practice, connectedness, and te reo proficiency. We present summaries of findings about these as a single collection to paint a cohesive picture.

To examine detailed interactions between these aspects of Māoritanga further research is required, and advisable. This could be achieved through a focused survey seeking to examine the links between the broad topics, complemented by statistical modelling to establish strength of relationships highlighted. There is also possible scope for qualitative research through engagement with whānau members.

Possible next steps

We should have concern for the future of statistics pertaining to our culture and language. In this case, we have been provided with two large surveys from 2013 and 2018. However, Statistics New Zealand recently announced that the Te Kupenga survey will be expanded to every other census, i.e., a ten year gap between surveys.

This leaves a desperate gap in feedback on the cultural capacity of our whānau members. It is worth considering whether we want to undertake our own surveying to mitigate this gap, but the resource required for such an effort cannot be understated.

80%

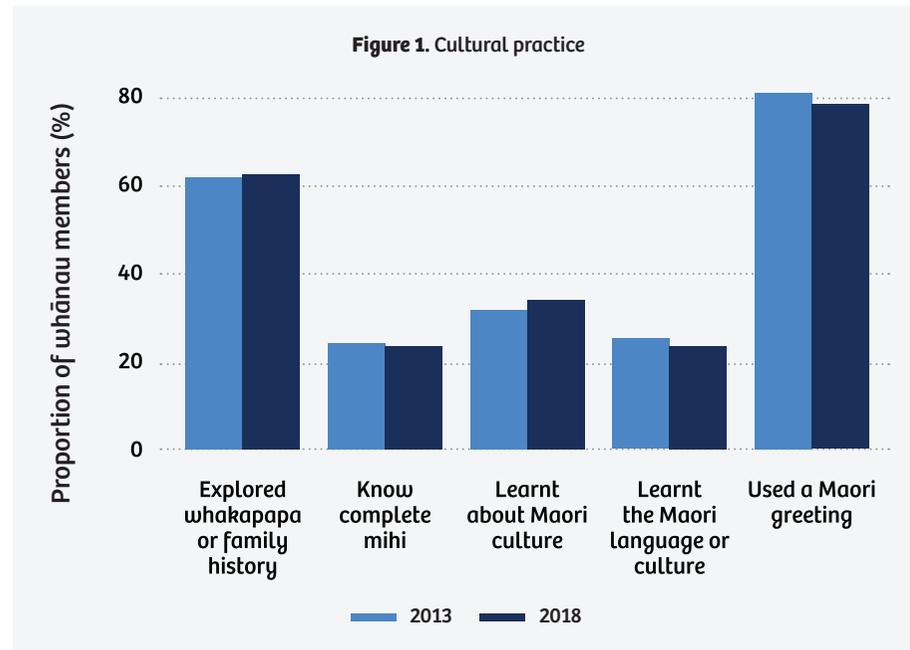
Of whānau members use Māori greetings. However this percentage is similar between **2013** and **2018**.

94%

Of whānau members had been to a marae 2018. However, only **41% of whānau members had done so** within the last year, when asked in 2018.

Cultural practice

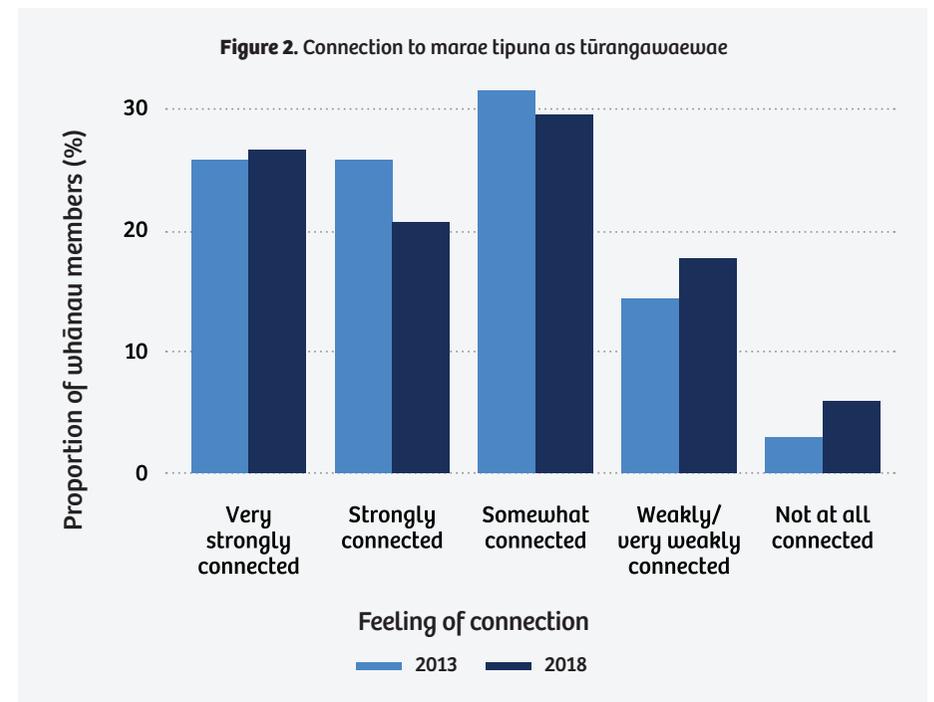
When considering cultural practice, we use a variety of indicators. In **figure 1**, They range from using a Māori greeting to learning about Māori culture via self research (e.g. through the use of a library, museum, Māori website etc).



Interestingly, over 60% of whānau members explored whakapapa with a very slight increase (again likely within the margin of error of the surveys) between 2013 and 2018. This indicates that whānau members are more likely to engage culturally with aspects that speak to them at a personal level. Countering a large number of people exploring whakapapa, however, a significantly lower proportion of whānau members knew their complete mihi. However this could be due to a perception of formality when it comes to mihi, rather than identifying it as necessarily a deeper personal connection to their whakapapa.

Māori connectedness

Most whānau members know the marae that their parents or tipuna came from, with a positive response rate of 60%. This is unchanged between 2013 and 2018. Of these whānau members, **figure 2**, shows the level of connection they feel to marae tipuna as tūrangawaewae place with which people identify a sense of belonging. Most respondents felt a strong connection to their marae tipuna, however, in general, the feeling of connection decreased from 2013 to 2018.



In 2018, 94% of whānau members had been to a marae in the past, however, only 41% of whānau members said they had been in the last year, slightly down from 43% in 2013. The vastly different positive response rates to these questions raises the possibility that whānau members lost connectedness over time.

Te reo

We explore whānau members engagement with te reo language proficiency by looking at four indicators, namely ability to speak, understand, read, and write te reo. These are based on answers whānau members gave in the Te Kupenga surveys in 2013 and 2018, and therefore are self-identified proficiencies (rather than through an independent assessment).

The responses “well/ very well” in identifying their ability to speak, understand, read, or write have been grouped together, and in the discussion we often include “fairly well” as indicating proficiency as well.

The overall proficiency of the four indicators saw slight decreases between 2013 and 2018. Given the small differences, and only two points in time, it is difficult to ascertain whether these are persistent trends, or somewhat random fluctuations in the survey itself. When possible, we have indicated where we believe the differences are likely within the margin of error of the survey.

Possible next steps

It appears that in areas we term “passive proficiency” (i.e., reading/understanding) whānau members display a higher self reported proficiency, when compared with areas of “active proficiency” (i.e. writing/speaking).

Exploring the reasons behind this could highlight areas of intervention to improve te reo proficiency in general. There may be perceived or real cultural stigma attached to speaking te reo for example, which inhibits whānau members from expressing themselves, which then leads to lower levels of engagement with te reo.

20%

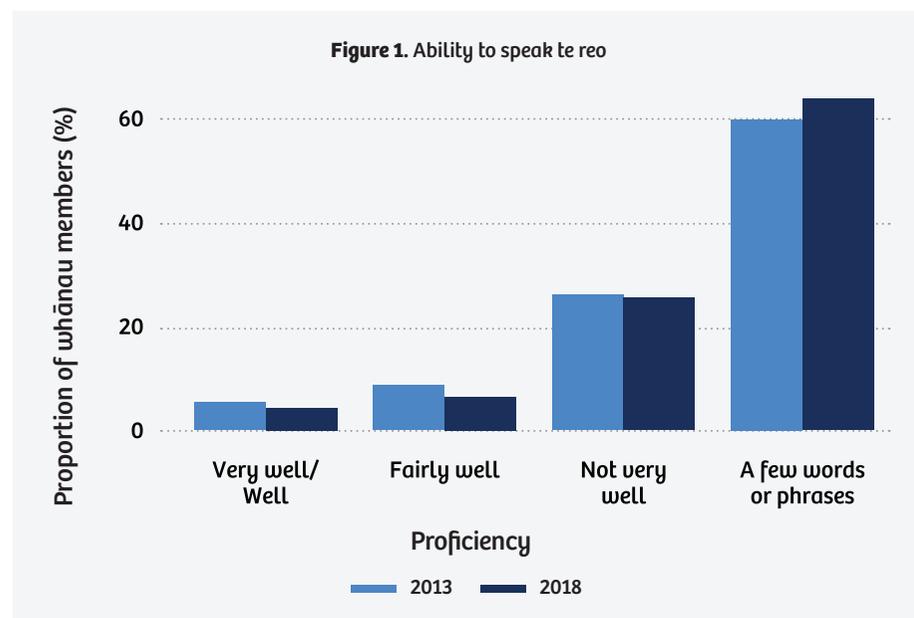
Of whānau members said they understand te reo fairly well or better in 2018, but **only 11% of whānau members** can speak te reo fairly well or better.

17%

Of whānau members are able to read te reo fairly well or better, but **only 11% of whānau members** can write te reo fairly well or better.

Speaking te reo

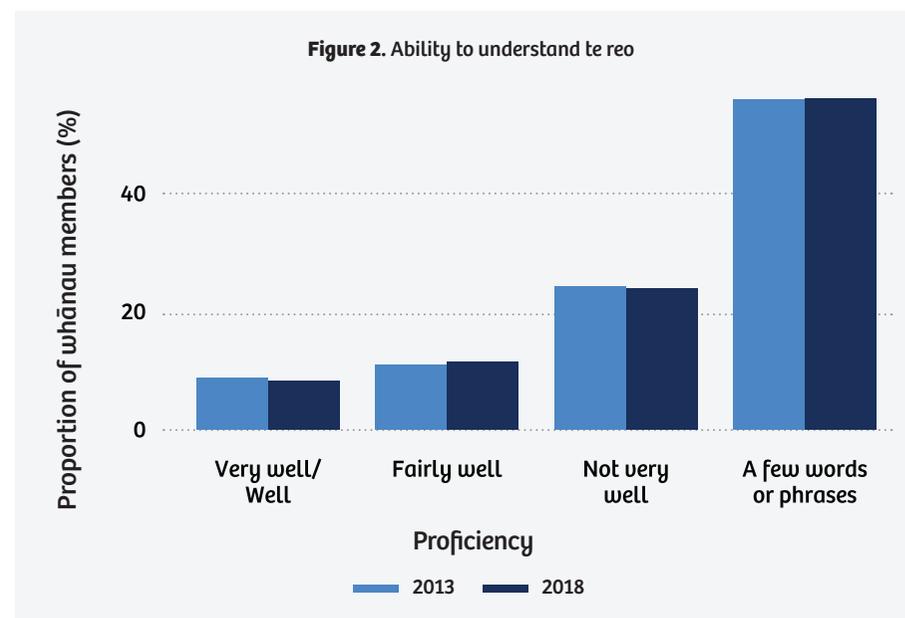
In 2013, around 14% of whānau members identified that they could either speak fairly well or better, however, this has reduced in 2018 to 11%. Conversely we have seen the proportion of whānau members who can only speak a few words or phrases increase. These rates are not driven by more whānau members beginning to identify as Ngāi Tahu in Census, as the weighted counts follow a similar pattern to the proportions described above.



It is difficult to comment on drivers without further investigation through more detailed surveying, however self reported responses can be driven by respondents perceptions. It would be interesting to understand as te reo speech increases generally how whānau members perceive their proficiency levels compared to the “base rate” is lower, and whether this is driving these observations.

Understanding te reo

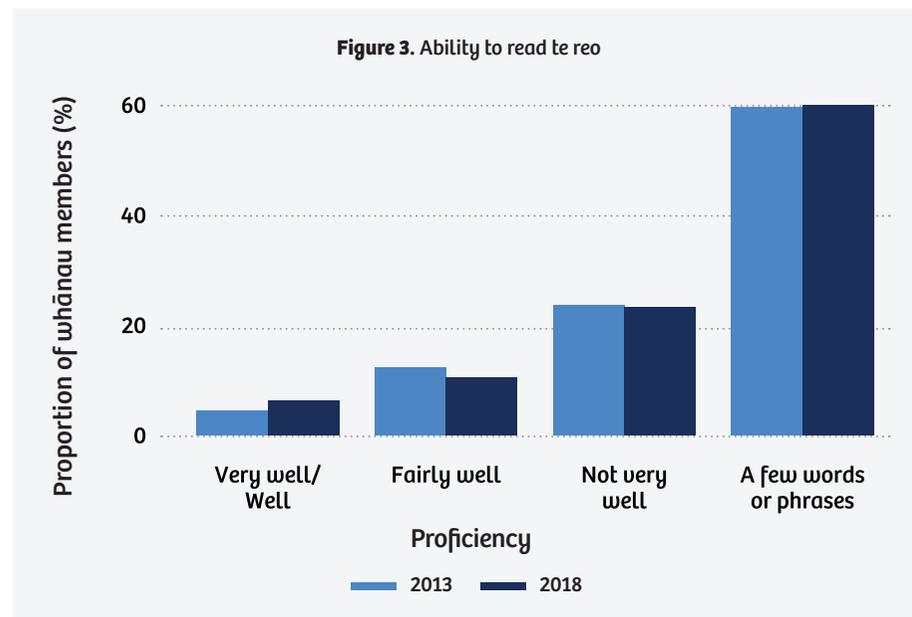
Interestingly more whānau members feel that they can understand te reo fairly well or better, compared to the ability to speak, hovering about the 20% mark for both 2013 and 2018. The proportions of whānau members that are not so proficient in understanding te reo remain consistent through the two instances of the survey as well.



It is worth exploring the drivers for the difference between the self reported proficiency when it comes to speaking and understanding te reo. It is especially important to see if this is driven by the confidence to speak borne from lack of opportunity to use te reo. Alternatively we may have to investigate a real or perceived stigma around te reo use.

Reading te reo

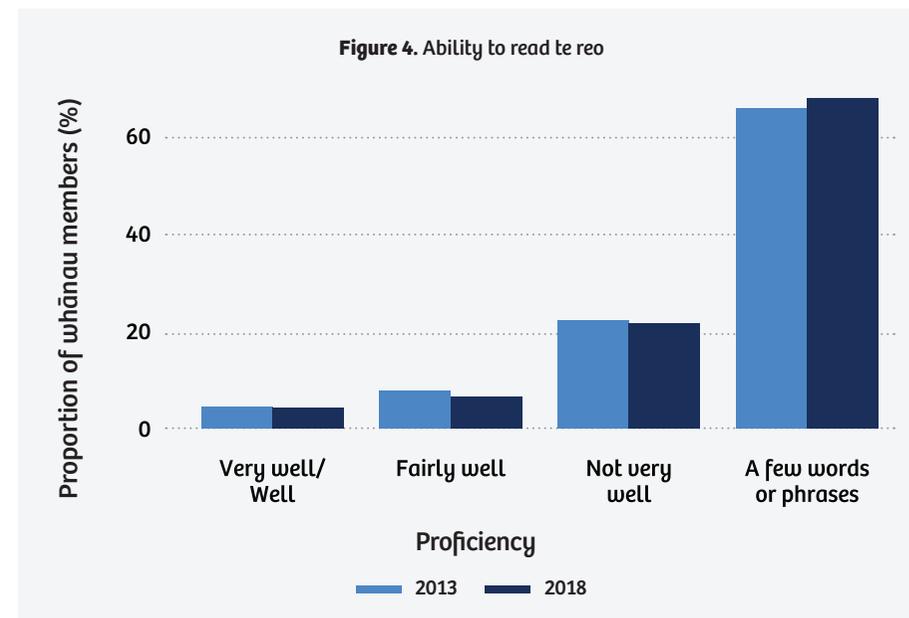
When considering the ability to read, the proportion of whānau members that can do so fairly well or better remained relatively stable between 2013 and 2018, hovering at the 17% mark in both instances of the survey.



Looking within the categories though, we see an encouraging shift towards more proficiency in 2018, with 6.3% of whānau members reporting that they can read te reo very well or well, an increase from 4.5% in 2013. While these are small changes, and may be within the margin of error for the survey, it provides some motivation to explore this further to ascertain whether these patterns are true, through targeted surveys of Ngāi Tahu whānau members.

Writing te reo

The proportion of whānau members that said they could write te reo fairly well or better remains steady between the two instances of the survey with 12% in 2013, and 11% in 2018. Mirroring the observations in speaking te reo, those saying they could only write a few words or phrases increased in 2018 to 68% from 66% in 2013.



Interestingly when considering reading and writing together, a similar pattern to speaking and understanding emerges, where the more “passive” ability (understand/read) has a higher proportion of whānau members identifying with greater ability, compared with the more “active” ability (speak/write). Given these patterns, it is worthwhile exploring the drivers as before. In addition to the possible reasons outlined previously, seeking understanding of the chance for whānau members to engage in the more active use of te reo might be informative.

Caveats and questions in Te Kupenga

All data for culture was drawn from Te Kupenga, which is a sample of the Māori population that has been filtered down to Ngāi Tahu whānau members. Therefore small differences between years could be due to changes in the sample of responding individuals, rather than a true change, please take note of this possibility when interpreting the data.

Unfortunately, the general questions asked in Te Kupenga mean we do not have responses specific to our Ngāi Tahutanga. The concepts and phrasing used can be seen on the right in the actual questions asked. It should be noted that when responding, an individual may not be answering with respect to their Ngāi Tahu specific experiences. As an example, a respondent who is of Ngāti Porou and Ngāi Tahu whakapapa may say they know their tipuna but there is no way for us to know the iwi of the tipuna they mention.

A further consideration is that the questions in the survey may give different context to the responses we have presented here. Unfortunately, the survey does not ask specifics about our rūnanga, or our Ngāi Tahutanga. You can see the questions asked below.

Cultural practice

- Over the last 12 months, have you ever: - used a simple Māori greeting?
- Have you done any of these things in the last 12 months?
 - discussed or explored your family history or whakapapa?
 - gone to learn about Māori culture at a library, museum, or Māori website?
 - done anything else that involved learning the Māori language or culture?

Connectedness to Māori identity

- Do you know your marae tipuna or ancestral marae? By this I mean a marae that your parents, grandparents, tipuna or ancestors are from.
- Have you ever been to a marae?
- Have you been to a marae in the last 12 months?
- How connected do you feel to your tūrangawaewae? If you have more than one ancestral marae that is your tūrangawaewae, please pick the one that you feel most connected to.

Te reo proficiency

- How well are you able to speak Māori in day-to-day conversation?
- How well are you able to understand spoken Māori?
- How well are you able to read Māori, with understanding?
- How well are you able to write in Māori, with understanding?



HEALTH
Hauora

HEALTH

Hauora

When looking at the health of whānau members we explore four main themes; acute hospitalisations, mental health related admissions, primary health organisation (PHOs) enrolments, and ACC claims. The data for these come mainly from Ministry of Health and ACC records.

At a national level all health related indicators we explored remained relatively stable, and did so for both sexes. However, there are some interesting patterns that exist when looking at the age and regional breakdowns across the indicators.

Priorities for further inquiry

We highlight priority areas that emerged through this analysis.

1. The rates of acute hospitalisation of tamariki may be above the norm. This investigation could highlight specific points of intervention to reduce these numbers.
2. There is an interaction between age and sex for mental health related hospitalisations and this must be investigated to understand the spectrum of services required to service demands across different age groups for tāne and wāhine separately.
3. Young males have the lowest rates of PHO enrolment. We should take a keen interest into how this may disrupt capitation based funding.
4. ACC claims suggest intervention is required, especially for tāne that might be engaged in high risk industry sectors or activities. How long are they out of work? Are they fully recovered when they come off ACC?

KEY INSIGHTS

STEADY

Acute hospitalisation rates **steady** over time for both wāhine and tāne.

ACC claim rates **steady** over time for whānau members.

LOW

Mental health related hospitalisation rates are **low** and **steady** over time.

90%

PHO enrolment rates are **high** among whānau members.

Acute hospitalisations

Acute hospitalisation statistics are built from data about people that are admitted to hospital for at least one night for an acute injury or event. While understanding health outcomes requires a far broader collection of indicators than information about hospitalisations, nevertheless examining these trends can provide an indicator of possible emerging problems. In these statistics we have not explicitly excluded reasons related to child birth.

Possible next steps

Investigation of rates of hospitalisation in tamariki, through detailed analysis of causes and regional breakdowns could be undertaken, as these may indicate a need for intervention.

The demographic structure of regional admissions could also be explored, as there are indications of higher hospitalisation rates in more remote regions.



110 per 1,000 people

The average rate of hospitalisation amongst all whānau members between 2013 and 2018

Regional break down of admissions

Looking across the motu, we see sizeable differences in hospitalisation rates in different regions. While this may be explained partly by the age structure considerations above, further investigation into the differences are warranted.

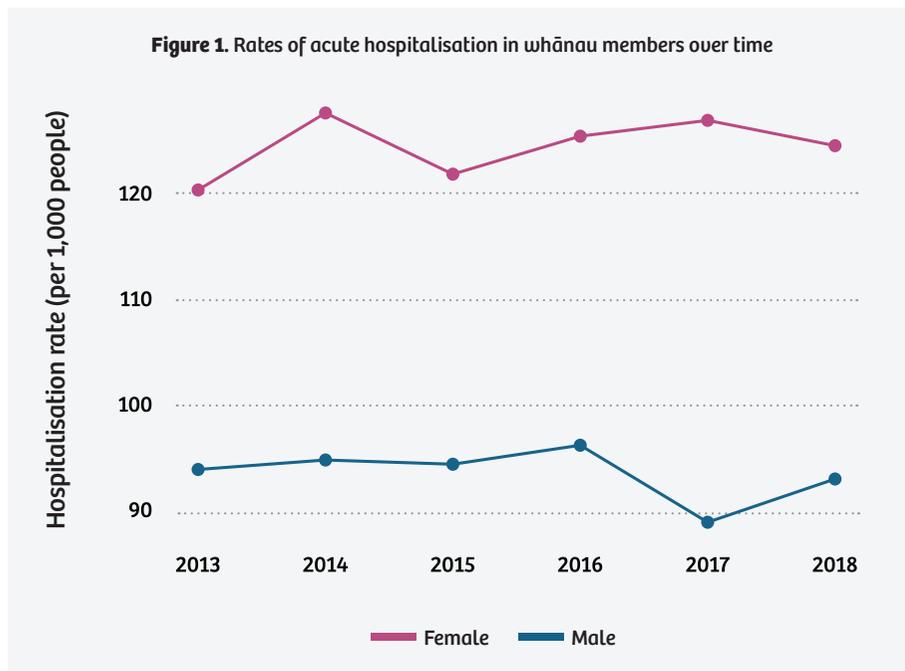
One avenue of exploration is to look at the specific age related admission patterns in each of the regions. Of particular concern are the high rates observed for some of the more remote regions such as the West Coast, where ready access to care might be lacking. Could earlier intervention have lowered the need for hospitalisation?

Region	Combined hospitalisation rate (/1,000)
Outside takiwā	111.6
Canterbury	108.2
Otago	106.3
Southland	115
West Coast	142.9

Table 1. Acute hospitalisation rate across regions for 2018

Overall trends in acute hospitalisations in whānau members

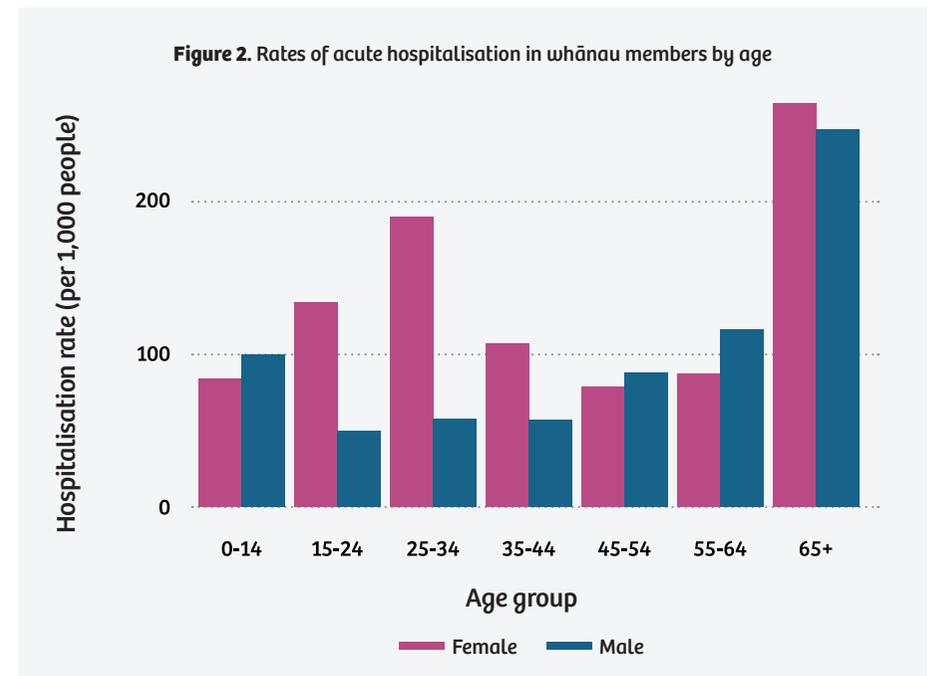
We present acute hospitalisations as rates per 1,000 people for ease of comparison. Acute hospitalisation rates appear fairly steady across the years, oscillating around the 125/1,000 mark for wāhine, and the 93/1,000 mark for tāne.



Hospitalisations shows a sizeable gap between the hospitalisation rates for wāhine compared to tāne. While this may be an area that requires further exploration, we present some possible explanations by looking at the age structures within this data.

Age structure of hospitalisations

Older whānau members (65+ year olds) have the highest rates of acute hospitalisations. Although older wāhine have a slightly higher hospitalisation rate compared to tāne of a similar age, this only has a small contribution to the overall difference between sexes in hospitalisations.



Younger wāhine, especially those of child-bearing age have much higher rates of hospitalisation. This is likely driven by admissions for child birth, which is a routine admission, and not an indication of ill-health. Note that the supplementary data to this report contains a measure without child births and may shed further insight on the sex by age breakdown.

Mental health related hospitalisations

Mental health related hospitalisation statistics are built from data about people that are admitted to hospital for at least one night for mental health reasons. Examining and understanding the condition and wellbeing of the mental health of our whānau members requires a far broader collection of data, and qualitative studies than what is presented here, but as before information about hospitalisations can provide an indicator of possible emerging problems.

Possible next steps

Mental health related hospitalisations rates are low, however that may mask issues where whānau members aren't seeking admission level care. A specific investigation of the mental health of whānau members would shed light on possible issues that a blunt indicator like hospitalisations are likely to miss.

Regional access to mental health services, particularly in more remote regions should be explored to ensure the lower than average rates observed there are not simply a result of limited access.

Regional break down of admissions

As with acute hospitalisations, there are pronounced regional effects. There are several regions where the rates are 0 for both wāhine and tāne. Access that whānau members in these regions have to mental services should be verified to ensure that this doesn't simply reflect a lack of services. As before, it is worth exploring the correlation between the age structures of the regions, and the age related admission patterns discussed above.

Region	Combined admission rate (/1,000)
Outside takiwā	12.6
Canterbury	16.2
Otago	17.7
Southland	11.7
West Coast	21.3

Table 1. Mental health hospitalisation rate across regions for 2018

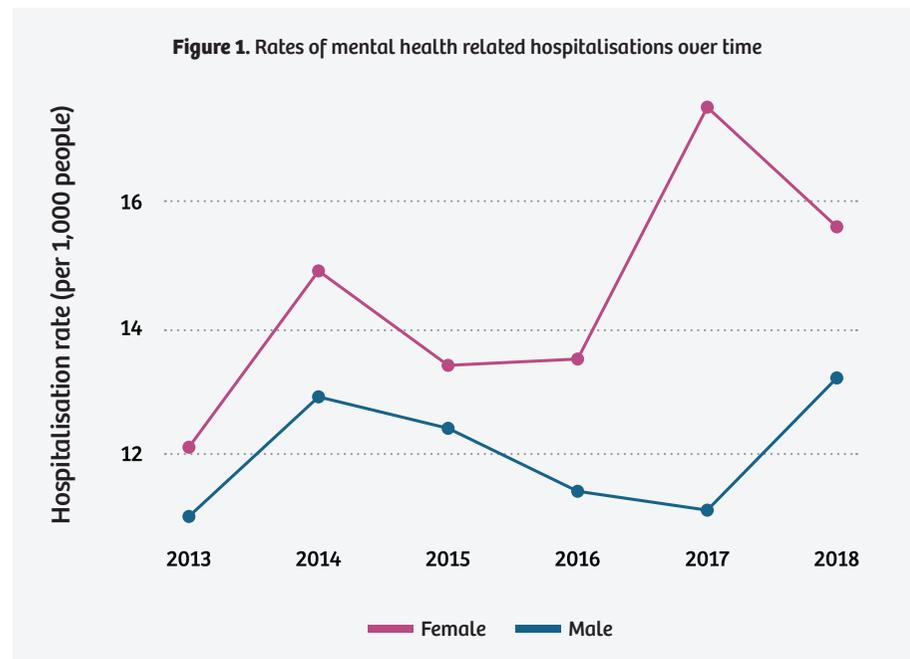


13 per 1,000 people.

The average rate of admissions amongst all whānau members between 2013 and 2018

Overall trends in mental health related hospitalisations in whānau members

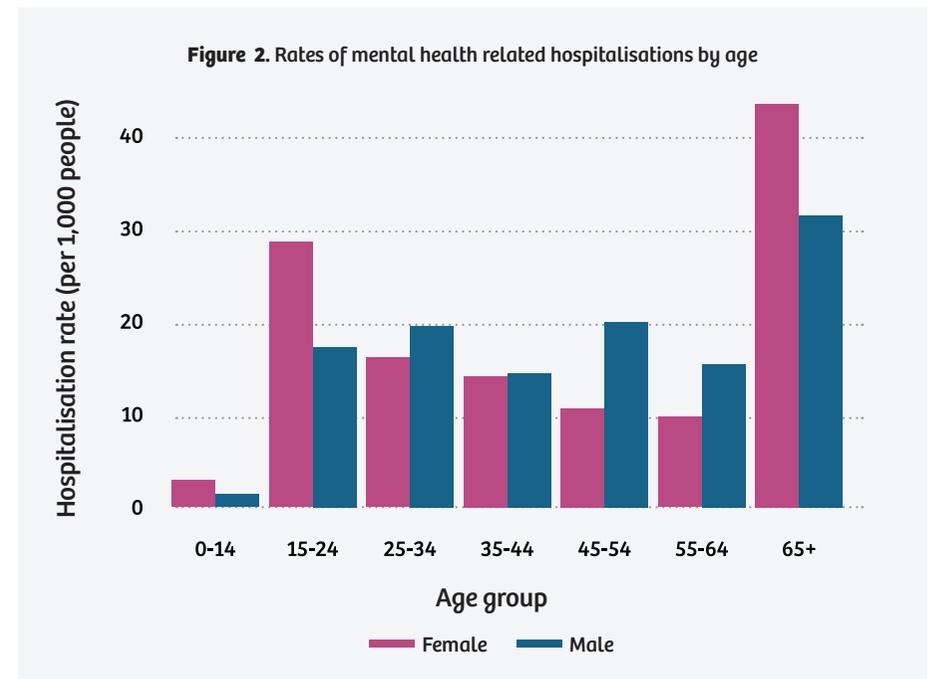
As with acute hospitalisations, we present mental health related admissions as a rate per 1,000 people. Rates appear relatively stable, and there is no large gap between wāhine and tāne. Though delving deeper into the age structure causes concern.



Compared with acute hospitalisations, the rates are much lower, as we see in hospitalisations. While this may be an encouraging sign of wellbeing, it could also be a sign of a lack of access to suitable care facilities when required. An investigation of attempts by whānau members to access these services may be warranted to understand what barriers may exist, or if earlier intervention could have avoided hospitalisation.

Age structure of hospitalisations

In **figure 2**, we see that younger wāhine (less than 25 year olds) have much higher hospitalisation rates related to mental health, when compared to tāne. This is also observed in the oldest age group.



There is very clearly an interaction occurring between ages and sexes. Middle-aged tāne have higher rates of admission than wāhine of the same ages. We need to know if our tāne are reaching out for help. Improving access and educating tāne about what is available may alleviate some of these trends.

Primary Health Organization (PHO) enrolments

Primary Health Organizations (PHOs) are usually the first line of engagement for whānau members when they seek formal assistance for medically related matters. In general, access to these entities are easier if you are registered with a PHO, and it is more likely that someone enrolled with a PHO seeks assistance from their general practitioners (GPs) than otherwise. Therefore, low enrolment rates, or large decreases in rates would be cause for concern.

While overall rates are high, there may be a concerning gap in rates between younger tāne compared with wāhine of similar ages, as well as regional differences.

Possible next steps

Examining the possible drivers for the reduced PHO enrolment rates for younger tāne should be a priority. This could be done through further analysis of granular age and regional breakdown of enrolments of tāne, as well as other indicators, such as cohort risk of preventable diseases through time (though this may require more elapsed time).

Possible reasons for regional differences are also worth exploring, particularly with a primary care access lens in remote regions.

Regional breakdown of PHO enrolments

Looking at the regional distribution of PHO enrolments we see high rates all over the motu. This is an encouraging sign. However, we do see some differences in the age structure analysis, and thus investigating that aspect regionally may be illuminating.

Region	Combined PHO enrolment rate (%) 2019
Outside takiwā	93.2
Canterbury	94.1
Otago	94.7
Southland	93.6
West Coast	91.2

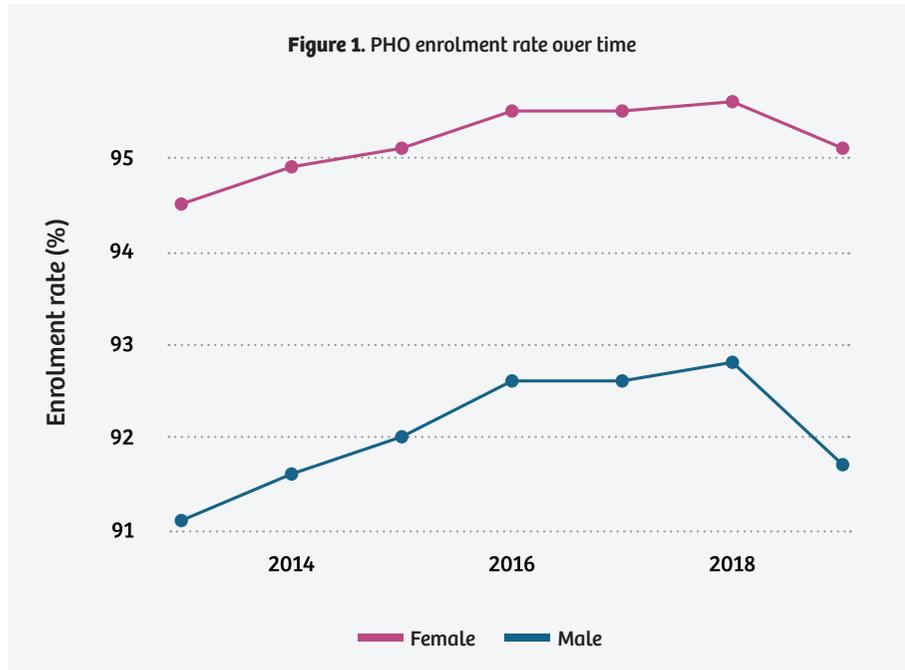
Table 1. PHO enrolment rate across regions for 2018



If tāne are not engaged in primary health care then appropriate funding may not be allocated to these populations.

PHO Enrolment rates for whānau members

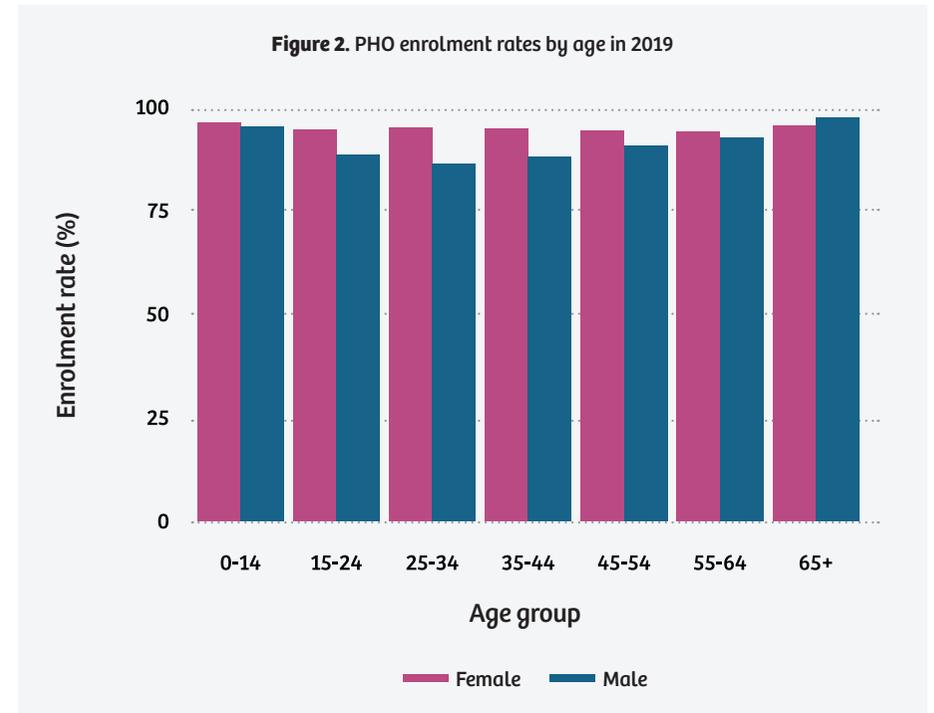
We observe high rates of enrolment for whānau members, with only a minor gap between the sexes. As **figure 1**, shows, enrolment rates for wāhine sit over 95%, with tāne sitting above 90%.



They are also fairly static over time. The gap in male/female enrolments may be due to regular testing and screening that wāhine tend to undertake compared with tāne. This is explored further in the following demographic structure analysis.

Demographic structure of PHO enrolments

Tāne aged 15 to 44 years old tend to have lower enrolment rates. This is likely explained by wāhine accessing primary health providers in order to undergo regular early detection tests and examinations. This is something tāne do not typically undertake. As before, the question rises, would encouraging access to early detection testing regularly prevent adverse outcomes down the line?



There is also a relationship between enrolments and capitation based funding. If tāne are not enrolled with a PHO then appropriate funding may not be allocated to these populations.

ACC claims

ACC claims are available for a wide variety of reasons, from sporting injuries to, importantly, work related injuries and accidents. Looking at the trends in claims, and regional breakdowns could highlight areas where whānau members are exposed to greater risk of injury due to their industry sector or the type of activity they engage in. Surveilling these rates in an ongoing manner could serve as an early warning system for the requirement of interventions to reduce the risk to whānau members.

Possible next steps

Examining the types of ACC claims to determine whether they are work related or personal activity related is paramount. This, conducted with a regional lens will help identify possible risk areas for whānau members, and especially for tāne that might be engaged in high risk activities.

This coupled with the length of tenure on ACC would help identify possible areas where intervention for risk reduction, or support for those recovering are required or appropriate.



361 per 1,000 people

Young tāne (25 – 34 year olds) have the highest rate of ACC claims of any group

Regional breakdown of ACC claim rates

There are appreciable differences in ACC claim rates throughout the different regions of the motu. This may be a reflection of the age groups present in those regions, and correlated with that could be the industries prevalent in these regions for whānau members to work in.

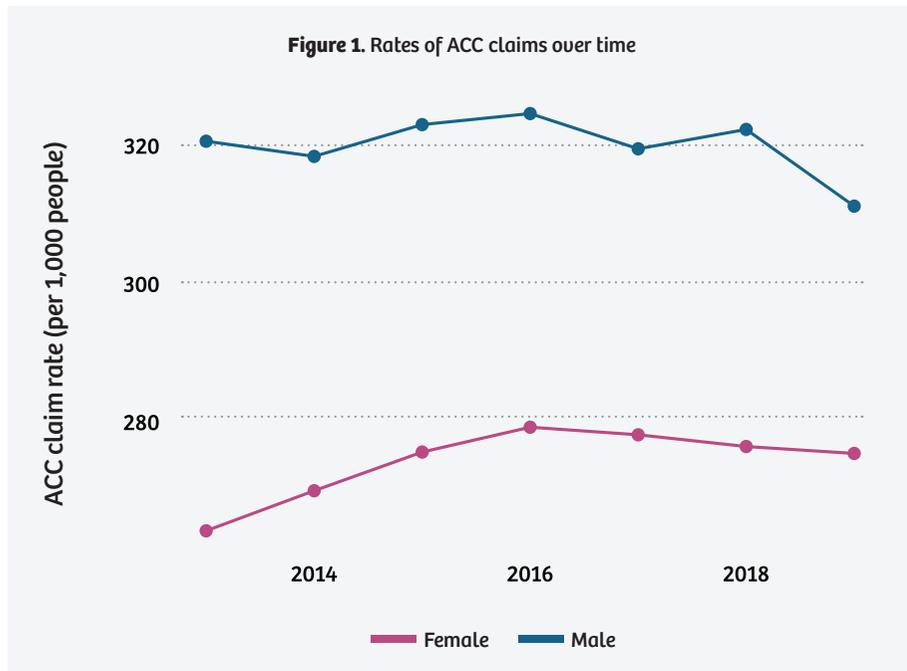
Regions such as Gisborne and the north of Te Ika-a-Māui display relatively high rates of claims. A general examination of the regional age structure of claims could be a next step deep dive. Following that investigations around the industries and activities whānau members engage in regionally might be appropriate.

Region	ACC claim rate (/1,000)
Outside takiwā	296.4
Canterbury	288.1
Otago	328.1
Southland	258.6
West Coast	241.6

Table 1. ACC claim rate across regions for 2019.

Trends in the rates of ACC claims

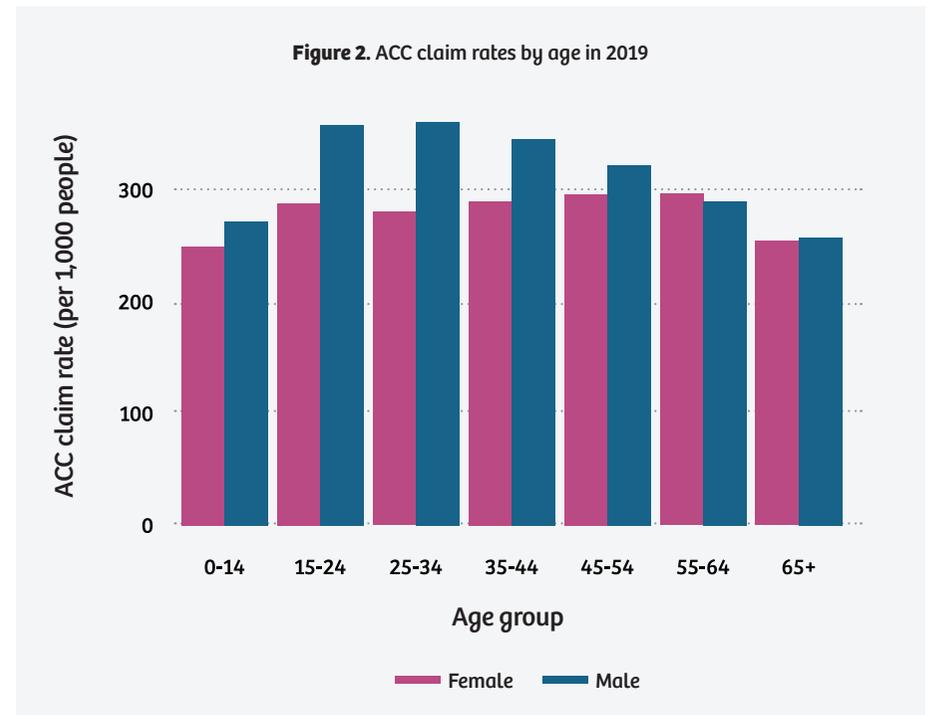
The rate of ACC claims (reported as claims per 1,000 people) remain stable over time for tāne, although there has been a moderate rise in claims between 2013 and 2016 for wāhine. As shown in hospitalisations, the rate of claims is higher for tāne, hovering at the 320 per 1,000 mark, whereas wāhine peak at just below 280 per 1,000.



This is likely related to differences in the type of activity and industry sectors tāne and wāhine engage in (although the data presented here cannot demonstrate that explicitly). Initiating research to identify whether most of the claims are work related will shed light on this.

Demographic structure of ACC claim rates

The largest differences in ACC claim rates between wāhine and tāne occur in young working age people, with the gender gap peaking in the 15 – 24 year old group and reducing steadily in older age groups.



Work to reduce workplace injury levels among tāne might be warranted, especially if these accidents are found to be preventable. Investigation may also highlight which industries pose the greatest risk to whānau members. Additionally exploring the length of tenure on ACC benefits would shed light on recovery rates and inform whether cover is adequate.



HOUSING
Wharenoho

HOUSING

Wharenoho

Here we explore the state of housing for our whānau members across the motu. We look at home ownership, and the number of renters, both based on the 2018 Census, diving into both national figures, and regional distributions.

We also explore the trends, and geographic distributions in the costs of renting, based on tenancy bond filing data. This is further extended by looking at whānau members engaging with state housing (limited to Kāinga Ora for this analysis) for their housing needs, and we highlight the growing waitlist issues.

Priorities for further inquiry

We highlight priority areas that emerged through this analysis.

1. Examine home ownership across the motu in conjunction with whānau members earnings to establish the levels of affordability for whānau members.
2. A deeper dive into rental costs, and regional changes, where rapid changes in rent may be placing whānau members into difficult situations is advisable.
3. Looking beyond Kāinga Ora data to establish insights into social housing needs and patterns observed in whānau members.
4. A study examining the drivers of the disproportionate number of wāhine in social housing, and the persistence across cohorts may highlight need for interventions.

KEY INSIGHTS

2.8x 

2.8x more whānau members on **Kāinga Ora waitlist** in 2018 compared to 2013.

Home ownership

63%

Whānau members live in owner occupied homes.

Rental

+27% 

Median cost of rental increase by **27%** from **2013 – 2018**.

How whānau members are living

Information on how whānau members live is brought together from both census and tenancy bond data. Because of the nature of administrative data (often driven by whānau members actively having to engage with state services), gaps exist in the data informing the analysis here. This is especially problematic in inferring numbers of renters from administrative data.

Home ownership is defined as a respondent stating that they live in a home they owned, partially owned, or is owned by a family trust (which we will collectively refer to as owning their home). Rental numbers are estimated using responses that explicitly indicate they do not own the home they live in, and pay rent to live there. This is likely an underestimate of the total number of renters, due to some people paying rent to their family trust.

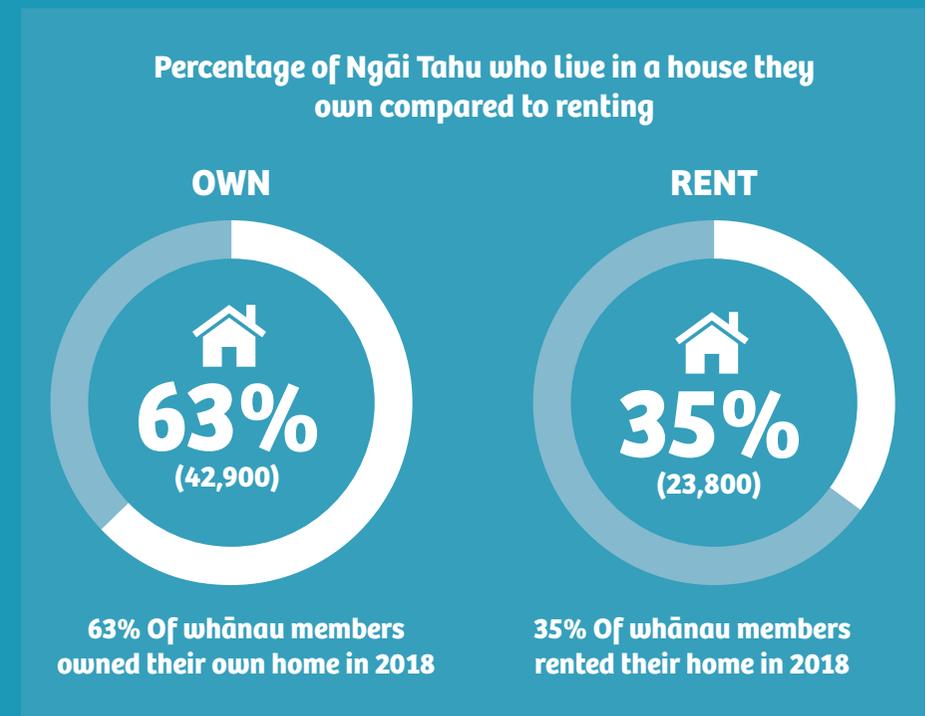
Possible next steps

Further exploration of administrative data, looking at related groupings of people to infer their home status may be warranted to get a definitive picture of how whānau members live.

In addition a detailed study around accessibility to the housing market, taking into account changes in what whānau members are earning would shed light on vital insight into housing affordability for whānau members, and how that correlates to ownership across the motu.

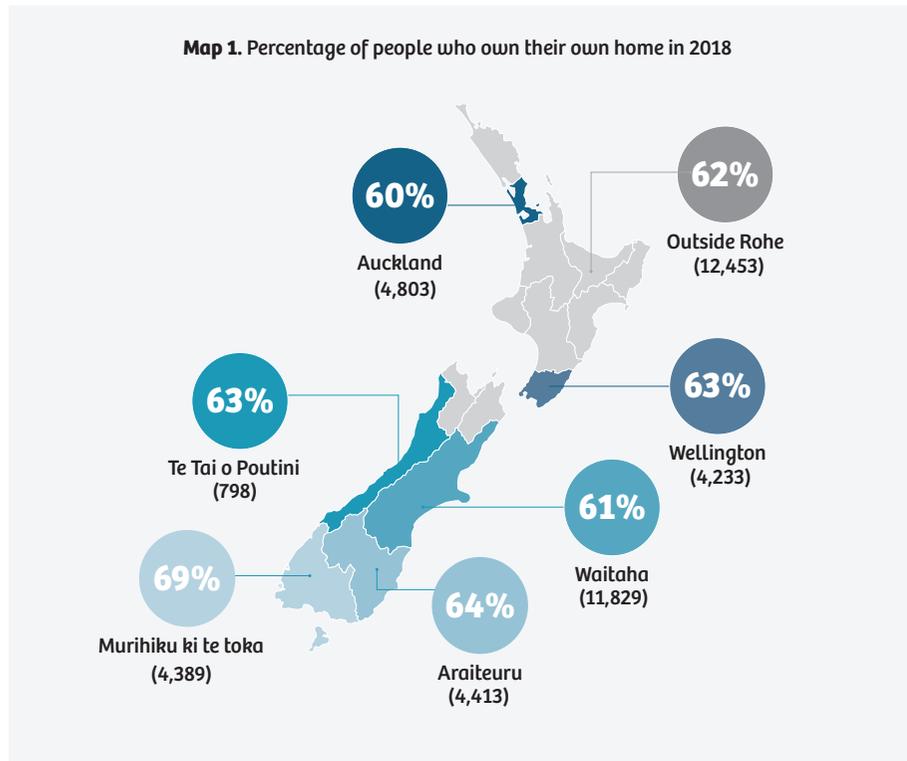
How we live (2018)

Census 2018 responses indicate that most whānau members live in a home they or their family owns.



Owning across the motu

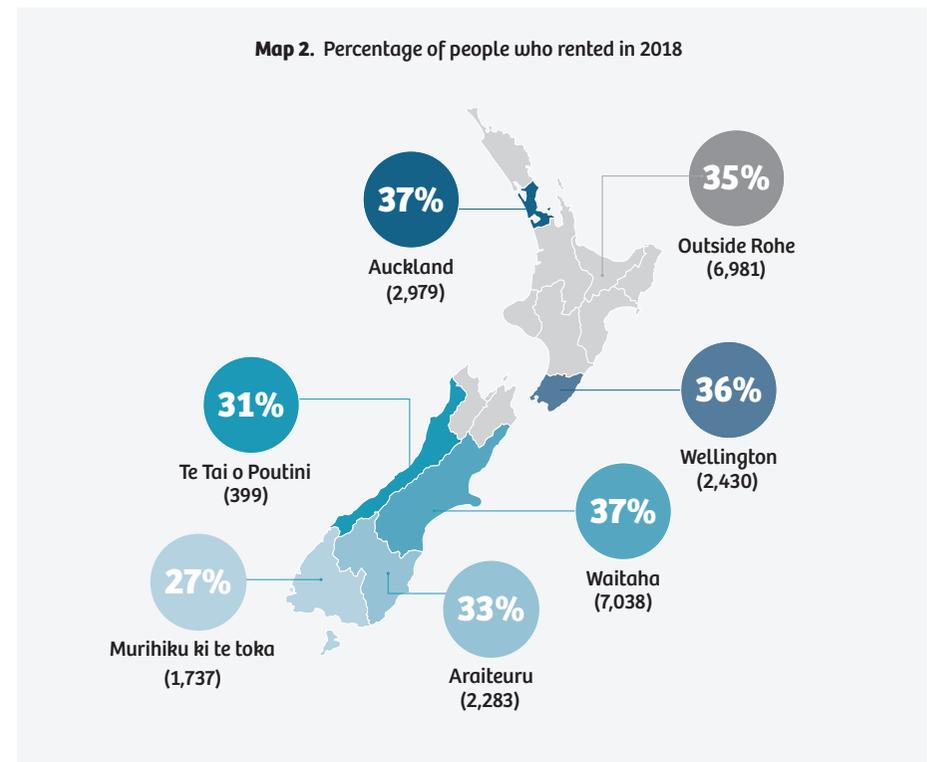
Whānau members in larger urban centres appear to have slightly lower home ownership rates compared to those in more rural areas. This may be a reflection of the general affordability of housing in these areas, compared with cities.



Interestingly, home ownership rates between Wellington and Waitaha are similar, even though affordability may not be, in general. This may suggest a disparity in earning potential of whānau members across the motu.

Renting across the motu

Complementing ownership trends, whānau members in larger urban centres have higher rates of renting the homes they live in. The sizeable rates of rentals across the motu highlights the need to understand the costs of renting, and how they are tracking.



The difference between the regions in rental rates also means that whānau members may be disproportionately impacted by localised effects, and localised interventions may be necessary.

Cost of renting

Rental costs are estimated using data from the IDI, and is based on tenancy bond filings, which has information on the amount of rent charged. While these are not reliable for estimating numbers of renters, they are reliable for the purpose of cost of renting. There are some limitations, including rentals that roll over at the end of their period not necessarily have a new filing. In these cases increases in rent may not be evident until a new tenant occupies the home.

For the costs of renting we do not make adjustments for, or make any distinctions about the type of housing. For example a four bedroom house is likely to have a higher rental cost compared to a small townhouse within the same region. We also do not make any distinctions about the number of Ngāi Tahu in a given rental.

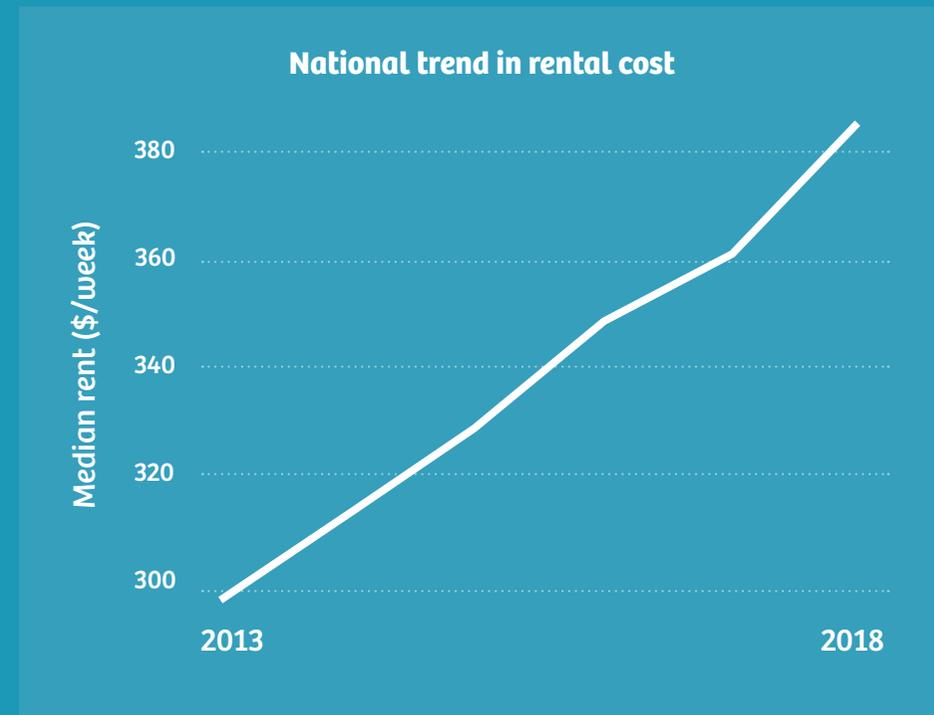
Possible next steps

A more thorough investigation into rental costs, correcting for the size of houses, and occupancy levels would highlight potential areas that require intervention.

In addition the impact of rapid increases in rent in regions that usually have low levels of rent should be explored in conjunction with income of whānau members in those regions. This is important as a rapid change in costs, even if the actual cost is not the highest in the motu may place whānau members into precariousness, where previously, they were safe. This is particularly the case where whānau members earnings may not have kept pace with cost increases.

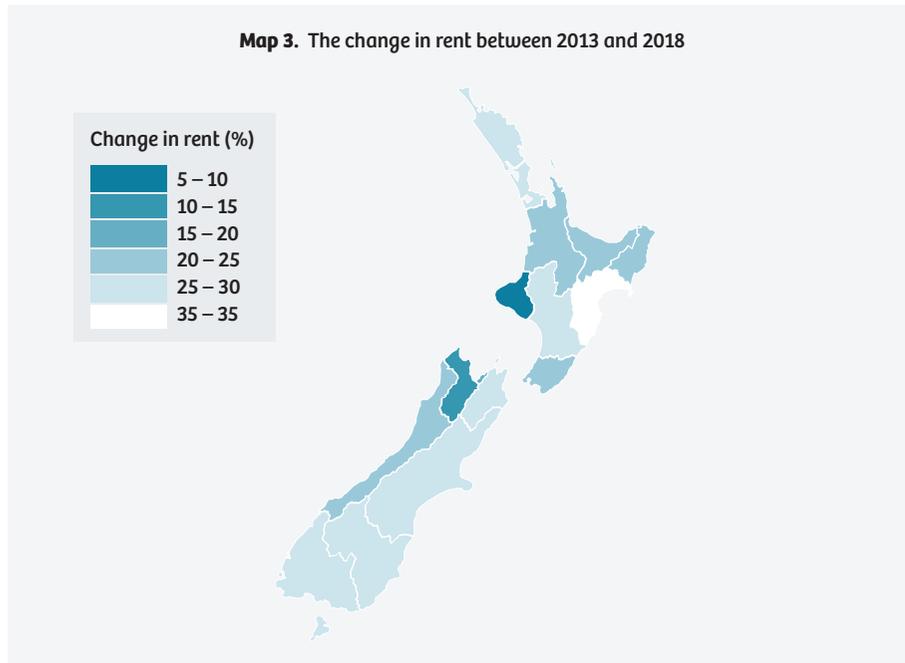
Overall increase in rents

The national cost of renting has steadily increased every year for where there is reliable data. Between 2013 and 2018, median rents for whānau members rose by a staggering 27%. This increase was also differently felt across the motu.



Change in rent across the motu

Delving deeper into what we observe in **Map 3**, we see that different parts of the motu saw more change than the others.



While Auckland remains the most expensive area to rent in, with a median rent of \$500 in 2018, the changes observed between 2013 and 2018 were driven by some unusual candidates, including Hawke's Bay and Otago (almost 32% and 30% rises in median rents, respectively). **Table 1**, summarised the regional changes in rent.

This highlights an area of concern where the rate of change of rents might be higher in regions we do not typically associate with high rents. Even if the overall rent level might still be relatively low, rapid acceleration of rent could make it suddenly unaffordable for whānau members in these regions.

Region	2013 (\$)	2018 (\$)	% change
Auckland	400	500	25
Bay of Plenty	310	378	21.8
Canterbury	310	395	27.4
Gisborne	260	320	23.1
Hawke's Bay	285	375	31.6
Manawatu-Whanganui	250	320	28
Marlborough	280	353	25.9
Nelson	330	390	18.2
Northland	300	375	25
Otago	285	370	29.8
Southland	230	290	26.1
Taranaki	280	300	7.1
Tasman	330	370	12.1
Waikato	310	380	22.6
Wellington	330	410	24.2
West Coast	250	310	24

Table 1. Is constructed from looking at medians in tenancy bond filings in a given region. Regions are allocated based on the address within the filing.

Whānau members in Kāinga Ora housing

A small number of Ngāi Tahu whānau members access Kāinga Ora housing. We examine the details of these whānau members through data from Kāinga Ora sourced through the IDI. This data contains information on whānau members accessing housing, as well as those on a waiting list for assistance.

Kāinga Ora data on waiting lists are based on accepted applications, and therefore not directly indicative of the number of people attempting to obtain access, although the trends will be highly correlated. We also believe that the levels are also highly correlated, with the ratio of applications to people being very close to one.

Possible next steps

Kāinga Ora data is limited to housing provided by the agency itself, and does not include whānau members who may be in assisted housing through other providers. While this is a good initial indicator, we may be missing key insights about whānau members needing assistance without the extra sources.

A project obtaining more complete data about assisted housing uptake, and waitlists, and investigating the trends and patterns within that would be both insightful and vital.

In addition exploring the make up of the whānau members that are on the Kāinga Ora waitlists is advisable to see if any interventions are required. This should include an investigation of the amount of time whānau members are spending on the waitlist.

Tamariki and wāhine are over represented in social housing data, and understanding how their hardship persists should be examined through tenure and cohort analysis.

180%

The waitlist for Kāinga Ora housing **grew massively**, with more whānau members on there in 2020 than observed ever before.

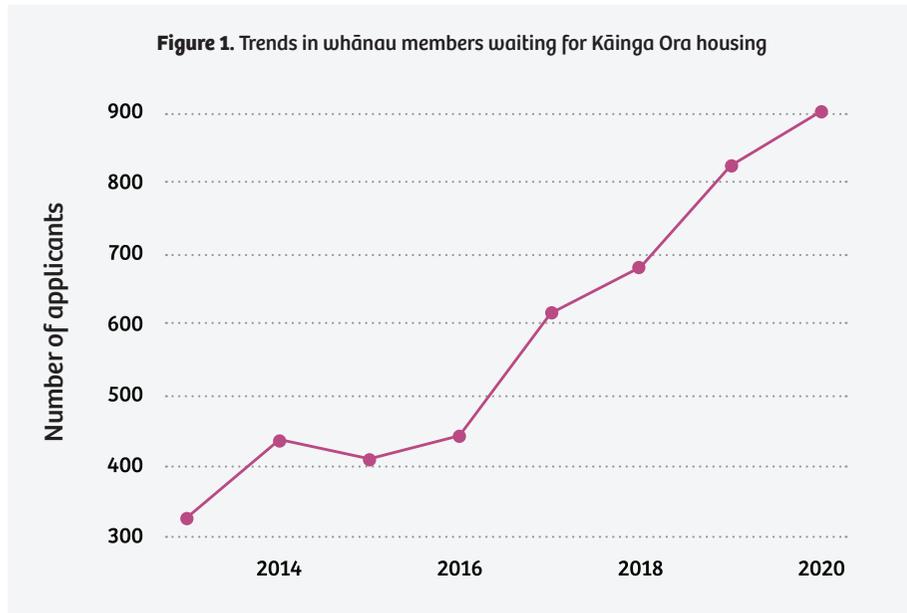
2,000

Whānau members live in social housing. This has **remained stable** over time.



Despite the demand for social housing increasing almost three-fold, the number of whānau members in social housing has remained stable – a critical need is not being met.

Ever growing waitlist for Kāinga Ora housing

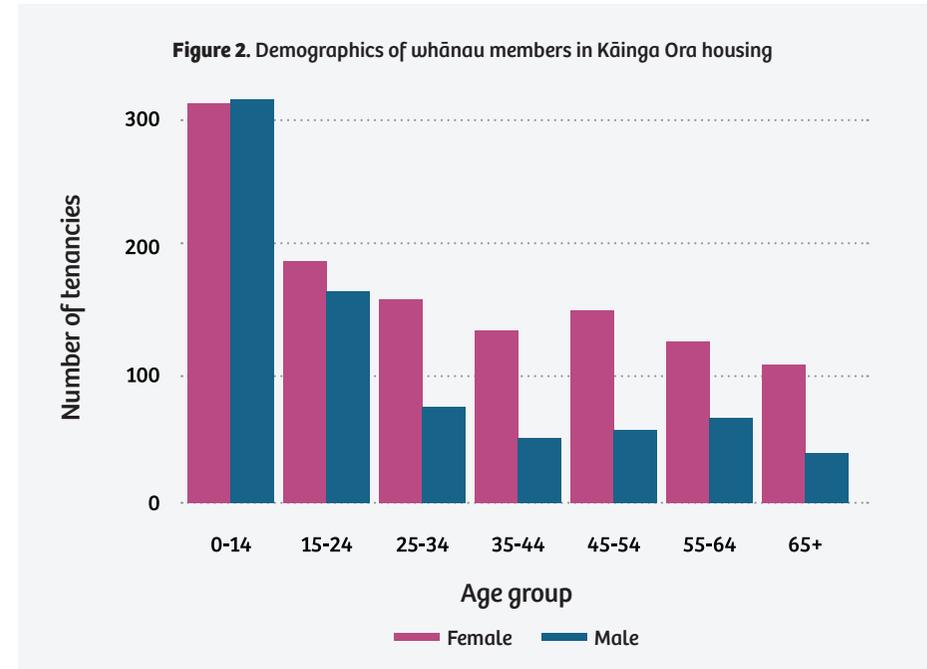


Need for social housing has almost always increased (apart from a slight dip in 2015), and has done so at a staggering pace. This indicates that an increasing number of whānau members are unable to compete in the rental market, as these prices also soar. Between 2013 and 2020, the number of whānau members on the waitlist nearly tripled.

Despite this increase in demand, the number of whānau members in Kāinga Ora housing has remained relatively static over time, which indicates that a desperate need is not being met by the crown.

Understanding the wait times on the list is also of vital importance, as whānau members in precarious housing situations may find their conditions continually deteriorating with longer and longer waits. Tenure on the waiting lists should be examined to understand this.

Who is in Kāinga Ora housing



Looking at the demographics of whānau members in social housing we see that it is predominantly tamariki and wāhine throughout all the age groups. **Figure 2** above shows a snapshot of the situation in 2020.

This is likely reflecting single mothers and their tamariki needing assistance with a home. The persistence of the sex trend through all older age groups suggests that wāhine going through hardship may be finding it difficult to escape that, even as their tamariki grow up.

Exploring the persistence of hardship in this context, by looking at what cohorts remain in social housing, and their length of tenure may highlight areas that require intervention.



NGĀI TAHU
Conclusion

Conclusion

Here we present brief summaries of regions within the takiwā, and an overall summary of the situation outside the takiwā. We present four domains; population, income, health, and housing within the takiwā.

Ngāi Tahu are thriving across a range of social, cultural, and economic areas. However, it is also evident that we still have work to do to improve outcomes for our most vulnerable whānau members. Similarly, we should acknowledge how data such as that presented in this report can highlight how we have done, but also direct what we should do, to maximize positive outcomes.

What has the data told us ?

Analysis of the data shows, perhaps unsurprisingly, rents have been steadily increasing across the regions. Currently our household ownership rates look good. However, while the economic hardships around low incomes and high housing costs continue, the impact may not be apparent until a significant proportion of our rangatahi are looking to buy homes. In saying that, home ownership is one end of the spectrum, with the need for social housing being at the opposite end. Here we are seeing large increases in the number of whānau members looking for social housing.

Housing is only one part of a complex picture. Alongside the rising housing costs we see more whānau members applying for job seeker benefits, suggesting that their economic situations are worsening within a climate where costs are only increasing. We note however, that these increases are likely driven by the effects of the global pandemic. Thus, understanding post-pandemic recovery will be vital.

On a positive note, we see more Ngāi Tahu moving towards self-employment. Whānau members should feel empowered to start their own businesses or sole trading, and the current data indicates that people are moving into self-employment at an increasing rate. Across both wages and self employed incomes, we also see Ngāi Tahu wāhine closing the gender gap with tāne, a more positive outlook on our whānau members' incomes long term. In addition, overall wages for our whānau members have steadily risen.

Culture was similarly an area where we had made small improvements, although it could be that our whānau members require more help to engage with their Ngāi Tahutanga. Unfortunately, there is very little Ngāi Tahu focused information in this domain, and we should take this as an early indication to glean more data in this area. For this report, our only source of data was Te Kupenga (which may have issues due to its link to Census 2018). Similarly, the government has chosen to move Te Kupenga to a ten year survey, meaning we may not see cultural or Māori focused survey data from the government for a long time.

How can this data continue to help our whānui?

This is the third iteration of the State of the Ngāi Tahu Nation report, with the first iteration, released in 2016 based on Census 2013 data. A regional breakdown based on the same data source was released in 2017.

The focus of the third iteration is on annual measures and more analysis and insight to support the raw data. Going forward, there will be a greater focus on providing interactive data, so that whānau members can also generate their own insight with different demographic breakdowns and measures that cannot be covered within a single report. This will enable a more data-driven approach to decision making.

Glossary

Acute Hospitalisation

A hospitalisation for at least one night for an acute accident or event. It is similar to Ambulatory Sensitive Hospitalisation rates (ASH rates), but is not exclusive to events which could have been avoidable with proper primary healthcare (which is what ASH rates can more appropriately capture).

Household income

The sum of all income sources for each individual in a household. Income measures were based on self reported income using income bands in Census 2018, as opposed to actual tax data.

Household tenure

This is based off Census 2018 where a household of individuals could report that the home they were in was part or wholly owned by an individual in the same household, or if the home was owned by a family trust of the household.

IDI

Integrated Data Infrastructure, a database hosted by Statistics New Zealand that links person level data from a range of administrative data sources such as Inland Revenue, Ministry of Social Development, and the Ministry of Health.

Mental Health Hospitalisations

A hospitalisation for at least one night due to a mental health related event. This primarily includes significant events such as eating disorders and attempted suicides.

PHO

Primary Healthcare Organisation, which provides healthcare services either directly or through contractors using a combination of primary, community, and hospital based healthcare. Enrolling with a PHO ensures funding is provided regionally for an individual.

Self-Employment

Anyone earning an income as a sole trader (e.g., a tradesperson or contractor), a partner, or a company director. This also includes individuals drawing an income from their company or partnership as well as dividends.

Te Kupenga

A survey run by Statistics New Zealand with the intention of understanding a variety of attributes of Maori participants, with a focus on cultural connectedness. Details of the questions are presented on **page 45**.

Wages and salaries

An individual earning a pay as you earn, or PAYE income. In other words, an individual working for an employer who pays income tax on the individual's behalf.

Waitlist for Kāinga Ora

An individual and potentially their whānau on the Kāinga Ora waitlist have applied for social housing and their application has been deemed acceptable to be placed in a social home. Note that the waitlist does not include a number of people who would apply for the waitlist but their application would not be successful (e.g., because their income may be too high).





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These results are not official statistics. They have been created for research purposes from the Integrated Data Infrastructure (IDI) which is carefully managed by Stats NZ. For more information about the IDI please visit www.stats.govt.nz/integrated-data

The results are based in part on tax data supplied by Inland Revenue to Stats NZ under the Tax Administration Act 1994 for statistical purposes. Any discussion of data limitations or weaknesses is in the context of using the IDI for statistical purposes, and is not related to the data's ability to support Inland Revenue's core operational requirements.