Te Iti Me Te Rahi

EVERYONE COUNTS
Māori Health Workforce Report 2018

TE RAU MATATINI®
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Mihi whakataki

Nō te Ariki te aroha
horahia nuitia e
ki runga i ngā iwi
hei kākahu rā
mō te iti mō te rahi e

From the creator love and respect
spread over the people
clothing and caring for everyone

A heartfelt thank you to the 365 Māori health stakeholder groups who generously supported this investment in our Māori health workforce by distributing Te Iti me te Rahi: Every Counts. To you the 2,331 respondents of Te Iti me Te Rahi: Everyone Counts Survey we are proud of your achievements across many health professions, settings and locations, and we take this opportunity to share them with you all through Te Iti me Te Rahi: Everyone Counts Report 2018. We at Te Rau Matatini look forward to a continued relationship with you all in the future.

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Te Iti me te Rahi, Everyone Counts Survey and Report was a partnership between Te Rau Matatini and the National Institute of Demographic and Economic Analysis (NIDEA), Waikato University

Executive Summary

Introduction

In 2018 the Government signalled an increased priority for primary care, mental health, public delivery of health services, and a strong focus on improving equity in health outcomes (Minister of Health, 2018). This is expected to be achieved by the delivery of affordable, accessible quality care. Also indicated is an essential health workforce commitment and application. The Government specified a greater utilisation of different workforces in primary care settings and an increased emphasis on the use of generalist workforces for less specialised tasks. An expectation is that Health care professionals from allied health, nursing, medicine and related fields will need to work together and operate at the top of their scope of practice.

Te Rau Matatini, the National Centre for Māori health workforce development and excellence is dedicated to continuing to work with the Māori health workforce 1 to ensure that this occurs.

Background

Te Iti me te Rahi: Everyone Counts Survey and Report was a collaboration between Te Rau Matatini and the National Institute of Demographic and Economic Analysis (NIDEA), Waikato University. Te Iti me te Rahi: Everyone Counts Report 2018 (Report) provides an analysis of the Te Iti me te Rahi: Everyone Counts Māori health workforce survey, undertaken by Te Rau Matatini with statistical support from National Institute of Demographic and Economic Analysis (NIDEA), Waikato University.

Recent workforce surveys notably More than numbers (Te Pou, 2014), 2016 Stocktake of Infant, Child and Adolescent Mental Health and Alcohol and Other Drug Services in New Zealand (The Werry Workforce - Whāraurau. 2017) and the New Zealand addictions workforce: Characteristics & wellbeing (Roche, et al, 2018), provide a limited picture of the Māori health workforce, the limitation being connected solely to the scope of the Mental Health and/or Addiction Workforce.

This lack of detailed data on the experiences of Māori health workers, considering future workforce priorities, was a key motivation for Te Rau Matatini to undertake a uniquely developed and implemented workforce survey focussing on those working in Māori health.

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1 Definition for the purpose of this Report: Māori health workforce includes Health care professionals from allied health, nursing, medicine and related fields working in DHBs and NGO’s
This Māori health workforce survey conducted from July to October of 2018 captures what is essentially valued by the Māori health workforce to operate at the top of their scope of practice.

**The Māori health workforce:**

**Census 2013 and TAS DHB Employed Workforce Quarterly Report**

Data from the Census 2013 and TAS (2018) DHB Employed Workforce Quarterly Report provides something of a comparison for Te Ti me Te Rahi, Everyone Counts data and is utilised throughout this Report.

The Census data showed that around 21,000 Māori (15 years or older) worked in the health care (hospitals, medical and other healthcare services) and social assistance (residential care services and social assistance) sector.

Māori accounted for approximately one in seven (11.0 per cent) of all workers in this sector, which was equivalent to the Māori share of the workforce across all industries (11.0 per cent), which did not change in the intercensal period 2006-2013. When the health care and social assistance sector is disaggregated into two categories, ethnic differences emerge; Māori were less likely than non-Māori to work in health care services, and more likely than non-Māori to work in community, social assistance services.

**Age-sex profile**

Most Māori workers in health services were female (83.0 per cent) as opposed to male (17.0 per cent). Census 2013 comparison with non-Māori workers in health services and Māori workers identified similar trends, likely to be female but Māori were more likely to be younger, those aged 45 to 49 years being the most represented so not necessarily an aging population for Māori as compared to non-Māori.

---


**District Health Board (DHB) workforce occupation**

Census 2013 data showed Māori were under-represented in the DHB workforce, accounting for only 7.2 per cent of workers.

The 2013 Census\(^5\) data shows that the DHB workforce, Māori were well represented in care and support roles (representing 15.8 per cent of this occupation group) but were grossly underrepresented in senior medical officer roles (representing only 1.6 per cent of this occupation group). Māori doctors made up 3.3% of all doctors but were more highly represented amongst house officers (6.1%) and registrars (4%).

The proportion of Māori doctors is higher amongst newer doctors. This suggests that although Māori doctors are currently under-represented amongst specialists (2%), this is likely to change in the future as those house officers and registrars advance into more senior positions within the workforce (Te Rau Matatini, 2018).

In December 2016, Otago University reported that, for the first time, Māori representation within the total number of medical graduates equated to the proportion of Māori (14.7%) in the New Zealand population (Te Rau Matatini, 2018).

**Ethnicities by DHB**

The 2013 Census showed the share of Māori employees differed across DHB regions. Tairawhiti DHB had the highest percentage of Māori employees at 29.3 per cent, while Canterbury had the lowest percentage of Māori employees at just 2.7 per cent.\(^6\)

TAS (2018) reported while Tairawhiti was the DHB with the highest percentage of Māori workers within its workforce, the DHB with the highest number of Māori overall was reported as Waikato, followed by Counties Manukau, and then Northland.\(^7\)

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Survey Methods

Participants

Te Iki me te Rahi: Everyone Counts Survey (Survey) was open to adults aged 18 years plus who identified as Māori and worked in health. A total of 2,331 people participated in the Survey. The data from respondents who skipped more than 20 per cent of questions were excluded from Survey analyses, resulting in data from only 2,056 respondents.

Questionnaire development

The questionnaire development was undertaken through a collaboration, led by Te Rau Matatini and supported by NIDEA, Waikato University. The resulting questions included a small number of questions adapted from the 2013 Census\(^8\) as well as Te Kupenga\(^9\) wellbeing survey but predominantly featured new questions constructed specifically to meet the needs of the investigation led by Te Rau Matatini (Appendix 1).

Procedure

The Survey was administered by Te Rau Matatini via SurveyMonkey online survey software and was open for sixteen weeks and aligned with the Māori values of tika (right), pono (truth), aroha (love and respect) and whanaungatanga (relationships) – such as the snowball process of a built-in mechanism for sending on to known contacts while maintaining anonymity, the distribution through Professional bodies, Social media and Hui attended by Te Rau Matatini kaimahi (staff members) which was utilised.

Participants were also given the option to enter a prize draw upon completion of the survey (contact details and survey responses were collected separately) and aligned with the Māori value of koha mai koha atu (reciprocity). Statistical, tests were then performed by NIDEA using STATA statistical analysis software.

Perceived Limitations

Active recruitment was utilised to advertise and promote the survey not just traditional respondent driven sampling. An assumption of this technique was that the ‘social’ network being sampled was part of a bigger network.

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\(^{9}\) Te Kupenga https://www.stats.govt.nz/information-releases/te-kupenga-2013-english?gclid=EAIaIQobChMI69lK39P13wIV0QarCh1ZTAidEAAAYASAAEgLEG_D_BwE
If the network were actually small disconnected clusters with differing strengths of connection to the overall i.e. Māori health workforce then potential sampling bias could occur. However the over riding method of Whanaungatanga (relationships) Māori known and well utilised by Māori, formed a solid basis for recruitment.

Another criticism might be Snowball samples connection are less relied on for statistical studies as the sample is believed to be not representative i.e. sampling bias and so has an impact on margins of error. The risk of finding multiple unconnected (or weakly connected) ‘social’ networks is relatively high. However this was not the case within Te Iti me Te Rahi: Everyone Counts Survey as displayed in the Results.

The sample of participants were self-selected, and thus should not be viewed as a representative sample of the Māori health workforce population (see section 4.1). This is not unusual; as there appears to be no Māori health workforce survey or surveys where the Māori health workforce were respondents, to date, that has been based on a representative sample.

Survey Results

Descriptive analysis was undertaken which provided the following findings.

Age and gender

More women than men participated in Te Iti me te Rahi: Everyone Counts survey (82.9 versus 16.7 per cent, respectively). This is comparable to the gender profile of all Māori working in health services identified in the Census 2013, 83.0 per cent of whom were women.

The 45 to 49 years age group were the most represented. In comparison with the 2013 Census those aged under 20 years, and those aged 65 years plus were underrepresented among survey respondents.

Iwi and DHB Rohe Affiliations

The list of the Iwi rohe have been sourced from (StatsNZm 2017\(^{10}\)) with the highest number of affiliates among Te Iti me te Rah: Everyone Counts respondents from Te Tai Tokerau/Tamaki-Makaurau (28.7 per cent), followed by Waikato/Te Rohe Pōtae (19.6 per cent), and Te Tairawhiti (16.7 per cent).

The highest number of DHB rohe respondents were recorded as Waikato, Counties Manukau and Northland which indicates most of our respondents were from these rohe. This also aligned with 2013 Census data and TAS DHB Employed Workforce Quarterly Report.

Education

Highest Qualification
95.6 per cent of survey respondents held a formal qualification (Certificate or higher), compared with 66.6 per cent of the Māori ethnic group aged 15 years plus nationally in Census 2013.

Almost two-thirds of Te Iti me Te Rahi: Everyone Counts Survey respondents (65.0 per cent) had an undergraduate degree or higher, compared with only 10.0 per cent of the Māori ethnic group aged 15 years and over nationally. Over one in every nine Te Iti me Te Rahi: Everyone Counts Survey respondents (11.6 per cent) held a Masters’ degree, a PhD, or a Fellowship.

Māori working in the Health and Support health workforce are clearly highly selective by education. Given the need for qualifications for many of the roles this workforce is substantially more educated than the Māori population generally.

Given the numbers of Māori obtaining postgraduate qualifications (many of which contain a significant research and evaluation component) the Māori health workforce has a growing research capacity to provide their own evidence in terms of what works for them. The Māori health workforce brings knowledge of research methodologies and Māori health service practise, this capability has the potential to lead the development of the Māori Mental health and Addiction Research Agenda and application.

Women were more likely than men to list an undergraduate degree as their highest qualification and were also more likely to hold a higher degree (Master’s, PhD or Fellowships).

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These findings are consistent with Census 2013 data showing that Māori women were more likely than Māori men to have a bachelor’s degree or higher (12.3 per cent versus 7.4 per cent, respectively, and Māori men were more likely than Māori women to have no formal qualifications (36.8 per cent versus 30.2 per cent respectively).  

Health Scholarships

Approximately three in ten respondents had received a government funded Māori health scholarship (31 per cent) such as those offered by Te Rau Matatini. The same was true for those who had received a whānau/hapū or iwi scholarship (29 per cent). This finding suggests a positive investment, an almost shared responsibility in investment by government and whānau/hapū or iwi to build Māori health workforce capacity and capability. The 15 – 49 year age group, were more likely than older respondents to have received Māori health scholarships.

Employment experience

Years employed in the health sector

Over one quarter (27.4 per cent) of respondents had been in the health sector for less than 5 years, and almost half (47.9 per cent) had been in the sector less than 10 years. As would be expected, years employed was associated with age, with older people more likely to have been employed longer providing a matured workforce.

Māori and Mainstream

Almost half of respondents (47.2 per cent) worked solely in a Māori service, or worked in both a Māori service and a ‘non-Māori’ service. Older respondents were more likely than their younger counterparts to work in a Māori service, as were men (compared with women).

Service type

The service type in which the highest share of Survey respondents worked was mental health (30.9 per cent) combined with addiction (16.6 per cent) to report as 47.05 per cent, followed by community health (24.5 per cent), and hauora Māori service (23.0 per cent).

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14 http://teraumatatini.com/scholarships
15 Respondents may have varied in their interpretation of ‘Māori service’ as a definition was not provided.
Current role
The three common reported roles in the Survey were nurses, community support workers and managers. One in five respondents (20.4 per cent) were nurses, while more than one in ten were community support workers (11.2 per cent), and another group following close behind, one in ten were managers (10.9 per cent).

Professional associations
Respondents were asked which of a range of health professional associations they belonged to. Amongst the nineteen acknowledged associations, the most common professional association was Te Rūnanga o Aotearoa (NZNO), to which over one in seven respondents (14.5 per cent) belonged followed by the Addiction sector DAPAANZ respondents just over one in 20 (6.3 per cent).

Recruitment
Treaty of Waitangi included in interview
Over two thirds of respondents (68.4 per cent) had been asked about the Treaty of Waitangi in their job interview. Older respondents were more likely than younger respondents to have been asked about the Treaty of Waitangi.

Cultural competency assessed during recruitment
Almost two thirds of respondents (64.1 per cent) reported that cultural competency had been assessed during their recruitment. Men were more likely than women to have had their cultural competency assessed.

Cultural currency
Ability to speak Māori
Almost two-thirds of respondents reported that they were able to speak te reo fairly well to very well (65.3 per cent). By way of comparison, Te Kupenga 2013 Māori Census data showed that only 22.6 per cent of Māori adults nationally were able to speak te reo at this level. Clearly the Māori health workforce is highly selective by te reo Māori, being substantially more knowledgeable and articulate than the Māori population generally. Consistent with Te Kupenga 2013 findings, ability to speak Māori tended to increase with age, but inconsistent with Te Kupenga in that men in the Māori health workforce were better able to speak Māori than women.

16 Te Kupenga https://www.stats.govt.nz/information-releases/te-kupenga-2013-english?gclid=EAIaIQobChMi69iK39P13wIV0QorCh1ZTAidEAAAYAASAAEgLEgD_BwE
Within the Te Iti me Te Rahi: Everyone Counts Survey Report the findings tell us that more men were employed in Māori health services than their female counterparts.

Knowledge of Māori health models
Over three quarters of respondents (76.7 per cent) reported having intermediate to advanced knowledge of Māori health models. Knowledge of Māori health models tended to increase with age, and men reported higher understanding of Māori health models than women.

Workplace internet access
The internet provides opportunities for health workers to access education and training support tools and develop new skills. Most respondents (90.5 per cent) reported having good or excellent access to the internet at their workplace.

Computer literacy
Computer literacy is a necessary skill in many health roles. Almost nine out of ten respondents (88.2 per cent) reported having good or excellent computer literacy.

Professional development and workplace support
Te reo me ōna tikanga
Approximately six out of ten respondents (56.4 per cent) agreed that their workplace supported them to learn te reo me ōna tikanga. Men felt more supported to learn te reo me ōna tikanga than women.

The Report findings tell us that men were more likely to be employed in Māori health services than their female counterparts which may account for this data occurrence where Te reo is more valued.

Support to engage with marae/hapū/iwi
Over half of respondents (56.5 per cent) agreed or strongly agreed that their workplace supported them to engage with marae/hapū/iwi. Older respondents were more likely than younger respondents to agree that their workplace supported them to engage with marae/hapu/iwi, as were men (compared with women).

The Report findings tell us that older people were more likely to be employed in Māori health services than their younger counterparts.
Professional development plan in place
Nearly two-thirds of respondents (65.3) indicated that they had a professional development plan in place.

Cultural supervision in place
Only one third of respondents (34.5 per cent) indicated they had cultural supervision in place. Older respondents were more likely than younger respondents to agree that cultural supervision was in place, as were men (compared with women).

Leadership development in place
Nearly half of respondents (48.5 per cent) indicated that leadership development was in place. Older respondents were more likely than younger respondents to strongly agree that leadership development was in place, as were men (compared with women).

Potential leadership positions available
Over half of respondents (55.2 per cent) indicated that leadership roles were available within their place of work. Men were more likely than women to agree that there were potential leadership roles available.

**Workplace satisfaction**

Feel valued
Over two-thirds of respondents (68.4 per cent) agreed or strongly agreed that they felt valued in their workplace. Men were more likely to feel valued than women.

Salary reflects contribution
Nearly 60 per cent of respondents indicated that their wages or salary did not reflect their contribution. Men were more likely than women to feel their salary reflected their contribution.

Satisfied with workplace
Nearly two thirds of respondents (63.2 per cent) agreed that they were satisfied with their workplace. Men were more likely to be satisfied with their workplace than women.
Associations

The following describes the data, at the univariate level - assessing associations with key demographic variables: age and gender. Bivariate relationships are also tested between workplace satisfaction and other variables of interest from the Te Iti me Te Rahi: Everyone Counts Survey. Finally, associations between workplace satisfaction and other variables of interest simultaneously are assessed, to determine which variables are related to workplace satisfaction once the effect of other variables is controlled.

Bivariate associations

Weak statistical significance 18 - although positive associations were found between workplace satisfaction and the following variables:

- age, ability to speak te reo Māori,
- knowledge of Māori health models, and
- internet access.

Moderate statistical significance - positive associations were found between workplace satisfaction and the following variables:

- te reo me ōna tikanga,
- engaging marae/hapū/iwi,
- professional development plan,
- cultural supervision,
- leadership development in place,
- potential leadership roles available,
- salary reflects contribution.

Strongest statistical significance - positive association with workplace satisfaction was:

- feel valued.

---

18 Statistically significance
- means a result is unlikely due to chance
- p-value is the probability of obtaining the difference a conventional (and arbitrary) threshold for declaring statistical significance is a p-value of less than 0.05.
- statistical significance doesn’t mean practical significance. Only by considering context can it be determined whether a difference is practically significant; that is, whether it requires action.
Practically significant, is concerned with the usefulness of the obtained result in the real world. It implies the existence of a relationship between variables and the context. In this instance we can with some confidence say that the results are also practically significant.

Table 1: Spearman’s Correlation Coefficients showing relationships between satisfaction with workplace and other variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Number of observations</th>
<th>Spearman’s rho</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>2052</td>
<td>0.08*</td>
</tr>
<tr>
<td>Highest qualification</td>
<td>2041</td>
<td>-0.02</td>
</tr>
<tr>
<td>Years employed</td>
<td>2052</td>
<td>0.01</td>
</tr>
<tr>
<td>Days employed per week</td>
<td>2052</td>
<td>0.04</td>
</tr>
<tr>
<td>Ability to speak Māori</td>
<td>2052</td>
<td>0.08**</td>
</tr>
<tr>
<td>Understanding of Māori health models</td>
<td>2052</td>
<td>0.07**</td>
</tr>
<tr>
<td>Internet access</td>
<td>2052</td>
<td>0.20**</td>
</tr>
<tr>
<td>Computer literacy</td>
<td>2052</td>
<td>0.03</td>
</tr>
<tr>
<td>Support for te reo me ōna tikanga</td>
<td>2052</td>
<td>0.44**</td>
</tr>
<tr>
<td>Support to engage marae/hapū/iwi</td>
<td>2052</td>
<td>0.44**</td>
</tr>
<tr>
<td>Professional development plan in place</td>
<td>2052</td>
<td>0.45**</td>
</tr>
<tr>
<td>Cultural supervision in place</td>
<td>2052</td>
<td>0.43**</td>
</tr>
<tr>
<td>Leadership development in place</td>
<td>2052</td>
<td>0.48**</td>
</tr>
<tr>
<td>Potential leadership roles available</td>
<td>2052</td>
<td>0.41**</td>
</tr>
<tr>
<td>Feel valued</td>
<td>2052</td>
<td>0.71**</td>
</tr>
<tr>
<td>Salary reflects contribution</td>
<td>2052</td>
<td>0.48**</td>
</tr>
</tbody>
</table>

*Correlation is significant at the 0.01 level (2-tailed).
**Correlation is significant at the 0.001 level (2-tailed).

Note: significant correlation coefficients with absolute values between 0 and .29 indicate weak relationships (light shading), values between .3 and .49 indicate moderate relationships (medium shading), and values between .5 and 1 indicate strong relationships (dark shading).

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Spearman’s Correlation Coefficients show the associations between variables. Coefficients that were statistically significant (unlikely to have occurred simply by chance) are followed by an asterisk. Spearman’s Correlation Coefficients vary from 0-1 and may be positive or negative. Values closer to 0 indicate weak associations between variables, while values closer to 1 or -1 indicate strong associations. Positive coefficients indicate that variables tend to vary together in the same direction (as one increases the other tends to increase), while negative coefficients indicate that variables tend to vary together in opposite directions (as one increases the other tends to decrease). Spearman’s correlations were appropriate in this case, as the relationships between ordinal variables were being assessed. Unlike Pearson’s correlations, Spearman’s correlations do not require that data is continuous and normally distributed. Because our variables are ordinal, we tested Spearman’s correlations.
Regression analysis

When workplace satisfaction was regressed onto multiple variables simultaneously moderate associations with workplace satisfaction were found for the following variables:

- support to engage marae/hapū/iwi,
- professional development plan in place, and
- cultural supervision in place.

In addition, strong associations with workplace satisfaction were found for the following variables:

- salary reflects contribution, and
- feel valued.

Conclusion

This Report provides a detailed analysis of findings from the Māori health workforce survey, Te Iti me te Rahi: Everyone Counts, conducted by Te Rau Matatini in partnership with NIDEA. There is a specific focus on the factors that promote or inhibit workplace satisfaction for Māori working in the health sector. The Survey was motivated by an information gap on the experiences of Māori health workers, necessary for building a Māori health workforce capable of addressing Māori health inequalities.

In terms of Recruitment there is a need for employers and employees to be cognisant of obligations in health delivery deriving from the Treaty of Waitangi and able to operate in culturally responsive ways. While nearly two thirds of the respondents reported being asked about the Treaty of Waitangi and having their cultural competency tested at initial interview or recruitment, it was disappointing that a significant number did not have either of these things occur. Having these two occur would suggest an organisational willingness and commitment to Māori responsiveness and or furthering Māori aims and aspirations.

A key focus of this report is to understand factors that potentially promote or inhibit workplace satisfaction a key component of retention for Māori working in the health sector. Two-thirds of respondents agreed that they were satisfied with their workplace. Results from the regression analysis revealed that workplace satisfaction was moderately associated with:

- having a professional development plan in place,
- employer support to engage marae/hapū/iwi, and
• having cultural supervision in place.

However, results from the descriptive analyses showed that:

• less than two-thirds of respondents agreed that they had a professional development plan in place,
• six out of ten respondents felt supported to engage marae/hapū/iwi, and
• only one third of respondents agreed that cultural supervision was in place.

The regression analysis also revealed that workplace satisfaction was strongly associated with

• feeling valued and
• receiving a salary that reflects one’s contribution.

The descriptive results showed that approximately two-thirds of respondents agreed that they:

• felt valued in their workplace, but
• only two out of every five respondents agreed that their salary reflected their contribution.

Taken as complete, the analytic findings from this Report imply that, to maintain and further develop the Māori health workforce, improvements are necessary across the sector by ensuring Recruitment processes acknowledge:

• the Treaty of Waitangi, and
• the cultural competencies of health workers.

In addition, for Retention purposes there must be the inclusion of:

• cultural supervision
• professional development opportunities could be made more readily available,
  o including support to learn te reo Māori,
  o to engage with marae/hapū/iwi, and
• efforts are required to ensure remuneration aligns with employee contribution.

Te Iti me Te Rahi: Everyone Counts Report provides positive information acknowledging a tertiary qualification and building towards a culturally fluent Māori health workforce.

There is evidence that the Māori health workforce has made successful use of scholarships available to them and this has contributed to growing Māori health service and research capacity and capability.
There is an opportunity through internet and online utility for future access to E-tools and training which will provide innovative prospects for our Māori health workforce. Obviously further work is necessary to investigate the uptake of such innovations as Māori continue to examine the potential limits of concepts such as ‘kanohi ki te kanohi’.

Recruitment and retention priorities have been acknowledged to ensure that progress can continue to contribute to building capacity and capability to reduce Māori health inequities.
1 Introduction

1.1

In 2018 the Government signalled an increased priority for primary care, mental health, public delivery of health services, and a strong focus on improving equity in health outcomes. This is expected to be achieved by the delivery of affordable, accessible and quality care, also indicating essential workforce changes. The Government specified a greater utilisation of different workforces in primary care settings and an increased emphasis on the use of generalist workforces for less specialised tasks will be necessary. Health care professionals from allied health, nursing, medicine and related fields will need to operate at the top of their scope of practice. Te Rau Matatini, the National Centre for Māori health workforce development and excellence is dedicated to work with the Māori health workforce\(^{20}\) to ensure that this occurs (Minister of Health, 2018).

1.2 Background

Te Rau Matatini works to “improve Māori Health through leadership, education, research and evaluation, health workforce innovation and systemic transformation.”\(^{21}\) A key aim of Te Rau Matatini is to strengthen health\(^{22}\) workforces to decrease Māori inequity and increase Māori wellbeing and potential\(^{23}\). This, in turn, calls for an improved understanding of and knowledge about the Māori health workforce. New Zealand’s Māori Health Strategy He Korowai Oranga (Ministry of Health, 2014) also identifies Māori participation in the health and disability sector as one of four key pathways for action. It recognises that “sustained efforts to grow the Māori health workforce are needed to ensure it is able to meet the higher demand from a larger Māori population” and that achieving this goal will involve:

- increasing the number of Māori in the health and disability workforce,
- expanding the skill base of Māori in the workforce, and
- enabling equitable access for Māori to training opportunities.\(^{24}\)

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\(^{20}\) Definition for the purpose of this Report: Māori health workforce includes Health care professionals from allied health, nursing, medicine and related fields working in DHBs and NGO’s


\(^{22}\) Health Workforce New Zealand has a national focus across the broad scope of the health and disability workforce, including the clinical, non-clinical, private and non-government organisation (NGO) workforces.

\(^{23}\) See: http://teraumatatini.com/our-purpose

While increasing Māori participation in the health workforce is crucial, particularly in areas of historical under-representation, so too is it important to understand the challenges that Māori health workers face in their roles, as well as the factors that enhance satisfaction and effectiveness.

Māori experience poorer health outcomes than other New Zealanders (Robson & Reid 2007). The Crown is obliged to address these inequities, in recognition of the Treaty of Waitangi. This requires action to address structural (socio-economic and historical) determinants of health, as well as improving health services.

Te Iti me te Rahi: Everyone Counts Survey and Report was a partnership between Te Rau Matatini and NIDEA, Waikato University. Te Iti me Rahi: Everyone Counts Report provides a detailed analysis of the Māori health workforce survey Te Iti me te Rahi: Everyone Counts.

Recent workforce surveys notably More than numbers (Te Pou, 2014), 2016 Stocktake of Infant, Child and Adolescent Mental Health and Alcohol and Other Drug Services in New Zealand (The Werry Workforce - Whāraurau. 2017) and the New Zealand addictions workforce: Characteristics & wellbeing (Roche, et al, 2018) provide a limited picture of the Māori health workforce, the limitation being solely to the scope of the Mental Health and/or Addiction Workforce.

Detailed data on the experiences of Māori health workers is required, to inform decision making across a range of areas including recruitment, retention, and professional development and meeting future health priorities for Māori and what is essentially valued by the Māori health workforce to operate at the top of their scope of practice.

The lack of such data was a key motivation for Te Rau Matatini to undertake their own Māori health workforce survey Te Iti me te Rahi: Everyone Counts from July to October of 2018. Te Rau Matatini were interested in levels of workplace satisfaction within the Māori health workforce, and the variables that might be associated with workplace satisfaction. These factors could contribute to workforce recruitment and retention.
The purpose of this Report is to provide a detailed descriptive analysis of the survey results, and analysis of factors that promote or inhibit workplace satisfaction for Māori working in the health sector. Workplace satisfaction is assessed using a new questionnaire designed by Te Rau Matatini, specifically for this study.\(^{25}\)

In Chapter 2, a brief overview is provided of key Māori health workforce data, from Census 2013\(^{26}\) and TAS DHB Quarterly Data\(^{27}\) before describing the statistical methods employed, in Chapter 3. In Chapter 4, the survey results, are outlined beginning by describing the data, at the univariate level - assessing associations with key demographic variables: age and sex. Bivariate relationships are also tested between workplace satisfaction and other variables of interest from the Te Ili me Te Rahi: Everyone Counts Survey. Finally, associations between workplace satisfaction and other variables of interest simultaneously are assessed, to determine which variables are related to workplace satisfaction once the effect of other variables is controlled for.

\(^{25}\) Issues of construct reliability and validity are beyond the scope of this report. A measure is reliable if it can consistently measure the hypothetical behaviour, quality or trait that it purports to measure. Other studies of subjective wellbeing have shown that measures of life satisfaction and affective experience have a serial correlation of around .60 when assessed two weeks apart (Krueger & Schkade 2008). This is substantially lower than the reliability ratios usually found for education, income and other common objective indicators of wellbeing. Krueger and Schkade, (2008, p. 1) argue that this measurement error implies a loss of precision in resulting estimates when subjective wellbeing is used as a dependent variable, and the same issue may arise with the use of the workplace satisfaction variable.

Test-retest was not conducted for the workplace satisfaction variable so we are unable to gauge the reliability of the workplace satisfaction measure. A measure is valid if it adequately captures the hypothetical behaviour, quality or trait that it is purported to measure. There are several ways of determining construct validity, including using statistical evaluations such as factor analysis and structural equation modelling (SEM). A single study does not prove construct validity, but correlations that fit the expected pattern (based on theory and prior research) contribute towards an understanding of construct validity. Split-sample testing and other methodologies could also be used to examine and understand the impact of question wording and framing on survey responses.


2 The Māori health workforce

This section looks at data on the Māori health workforce sourced from the New Zealand Census of Population and Dwellings 2006 and 2013\textsuperscript{28}, and the DHB Employed Workforce Quarterly Report 1 April to 30 June 2018 (TAS. 2018\textsuperscript{29}).

2.1 Industry Sector of Employment

Health care and social assistance

Data from Census 2013 (Statistics New Zealand, 2013) showed that 21,000 Māori worked in the health care and social assistance industry sector\textsuperscript{30}. Figure 2.1 shows the proportion of employed people in each industry sector for Māori as well as for the New Zealand total population. Health care and social assistance was the largest sector at the national level, accounting for one in ten workers (10.0 per cent). One in ten Māori workers (10.0 per cent) were also in this sector. However, health care and social assistance was only the second largest sector for Māori, as a higher proportion of Māori workers (almost one in eight, or 12.2. per cent) were in the manufacturing industry sector.


\textsuperscript{30} Rounded to the nearest 100
While more than one in seven people in New Zealand (14.9 per cent) were found to be Māori in the 2013 Census, Māori made up less than one in nine people (11.0 per cent) of the workforce across all industry sectors.$^\text{31}$

$^\text{31}$This disparity is due to differences in the age structure of the Māori population and the total New Zealand population, as well as differences in workforce participation rates between Māori and the total New Zealand population.
The proportion of workers in the health care and social assistance sector who are Māori (approximately one in seven, or 11.0 per cent) was equal to the proportion of the national workforce who are Māori (mentioned above). Figure 2.2 shows that the share of workers in health care and social assistance did not change between 2006 and 2013.

**Figure 2.2 Percentage of the health and social assistance industry sector who are Māori**

% of Māori workforce data Census 2013, Census 2006 comparison

<table>
<thead>
<tr>
<th>Industry Sector</th>
<th>2013</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other services</td>
<td></td>
<td></td>
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<tr>
<td>Arts &amp; recreation services</td>
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<td></td>
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<td>Health care &amp; social assistance</td>
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<td></td>
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<tr>
<td>Education &amp; training</td>
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<tr>
<td>Public administration &amp; safety</td>
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<tr>
<td>Administrative &amp; support services</td>
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<tr>
<td>Professional, scientific &amp; technical services</td>
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<tr>
<td>Rental, hiring &amp; leasing</td>
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<td>Financial &amp; insurance services</td>
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<td>Information media</td>
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<tr>
<td>Transport, postal, &amp; warehousing</td>
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<tr>
<td>Accommodation &amp; food services</td>
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<td>Retail trade</td>
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<td>Wholesale trade</td>
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<tr>
<td>Construction</td>
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<tr>
<td>Electricity, gas, water &amp; power utilities</td>
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<tr>
<td>Manufacturing</td>
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<td></td>
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<tr>
<td>Mining</td>
<td></td>
<td></td>
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<tr>
<td>Agriculture, forestry &amp; fishing</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Health and social assistance sector**

While the share of the Māori workforce in the health care and social assistance sector appeared to mirror that of the national workforce, when this category is disaggregated into two categories – health services (hospitals and medical and other health care services), and community services (residential care services and social assistance) – differences between the Māori workforce and the non-Māori workforce emerge.
Figure 2.3 shows that Māori are less likely than non-Māori to work in health services, and more likely than non-Māori to work in community services.

**Figure 2.3 Percentage of the Māori workforce and non-Māori workforce in health services and community services, Census 2013**

![Bar chart showing percentage of Māori and non-Māori workforce in health services and community services.]

Figure 2.4 shows that the age-sex structure of Māori and non-Māori workers in health services was similar. Both Māori and non-Māori were more likely to be female and were more likely to be aged 50-54 than any other 5-year age band. The share of Māori workers who were female was slightly higher for Māori (83.0 per cent) than non-Māori (81.4 per cent), and Māori tended to be younger than non-Māori reflecting broader age structural differences (Jackson 2012).

**Figure 2.4 Age-sex structure of Māori and non-Māori in health services, Census 2013**

![Bar charts showing age-sex structure of Māori and non-Māori in health services.]

Indeed, the ageing of the country’s health workforce has been identified as a major challenge. See, for example, Ministry of Health 2017. However Māori appear to have a broader base with the younger age group bands.
2.2 DHB workforce occupation

Māori were under-represented in the DHB workforce. Only 7.2 per cent of the DHB workforce were Māori33 (as a point of comparison, the Māori share of the total New Zealand workforce was 12.8 per cent in June 2018).

As well as being underrepresented overall, the types of occupations Māori tended to have differed from other ethnic groups. Figure 2.5 shows proportions of ethnicities by occupation group. Māori were well represented in care and support roles (representing 15.8 per cent of this occupation group) but were grossly underrepresented in senior medical officer roles (representing only 1.6 per cent of this occupation group). However, the proportion of Māori doctors is higher amongst newer doctors. Māori doctors made up 3.3% of all doctors but were more highly represented amongst house officers (6.1%) and registrars (4%). This suggests that although Māori doctors are currently under-represented amongst specialists (2%), this is likely to change in the future as those house officers and registrars advance into more senior positions within the workforce. (Te Rau Matatini, 2018). In December 2016, Otago University reported that, for the first time, Māori representation within the total number of medical graduates equated to the proportion of Māori (14.7%) in the New Zealand population34.

Figure 2.5 Proportion of ethnicities by occupation group, DHB Workforce Quarterly Report, June 2018

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34 http://teraumatatini.com/news/m%C4%81ori-medical-workforce-factsheet
2.3 Ethnicities by DHB

The share of Māori employees differed across DHBs. Figure 2.6 shows that the Tairawhiti DHB had the highest percentage of Māori employees at 29.3 per cent, while Canterbury had the lowest percentage of Māori employees at just 2.7 per cent.\(^{35}\)

**Figure 2.6 Proportion of ethnicities by DHB, DHB Workforce Quarterly Report, June 2018**

*Other includes all ethnicities other than Asian, Māori, Pacific, and unknown.*

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While Tairawhiti was the DHB with the highest percentage of Māori workers within its workforce, Figure 2.7 shows the DHB with the highest number of Māori overall is Waikato, followed by Counties Manukau, and then Northland.  

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Figure 2.7 Number of Māori workers by DHB, DHB Workforce Quarterly Report, June 2018

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3 Te Iti me te Rahi: Everyone Counts Survey Methods

The previous Chapter two provided a brief overview of Māori health workforce data from official statistics, Census 2006, 2013 and TAS. (2018). District Health Board Employed WorkforceQuarterlies. In Chapter three the data presented is from the 2018 Māori health workforce survey Te Iti me te Rahi: Everyone Counts and describes the methodology used to develop and administer the survey.

3.1 Participants

Te Iti me te Rahi: Everyone Counts survey was open to adults aged 18 years plus who identified as Māori and worked in health, either fulltime or part-time. A substantial number of respondents took part in the survey. A total of 2,331 people responded. By way of comparison, there were 5,201 Māori employed within District Health Boards as of June 2018. Respondents were able to skip questions, resulting in some missing data. The data from respondents who skipped more than 20 per cent of questions were excluded from survey analyses, resulting in a final survey sample of 2,056 respondents (a reduction of 11.8 per cent).

Far more women than men participated in Te Iti me te Rahi: Everyone Counts (82.9 versus 16.7 per cent). The remaining 0.4 per cent of respondents (n=8) did not identify with a binary, male/female gender, and chose to identify using terms such as ‘Takatāpui’, ‘Gender Queer’, ‘Wahine’, or ‘Tāne’. A wide range of ages were represented in the sample, which included between 197 and 280 people in each 10 year age band. This sample of participants were self-selected, and thus should not be viewed as a representative sample of the Māori health workforce population (see section 4.1). This is not unusual; as there appears no Māori health workforce survey to date that has been based on a representative sample.

40 Age groups were: 19 years and under, 20-39 years, 40-49 years, 50-59 years, 60 years and over.
3.2 Questionnaire development

Recently, Te Rau Matatini delivered a report entitled Profiling the Māori Health Workforce (Sewell, 2017), outlining the inadequacies in Māori health workforce data collection, reporting and monitoring. The report identified current gaps in Māori health workforce data, which formed the starting point for designing the survey instrument used in Te iti me te Rahi: Everyone Counts. The questionnaire development was undertaken through a process of collaboration, led by Te Rau Matatini and supported by NIDEA, Waikato University. Te Rau Matatini kaimahi (workers) agreed to participate in pilot testing the questionnaire. The resulting questions included a small number of questions adapted from the Census41 and Te Kupenga wellbeing survey 201342 but predominantly featured new questions constructed specifically to meet the needs of the investigation conducted by Te Rau Matatini (see Table 3.1 for a list of the survey questions and the source of each question).

3.3 Procedure

The survey was administered by Te Rau Matatini via SurveyMonkey online survey software. The survey was widely publicised by Te Rau Matatini via emails to 365 Māori health stakeholder groups (District Health Boards, Non-Governmental Organisations, Kaupapa Māori services, mainstream services, marae, Māori Women’s Welfare League, registration boards and professional bodies) and based on the Māori protocols of tika (right), pono (honest), aroha (love and respect) and whanaungatanga (relationships – snowballing sending on to others). The survey was also publicised through social media, and by taking flyers to hui (meetings) that Te Rau Matatini attended during the data collection period.

The survey was open for sixteen weeks (3 July to 31 October 2018) and was anonymous giving participants the option to enter a prize draw upon completion of the survey and the Māori process of koha mai, koha atu (reciprocity). Respondents’ contact details used for the prize draw were collected separately from survey data. The raw survey data were sent to NIDEA in an excel spreadsheet for analysis. Statistical tests were performed using STATA statistical analysis software, in view of the aims of Te iti me Te Rahi: Everyone Counts.

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42 Te Kupenga https://www.stats.govt.nz/information-releases/te-kupenga-2013-english?gclid=EAIaIQobChMI69iK39P13wiV0QorCh1ZTAidEAAAYASAAEgLEG_D_BwE
Perceived Limitations

Active recruitment was utilised to advertise and promote the survey not just traditional respondent driven sampling. An assumption of this technique was that the ‘social’ network being sampled was part of a bigger network.

If the network were actually small disconnected clusters with differing strengths of connection to the overall ie Māori health workforce then potential sampling bias could occur. However the over riding method of Whanaungatanga (relationships) Māori known and well utilised by Māori, formed a solid basis for recruitment.

Another criticism might be Snowball sample connections are less relied on for statistical studies as the sample is believed not to be representative ie, sampling bias and has an impact on margins of error.

The risk of finding multiple unconnected (or weakly connected) ‘social’ networks is relatively high. However this was not the case within Te Iti me Te Rahi: Everyone Counts Survey as displayed in the results.

The sample of participants were self-selected, and thus should not be viewed as a representative sample of the Māori health workforce population (see section 4.1). This is not unusual; as there appears to be no Māori health workforce survey or surveys where the Māori health workforce were respondents, to date, that has been based on a representative sample.
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<tr>
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<td>Census</td>
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<td>Highest qualification</td>
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<td>9</td>
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<td>16</td>
<td>Current role</td>
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<td>Professional association membership</td>
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<td>18</td>
<td>Current job advertisement type</td>
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<td>19</td>
<td>Job interview included the Treaty of Waitangi</td>
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<td>20</td>
<td>Recruitment included cultural competency</td>
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</tr>
<tr>
<td>21</td>
<td>Ability to understand spoken Māori</td>
<td>Te Kupenga43</td>
</tr>
<tr>
<td>22</td>
<td>Understanding of Māori health models</td>
<td>New</td>
</tr>
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<td>23</td>
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<td>Computer literacy</td>
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<td>25</td>
<td>Support to learn te reo me ōna tikanga</td>
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<td>Support to engage marae/hapu/iwi</td>
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<tr>
<td>33</td>
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</tr>
</tbody>
</table>

4 Te Iti me te Rahi: Everyone Counts Survey Results

4.1 Demographic indicators

Age and sex

As noted in Chapter 3.1, far more women than men participated in Te Iti me te Rahi: Everyone Counts survey (82.9 versus 16.7 per cent respectively). However, this is comparable to the underlying population of Māori working in health services identified in the Census 2013, 83.0 per cent of whom were women.

Figure 4.1 shows the percentage of males and females in each 5-year age band. The largest age group was 45-49 years, accounting for 16.7 per cent of respondents, while the smallest age group was 15-19 years, accounting for only 0.2 per cent of respondents. When compared with the age and sex profile of Māori working in health services from the Census 2013, those aged 65 years plus were underrepresented among survey respondents, while those aged 45 to 49 years were most represented.

Figure 4.1 Age-sex structure of Māori working in health services (Census 2013) and survey respondents (n=2,048)
Iwi rohe affiliations

Respondents in Te Iti me te Rahi: Everyone Counts were asked to indicate their iwi rohe (tribal region), as opposed to their specific iwi, to maintain anonymity. This was necessary, as specific iwi information, when combined with other information collected in the survey (e.g. current role) could potentially be used to identify individual respondents.

Figure 4.2 shows the iwi rohe with the highest number of affiliates, among Te Iti me te Rahi: Everyone Counts respondents was Te Tai Tokerau/Tamaki-Makaurau (28.7 per cent), followed by Waikato/Te Rohe Pōtae (19.6 per cent), and Te Tairawhiti (16.7 per cent).

**Figure 4.2 Iwi rohe affiliations (n=2,056)**

![Bar chart showing iwi rohe affiliations](chart.png)

Note: Multiple responses were permitted so the sum of categories exceeds 100%
DHB area

Respondents were asked to indicate which DHB area they operated within (regardless of whether they worked for the DHB). Figure 4.3 shows the DHB area within which the highest number of respondents worked was Waikato (13.0 per cent), followed by Northland (10.7 per cent). These figures are consistent with DHB workforce data collected for the DHB Workforce Quarterlies indicating that the highest share of the Māori DHB workforce operate within the Waikato DHB (11.7 per cent, n=608), while Northland was the DHB with the third highest share of the Māori DHB workforce (9.2 per cent, n=481), after, Counties Manukau (10.0 per cent, n=520) the second.

**Figure 4.3 DHB area (n=2,056)**

Note: Multiple responses were permitted so the sum of categories exceeds 100%
4.2 Education

Highest Qualification

Data on educational attainment is crucial in profiling the Māori health workforce. Figure 4.4 shows Te Iti me Te Rahi: Everyone Counts survey respondents' highest education qualifications. Only 4.4 per cent of survey respondents did not hold formal qualification, compared with 33.4 per cent of the Māori ethnic group aged 15 years and over nationally in Census 201344.

Almost two-thirds of respondents (65.0 per cent) had an undergraduate degree or higher, compared with only 10.0 per cent of the Māori ethnic group aged 15 years and over nationally45. Over one in every nine survey respondents (11.6 per cent) held a Masters’ degree, a Doctorate, or a Fellowship. Clearly the Māori health workforce is highly selective by education, being substantially more educated than the Māori population generally. The capacity and capability of the Māori health workforce to build their own evidence and best practice models has increased with the obtainment of the Masters and Doctorate qualifications.

Figure 4.4 Percentage of respondents with each level of highest qualification (n=2,045)

<table>
<thead>
<tr>
<th>Highest qualification</th>
<th>Proportion of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>No formal qualification</td>
<td>4.4%</td>
</tr>
<tr>
<td>Certificate</td>
<td>14.2%</td>
</tr>
<tr>
<td>Diploma</td>
<td>16.0%</td>
</tr>
<tr>
<td>Undergraduate degree</td>
<td>27.9%</td>
</tr>
<tr>
<td>Postgraduate certificate</td>
<td>12.3%</td>
</tr>
<tr>
<td>Postgraduate diploma</td>
<td>13.6%</td>
</tr>
<tr>
<td>Masters</td>
<td>9.4%</td>
</tr>
<tr>
<td>PhD/Fellowship</td>
<td>2.2%</td>
</tr>
</tbody>
</table>

Figure 4.5 shows the highest qualification was associated with age.\textsuperscript{46} Respondents aged 29 years and under were the most likely to lack formal qualifications, but also had the highest proportion with an undergraduate degree as their highest qualification. The likelihood of an undergraduate degree being the highest qualification decreased with age, as older respondents' likelihood of holding higher qualifications increased.

**Figure 4.5 Highest qualification by age (n=2,045)**

<table>
<thead>
<tr>
<th>Age group (years)</th>
<th>No formal qualification</th>
<th>Certificate/diploma</th>
<th>Undergraduate degree</th>
<th>Postgraduate qualification</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-29</td>
<td>15%</td>
<td>10%</td>
<td>20%</td>
<td>55%</td>
</tr>
<tr>
<td>30-39</td>
<td>10%</td>
<td>15%</td>
<td>25%</td>
<td>50%</td>
</tr>
<tr>
<td>40-49</td>
<td>5%</td>
<td>20%</td>
<td>30%</td>
<td>45%</td>
</tr>
<tr>
<td>50-59</td>
<td>0%</td>
<td>5%</td>
<td>10%</td>
<td>85%</td>
</tr>
<tr>
<td>60+</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Figure 4.6 shows the highest qualification was also associated with gender\textsuperscript{47}. Women were more likely than men to list an undergraduate degree as their highest qualification but were also more likely to hold a higher degree (Master's, PhD or Fellowships), while men were more likely than women to hold no formal qualifications. These findings are consistent with Census 2013 data showing that Māori women were more likely than Māori men to have a Bachelor's degree or higher (12.3 per cent versus 7.4 per cent, respectively), and Māori men were more likely than Māori women to have no formal qualifications (36.8 per cent versus 30.2 per cent respectively).\textsuperscript{48} It is unsure as to whether this reflects selectivity in the Māori health workforce generally, or specifically within the survey sample.

**Figure 4.6 Highest qualification by gender (n=2,037)**

<table>
<thead>
<tr>
<th>Highest qualification</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>No formal qualification</td>
<td>40%</td>
<td>50%</td>
</tr>
<tr>
<td>Certificate/diploma</td>
<td>30%</td>
<td>20%</td>
</tr>
<tr>
<td>Undergraduate degree</td>
<td>20%</td>
<td>10%</td>
</tr>
<tr>
<td>Postgraduate qualification</td>
<td>10%</td>
<td>0%</td>
</tr>
</tbody>
</table>

\textsuperscript{46} \chi^2(28) = 108.61, p < .001.
\textsuperscript{47} \chi^2(7) = 20.03, p < .01.
Currently studying

To better understand the employment situation and challenges faced by Māori health workforce employees as well as the development potential of the workforce, Te Iti me te Rahi: Everyone Counts survey asked questions relating to current studies. Figure 4.7 shows almost three out of every 10 survey respondents (29.2 per cent) were currently studying. Younger respondents (41.0 per cent) were more likely than older respondents to be studying, while gender was not associated with whether respondents were studying.

Figure 4.7 Percentage of respondents currently studying by age (n=2,047)

<table>
<thead>
<tr>
<th>Age group (years)</th>
<th>Proportion of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-29</td>
<td>41.0%</td>
</tr>
<tr>
<td>30-39</td>
<td>33.7%</td>
</tr>
<tr>
<td>40-49</td>
<td>32.3%</td>
</tr>
<tr>
<td>50-59</td>
<td>25.1%</td>
</tr>
<tr>
<td>60+</td>
<td>16.1%</td>
</tr>
</tbody>
</table>

Scholarship recipients

Approximately three in ten respondents had received a Māori health scholarship (31 per cent). The same was true for those who had received a whānau/hapū/iwi scholarship (29 per cent). Figure 4.8 shows that those aged 60 years plus were less likely than younger respondents to have received Māori health scholarships and whānau/hapū/iwi scholarships, perhaps because many of them undertook their studies at a time when scholarship opportunities were more constrained.

Figure 4.8 Scholarship recipients by age (n=2,056)

χ²(4) = 47.86, p < .001
χ²(16) = 44.37, p < .001
χ²(12) = 51.38, p < .001
4.3 Employment experience

Years employed in the health sector

Staff retention is crucial to workforce development. Figure 4.9 shows that over one quarter (27.4 per cent) of respondents had been in the health sector for less than 5 years, and that almost half (47.9 per cent) had been in the sector less than 10 years.

Figure 4.9 Years employed in the health sector (n=2,056)

As would be expected, years employed was associated with age, with older respondents more likely to have been employed longer.52 There was no association between gender and years employed in the health sector.

Māori and mainstream services

Figure 4.10 shows almost half of respondents (47.2 per cent) worked solely in a Māori service, or worked in both a Māori service and a mainstream service.

Figure 4.10 Percentage of respondents in each service types (n=2,056)

52 $\chi^2(24) = 821.84, p < .001$
Figure 4.11 shows age was associated with service type, as older respondents were significantly more likely than their younger counterparts to work in a Māori service.  

**Figure 4.11 Māori and mainstream service types by age (n=2,056)**

![Bar chart showing age and service type distribution.](chart1)

Figure 4.12 shows there was also an association between service type and gender. Men were more likely than women to be in a Māori service.

**Figure 4.12 Māori and mainstream service types by gender (n=2,048)**

![Bar chart showing gender and service type distribution.](chart2)

---

\[\chi^2(8) = 23.45, p < .01\]

\[\chi^2(2) = 11.34, p < .01^*\]
**Service type**

Respondents were asked to indicate the service type/s they worked in. Figure 4.13 shows that the service type in which the highest share of respondents worked was mental health (30.9 per cent) combined with addiction (16.6 per cent), accounted for 47.05 per cent followed by community health (24.5 per cent), and hauora (health) Māori service (23.0 per cent).

**Figure 4.13 Percentage of respondents in each service type (n=2,056)**

<table>
<thead>
<tr>
<th>Service Type</th>
<th>Percentage of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute services</td>
<td>11.0%</td>
</tr>
<tr>
<td>Adult Health</td>
<td>16.6%</td>
</tr>
<tr>
<td>Addiction</td>
<td>16.9%</td>
</tr>
<tr>
<td>Child Health</td>
<td>13.6%</td>
</tr>
<tr>
<td>Community Health</td>
<td>24.5%</td>
</tr>
<tr>
<td>Crisis Services</td>
<td>4.8%</td>
</tr>
<tr>
<td>Education</td>
<td>11.9%</td>
</tr>
<tr>
<td>Hauora Māori Service</td>
<td>23.0%</td>
</tr>
<tr>
<td>Health Promotion</td>
<td>12.2%</td>
</tr>
<tr>
<td>Iwi</td>
<td>8.0%</td>
</tr>
<tr>
<td>Maternal Health</td>
<td>7.8%</td>
</tr>
<tr>
<td>Mental Health</td>
<td>9.0%</td>
</tr>
<tr>
<td>Medical</td>
<td>19.9%</td>
</tr>
<tr>
<td>NGO</td>
<td>3.7%</td>
</tr>
<tr>
<td>Oral Health</td>
<td>3.9%</td>
</tr>
<tr>
<td>Palliative Care</td>
<td>8.9%</td>
</tr>
<tr>
<td>PHO</td>
<td>2.7%</td>
</tr>
<tr>
<td>Private Health Service</td>
<td>10.9%</td>
</tr>
<tr>
<td>Public Health</td>
<td>5.1%</td>
</tr>
<tr>
<td>Rehabilitation</td>
<td>2.7%</td>
</tr>
<tr>
<td>Rest Home</td>
<td>3.1%</td>
</tr>
<tr>
<td>Rūnanga</td>
<td>3.8%</td>
</tr>
<tr>
<td>Surgical</td>
<td>8.3%</td>
</tr>
<tr>
<td>Youth Health</td>
<td>15.0%</td>
</tr>
<tr>
<td>Other</td>
<td>11.0%</td>
</tr>
</tbody>
</table>
Current role

Respondents were also asked about their current role. Figure 4.14 shows the 10 most common roles identified by respondents. One in five respondents (20.4 per cent) were nurses, while more than one in ten were community support workers (11.2 per cent), followed by one in ten being managers (10.9 per cent). In comparison the three most common current role types aligned with data from the DHB Workforce Quarterly showed that the three occupation groups with the highest share of the Māori DHB workforce were the nursing group (accounting for 31.4 per cent of the Māori DHB workforce) followed by the corporate and other group (26.4 per cent) and the care and support group (22.8 per cent).

Figure 4.14 Top 10 current roles (n=2,056)
Professional associations

Respondents were also asked which of a range of Māori health professional associations they belonged to. Figure 4.15 shows the 5 most common professional associations selected by respondents. The most common professional association was Te Rūnanga o Aotearoa (NZNO), to which over one in 7 respondents (14.5 per cent) belonged followed by the Addiction sector in respondents (6.3 per cent) as part of DAPAANZ.

Figure 4.15 Top five Māori health professional associations (n=2,056)

4.4 Recruitment

Building a health workforce able to respond to the needs of whaiora Māori (Māori consumers) and their whānau requires recruitment procedures that enable the selection of staff who are cognisant of obligations in health delivery deriving from the Treaty of Waitangi as expressed in He Korowai Oranga (Ministry of Health, 2014) and who operate in culturally responsive ways. Te Iti me te Rahi: Everyone Counts survey assessed whether The Treaty of Waitangi and cultural competency had featured in respondents’ recruitment into their current roles.

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55 He Korowai Oranga notes that “effective health and disability services for Māori will be co-ordinated around the needs and realities of whānau and will incorporate Māori cultural values, beliefs and practices”.

41
Treaty of Waitangi included in interview

Figure 4.16 shows over two thirds of respondents (68.4 per cent) had been asked about the Treaty of Waitangi in their job interview. Older respondents were more likely than younger respondents to have been asked about the Treaty of Waitangi.\(^{56}\) No association between gender and Treaty questioning during job interview was observed.

![Figure 4.16 Percentage of respondents who had been asked about the Treaty of Waitangi in their job interview by age (n=2,056)](chart)

Cultural competency assessed during recruitment

Figure 4.17 shows almost two thirds of respondents (64.1 per cent) reported that cultural competency had been considered during their recruitment. Age was associated with cultural competency being considered during recruitment.\(^{57}\) Those aged 50 to 59 years were less likely than other groups to have had their cultural competency considered. In addition, a higher percentage of men (70.3 per cent) than women (62.7 per cent) had their cultural competency considered.\(^{58}\)

![Figure 4.17 Percentage of respondents who had their cultural competency considered during recruitment by age (n=1,683)](chart)

---

\(^{56}\) χ\(^2\)(4) = 14.53, \(p < .01\)

\(^{57}\) χ\(^2\)(4) = 11.71, \(p < .05\)

\(^{58}\) χ\(^2\)(2) = 7.67, \(p < .05\)
4.5 Cultural currency

Ability to speak Māori

Figure 4.18 shows almost two-thirds of respondents were able to speak te reo fairly well to very well (65.3 per cent). By way of comparison, Te Kupenga 2013 data showed that only 22.6 per cent of Māori adults nationally were able to speak te reo at this level.

Figure 4.18 Ability to speak Māori (n=2,056)

![Figure 4.18: Ability to speak Māori (n=2,056)](image)

Figure 4.19 shows consistency with Te Kupenga 2013 findings, ability to speak Māori tended to increase with age.

Figure 4.19 Ability to speak Māori by age (n=2,056)

![Figure 4.19: Ability to speak Māori by age (n=2,056)](image)

---

61 $\chi^2(16) = 57.69, \ p < .001$
While Te Kupenga data\(^{62}\) indicates that Māori women were better able to speak Māori than men, the results from Te Iti me te Rahi: Everyone Counts survey, Figure 4.20 shows that men were better able to speak Māori than women.\(^{63}\) This finding may be related to the types of services men and women respondents tended to be employed in. As discussed in section 4.3 men were more likely to work in Māori health services, while women were more likely to work in mainstream services.

**Figure 4.20 Ability to speak Māori by gender (n=2,048)**

![Bar chart showing ability to speak Māori by gender](image)

Understanding of Māori health models

The survey found a high degree of reported capability within the Māori health workforce with respect to Māori health models. Figure 4.21 shows over three quarters of respondents (76.7 per cent) reported having intermediate to advanced knowledge of Māori health models.

**Figure 4.21 Knowledge of Māori health models (n=2,056)**

![Bar chart showing knowledge of Māori health models](image)


\(^{63}\) \(\chi^2(4) = 50.62, p < .001\)
Figure 4.22 shows Knowledge of Māori health models tended to increase with age\textsuperscript{64}.

**Figure 4.22 Knowledge of Māori health models by Age (n=2,056)**

<table>
<thead>
<tr>
<th>Age group (years)</th>
<th>No knowledge</th>
<th>Beginner</th>
<th>Intermediate</th>
<th>Advanced</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-29</td>
<td>10%</td>
<td>30%</td>
<td>40%</td>
<td>20%</td>
</tr>
<tr>
<td>30-39</td>
<td>15%</td>
<td>25%</td>
<td>40%</td>
<td>20%</td>
</tr>
<tr>
<td>40-49</td>
<td>10%</td>
<td>30%</td>
<td>40%</td>
<td>20%</td>
</tr>
<tr>
<td>50-59</td>
<td>5%</td>
<td>35%</td>
<td>40%</td>
<td>20%</td>
</tr>
<tr>
<td>60+</td>
<td>2%</td>
<td>40%</td>
<td>30%</td>
<td>30%</td>
</tr>
</tbody>
</table>

\[\chi^2(12) = 116.76, \ p < .001\]

Figure 4.23 shows men reported higher understanding of Māori health models than women.\textsuperscript{65}

**Figure 4.23 Knowledge of Māori health models by gender (n=2,048)**

<table>
<thead>
<tr>
<th>Knowledge of Māori health models</th>
<th>No knowledge</th>
<th>Beginner</th>
<th>Intermediate</th>
<th>Advanced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women</td>
<td>10%</td>
<td>30%</td>
<td>40%</td>
<td>20%</td>
</tr>
<tr>
<td>Men</td>
<td>5%</td>
<td>35%</td>
<td>40%</td>
<td>20%</td>
</tr>
</tbody>
</table>

\[\chi^2(3) = 28.19, \ p < .001\]
4.6 Internet access and computer literacy

Workplace internet access

The internet provides opportunities for health workers to access education and training support tools and develop new skills. Figure 4.24 shows most of respondents (90.5 per cent) reported having good or excellent access to the internet at their workplace. No association between internet access and either age or gender were observed.

Figure 4.24 Workplace internet access (n=2,056)

Computer literacy

Computer literacy is a necessary skill in many health roles. Figure 4.25 shows almost nine out of ten respondents (88.2 per cent) reported having good or excellent computer literacy. No association between computer literacy and gender was observed.

Figure 4.25 Computer literacy (n=2,056)
Figure 4.26 shows computer literacy was associated with age. Younger respondents were more likely to have ‘excellent’ computer literacy, while older respondents were more likely to report ‘good’ computer literacy.

Figure 4.26 Computer literacy by age (n=252)

\[\chi^2(16) = 77.55, \ p < .001\]
4.7 Professional development and workplace support

Professional support and opportunities to progress are components of overall workplace satisfaction.\textsuperscript{67} In addition, workplace cultural wellbeing has been found to relate to career satisfaction among Māori workers.\textsuperscript{68}

**Te Reo me ōna Tikanga**

Support for te reo me ōna tikanga is an important component of professional development within the Māori health workforce. Figure 4.27 shows approximately six out of ten respondents (56.4 per cent) agreed that their workplace supported them to learn te reo me ōna tikanga (language and protocols). However, one quarter of respondents (25.4 per cent) neither agreed or disagreed, and more than one in seven respondents (15.1 per cent) disagreed that their workplace supported them to learn te reo me ōna tikanga.

**Figure 4.27 Support to learn te reo me ōna tikanga (n=2,056)**

<table>
<thead>
<tr>
<th>Percentage of respondents</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>28.7%</td>
<td></td>
<td></td>
<td></td>
<td>10.8%</td>
<td></td>
</tr>
<tr>
<td>30.7%</td>
<td></td>
<td></td>
<td></td>
<td>4.3%</td>
<td></td>
</tr>
</tbody>
</table>

There was no association between age and workplace support to learn te reo me ōna tikanga. However, men felt more supported to learn te reo me ōna tikanga than women.\textsuperscript{69}


\textsuperscript{69} χ²(4) = 13.26, p < .05
Figure 4.28 shows men felt more supported to learn te reo me ōna tikanga than women.\textsuperscript{70}

**Figure 4.28 Support for te reo me ōna tikanga by gender (n=2,048)**

Support to engage with Marae/Hapū/Iwi

Figure 4.29 shows over half of respondents (56.5 per cent) agreed or strongly agreed that their workplace supported them to engage with marae/hapū/iwi. However, over one quarter of respondents (26.0 per cent) neither agreed nor disagreed, and more than one in six (17.5 per cent) disagreed or strongly disagreed that their workplace supported them to engage with marae/hapū/iwi.

**Figure 4.29 Workplace support to engage with marae/hapū/iwi (n=2,056)**

\textsuperscript{70} \chi^2(4) = 13.26, p < .05
Figure 4.30 shows that older respondents were more likely than younger respondents to agree that their workplace supported them to engage with marae/hapu/iwi. Less than half of young Māori working in the health sector shared that perception.

Figure 4.30 Workplace support to engage with marae/hapū/iwi by age (n=2,056)

![Graph showing workplace support to engage with marae/hapū/iwi by age.](image)

χ²(16) = 62.18, p < .001

Figure 4.31 shows men agreed slightly more that their workplace supported them to engage with marae/hapu/iwi as compared with women.

Figure 4.31 Workplace support to engage with marae/hapū/iwi by gender (n=2,048)

![Graph showing workplace support to engage with marae/hapū/iwi by gender.](image)

χ²(4) = 10.46, p < .05
Professional development plan in place

Professional development planning is an integral component of workforce development. However, Figure 4.32 shows that less than two-thirds of respondents (65.3) agreed or strongly agreed that they had a professional development plan in place. One in five respondents (20.6 per cent) neither agreed nor disagreed, and approximately one in seven (14.1 per cent) disagreed or strongly disagreed that a professional development plan was in place for them.

Figure 4.32 Professional development plan in place (n=2,056)

![Bar chart showing professional development plan in place](chart)

Figure 4.33 shows an association between professional development plans being in place and age\(^{73}\).

Figure 4.33 Professional development plan in place by age (n=2,056)

![Bar chart showing professional development plan in place by age](chart)

\(^{73}\)\(\chi^2(16) = 30.45, p < .05\)
Cultural supervision in place

Cultural supervision supports Māori models of health, best practice and positive outcomes for Māori. However, Figure 4.34 shows, only one third of respondents (34.5 per cent) agreed or strongly agreed that cultural supervision was in place.

Figure 4.34 Cultural supervision in place (n=2,056)

Figure 4.35 shows older respondents were more likely than younger respondents to agree that cultural supervision was in place.\(^74\)

Figure 4.35 Cultural supervision in place by age group (n=2,056)

\(^74\) $\chi^2(16) = 54.47$, $p < .001$
Figure 4.36 shows male respondents were more likely to agree that cultural supervision was in place as compared with women.  

**Figure 4.36 Cultural supervision in place by gender (n=2,048)**

Leadership development

He Korowai Oranga (Ministry of Health, 2014) emphasises the importance of actively developing Māori leadership across the health sector to contribute towards achieving better outcomes for Māori. Figure 4.37 shows that nearly half of respondents (48.5 per cent) agreed or strongly agreed that leadership development was in place.

**Figure 4.37 Leadership development in place (n=2,056)**

\[ \chi^2(4) = 16.29, p < .01 \]
Age was associated with leadership development being in place. Figure 4.38 shows the age group most likely to agree that leadership development was in place was those aged under 30 years, followed by those aged 50 to 59 years.

Figure 4.38 Leadership development in place by age (n=2,056)

![Bar chart showing age groups and percentage of respondents agreeing with leadership development in place](chart1.png)

Figure 4.39 shows men were more likely than women to agree that leadership development was in place.

Figure 4.39 Leadership development in place by gender (n=2,048)

![Bar chart showing gender and percentage of respondents agreeing with leadership development in place](chart2.png)

\[\chi^2(16) = 37.41, p < .01\]

\[\chi^2(4) = 13.38, p < .05\]
Potential leadership positions available

Figure 4.40 shows over half of respondents (55.2 per cent) agreed or strongly agreed that leadership roles were available within their place of work.

Figure 4.40 Potential leadership positions available (n=2,056)

Age was associated with potential leadership position availability.\(^7\) Figure 4.41 shows older respondents were more likely to agree that leadership roles were available.

Figure 4.41 Potential leadership roles available by age (n=2,056)

\(^7\) \(\chi^2[16] = 31.20, p < .05\)
Figure 4.42 shows male respondents were more likely to agree that leadership roles were available, compared with women.79

**Figure 4.42 Potential leadership roles available by gender (n=2,048)**

![Graph showing potential leadership roles available by gender]

### 4.8 Workplace satisfaction

#### Feel valued

A key focus of this report is to understand the factors that promote or inhibit workplace satisfaction for Māori working in the health sector. The literature suggests that employees are more likely to feel satisfied with their job and less likely to intend to look for work elsewhere if they feel valued by their employer80, and if they are satisfied with their level of pay.81 In Figure 4.43 over two-thirds of respondents (68.4 per cent) agreed or strongly agreed that they felt valued in their workplace. However, just under one in five (19.2 per cent) neither agreed nor disagreed, and almost one in eight (12.2 per cent) disagreed or strongly disagreed that they felt valued in their workplace. No association existed between feeling valued in the workplace and age.

**Figure 4.43 Feel valued (n=2,056)**

![Graph showing feel valued responses]

---

79 $\chi^2(4) = 10.63, \ p < .05$


Figure 4.44 shows that there was an association with gender. Men were more likely to feel valued than women.

**Figure 4.44 Feel valued by gender (n=2,044)**

![Graph showing the percentage of respondents who feel valued by gender](image)

**Salary reflects contribution**

Figure 4.45 shows less than two out of every five respondents (39.1 per cent) agreed or strongly agreed that their salary reflected their contribution. One quarter of respondents neither agreed nor disagreed, and over one third (35.8 per cent) disagreed or strongly disagreed that their salary reflected their contribution.

**Figure 4.45 Salary reflects contribution (n=2,056)**

![Graph showing the percentage of respondents who feel valued by gender](image)

---

82 $\chi^2(4) = 13.15, p < .05$
Figure 4.46 shows age was associated with attitude to salary. The oldest and youngest age groups (those aged 65 years and over, and those aged under 30) were more likely to agree that their salary reflected their contribution than other age groups.

Figure 4.46 Feel salary reflects contribution by age (n=2,052)

Figure 4.47 shows men were more likely than women to feel their salary reflected their contribution.

Figure 4.47 Feel salary reflects contribution by gender (n=2,048)

---

83 $\chi^2(16) = 27.14, p < .05$

84 $\chi^2(4) = 19.75, p < .01$
Satisfied with workplace

Workplace satisfaction is essential when attempting to retain and develop a workforce. Figure 4.48 shows nearly two thirds of respondents (63.2 per cent) agreed that they were satisfied with their workplace. Almost one quarter (24.0 per cent) neither agreed nor disagreed, and one in eight (12.6 per cent) disagreed or strongly disagreed that they were satisfied with their workplace.

Figure 4.48 Satisfied with workplace (n=2,056)

No association between age and workplace satisfaction was observed. However, Figure 4.49 shows men were more likely to be satisfied with their workplace than women.85

Figure 4.49 Satisfied with workplace by gender (n=2,048)

85 $\chi^2(4) = 15.87, \ p < .01$
4.9 Bivariate associations

Te Rau Matatini were particularly interested in understanding factors that influence workplace satisfaction. These factors will to some extent address health workforce recruitment and retention. To gain a deeper understanding of these relationships, statistical tests (Spearman’s Correlations) were conducted of the relationships between workplace satisfaction and the other 16 variables. Table 4.1 shows

Weak, statistically significant, positive associations were found between workplace satisfaction and the following variables:

- age,
- ability to speak te reo Māori,
- understanding of Māori health models, and internet access.

As the strength of these associations were weak, the effects of these variables on workplace satisfaction may be negligible.

Moderate, statistically significant, positive associations were found between workplace satisfaction and:

- support to learn te reo me ona tikanga,
- support to engage marae/hapu/iwi,
- professional development plan in place,
- cultural supervision in place, leadership development in place,
- potential leadership roles available, and
- salary reflects contribution.

Spearman’s Correlation Coefficients show the associations between variables. Coefficients that were statistically significant (unlikely to have occurred simply by chance) are followed by an asterisk. Spearman’s Correlation Coefficients vary from 0-1, and may be positive or negative. Values closer to 0 indicate weak associations between variables, while values closer to 1 or -1 indicate strong associations. Positive coefficients indicate that variables tend to vary together in the same direction (as one increases the other tends to increase), while negative coefficients indicated that variables tend to vary together in opposite directions (as one increases the other tends to decrease). Spearman’s correlations were appropriate in this case, as the relationships between ordinal variables were being assessed. Unlike Pearson’s correlations, Spearman’s correlations do not require that data is continuous and normally distributed. Because our variables are ordinal, we tested Spearman’s correlations.

Statistically significance

- means a result is unlikely due to chance
- p-value is the probability of obtaining the difference a conventional (and arbitrary) threshold for declaring statistical significance is a p-value of less than 0.05.
- statistical significance doesn’t mean practical significance only by considering context can it be determined whether a difference is practically significant; that is, whether it requires action.
These findings suggest that respondents would be more likely to have high workplace satisfaction if they were supported by their workplace:

- to learn te reo me ōna tikanga;
- to engage marae/hapū/iwi;
- had a professional development plan firmly in place;
- received cultural supervision;
- were given leadership development opportunities;
- had opportunities to take on leadership roles; or
- felt their salary reflected their contribution.

*Strong, statistically significant, positive association was found between workplace satisfaction and ‘feel valued’. This means that the more respondents felt valued, the more likely they were to have high workplace satisfaction.*

*Practically significant, is concerned with the usefulness of the obtained result in the real world. It implies the existence of a relationship between variables and the context. In this instance we can with some confidence say that the results are also practically significant.*
Table 4.1 Spearman’s Correlation Coefficients showing relationships between satisfaction with workplace and other variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Number of observations</th>
<th>Spearman’s rho</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>2052</td>
<td>0.08*</td>
</tr>
<tr>
<td>Highest qualification</td>
<td>2041</td>
<td>-0.02</td>
</tr>
<tr>
<td>Years employed</td>
<td>2052</td>
<td>0.01</td>
</tr>
<tr>
<td>Days employed per week</td>
<td>2052</td>
<td>0.04</td>
</tr>
<tr>
<td>Ability to speak Māori</td>
<td>2052</td>
<td>0.08**</td>
</tr>
<tr>
<td>Understanding of Māori health models</td>
<td>2052</td>
<td>0.07**</td>
</tr>
<tr>
<td>Internet access</td>
<td>2052</td>
<td>0.20**</td>
</tr>
<tr>
<td>Computer literacy</td>
<td>2052</td>
<td>0.03</td>
</tr>
<tr>
<td>Support for te reo me ōna tikanga</td>
<td>2052</td>
<td>0.44**</td>
</tr>
<tr>
<td>Support to engage marae/hapū/iwi</td>
<td>2052</td>
<td>0.44**</td>
</tr>
<tr>
<td>Professional development plan in place</td>
<td>2052</td>
<td>0.45**</td>
</tr>
<tr>
<td>Cultural supervision in place</td>
<td>2052</td>
<td>0.43**</td>
</tr>
<tr>
<td>Leadership development in place</td>
<td>2052</td>
<td>0.48**</td>
</tr>
<tr>
<td>Potential leadership roles available</td>
<td>2052</td>
<td>0.41**</td>
</tr>
<tr>
<td>Feel valued</td>
<td>2052</td>
<td>0.71**</td>
</tr>
<tr>
<td>Salary reflects contribution</td>
<td>2052</td>
<td>0.48**</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.001 level (2-tailed).
* Correlation is significant at the 0.01 level (2-tailed).

Note: significant correlation coefficients with absolute values between 0 and .29 indicate weak relationships (light shading), values between .3 and .49 indicate moderate relationships (medium shading), and values between .5 and 1 indicate strong relationships (dark shading).
4.10 Regression analysis

How demographic and workplace variables relate to workplace satisfaction when examined together.

The bivariate analyses presented above identified a range of workplace factors associated with workplace satisfaction. Here, a more complex analysis using multiple variables simultaneously is presented. This regression analysis will quantify the strength of the association between workplace satisfaction and specific variables, while statistically controlling for the associations between workplace satisfaction and other variables.

The variables used in this model are shown in Table 4.2 below. The inclusion of core demographic characteristics in the analysis enables us to control the potential influence of age, gender, and educational attainment on workplace satisfaction.

<table>
<thead>
<tr>
<th>Table 4.2 Variables in ordered logistic regression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographic variables</td>
</tr>
<tr>
<td>Age</td>
</tr>
<tr>
<td>Gender</td>
</tr>
<tr>
<td>Highest qualification</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

In the following sections, we describe the key findings of the ordered logistic regression analysis. The full regression model can be found in Appendix 2, Table 1.

It is important to stress that the models only tell us about associations, not causality. Making claims about causality from observational data usually requires longitudinal data for the same individuals over several time points and the use of more advanced statistical analytic methods (Davis 2013).

The inability to distinguish causal relationships means we cannot be sure about the directionality of a relationship, or, more specifically, which factor is logically prior; we have therefore been cautious in interpreting the results in Table 4.3.
Table 4.3 below shows summarised findings from the ordered logistic regression analysis.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Strength of association with workplace satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>No association</td>
</tr>
<tr>
<td>Gender</td>
<td>No association</td>
</tr>
<tr>
<td>Highest qualification</td>
<td>No association</td>
</tr>
<tr>
<td>Support to learn te reo me ōna tikanga</td>
<td>No association</td>
</tr>
<tr>
<td>Support to engage marae/hapū/iwi</td>
<td>Moderate association</td>
</tr>
<tr>
<td>Professional development plan in place</td>
<td>Moderate association</td>
</tr>
<tr>
<td>Leadership development in place</td>
<td>No association</td>
</tr>
<tr>
<td>Cultural supervision in place</td>
<td>Moderate association</td>
</tr>
<tr>
<td>Feel valued</td>
<td>Strong association</td>
</tr>
<tr>
<td>Salary reflects contribution</td>
<td>Strong association</td>
</tr>
</tbody>
</table>

The regression analysis revealed that age, gender, highest qualification, support given to learn te reo me ōna tikanga, and leadership development in place were not associated with workplace satisfaction, when the effects of all indicator variables were considered simultaneously.

However, moderate associations were found between workplace satisfaction and the following variables:

- support to engage marae/hapū/iwi,
- professional development plan in place, and
- cultural supervision in place. In addition,

Strong associations were found between workplace satisfaction and:

- both feeling valued, and
- receiving a salary that reflects contribution.88

88 It may be the case that feeling valued in the workplace and feeling as though salary reflects contribution are expressions of a shared latent construct to do with workplace satisfaction, in which case we should expect to see strong associations between these variables. It is beyond the scope of this report to assess whether these variables hold together as indicators of latent construct.
5 Conclusion

This Report provides a detailed analysis of findings from the Māori health workforce survey, Te Iti me te Rahi: Everyone Counts, conducted by Te Rau Matatini in partnership with NIDEA. There is a specific focus on the factors that promote or inhibit workplace satisfaction for Māori working in the health sector. The Survey was motivated by an information gap on the experiences of Māori health workers, necessary for building a Māori health workforce capable of addressing Māori health inequalities.

In terms of Recruitment there is a need for employers and employees to be cognisant of obligations in health delivery deriving from the Treaty of Waitangi and able to operate in culturally responsive ways. While nearly two thirds of the respondents reported being asked about the Treaty of Waitangi and having their cultural competency tested at initial interview or recruitment, it was disappointing that a significant number did not have either of these things occur. Having these two occur would suggest an organisational willingness and commitment to Māori responsiveness and/or furthering Māori aims and aspirations.

A key focus of this report is to understand factors that potentially promote or inhibit workplace satisfaction a key component of retention for Māori working in the health sector. Two-thirds of respondents agreed that they were satisfied with their workplace. Results from the regression analysis revealed that workplace satisfaction was moderately associated with:

- having a professional development plan in place,
- employer support to engage marae/hapū/iwi, and
- having cultural supervision in place.

However, results from the descriptive analyses showed that:

- less than two-thirds of respondents agreed that they had a professional development plan in place,
- six out of ten respondents felt supported to engage marae/hapū/iwi, and
- only one third of respondents agreed that cultural supervision was in place.

The regression analysis also revealed that workplace satisfaction was strongly associated with

- feeling valued, and
- receiving a salary that reflects one’s contribution.
The descriptive results showed that approximately two-thirds of respondents agreed that they:

- felt valued in their workplace, but
- only two out of every five respondents agreed that their salary reflected their contribution.

Taken as complete, the analytic findings from this Report imply that, to maintain and further develop the Māori health workforce, improvements are necessary across the sector by ensuring recruitment processes acknowledge:

- the Treaty of Waitangi, and
- the cultural competencies of health workers.

In addition, for Retention purposes there must be the inclusion of:

- cultural supervision,
- professional development opportunities could be made more readily available,
  - including support to learn te reo Māori,
  - to engage with marae/hapū/iwi, and
- efforts are required to ensure remuneration aligns with employee contribution.

Te Iti me Te Rahi: Everyone Counts Report provides positive information acknowledging a tertiary qualified and building towards a culturally fluent Māori health workforce.

There is evidence that the Māori health workforce has made successful use of scholarships available to them and this has contributed to growing Māori health service and research capacity and capability.

There is an opportunity through internet and online utility for future access to E-tools and training which will provide innovative prospects for our Māori health workforce. Obviously further work is necessary to investigate the uptake of such innovations as Maori continue to examine the potential limits of concepts such as ‘kanohi ki te kanohi’.

Recruitment and retention priorities have been acknowledged to ensure that progress can continue to contribute to building capacity and capability to reduce Māori health inequities.
6 References


7 Appendices

Appendix 1 Māori Health Workforce Survey - Te Iti me te Rahi (Everyone Counts)

No te Ariki te aroha horahia nuitia e
Ki runga ki ngā iwi hei kākahu rā mō te iti mō e rahī e

Demographics
1. Age
   - 15-19
   - 20-24
   - 25-29
   - 30-34
   - 35-39
   - 40-44
   - 45-49
   - 50-54
   - 55-59
   - 60-64
   - 65+

2. Gender
   - M
   - F
   - Prefer to self describe

3. Iwi region (mark all that apply)
   - Te Tai Tokerau/Tāmaki-makaurau (Northland/Auckland) Region Iwi
   - Hauraki (Coromandel) Region Iwi
   - Waikato/Te Rohe Pōtæe (Waikato/King Country) Region Iwi
   - Te Arawa/Taupō (Rotorua/Taupō) Region Iwi
   - Tauranga Moana/Mātaatua (Bay of Plenty) Region Iwi
   - Te Matau-a-Māui/Wairarapa (Hawke’s Bay/Wairarapa) Region iwi
   - Taranaki Region Iwi
   - Whanganui/Rangitīkei (Wanganui/Rangitīkei) Region Iwi
   - Manawatū/Horowhenua/Te Whanganui-a-Tara (Manawatū/Horowhenua/Wellington) Region Iwi
   - Te Waipounamu/Wharekauri (South Island/Chatham Islands) Region Iwi
   - Unknown
   - Other – Specify iwi

Education History
4. Your highest qualification
   - No formal qualification
   - Certificate
   - Diploma
   - Undergraduate degree
5. In what year did you attain your highest qualification? _______

6. Are you currently studying?
   - Yes
   - No (if no skip to question 8)

7. What type of qualification are you studying towards?
   - No formal qualification
   - Certificate
   - Diploma
   - Undergraduate degree
   - Postgraduate certificate
   - Postgraduate diploma
   - Masters
   - PhD
   - Not studying
   - Other (please specify)__________________

8. Have you ever received a Māori health scholarship to further your education (e.g. Ministry of Health Māori Hauora Scholarship)?
   - Yes
   - No
   - Don’t know

9. Have you ever received a whānau/hapū/iwi scholarship to further your education?
   - Yes
   - No
   - Don’t know

**Employment History**

10. Total years employed in the health sector
    - 0-4
    - 5-9
    - 10-14
    - 15-19
    - 20-24
    - 25-29
    - 30+

11. Current workplace (mark all that apply)
    - Non-Government Organisation
    - District Health Board
    - PHO
    - Private health service
    - Rongoā Māori service
    - Other
12. Are you working in a role for which you do not hold a qualification?
   ○ Yes
   ○ No

13. Current service
   ○ Māori
   ○ Mainstream

14. How many days per week are you currently employed in your position
   ○ Up to 1
   ○ 2
   ○ 3
   ○ 4
   ○ 5
   ○ 6
   ○ 7

15. Which District Health Board (DHB) location are you working in?
   ○ Auckland DHB
   ○ Bay of Plenty DHB
   ○ Canterbury DHB
   ○ Capital & Coast DHB
   ○ Counties Manukau DHB
   ○ Hawkes Bay DHB
   ○ Hutt Valley DHB
   ○ Lakes DHB
   ○ MidCentral DHB
   ○ Nelson Marlborough DHB
   ○ Northland DHB
   ○ South Canterbury DHB
   ○ Southern DHB
   ○ Tairawhiti DHB
   ○ Taranaki DHB
   ○ Waikato DHB
   ○ Wairarapa DHB
   ○ Waitemata DHB
   ○ West Coast DHB
   ○ Whanganui DHB

   ○ Administrator
   ○ Community support worker
   ○ Consumer advocate
   ○ Counsellor
   ○ Cultural Advisor
   ○ Dentist
   ○ Dental assistant
   ○ Dental Therapist
   ○ Doctor
   ○ Iwi support worker
   ○ Kaumātua
☐ Manager
☐ Midwife
☐ Nurse
☐ Occupational therapist
☐ Optometrist
☐ Pharmacist
☐ Physiotherapist
☐ Project manager
☐ Psychotherapist
☐ Residential carer
☐ Psychologist
☐ Radiologist
☐ Social Worker
☐ Tangata whaiora advocate
☐ Tikanga Advisor
☐ Whānau Ora Navigator
☐ Other (please specify) ___________

17. Are you a member of a professional group (mark all that apply)
☐ DAPAANZ
☐ Māori Occupational Therapists
☐ Māori Pharmacists
☐ Māori Psychologists
☐ Māori Psychotherapists
☐ Ngā Maia (Māori Midwives)
☐ Ngā Pou Mana
☐ RANZCP (Te Kaunihera, Psychiatrists)
☐ Te Ao Mārama (Oral Health)
☐ Te Ao Māramatanga (Māori Caucus)
☐ Te Kaunihera o ngā neehi Māori (Māori Nurses)
☐ Te Ora (Māori Doctors)
☐ Te Rūnanga (NZNO)
☐ Tae Ora (Māori Physiotherapists)
☐ Other (please specify) ________________

Recruitment

18. Where did you hear about your current position (mark all that apply)
☐ Newspaper
☐ Tertiary institute
☐ Newsletter
☐ Word of mouth
☐ Social media
☐ Other (please specify) e.g. website ________________

19. In your interview were you asked about the Treaty of Waitangi?
☐ Yes
☐ No
☐ Don’t know
20. Was your level of Māori cultural competence considered by your employer during your recruitment?
   ○ Yes
   ○ No
   ○ Don’t know

Cultural currency
21. How well are you able to understand spoken Māori?
   ○ very well (I can understand almost anything said in Māori)
   ○ well (I can understand many things said in Māori)
   ○ fairly well (I can understand some things said in Māori)
   ○ not very well (I can only understand simple/basic things said in Māori)
   ○ no more than a few words or phrases

22. What is your level of understanding of Māori health models (e.g. Te Whare Tapa Wha, Paiheretia, etc)?
   ○ No knowledge
   ○ Beginner
   ○ Intermediate
   ○ Advanced

Education and Training support Tools
23. How do you rate your level of access to the internet at your workplace?
   ○ Excellent
   ○ Good
   ○ Fair
   ○ Poor
   ○ Very poor

24. How do you rate your computer literacy?
   ○ Excellent
   ○ Good
   ○ Fair
   ○ Poor
   ○ Very poor

Local Knowledge and Support
25. My place of employment supports me to learn te reo me ōna tikanga
   ○ Strongly agree  ○ Agree  ○ Neutral  ○ Disagree  ○ Strongly disagree

26. My place of employment supports me to engage with the local marae, hapū or iwi, kaumātua/kuia
   ○ Strongly agree  ○ Agree  ○ Neutral  ○ Disagree  ○ Strongly disagree

Professional development
27. A professional development plan including performance appraisal is in place for me and is supported by my employer
   ○ Strongly agree  ○ Agree  ○ Neutral  ○ Disagree  ○ Strongly disagree
28. A cultural supervision plan is in place for me and is supported by my employer
   ○ Strongly agree ○ Agree ○ Neutral ○ Disagree ○ Strongly disagree

29. My Professional development plan includes leadership development and is supported by my employer
   ○ Strongly agree ○ Agree ○ Neutral ○ Disagree ○ Strongly disagree

30. There is potential for me to take on a leadership role in my current workplace
   ○ Strongly agree ○ Agree ○ Neutral ○ Disagree ○ Strongly disagree

Workplace satisfaction
31. I feel valued in my workplace
   ○ Strongly agree ○ Agree ○ Neutral ○ Disagree ○ Strongly disagree

32. I feel my salary/pay reflects my contribution
   ○ Strongly agree ○ Agree ○ Neutral ○ Disagree ○ Strongly disagree

33. I am satisfied with my workplace
   ○ Strongly agree ○ Agree ○ Neutral ○ Disagree ○ Strongly disagree

Push forward
If you have already received and completed this survey you do not need to do anything more.

Ngā manaakitanga

Please share this survey with Māori, friends and/or family members who are part of the Māori health workforce. Copy the link below and PUSH FORWARD by email:

https://www.surveymonkey.com/r/B8BMHQW

You are under no obligation to share the survey and whether you do share or don’t, it will not affect your relationship with Te Rau Matatini. Thank you for your time and consideration.

Enter the draw
Thank you for completing this survey. All participants who complete this survey will go into a draw for a chance to win one of five Samsung tablets.

Please click the ENTER DRAW button to add your details ENTER DRAW
Appendix 2 Ordered logistic regression

Number of observations = 2,044
LR chi2(25) = 1799.59
Prob > chi2 < 0.001
Log likelihood = -1905.35
Pseudo R2 = 0.3208

Table 1. Ordered logistic regression output

<table>
<thead>
<tr>
<th>Workplace satisfaction</th>
<th>Coefficient</th>
<th>Standard error</th>
<th>Z score</th>
<th>P value</th>
<th>95% confidence interval</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age group (base 15-29 years)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30-39 years</td>
<td>-0.05</td>
<td>0.18</td>
<td>-0.30</td>
<td>0.76</td>
<td>-0.40 - 0.29</td>
</tr>
<tr>
<td>40-49 years</td>
<td>0.02</td>
<td>0.17</td>
<td>0.14</td>
<td>0.89</td>
<td>-0.31 - 0.35</td>
</tr>
<tr>
<td>50-59 years</td>
<td>0.04</td>
<td>0.17</td>
<td>0.24</td>
<td>0.81</td>
<td>-0.29 - 0.37</td>
</tr>
<tr>
<td>60+ years</td>
<td>0.15</td>
<td>0.19</td>
<td>0.78</td>
<td>0.44</td>
<td>-0.23 - 0.53</td>
</tr>
<tr>
<td><strong>Gender (base female)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.13</td>
<td>0.12</td>
<td>1.09</td>
<td>0.28</td>
<td>-0.11 - 0.37</td>
</tr>
<tr>
<td><strong>Support to engage marae/hapu/iwi (base strongly disagree)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disagree</td>
<td>0.27</td>
<td>0.24</td>
<td>1.14</td>
<td>0.25</td>
<td>-0.20 - 0.75</td>
</tr>
<tr>
<td>Neutral</td>
<td>0.48</td>
<td>0.23</td>
<td>2.06</td>
<td>0.04</td>
<td>0.02 - 0.93</td>
</tr>
<tr>
<td>Agree</td>
<td>0.66</td>
<td>0.23</td>
<td>2.82</td>
<td>0.01</td>
<td>0.20 - 1.12</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>0.97</td>
<td>0.24</td>
<td>3.96</td>
<td>0.00</td>
<td>0.49 - 1.45</td>
</tr>
<tr>
<td><strong>Professional development plan in place (base strongly disagree)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disagree</td>
<td>0.31</td>
<td>0.29</td>
<td>1.09</td>
<td>0.27</td>
<td>-0.25 - 0.87</td>
</tr>
<tr>
<td>Neutral</td>
<td>0.42</td>
<td>0.27</td>
<td>1.57</td>
<td>0.12</td>
<td>-0.10 - 0.95</td>
</tr>
<tr>
<td>Agree</td>
<td>0.62</td>
<td>0.26</td>
<td>2.36</td>
<td>0.02</td>
<td>0.11 - 1.13</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>0.91</td>
<td>0.28</td>
<td>3.30</td>
<td>0.00</td>
<td>0.37 - 1.45</td>
</tr>
<tr>
<td><strong>Cultural supervision in place (base strongly disagree)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disagree</td>
<td>0.19</td>
<td>0.18</td>
<td>1.06</td>
<td>0.29</td>
<td>-0.16 - 0.55</td>
</tr>
<tr>
<td>Neutral</td>
<td>0.14</td>
<td>0.19</td>
<td>0.75</td>
<td>0.45</td>
<td>-0.22 - 0.50</td>
</tr>
<tr>
<td>Agree</td>
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<td>0.20</td>
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