

MORE THAN  
NUMBERS



# Adult mental health and addiction workforce

2014 survey of Vote Health  
funded services

**Te Pou**  
o Te Whakaaro Nui

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National Addiction Workforce Development

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# Executive summary

The health sector, including the mental health and addiction sector, is increasingly being expected to think about ways to deliver more effective services with less money. Given that workforce is the greatest cost in health delivery, it is critical that it continues to be developed so that it is more productive and more effective at addressing consumer needs.

To understand the priority areas for both current and future workforce development, it is necessary to have good quality information on the current workforce size, composition and its needs in relation to policy, population, funding and service access information. Information on the overall workforce size and composition is valuable for service and workforce planning, yet previous surveys have tended to focus on a subsection of the workforce.

In 2014 Te Pou o Te Whakaaro Nui and Matua Raki conducted a survey of the secondary adult mental health and addiction services. The survey asked organisations to provide information about the workforce. It aimed to describe the workforce's size, distribution, configuration and development needs as at 1 March 2014. Three quarters (75 per cent) of the organisations that were approached participated in the survey (all DHBs and 73 per cent of NGOs). This report situates the key findings of the survey in the broader policy and service delivery context.

## Workforce size and distribution

The total Vote Health funded adult mental health and addiction workforce is estimated to be 9,509 full time equivalent positions (FTEs). These positions were comprised of a reported 8,929 FTE positions (FTEs) plus an additional estimated 580 FTEs for the organisations that did not participate in the survey. This equates to 384 Vote Health funded adult mental health and addiction FTEs per 100,000 adults. There is a relatively consistent match of funding and population size to workforce size across the country's four health regions.

It is estimated that 84 per cent of the mental health and addiction workforce provides mental health services (52 per cent in DHBs and 32 per cent in NGOs). The workforce delivering addiction services is much smaller than the

mental health workforce (16 per cent) and is more evenly distributed across DHBs and NGOs with nine per cent of FTEs based in addiction NGOs and seven per cent based in addiction DHBs.

## Composition of the adult mental health and addiction services workforce

- The largest group within the workforce is support workers (31 per cent) with 2,988 FTEs.
- Nurses make up the second largest group within the workforce (28 per cent) with 2,704 FTEs.
- Doctors and psychiatrists are a very small proportion of the workforce, including 293 FTEs for consultant psychiatrist roles, 125 FTEs for psychiatric registrars, and 120 FTEs for other medical roles.
- Peer support roles (216 FTEs) make up 2 per cent of the total workforce.
- The workforce composition is different for addiction services, for example allied health professionals (e.g. addiction clinicians, social workers, occupational therapists) make up nearly half (45 per cent) of the addiction services workforce.
- The highest number of vacancies was among nurses, with 180 FTEs vacant (7%).

## Ethnic makeup and cultural competence

- The Māori and Pasifika workforce under-represents the proportion of consumers who identify with these groups, particularly in clinical roles.
- Around three quarters of respondents reported a need for increased knowledge and skills related to various aspects of cultural competency for working with Māori, Pasifika and Asian consumers.
- Those working in ethnic-specific services make up 11 per cent of the mental health services' workforce and 17 per cent of the addiction services' workforce. In both mental health and addiction, most of the ethnic-specific workforce was located in kaupapa Māori services. In addition to these services, cultural advice and support roles made-up 1.8 per cent of the workforce (172 FTEs employed plus vacant).

## Workforce capability

- Around one quarter of respondents reported the need to improve relationships with a range of sectors.
- IT and technology and co-existing problems (CEP) skills were consistently reported as fundamental needs by 80 and 77 per cent of respondents respectively.
- Services reported managing pressure arising from increasing complexity (64 per cent) and increased demand for services (64 per cent) as important workforce and service development needs. Static or reduced funding was also a key challenge for 65 per cent of NGO service respondents.

## Workforce growth to meet future demand

Based on projected population increases, the adult mental health and addiction workforce would need to increase by at least nine per cent (estimated 856 FTEs) by 2030 to meet service demand.<sup>1</sup> If services are expanded to meet the needs of a greater proportion of the population, as discussed in *Towards the next wave of mental health and addiction services and capability* (Mental Health and Addiction Service Workforce Review Working Group, 2011) then a much larger growth in the workforce would be required. Growth in specific occupational groups is also considered in this report.

These projections are based on an assumption that the current workforce and service delivery is meeting current consumer demand, however policy direction signals substantial changes to how and where services are delivered.

## Recommendations

The recommendations for future workforce development and service planning are outlined in the conclusion.

These include investigating disparities between service types; considering the role and development of particular occupation groups within the workforce; addressing leader, manager and team development needs; and future planning and development activities.

<sup>1</sup> – This is based on median projected population growth for the 18 to 65 year old age group.

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# 1.0 Introduction

Ensuring New Zealand mental health and addiction services have a workforce able to meet the needs of people experiencing mental health and addiction issues is essential. At a time of considerable fiscal restraint for many nations, the efficient and effective use of the health workforce is a priority focus for policy makers, leaders and managers of health services.

The World Health Organization describes the health workforce as the “most costly [and] indispensable” resource in the health system (World Health Organization, 2010, p. 1). Workforce development is also challenging within a context of changing demographics, changing models of care, increased technological input and an emphasis on evidence-based planning. Good workforce development depends on good workforce planning.

The goal of health workforce planning, as described by the World Health Organization, is to have “the right number of people, with the right skills, in the right place, at the right time, with the right attitude, doing the right work, at the right cost with the right work output” (World Health Organization, 2010, p. 1).

This report presents the results of the 2014 Te Pou and Matua Raki organisation survey of the workforce delivering adult mental health and addiction services across the district health board (DHB) provider arm and the non-government organisation (NGO) sector<sup>2</sup>. It provides important baseline information on the workforce delivering adult mental health and addiction services to the sector. This is crucial information to assist in addressing the challenges posed by increased demand for services in a fiscally constrained environment (Mental Health and Addiction Service Workforce Review Working Group, 2011).

## 1.1 Importance of workforce information for planning

To support this organisation workforce survey, a literature review identifying New Zealand and international best practice for workforce data collection and its use was undertaken. The review identified the need to:

- regularly collect good quality workforce data over time
- collect information at both employee and organisation levels
- link information collected to broader service and policy objectives
- generate information that is useful nationally, regionally and locally
- make sure that information collected is useful for providers (Te Pou o te Whakaaro Nui, 2014b).

Workforce data is an important component of the service and workforce planning and development process. It supports service leaders, managers, planners and funders at a local, regional and national level to understand the existing supply of staff, and to consider this in relation to future service and workforce need (World Health Organization, 2005, p. 5).

Workforce planning has been demonstrated to be most effective when it occurs in a logical stepwise manner that:

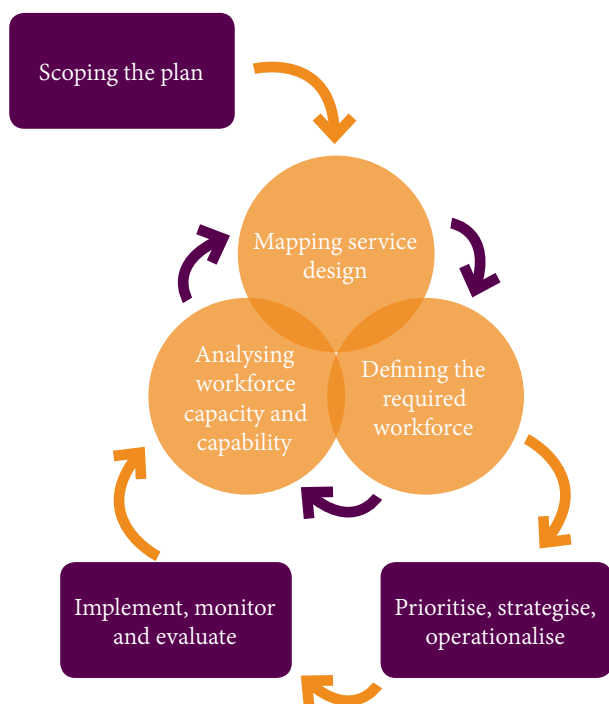
- envisages and predicts future organisational service delivery patterns and requirements
- identifies all of the human (and other) resources that will be needed to meet those future demands.

The results from this survey provide up-to-date information about the New Zealand mental health and addiction workforce. This will assist workforce planners to analyse current workforce supply in relation to current and future demand.

2 – Two additional reports provide separate summary descriptions for the adult mental health services workforce and the adult addiction services workforce.



Te Pou promotes a six-step systematic approach to workforce planning, *Getting it right – workforce planning guide* (Te Pou o Te Whakaaro Nui, 2014a)<sup>3</sup>. The six key steps described in *Getting it right* are summarised in Figure 1.



**Figure 1. *Getting it right* workforce planning approach (Te Pou o Te Whakaaro Nui, 2014a)**

The information on workforce presented in this report supports services to achieve step four of the six-step process. This step involves the analysis of workforce capacity and capability, including profiling the existing workforce capacity, skill needs, trends, analysing the workforce in terms of key policy and strategy and an analysis of gaps between future workforce needs and current workforce profile.

There are several important areas to consider when collecting workforce information to plan for mental health and addiction services. The primary objectives include:

- linking information collected about population, consumers and workforce with service planning
- being very explicit about why workforce data needs to be collected for service and workforce planning and how it will be used
- aligning findings with existing health information collection and analysis
- taking a long-term approach to the collection and management of workforce information, underpinned by an understanding of and commitment to the reasons why workforce information should be collected
- ensuring that decisions on methodology and information collection are explicitly guided by workforce planning objectives
- making certain that information collection is clearly linked to service development initiatives or consumer outcomes arising out of national mental health and addiction strategic plans.

Where possible these considerations have been included within the design and reporting of the survey. These factors should also be considered in future workforce information collection in the mental health and addiction sector.

<sup>3</sup> – The six steps have been adapted from the United Kingdom National Health Service's Six Steps Methodology to Integrated Workforce Planning (Cannon, Catherwood, Sandilands, & Wylie, n.d.) and draw significantly on the work of the National Health Service Scotland (Skills for Health – Workforce Projects Team, 2008).

## 1.2 Workforce survey aims and method

The workforce described in this report includes secondary adult mental health and addiction services. The workforce information presented here will assist the Ministry of Health, Health Workforce New Zealand and others to assess current workforce capacity, and will support workforce planning at a national level to meet future service and workforce development needs.

The first-phase survey intended to provide the first comprehensive data collection of the entire secondary adult mental health and addiction workforce. Overall, the organisation workforce survey had the following aims.

1. To understand the workforce delivering adult mental health and addiction services in:
  - a. the DHB provider arm
  - b. NGOs receiving Ministry of Health funding.
2. To describe, in relation to services offered, the region and the DHB district, and the workforce composition both in terms of roles and ethnicity.
3. To understand current and future workforce challenges, knowledge and skill needs, and inter-sectoral relationships.
4. To utilise current workforce information to undertake workforce modelling and forecasting.

The survey adapted the Werry Centre's stocktake approach, to foster the applicability of the approach to adult mental health and addiction services.<sup>4</sup> The greatest difficulty applying this approach was ensuring the diversity of providers and the cross-sectoral nature of mental health and addiction service provision was captured in the results; these factors made the collection of adult mental health and addiction workforce data challenging.

This report focuses on providing leaders and managers of services and regions, planners and funders, policy makers and clinicians with up-to-date information about the workforce, in the context of policy and strategies, information about people accessing services and service funding. The results are intended to enhance workforce planning and development at a local, regional and national level.

This report presents the following information about the adult mental health and addiction services workforce.

- Total full time equivalent positions (FTEs) employed and vacant at 1 March 2014, along with identifying the Māori, Pasifika and Asian workforce, across adult mental health services.<sup>5</sup>
- The number of FTEs employed and vacant, by service and team types (eg inpatient and residential)<sup>6</sup> and clinical roles (eg psychologists, nurses, occupational therapists, and psychiatrists) and non-clinical roles (eg support workers and cultural workers).<sup>7</sup> In addition, the survey asked about management, administration and supervisory roles supporting the frontline workforce in each organisation.<sup>8</sup>

Leaders and managers of services participating in the survey were also asked to describe the following in relation to their team or service:

- recruitment and retention issues for their workforce
- the biggest workforce challenges they experienced in their services
- the knowledge and skill needs of their workforce
- the effectiveness of cross-sector and agency collaborative relationships.

Each organisation receiving Ministry of Health or DHB funding for delivery of mental health and addiction services in 2012/13 was asked to provide information about its workforce. The survey went out in March 2014 and was open until June 2014. Each organisation was sent a pack, which included information about the survey and copies of the survey.

The survey results provide comprehensive coverage of the health-funded workforce for adult mental health and addiction services across the four health service regions (Northern, Midland, Central, South Island). A total of 251 organisations met the criteria for inclusion.<sup>9</sup> Of the 251, all 20 DHBs and 169 of 231 NGOs returned surveys. This represents a 75 per cent response rate.

4 – See Appendix B for a detailed outline of the survey methodology.

5 – An outline of the ethnic identities included in the Pasifika and Asian groups is found in Appendix C.1.

6 – A list of the service and team types used in PRIMHD and the survey is in Appendix C.2.

7 – A list of the roles and their definitions can be found in Appendix C.3.

8 – Respondents were asked to provide information about their workforce, differentiating Ministry of Health-funded positions from those funded by other sources. Unless specified, the results are about the Ministry of Health-funded workforce for adult mental health and addiction services.

9 – See Appendix B.3 for a detailed description of the criteria for inclusion of organisations in the survey.

The report also draws on the following information to better understand the mental health and addiction workforce in adult services in relation to population, funding and services provided.

- Population data: 2013 New Zealand Population Census (Statistics New Zealand, 2014) data for adults aged 20 to 64, by DHB, age and ethnicity.
- Funding data: for DHB and NGO, by mental health, AOD and problem gambling, from the Ministry of Health's Price Volume Schedule 2012/13.
- Consumer and related service activity data: number of consumers, along with service contacts and bed nights, by DHB and NGO, for 2012/13.

To better support service and workforce planning at a regional and local DHB level, a series of reports describing the mental health and addiction workforce at these levels have been published separate to this report. These regional reports will assist DHB and NGO service leaders, managers, and planners and funders to consider the workforce development needs of their jurisdictions.

This organisation survey is the first of two phases for the *More than numbers* stocktake of the workforce delivering adult mental health and addiction services.

The long-term aim of *More than numbers* is to contribute to and strengthen existing workforce development and planning for mental health and addiction services. This first phase survey asked for information that organisations were able to collate easily from existing information systems. Further work will be undertaken to gain a better understanding of mental health and addiction workforce demographics, competencies, education and training needs.<sup>10</sup>

## 1.3 Chapter outline

This report presents results from the organisation workforce survey of secondary adult mental health and addiction services completed between March and June 2014. The chapters present the following information and analysis in relation to the survey results.

Chapter two provides a brief summary of the strategic context of New Zealand mental health and addiction services, along with an outline of the various workforce stocktakes that describe parts of the New Zealand mental health and addiction workforce.

Chapter three describes the adult mental health and addiction workforce by DHB and NGO. It describes the distribution of the adult workforce by types of services and service locations.

Chapter four profiles the distribution of the workforce nationally, regionally and by local DHB district. It analyses the workforce in relation to population served, funding and consumers seen.

Chapter five describes the composition of the adult mental health and addiction workforce by occupational groups – medical, nursing, allied health, support and cultural workforce. It then goes on to examine the distribution of the workforce by occupations and roles.

Chapter six describes the ethnic make-up of the workforce in relation to the ethnic make-up of people accessing services. It also looks at the workforce in ethnic-specific services, cultural roles and the reported cultural competency of the workforce.

Chapter seven outlines the results from questions about workforce and service challenges facing adult mental health and addiction services. The specific questions focused on workforce planning and service development challenges, knowledge and skills development areas and the quality of existing cross-sector relationships.

Chapter eight provides some initial forecasts for the future needs of the adult mental health and addiction workforce. Two forecasting models are applied. The first is based on population projections to 2035. The other draws on modelling work undertaken to estimate consumer numbers based on population and service models changes (Mental Health and Addiction Service Workforce Review Working Group, 2011). The two forecasting models provide a way to start to estimating future workforce requirements. The chapter also provides two examples of modelling future workforce composition.

Chapter nine summarises the survey findings and makes recommendations for workforce planning and development going forward.

# 2.0 New Zealand mental health and addiction policy and strategy background

As highlighted in *Rising to the challenge* (Ministry of Health, 2012b), mental health and addiction services have experienced two decades of significant growth and change. This has included “a significant increase in Government investment, from \$270 million per year in 1993/94 to \$1.2 billion per year in 2010/11, when total spending on mental health and addiction services was 9.5 per cent of the total Vote Health budget” (2012b, p.2). Alongside increased investment, there has been major growth (51 per cent) in access to secondary mental health and addiction services, from 87,724 people in 2002/03 to 132,682 in 2010/11 (2012b, p.2).<sup>11</sup>

As a result of de-institutionalisation, the past two decades have seen the expansion of community-based services with more than 70 per cent of funding spent on services in community settings and the remainder spent on inpatient and hospital services. This growth has supported the development of a strong community-led non-government organisation (NGO) sector. This growth and change has been supported and led by an increase in the number of people working in mental health and addiction NGO and DHB services.

The following chapter provides context to the growth in mental health and addiction services and the workforce that has occurred over the past two decades in New Zealand. The first section outlines the strategic service and workforce development plans that have provided a framework for mental health and addiction services. It outlines both historical strategies and contemporary directions that will impact on services and the associated workforce. The second section outlines the multiple attempts that have been made to describe parts of the workforce delivering mental health and addiction services. It highlights the fragmented nature of our knowledge about the mental health and addiction workforce to date. The review of previous workforce surveys and stocktakes signals a need to develop a more comprehensive approach to workforce data and planning going forward.

## 2.1 Strategic developments

A number of strategic developments have informed and shaped adult mental health and addiction services to date, which in turn have influenced the development of the workforce.

### 2.1.1 Strategic developments in mental health and addiction since the 1990s

The strategies and associated action plans are summarised in the table below. These sought to address major workforce problems that had been identified from the late 1990s to 2010, including the lack of workforce development coordination, problems with the skill set and skill mix of the workforce, lack of training to respond to changes in service delivery, problems with recruitment and retention, insufficient numbers of skilled Māori and Pasifika workers, uneven geographic spread, and a lack of specialist support in some areas (Health Workforce Advisory Committee, 2002, p. 112).

<sup>11</sup> – These consumer numbers include people accessing child and youth, older adult and adult mental health and addiction services.

**Table 1. National mental health and addiction strategic documents from 1990 to 2010**

Strategy document	Year	Main strategies
<i>Looking forward: Strategic directions for mental health services</i> (Ministry of Health, 1994)	1994	Both documents laid foundations for improvements to mental health services including changes in workforce requirements for primary and secondary services, new competencies to support a shift to the recovery model and community-based service provision.
<i>Moving forward: The national mental health plan for more and better services</i> (Ministry of Health, 1997)	1997	
<i>Blueprint for mental health services in New Zealand: How things need to be</i> (Mental Health Commission, 1998)	1998	Established needs-based workforce benchmarks for future service planning including the workforce resources required to provide an adequate, publicly-funded mental health and addiction service per 100,000 people, and provide access to mental health and addiction services for three per cent of the population based on epidemiological need.
<i>A national strategic framework for alcohol and drug services</i> (Ministry of Health, 2001)	2001	Focused on increasing the capacity of the alcohol and drug sector, in terms of service delivery and workforce.
<i>Te Tāhuhu – improving mental health 2005–2015: The second New Zealand mental health and addiction plan</i> (Minister of Health, 2005)	2005	Provided an overall direction for investment in mental health and addiction services. Focused on broadening the range and choice for specialist services, and to build a mental health and addiction workforce that was recovery- and person-centred, culturally responsive and focused on improving service quality. Specific actions for achieving this plan were outlined in <i>Te Kōkiri: The mental health and addiction action plan 2006–2015</i> (Minister of Health, 2006).
<i>Te Kōkiri: The mental health and addiction action plan 2006–2015</i> (Minister of Health, 2006)	2006	
<i>Te Puāwaiwhero: The second Māori mental health and addiction national strategic framework 2008–2015</i> (Ministry of Health, 2008)	2008	Supported the implementation of whānau ora approaches (Māori families supported to reach their maximum health and wellbeing). Building sector capability to respond to Māori required development of tools and resources to achieve cultural competency in practice.
<i>Te Hononga 2015: Connecting for greater well-being</i> (Mental Health Commission, 2008)	2008	Profiled what a strengthened mental health and addiction sector would look like in 2015. It highlighted responsiveness to diverse needs and extension of care to families and whānau.
<i>Preventing and minimising gambling harm: Six-year strategic plan 2010/11–2015/16</i> (Ministry of Health, 2010)	2010	Provided a high-level framework to guide the structure, delivery and direction of Ministry of Health-funded problem gambling services and activities, including workforce development.

Alongside these national mental health and addiction strategic documents, a series of workforce strategies and plans were published to support the development of a workforce able to deliver on the vision of the national strategies. Key plans are outlined below.

- *Tauawhitia te Wero – embracing the challenge: National mental health and addiction workforce development plan 2006–2009*, provided a whole-system approach to workforce development including: infrastructure; organisational development; recruitment and retention; training and development; and research and evaluation (Ministry of Health, 2005).
- *Kia Puāwai te Ararau: National Māori mental health workforce development strategic plan 2006–2010*, focused on developing and growing the Māori mental health workforce (Ministry of Health, 2006).
- *Te Awhiti: National mental health and addictions workforce development plan for, and in support of, non-government organisations 2006–2009* (Te Pou o Te Whakaaro Nui, 2006).
- *The Matua Rāki 2005 strategic plan* which set broad objectives for addiction treatment workforce development (Matua Rāki, 2005). The plan was developed to guide future Matua Rāki workforce development activity aligned to *Te Tāhuhu* (Ministry of Health, 2005).



## 2.1.2 Current strategic direction for adult mental health and addiction services

Since 2011, these mental health and addiction strategic documents have been superseded by a series of reviews and action plans including:

- *Towards the next wave of mental health and addiction services and capability: Workforce service review report* (Mental Health and Addiction Service Workforce Review Working Group, 2011)
- *Blueprint II: Improving mental health and wellbeing for all New Zealanders: How things needs to be* (Mental Health Commission, 2012)
- *Rising to the challenge: The mental health and addiction service development plan 2012–2017* (Ministry of Health, 2012b).

In 2011, Health Workforce New Zealand commissioned a review of the “service configurations, models of care and health workforce requirements” needed to cater for predicted increases in demand for mental health and addiction services (Mental Health and Addiction Service Workforce Review Working Group, 2011, p. 6). The review called for improved and increased investment in the mental health and addiction workforce, particularly around defining and developing new and existing roles, and improving competencies. The authors emphasised the need for increased workforce capacity to address mental health issues across general health services, and within primary health services, and a need to grow the consumer and peer workforce.

*Blueprint II* was published in 2012. It called for greater integration of mental health and addiction services “into the broader health system and across social services” in order to address the wider prevalence and impact of mental health and addiction services issues and to practice “early intervention, prevention and the promotion of mental wellbeing” (Mental Health Commission, 2012, p. 18). *Blueprint II* also argued for full implementation of a ‘stepped care’ approach, that is, “using the least intrusive treatment required to meet presenting need” across primary and secondary care, and across a range of jurisdictions (Mental Health Commission, 2012, p. 20).

In 2012, the Ministry of Health published *Rising to the challenge: The mental health and addiction service development plan 2012–2017*. The document built on *Blueprint II* (Mental Health Commission, 2012) and *Towards the next wave of mental health and addiction services and capability: Workforce service review report* (Mental Health and Addiction Service Workforce Review Working Group, 2011).

It picked up on some of the themes in the latter two reports, including early intervention, improved access and equity of outcomes and cross-government partnerships. It also emphasised fiscal constraint and more effective use of existing resources in mental health and addiction services.

A number of important trends signified by *Rising to the challenge* will influence the future shape of the workforce for adult mental health and addiction services. These include:

- focusing on responding earlier and more effectively for people experiencing mental health issues
- increasing access to effective psychological therapies
- increasing delivery of mental health support through primary care
- increasing the consumer and peer support and service user workforce
- enhancing collaborative relationships and new ways of working across primary and secondary care services
- increasing cross-agency collaboration to support people with mental health issues to meet their needs, for example, physical health, employment and housing
- increasing leadership capacity to lead and manage change.

## 2.2 Workforce surveys and workforce planning for New Zealand mental health and addiction services

In the past decade, a number of national surveys of the mental health and addiction workforce have been undertaken. Each survey has captured a section of the workforce delivering mental health and addiction services. Table 2 summarises the major national surveys that have been published to describe the mental health and addiction workforce from 2002. Some of the later surveys highlighted the disjointed activity in workforce planning and information collection (Ministry of Health, 2008; Platform Trust, 2007), and recommended more regular information collection, improved definitions and improved data on the different mental health and addiction occupational groups.

### 2.2.1 The current national survey of the adult mental health and addiction workforce and future workforce planning

The survey results presented in this report, when combined with the Werry Centre stocktake provide a more comprehensive description of the Vote Health funded secondary child, youth and adult mental health and addiction workforce. Data gaps to address in future include the older adults’ mental health and addiction services workforce and those in the primary care mental health and addiction

**Table 2. National surveys of the mental health and addiction workforce from 2002**

Workforce survey	Date	Main findings
<i>The New Zealand health workforce: A stocktake of capacity and issues 2001</i> (Health Workforce Advisory Committee, 2002)	2001	Identified challenges in implementing a recovery approach due to workforce competency issues, uneven geographic spread and recruitment and retention problems across the mental health workforce. Innovates the development of a mental health worker and mental health consumer role.
<i>Workforce Profile II: An extended analysis of the mental health workforce</i> (Tassell, 2004)	2002-2004	Describes the findings of the 2002 Te Rau Matatini training – needs assessment survey of Māori workforce in DHB and NGO mental health services. It identifies clinical, cultural and dual competency training needs.
<i>Stocktake of infant, child and adolescent mental health and alcohol and other drug services in New Zealand</i> (The Werry Centre, 2015)	Biennial from 2004	Provides a profile of the specialist infant, child and adolescent mental health services including the population served and numbers of clients accessing services.
<i>National telephone survey of alcohol and other drug workforce</i> (Matua Raki & the National Addiction Centre, 2006)	2006	These surveys collected data on numbers of addiction services' employees, demographics, experience, qualifications, clinical supervision and other information. In 2009 a further study gathered the same information for the addiction nursing workforce and those working with youth.
<i>National telephone survey of the addiction treatment workforce: 2008</i> (Matua Raki & the National Addiction Centre, 2008)	2008	
<i>NgOIT 2007 workforce survey</i> (Platform Trust, 2007)	2007	NGO workforce by roles, professional registration, service area, education and training, and ethnicity data. This study highlighted disjointed activity in the area of workforce development and information collection, with little quantitative information available about the NGO workforce.
<i>Mental health and addictions workforce stocktake</i> (Ministry of Health, 2008)	2008	The stocktake considered numbers of full-time equivalent (FTE) positions reported in relation to different settings, with the results revealing issues with inconsistency in data definitions, ways of measuring the mental health and addiction workforce (FTEs versus bed occupancy) and how data was collected. It noted that data was not able to provide breakdowns of the DHB mental health and addiction workforce by staffing type or service setting, with some professional groups completely absent from DHB data. <sup>12</sup> The authors recommended more regular information collection, improved definitions and improved data on the NGO workforce and some professions, particularly social workers and support workers.
<i>Service user workforce survey: Where are we at?</i> (Te Pou o Te Whakaaro Nui, 2010)	2010	Estimated the size of the contracted service user workforce nationally, and identified employment conditions and demographic characteristics for the surveyed workforce.
<i>Mental health and addiction services for older people: Workforce survey</i> (Te Pou o Te Whakaaro Nui, 2010)	2010	Collected information about the workforce in nine out of 11 DHB mental health services for older people, including demographic characteristics, professional development and training needs.
<i>Addiction Services: Workforce and service demand survey 2011 report</i> (Matua Raki, 2011)	2011	Identified addiction treatment services' workforce, comparing with the 2008 national telephone survey and exploring trends in client demand, referrals and training needs.

12 – The Health Workforce Information Programme (HWIP) was a work stream developed by the DHB sector group in 2005 to collect health and disability workforce data into a centralised repository to enable workforce analysis and forecasting. The programme is ongoing and information is collected from DHBs and some NGOs. HWIP publishes quarterly snapshot information based on six occupational groups: medical, nursing, midwifery, allied and scientific, care and support, and corporate and other. The information presented includes the number of employees by gender, professional group, FTE, age, length of service, ethnicity, and employing DHB. The information is broken down by occupational groups (DHB Shared Services, 2014). The base data collected from DHBs is: identifiers for employees and facilities; employment transition data (service entry, exit and destination); employee demographic information, and utilisation information (hours worked, paid and accrued) (DHB Shared Services, 2014).



workforce. It will be essential to implement a cohesive approach going forward to workforce data collection and reporting across the mental health and addiction sector.

A significant issue for adult mental health and addiction services is the wide range of service providers and the cross-sectoral nature of service provision. These factors make the collection of workforce data more challenging. Many health workforce planning and development approaches tend to focus on sections of the workforce rather than understanding the whole of the mental health and addiction workforce. This survey goes some way towards presenting a picture of the workforce delivering adult mental health services across disciplines and outlines the occupational groups that make up the workforce. The survey supports a shift away from more traditional health workforce planning and development centred on single professional groups, to supporting an approach that is more multidisciplinary and can be applied to clinical pathways or service models.

It is essential to use the information obtained through the surveys to identify gaps between the current workforce and the workforce needed to meet future demand for services. This involves using information about workforce, population size and funding for services combined with information regarding effective evidence-based treatments.

Historically, the *Blueprint for Mental Health Services in New Zealand* (Mental Health Commission, 1998) set out targets to achieve access for the three per cent of the population identified as having severe mental health issues. Associated with this access target, the 1998 *Blueprint I* recommended a workforce mix per 100,000 adults required to meet the access target. Increasingly, it has been recognised that this model needs updating to better meet the needs of a wide range of people with mental health issues. This benchmark is based on population ratios and the three per cent needs-based access threshold which are relatively crude indicators of workforce demand.

In light of recent service reviews and strategic shifts highlighted in current mental health and addiction plans, the *Blueprint I* benchmarks are inadequate to use as a measure of ideal workforce and service access. A more flexible approach to workforce planning that addresses increased demand for services with reduced funding, and provides effective mental health and addiction services, is essential.

Moving forward, the link between higher level policy and service planning decisions, and the collection and analysis of

workforce and other information needs to be much clearer.

Major policy and planning decisions will relate to the broad level service objectives outlined in *Rising to the challenge* (2012b) along with *Blueprint II: Improving mental health and wellbeing for all New Zealanders: How things need to be* (Mental Health Commission, 2012). These include:

- greater integration of mental health and addiction services into the health system and across social services
- early intervention, prevention and promotion of mental wellbeing, and
- full implementation of a stepped care approach or clinical pathways that cross informal, primary and secondary services and a range of jurisdictions.

There is also a need to develop workforce supply and demand models based on flexible models of care. If the objective over time is to implement a stepped care approach to more effectively meet diversifying needs, then information on identified need (demand) and mapping of a preferred service approach (stepped care), should feed into a planned approach to workforce supply, including identifying competencies, skills, training and workforce distribution across a continuum of care.<sup>13</sup>

The workforce information collected through this survey intends to support the forecasting of future workforce requirements in order to meet the future need for services. The report provides some initial forecasting based on population growth and future consumer demand. Population growth and consumer demand provide high level indicators of future workforce needs. However, they do not provide a forecasting framework that considers future workforce skill mix and competency based on evidence-informed service models and treatments. Nor do they consider workforce turnover to provide an estimate of how many people will need to be recruited and trained to reach the estimated size of the workforce.

The purpose of a forecasting framework is to link current and predicted workforce supply with service plans and workforce development. The forecasting framework will need to be designed to meet predicted healthcare demand in the context of best practice and desired outcomes. The current mental health and addiction policy framework needs further development to support future-focused and comprehensive workforce planning and development.

13 – *Rising to the challenge: The mental health and addiction service development plan 2012–2017* addressed some of these issues. It signalled Health Workforce New Zealand's commitment to develop a workforce development plan including a focus on developing information capability to inform decisions and to monitor the planning and funding framework. However, there is very little detail in the document about what this service configuration and the associated workforce might look like. Overall, this represents a more developed framework in terms of workforce planning that is based on a preferred service approach, albeit with very little detail included. *Rising to the challenge* is however relatively silent on what sort of specific demand is to be met and lacks clarity around the altered service environment the future workforce would be expected to populate. This generates a significant disconnect between workforce supply and demand and clarity about how to benchmark the current workforce.

# 3.0 New Zealand adult mental health and addiction workforce

This chapter provides an overview of the workforce for adult mental health and addiction services reported in the survey. It presents the number of people employed and total FTEs (employed and vacant) in the adult mental health and addiction DHB and NGO services that responded to the survey. It also presents an estimate of the total Vote Health funded workforce in adult mental health and addiction services (including workforce estimates for the organisations that met the criteria for inclusion in the survey but did not participate). These estimates are then used to describe the distribution of the workforce across DHB and NGO mental health and addiction services by service type and setting.

Survey respondents reported information about the numbers of employees and FTEs, both employed and vacant, as at 1 March 2014 in their organisations. This was provided by respondents either at a service-wide or team level by local DHB district or by regional level for regional services.

## Key results

### Workforce profile by sector (Vote Health funded workforce and those funded through other sources of funding reported in the survey)

- On 1 March 2014 a total of 10,845 people were reported to be working in Vote Health funded adult mental health and addiction services. These people worked in 8,908 reported FTE positions (FTEs) across 20 DHBs and 169 NGO services.
- An additional 429 FTEs were vacant. This equates to five per cent of all positions reported in the survey (9,337 FTEs, including those funded by Vote Health and other sources).
- The adult mental health and addiction services workforce is approximately seven per cent of the total health workforce.

### Vote Health funded estimated workforce (reported and estimated missing FTEs due to non-response)

- The survey results captured more than 90 per cent of the Vote Health funded workforce across adult mental health and addiction services.
- The total Vote Health funded adult mental health and addiction workforce is estimated to be 9,509 FTEs (a reported total of 8,929 FTEs plus an additional estimated 580 FTEs for the organisations that did not participate in the survey).

### National distribution of the adult mental health and addiction services' workforce across DHB and NGOs

- Most of the workforce identified by the survey (84 per cent) is based in mental health services.
- A smaller proportion of the workforce (16 per cent) is based in addiction services.
- The distribution of the surveyed workforce across DHBs and NGOs shows that:
  - more than half (52 per cent) of the workforce is based in DHB mental health services
  - 32 per cent of the workforce is based in NGO mental health services
  - DHB addiction services account for seven percent of the workforce and NGO addiction services account for nine per cent.
- Workforce distribution across service types and settings shows that a high proportion of the mental health and addiction workforce provide community-based services<sup>14</sup> (more than 40 per cent), while 35 per cent of the workforce is based in inpatient or residential services.
  - Within mental health services, 24 per cent of the workforce is in inpatient services including acute and forensic. Another 14 per cent work in residential settings.
  - Within addiction services, 23 per cent of the workforce is in residential settings.

14 – This includes the teams and services that identified themselves as 'community teams'. There is another group of teams, eg peer support, maternal mental health teams, early intervention teams, that are predominantly working in the community, but identified as specialist teams.

### 3.1 The workforce reported in the survey

Survey respondents were asked to identify the main service provided by their workforce. This information was used to group survey responses into mental health or addiction services. The following section utilises the reported workforce survey results.

The total reported number of people employed in adult mental health and addiction services was 10,845 people.<sup>15</sup> Most people were employed in mental health services and teams. This group comprises the largest workforce across the mental health and addiction sectors.

Of the 10,845 people reported to be working in Vote Health funded adult mental health and addiction services:

- 8,460 people (78 per cent) were employed in mental health only teams.
- 614 people (six per cent) were employed in teams delivering a combination of mental health and addiction services.<sup>16</sup> Most of this workforce was based in DHB services. For most of this report the workforce in these

teams was allocated to either mental health or addiction services according to the overall distribution of funding to these services.<sup>17</sup>

- 1,771 people (16 per cent) were employed in addiction only teams.

As demonstrated in the table below, the 10,845 people identified in the survey were employed in 8,908 FTEs (including both Vote Health funded and non-Vote Health funded roles) across adult mental health and addiction services, suggesting an average of 0.82 FTEs per person across the workforce. This average indicates that only a small proportion of the workforce is working in part-time roles. However, it is not possible to identify the actual proportion of part-time workforce in this survey. The survey identified an additional 429 FTEs that were vacant.

Most positions reported in the survey were funded through Vote Health (96 per cent), and only a very small proportion (four per cent) were funded through other sources (eg Ministry of Social Development, Department of Corrections and charity).

**Table 3. Total FTEs employed and vacant by sector and funding source**

Sector	Vote Health workforce		Non-Vote Health funded workforce		Total FTEs reported*	People employed	Average FTE per person employed^
	Total FTEs* (vacant FTEs)	% of all FTEs reported	Total FTEs* (vacant FTEs)	% of all FTEs reported			
Mental health only	7,097.3 (351.4)	97.6	176.8 (7.5)	2.4	727.1 (358.8)	8,460	0.82
Mental health and addiction	515.5 (18.7)	92.3	43.3 (0.0)	7.7	558.8 (18.7)	614	0.88
Addiction only	1,316.5 (47.3)	87.5	187.6 (4.3)	12.5	1504.1 (51.6)	1,771	0.82
<b>Total</b>	<b>8,929.2 (417.3)</b>	<b>95.6</b>	<b>407.7 (11.8)</b>	<b>4.4</b>	<b>9,336.8 (429.1)</b>	<b>10,845</b>	<b>0.82</b>

\* Total FTEs includes vacancies.

^ Vacancies have been excluded from this calculation.

15 – Total people employed needs to be treated with caution. Some people may be counted more than once, for example those working across multiple teams within an organisation and those employed by more than one organisation. For this reason, reporting in the following chapter is based upon FTEs rather than people employed.

16 – To be included in the combined mental health and addiction group, the organisation needed to have contracts with the Ministry of Health or DHBs for the delivery of mental health and AOD or problem gambling services. This criteria was used in order to identify organisations funded to employ both addiction and mental health staff. Dual diagnosis and co-existing problems (CEP) teams have been included in the addiction services workforce.

17 – The DHB combined MH&A group is distributed across mental health and addiction according to funding of DHB adult mental health (91%) and addiction (9%) services. The NGO combined MH&A group is distributed across mental health and addiction according to funding of NGO adult mental health (78%) and addiction (22%) services.

As demonstrated in the table above, addiction only services reported a higher proportion of non-health funded FTEs compared to the mental health only services (13 per cent of addiction FTEs compared to two per cent of mental health FTEs). Anecdotal information from the addiction sector suggests the proportion of the addiction workforce that is funded through other sources is likely to be even higher than reported in this survey, which only sampled organisations that received Vote Health funding for at least part of their workforce.

The survey targeted organisations that received Vote Health funding to deliver adult mental health and addiction services. However, more than half (59 per cent) of the NGOs that answered this question reported receiving some funding from other sources such as the Ministry of Social Development and Department of Corrections.<sup>18</sup> For the 92 NGOs who received funding from both Vote Health and other sources, the average health funding was 72 per cent, with a minimum of two per cent and a maximum of 99 per cent.

Most of the non-Vote Health funded positions reported in the survey are based in the NGO sector. Nearly all (98 per cent) positions funded through other sources were based in the

NGO sector (400 of the 408 positions were in NGOs).<sup>19</sup> The workforce funded through non-Vote Health funding is often providing additional supports such as employment support or targeted mental health and addiction services to specific populations such as prison populations.

The rest of this report focusses on the Vote Health funded workforce results for the adult mental health and addiction services surveyed, unless otherwise stated.<sup>20</sup>

### 3.1.1 The adult mental health and addiction workforce in relation to the whole of health

The specialist adult mental health and addiction workforce is only a small proportion of the total health workforce. Based on the survey results and the recent *Health of the health workforce 2013-2014* report (Ministry of Health, 2014a) estimating the total health workforce<sup>21</sup> the adult mental health and addiction workforce is estimated to be approximately seven per cent of the total health workforce.

**Table 4. Adult mental health and addiction workforce as a proportion of the total health workforce**

Workforce group	Ministry of Health 2014 report*	People employed in adult mental health and addiction (survey results)*	Adult mental health and addiction workforce as a proportion of total estimated health workforce*
Regulated workforce	94,613 <sup>^</sup>	5,635	6%
Non-regulated workforce <sup>22</sup>	63,000 <sup>#</sup>	5,210	8%
<b>Total</b>	<b>157,613</b>	<b>10,845</b>	<b>7%</b>

\* The results are based on numbers of people working in health rather than the number of FTEs, some of these people may be counted twice if they are working in more than one service.

<sup>^</sup> This information is obtained from the DHB workforce report on actual numbers of people working in the DHB regulated workforce.

<sup>#</sup> This is an estimate of the numbers of non-regulated workforce drawn from the New Zealand population census.

18 – See Appendix D.2 for a summary of the non-Vote Health funding received by NGOs.

19 – Anecdotal feedback from a number of survey respondents employing other funded positions as well as Vote Health funded positions indicates that not everyone included information about the FTEs in their services that were funded through other services. It is difficult to estimate the missing information and as a result most of the report will focus on the Vote Health-funded workforce rather than including the workforce funded through other sources of funding.

20 – This is due to the difficulties in ascertaining the completeness and representativeness of the workforce reported in the survey that is funded through other sources than Vote Health. Difficulties with ascertaining the completeness of the non-Vote Health funded workforce means it is not possible to estimate the total size of the workforce.

21 – The *Health of the health workforce 2013-2014* report (Ministry of Health, 2014a) estimated the general health workforce to be nearly 160,000 people, including a regulated workforce of 94,613 and a non-regulated workforce of approximately 63,000 people (HWNZ, 2014, p 1). The HWNZ regulated and non-regulated workforce is very similar to the clinical and non-clinical categories used in the adult mental health and addiction workforce survey. The regulated workforce included the workforce registered under the Health Practitioners Competence Assurance Act, including medical, nursing and many of the allied health staff. The clinical workforce reported in the adult mental health and addiction survey closely matches the regulated workforce identified by HWNZ. The only occupational group HWNZ include in the regulated workforce, that is included in the non-clinical workforce within the adult mental health and addiction workforce survey, is scientific roles. The non-regulated workforce included care and support staff, cultural, administration, and management staff working in health services. The non-clinical and administration/management categories in the adult mental health and addiction workforce survey are similar to the roles and occupations HWNZ has included in the non-regulated workforce.

22 – This includes management and administration roles. The *Health of the health workforce 2013-2014* (Ministry of Health, 2014) report included corporate and administrative roles in the non-regulated workforce (p. 12-13).

### 3.2 Calculating the total Vote Health funded adult mental health and addiction workforce

Three quarters (75 per cent) of the organisations that were approached participated in the survey (all DHBs and 73 per cent of NGOs). Of the 231 NGOs that receive Vote Health funding for direct care adult mental health and addiction services, a small group of 62 did not participate in the survey.

The organisations who participated received 96 per cent of the Vote Health funding for adult mental health and addiction services as identified in the Price Volume schedule 2012/13. Those NGOs who completed the survey received 87 per cent of the Vote Health funding allocated to NGO adult mental health and addiction services.

In contrast, those who did not complete the survey received 13 per cent of the Vote Health funding for adult NGO mental health and addiction services.

The survey results present a partial picture of the adult NGO mental health and addiction workforce. In addition to missing FTEs due to non-response by organisations, there were suggestions that some organisations that participated in the survey had underreported their total FTEs.<sup>23</sup>

To profile the entire Vote Health funded adult mental health and addiction services workforce, it is important to address the missing FTEs located in the NGOs that did not respond to the survey. The method for estimating the missing FTEs is set out in Appendix E. The following section provides a summary of the estimated missing NGO FTEs.

These estimates are based on the ratios of the reported FTEs in relation to Vote Health funding received by the reporting NGOs. These ratios have then been applied to the Vote Health funding received by non-participating NGOs in order to estimate the likely total workforce in those services. The estimates resulted in an increase in the total workforce from 8,929 to 9,509 FTEs, which represents an additional 580 FTEs, as shown in Table 5. As a result, the total workforce for NGOs increased by 18 per cent (580 FTE) to 3,853 FTEs. Of the estimated additional 580 FTEs, most were in mental health (457 FTE, 79 per cent), the remainder were in the addiction sector (123 FTE, 21 per cent).<sup>24</sup>

Estimates were only calculated for NGOs because all DHBs completed the survey.<sup>25</sup> With the inclusion of the estimated NGO FTEs, the addiction workforce increased by nine per cent to 1,506 FTEs and the total mental health workforce increased by six per cent to 8,003 FTEs.<sup>26</sup>

The total workforce (including estimated FTEs for organisations who did not respond to the survey) will be used throughout the rest of this report to profile the mental health and addiction workforce. In developing the estimates, it is essential to acknowledge the assumption that the organisations who did not respond to the survey were similar to the organisations that did, in terms of their workforce relative to funding.<sup>27</sup>

23 – Further analysis was undertaken to determine if there were significant discrepancies between DHB provider arm services in terms of average FTE reported in relation to funding. It was found that for DHBs there were inconsistencies in terms of the relationship between reported FTE and expected FTE based on average funding. The majority of DHBs did report FTE totals close to expected FTE totals based on funding. However, there was a group of DHBs that showed large differences both in terms of reporting higher than expected FTE totals, and lower than expected FTE position results. As a result, it was difficult to calculate underreporting across DHBs. An analysis of the NGOs that participated in the survey showed extensive variation in relation to average FTE by funding received. It was difficult to determine the level of underreporting of FTEs by participating organisations. See Appendix E for a description of the analysis for potential underreporting by participating DHBs and NGOs.

24 – The combined mental health and addiction group of 515.5 FTEs was divided between mental health and addiction groups. The distribution across mental health and addiction groups was proportional to the Vote Health funding received by adult mental health and addiction DHB and NGO services. In order to test the appropriateness of this distribution, the percentage distribution of roles across the three groups (mental health only, addiction only, combined mental health and addiction) was compared. It was found that the combined mental health and addiction group was more similar to the mental health only group than to the addiction only group. This is likely to reflect that the majority of the combined mental health and addiction group funding was for mental health service delivery and only a small proportion for addiction services.

25 – It is also possible that some services did not report all of their positions. See footnote 20.

26 – The remainder of this report describes the estimated workforce in terms of mental health or addiction services.

27 – The estimates did take into account differences between small (receiving less than \$500,000 in Vote Health funding for adult mental health and addiction services), medium (receiving between \$500,000 and \$1 million in funding) and large organisations (receiving more than \$1million).

**Table 5. Estimated FTEs for DHB and NGO mental health and addiction services (including missing FTE estimates due to non-response by organisations)**

Sector	Reported FTE	Estimated missing FTE <sup>#</sup>	Percentage increase	Total FTE (including estimated missing FTEs)
<b>DHB*</b>				
Mental health	4,993.8	-	-	4,993.8
Addiction	662.7	-	-	662.7
DHB sub-total	5,656.5	-	-	5,656.5
<b>NGO<sup>^</sup></b>				
Mental health	2,551.8	457.1	18%	3,008.9
Addiction	720.8	122.8	17%	843.6
NGO sub-total	3,272.6	579.9	18%	3,852.5
<b>Grand total</b>	<b>8,929.1</b>	<b>579.9</b>	<b>9%</b>	<b>9,509.0</b>
Addiction total	1,383.5	122.8	9%	1,506.3
Mental health total	7,545.6	457.1	9%	8,002.7

\* The combined DHB MH&A group has been distributed across mental health and addiction according to funding of DHB adult mental health (91%) and addiction (9%) services.

<sup>^</sup> The combined NGO MH&A group has been distributed across mental health and addiction according to funding of NGO adult mental health (78%) and addiction (22%) services.

<sup>#</sup> All DHBs responded to the survey, as a result estimates for missing FTEs because of non-response were not needed. Twenty-eight per cent of NGOs did not respond. Missing FTEs were calculated on the basis of funding. See Appendix E for an explanation of the estimated FTEs due to non-response.

### 3.3 Workforce distribution across DHB and NGO services

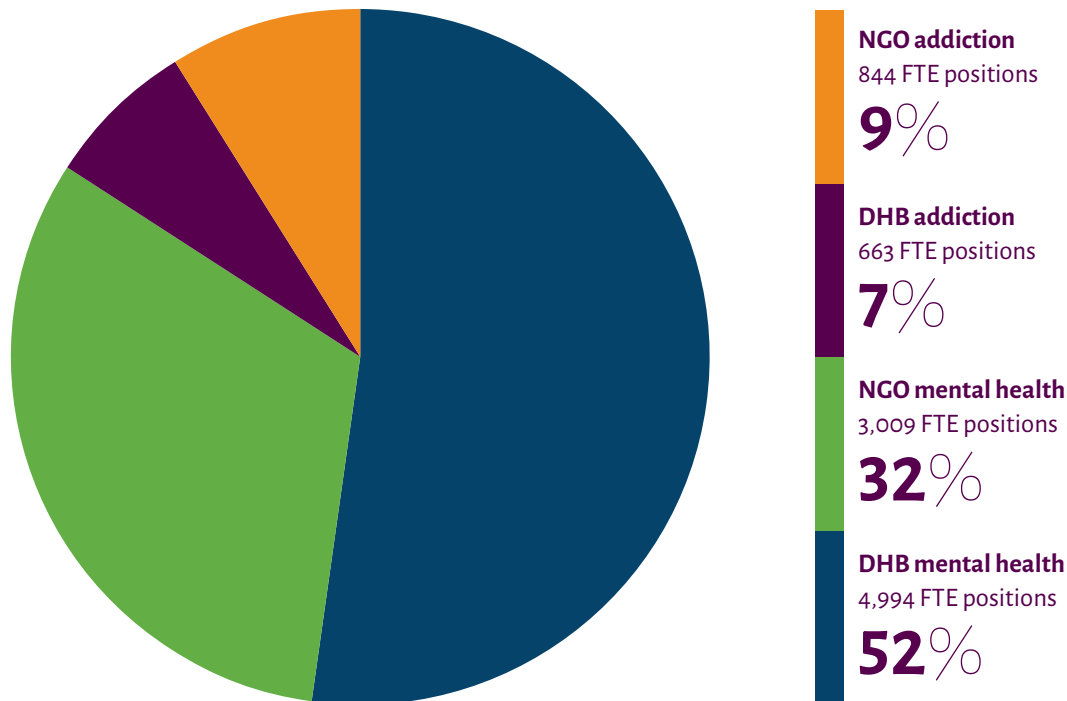
Survey respondents self-identified the predominant service provided by their workforce. As demonstrated in Figure 2, the majority of the Vote Health funded adult mental health and addiction services' workforce was providing mental health services.

Of the total estimated workforce:

- More than three quarters (84 per cent) provide mental health services.
  - More than half (52 per cent) is based in DHB mental health services, and comprise the largest workforce group.
  - Nearly one third (32 per cent) are based in NGO mental health services.
- The addiction services workforce is much smaller than the mental health workforce (16 per cent)
  - The addiction services' workforce is more evenly distributed across DHB and NGO organisations with nine per cent of FTEs based in NGOs and seven per cent in DHBs.

Considering the distributions another way, 62 per cent of the mental health workforce worked in DHB services and 38 per cent within NGO services. Just under half (44 per cent) of the addiction workforce worked in DHB services and 56 per cent was in NGO services.





**Figure 2. Distribution of DHB and NGO FTEs across the adult mental health and addiction sector (9,509 reported plus estimated missing FTEs)**

### 3.3.1 Type of service provided by participating organisations

Survey respondents self-identified the type of service their workforce provided, by selecting one option from a list of common service types across adult mental health and addiction services (eg community, inpatient or residential services).<sup>28</sup> The list of service types was drawn from the PRIMHD team types, and supplemented by more specific categories of services.<sup>29</sup>

Figure 3 provides a distribution profile of the workforce (adjusted for estimated missing FTEs) across a range of different service types provided by the adult mental health services. For mental health services, slightly more than half

of the DHB and NGO mental health workforce was based in community services (51 per cent). Almost 38 per cent of the workforce was working in inpatient or residential services, either based in NGO residential (13 per cent) or DHB acute and forensic inpatient services (24 per cent). Apart from the six per cent of the workforce in management and administration teams,<sup>30</sup> the rest were working in a range of mental health services, for example, family/whānau and management and administration teams. Many of these latter services are based in the community but may also work across inpatient or residential settings.

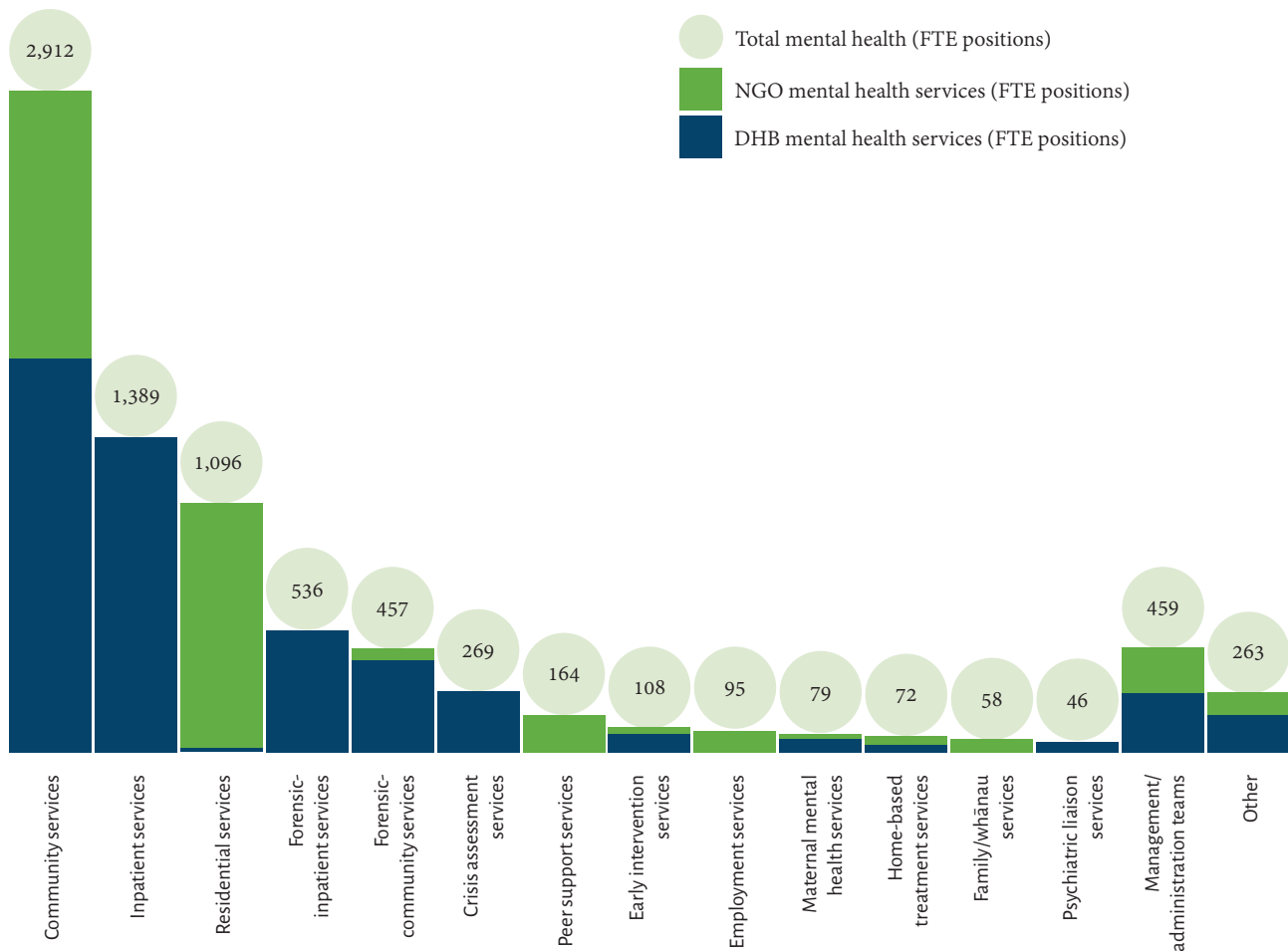
28 – There are some limitations in the reporting of service types:

- a) Given that a number of teams provide multiple types of services (eg peer support, early intervention, maternal mental health) it was sometimes difficult to identify the best service type label. Where teams performed a number of functions and this all took place in the community, they were advised to select the community team type.
- b) It is important to note that survey respondents did not always fill in one survey form for an individual team. For example, at times one survey form was used to identify all the FTEs across a number of community teams. As a result, the number of responses from an organisation is not equivalent to a specific number of teams in an organisation.

29 – The team types and their definitions areas are described in Appendix C.2.

30 – Respondents were given the option of identifying if the team described was a management or administration team. This was included to ensure that senior management or administration teams within direct service delivery organisations were included in the survey. As a result, administration and management teams are identified as a specific management team but are also included within other broad service types (eg community or inpatient). Management teams refer to those senior management or administration teams that provide support for direct service delivery teams in an organisation. They tend to be separate from the direct care service teams. Within DHB provider arm services, the management teams reported here are likely to provide support to child and adolescent mental health services, adult mental health and addiction services as well as mental health services for older adults. The total management FTE reported here is lower than the total FTE reported for administration and management roles. The difference is due to the identification of administration and management roles based within all direct care service teams, not just the separate management teams.





**Figure 3. Distribution of the DHB and NGO mental health workforce by adult services (8,003 reported plus estimated missing FTEs)**

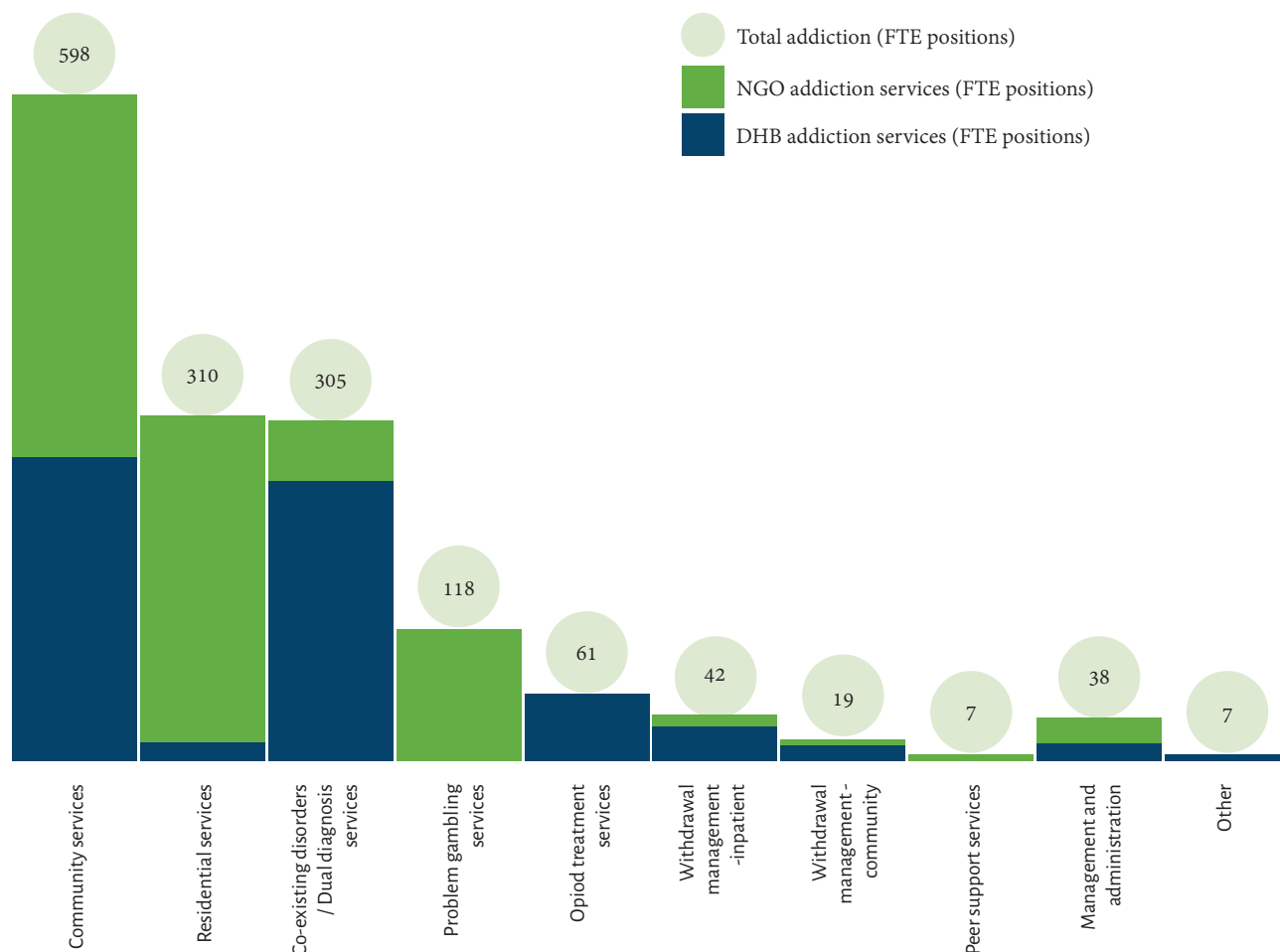
The most common ‘other adult mental health’ services identified by survey respondents included housing or supportive landlords and eating disorder services. Others included advocacy, art therapy, refugee services, suicide prevention, needs assessment and coordination, referral or triage, dialectical behaviour therapy, physical activity service, consumer network, regional personality disorder service, programme delivery, women’s wellness, intellectual disability, mental health dual diagnosis and research.

Like adult mental health services, a high proportion of the adult addiction services’ workforce is based in general community services (74 per cent). As demonstrated in the graph above, around 23 per cent worked in residential or inpatient services, most of which were NGO providers. Another 20 per cent was working in co-existing disorders teams. Most of these teams provide co-existing alcohol and mental health services.<sup>31</sup>

Although eight per cent of the adult addiction services’ workforce was based in problem gambling services (118 FTEs), there will be a number of problem gambling specialist roles employed in other types of services such as community or residential. Problem gambling positions integrated within addiction teams were not specifically identified in the survey. Only three per cent of the adult addiction workforce was based in management and administration teams. This is less than the six per cent identified by mental health teams. This difference is likely to be an artefact of how management and administration have been recorded in the survey, rather than a significant difference.<sup>32</sup>

31 – There may also be a small number of FTEs working in dual diagnosis for co-existing intellectual disability and mental health issues.

32 – See footnote 30 for a discussion on the different ways in which the survey identified management and administration teams and roles across adult mental health and addiction services.



**Figure 4. Distribution of the DHB and NGO addiction workforce by adult services (1,506 reported plus estimated missing FTEs)**

### 3.4 Estimate of the overall size of the mental health and addiction workforce

This report captures information about the workforce delivering adult mental health and addiction services. However there is a pressing need to apply systems thinking to the entire mental health and addiction sector so that the impacts of any proposed changes to service delivery models can be considered in all parts of the sector.

Historically, a number of estimates have been made using diverse data sources from surveys of parts of the mental health and addiction sector (eg child and youth or addiction), or through regulatory bodies that register and oversee a number of key mental health professions (eg medical doctors, nurses and social workers). All of these sources have offered incomplete and different insights into the mental health

and addiction workforce making both comparison and aggregation of the information difficult. For example, within the child and youth sector, some of the services provided by NGO community care may be provided by school counsellors or other professionals and may not be captured by the Werry Centre's stocktake of mental health and addiction services. Likewise, the 2011 Te Pou data on the older adult mental health workforce did not capture all DHBs and some mental health and addiction care may be provided by general health practitioners. For these reasons, the estimate of the total workforce size should not be used without due consideration being given to data quality issues and the accompanying context. The difficulty in estimating the size of the mental health and addiction workforce is not unique to New Zealand (see Robiner, 2006).

Combining our estimate of the total workforce (adjusting for missing organisations) with other surveys, the total Vote Health workforce across all secondary mental health and addiction services is estimated to be 11,673 FTEs.<sup>33</sup> This includes:

- 9,509 total FTEs for adult mental health and addiction services, of which -
  - 8,003 FTEs (84 per cent) were in adult mental health
  - 1,506 FTEs (16 per cent) were in adult addiction
- 1,761 total FTEs for child and youth mental health and addiction services (The Werry Centre, 2015)<sup>34</sup>
- 403 employed FTEs in 9 of the 11 DHB mental health services for older people (MHSOP) across New Zealand (Te Pou, 2011).<sup>35</sup>

Relative to population these numbers suggest that child and youth services have 152 FTE positions per 100,000 children and youth. Older adults appear to have 139<sup>36</sup> FTE per 100,000 older adults (in DHB districts with responding MHSOP services, as at 2010). This contrasts with an estimated 384 FTEs working in adult mental health and addiction services per 100,000 adults. The differences in these ratios may to some extent reflect the fact that the secondary care workforce deals with a different range of need for each sector. For example, people like school counsellors in the case of child and youth, and health workers in aged care facilities may respond to some of the need seen in adult secondary services.

It is important to note that the 11,673 FTEs working in mental health and addiction services underestimates the workforce providing mental health and addiction support for older people (aged 65 plus). It is likely the workforce supporting older adults is actually double the number that is reported here. This assertion is based on the results of a 2010 survey that included 9 of the 11 DHBs that have MHSOP, which receive funding out of the mental health and addiction portion of the Vote Health budget. It is not known how many staff work in the nine DHBs without specialist MHSOP services and two DHB districts that did not respond. These services are funded in a different way, and integrated into general health services. If the workforce for these nine DHBs was also included in the MHSOP figures, the total number of specialist mental health and addiction workforce working across both adult and older person services would most likely increase to around 12,000 FTEs.

### 3.5 Chapter summary

In summary, a total of 10,845 people were reported to be working in adult mental health and addiction DHB and NGO services filling a total of 8,908 reported employed FTEs (including non Vote Health funded positions). This equated to an average of 0.82 FTEs per person. There were few vacancies reported (five per cent), with the highest vacancy rates occurring in DHB mental health services. The survey results suggested that the adult mental health and addiction services workforce is approximately seven per cent of the total health workforce within New Zealand.

Three quarters, or 75 per cent, of the organisations approached participated in the survey (all DHBs and 73 per cent of NGOs). The organisations that participated accounted for 96 per cent of Vote Health funding for adult mental health and addiction services as identified in the Price Volume schedule 2012/13. The NGOs that completed the survey accounted for 87 per cent of Vote Health funding allocated to NGO adult mental health and addiction services. In contrast, those NGOs that did not complete the survey accounted for the remaining 13 per cent of that Vote Health funding for adult NGO mental health and addiction services. Estimates of the workforce in non-participating NGOs indicated an additional 580 FTEs, and suggested a total workforce of approximately 9,509 FTEs working across Vote Health funded adult mental health and addiction services.

The majority of the Vote Health funded workforce (reported plus estimated) is based in DHB mental health services. Addiction services comprise 16 per cent of the total Vote Health funded workforce for mental health and addiction services (reported plus estimated), and the addiction workforce was more evenly distributed between DHB and NGO services.

Attempts to estimate the overall size of the mental health and addiction workforce indicate there are likely to be around 12,000 FTEs working in adult, child and youth and older adult services combined. The adult workforce appeared to have a higher ratio of staff to population than child and youth and older adult secondary mental health and addiction services.

The following chapter analyses the Vote Health funded adult mental health and addiction services workforce (reported plus estimated FTEs) in relation to the population served by adult services, funding received through Vote Health and the number of consumers seen by services.

33 – See Appendix E for an explanation of the estimates to account for missing FTEs in the survey results.

34 – The Werry Centre undertakes a workforce stocktake of the child and adolescent services workforce biannually.

35 – The MHSOP results do not include the workforce working in services where mental health and general health have been integrated. The estimated 403 FTEs only include those people working in 9 out of the 11 DHB districts with specialist MHSOP services.

36 – This number includes an estimated five per cent vacancies so that it is comparable with other workforce data and only relates to the population in these DHB districts.

# 4.0 Workforce in relation to population, funding and service demand

This chapter examines the relationships between workforce, population served, Vote Health funding and consumers seen by adult mental health and addiction services. These relationships are explored at national, regional and DHB district levels. Workforce numbers include reported plus estimated missing FTEs (ie survey results adjusted for the estimated workforce in the organisations that did not respond).

The delivery of effective and efficient mental health and addiction services is influenced by the level of workforce resourcing in relation to population and need for services. Internationally, the number of health workers per 100,000 people has been a way of measuring the adequacy of the size of the mental health and addiction workforce (Robiner, 2006; OECD, 2014; Kakuma, et al., 2011). Similarly the relationship between funding for services and workforce provides a way of comparing the DHB and NGO mental health and addiction sectors. There does not appear to be a commonly agreed best practice in this area nor does workforce size equate to effectiveness. However the comparison between different occupational groups can help to create a picture of current service delivery and provides a baseline for assessing the change in workforce size over time.

The historical funding trends of the DHB and NGO mental health and addiction sectors continue to influence current levels of funding. However, changes in policy also impact on the distribution of the workforce across sectors. Three significant historical influences in relation to the funding of adult mental health and addiction services are outlined below.

- a. The push to increase the level of support to consumers undertaken by NGO services relative to DHB clinical services. This has resulted in an increase in NGO funding across adult mental health and addiction services. In 2013/14, NGO services involved in direct service delivery received 29 per cent of the total funding for mental health and addiction services (Platform Trust and Te Pou o Te Whakaaro Nui, 2015). This reflects a significant increase from the less than three per cent of funding

that was distributed to NGOs in 1990 (Mental Health Commission, 2010, p. 5).

- b. *Blueprint I* (Mental Health Commission, 1998) outlined the workforce required to meet the three per cent target access rates for the population most in need of mental health and addiction support. In the past 15 years funding for mental health and addiction services has increased to move towards meeting these targets. However, since 2008 reductions in funding have meant the attention is increasingly on improving service efficiency.
- c. Population-based Funding (PBFF) in place in New Zealand since 2003 has had an impact on the distribution of Vote Health funding across regions and DHB districts (Ministry of Health, 2004; Penno, Audas & Gauld, 2012). PBFF promotes equitable health funding structures. The focus is on equitable distribution of Vote Health funding according to population size, taking into account factors such as age, ethnicity and deprivation in each DHB district. Funding is distributed according to the demographic characteristics of population (including levels of deprivation by population), plus adjustments to funding for specific factors such as unmet need, rural population and overseas visitors.

This chapter provides a comparison of the distribution of workforce funding and population served across regions and DHB districts. This highlights broad alignment of workforce, funding and population. It is an indication that PBFF is having an impact on the distribution of mental health and addiction resources across New Zealand.

The relationship between consumers seen and workforce, funding and population by region and DHB districts overall is aligned but does show a greater level of variability by DHB district. Overall it suggests that for many, but not all, DHB districts, PBFF is resulting in a distribution of funding close to the proportion of the population.

As the chapter also highlights, at a national level there are some significant differences in relation to workforce, funding

and consumers seen by DHB and NGO mental health and addiction services. While the chapter highlights some very large differences, it does not address the question regarding the appropriateness of the distribution. The results provide a baseline from which to compare future changes in the distribution of workforce, funding and consumers seen.

## Key results

### The adult mental health and addiction workforce (reported plus estimated FTE position) in relation to population, funding and service utilisation.

- The ratio of workforce to adult population was 384 FTE positions (FTEs) per 100,000 adults aged 20-64.
- Average Vote Health funding for services was \$107,401 per FTE position. This differed by DHB and NGO. The average funding received by DHBs was \$128,358 per FTE position, and \$76,632 for NGOs by FTE position.
- The average funding for addiction services was calculated as \$84,232 by FTE position compared to \$111,762 by mental health services' FTE position.

### Workforce to consumer and funding ratios for NGO relative to DHB services

- The distribution of the DHB and NGO workforce across mental health and addiction is closely aligned with the distribution of Vote Health funding and population, with some variation.
- The greatest variation is in the relationship between workforce and consumers seen.
  - DHB addiction services see a higher proportion of all consumers (27 per cent) relative to their workforce (seven per cent) and funding received (six per cent).
  - Mental health DHB and NGO services showed more similar proportions of workforce and funding in relation to the proportion of consumers seen.

### Regional distribution of the DHB and NGO mental health and addiction workforce

- The distribution of the DHB and NGO workforce was aligned with both the distribution of funding and population across the regions.
- There was some small variation in the proportion of workforce and population to consumers seen across the regions.

- The South Island saw a lower proportion of consumers relative to its workforce. The South Island has 22 per cent of the total number of consumers seen by mental health and addiction services, while 24 per cent of the adult population live in the region and it has 25 per cent of the national workforce (estimated).
- Midland region saw a higher proportion of consumers relative to its population. The Midland region has 23 per cent of all consumers, while 18 per cent of the adult population live in the region, and it has 19 per cent of the national workforce (estimated).

### DHB district distribution of the DHB and NGO adult mental health and addiction workforce

- The distribution of the reported workforce across DHB districts showed a similar pattern to the distribution of population and funding across DHB districts.
- The four DHB districts with the highest proportion of the New Zealand population had the largest workforce (Waitematā, Canterbury, Auckland and Counties Manukau).
- The distribution of the reported workforce between DHB and NGO services differs across DHB districts.
  - Canterbury had the largest reported number of FTEs working in NGOs.
  - Southern DHB had a much higher proportion of FTEs within its DHB services compared to the workforce in NGO services.

Overall, the distribution of the reported workforce across the New Zealand regions and DHB districts showed a close alignment to the proportion of funding and population in those regions and DHB districts.

## 4.1 National workforce in relation to population, funding and consumers seen by services

Overall, the Vote Health funded adult mental health and addiction services workforce is estimated to be 384 FTEs per 100,000 adults across New Zealand (see Table 6). As the table below demonstrates this rate did vary between NGO

and DHB services, ranging from DHB addiction services having a low of 27 FTEs per 100,000 adults to DHB mental health services having a high of 202 FTEs per 100,000 adult population. This difference between mental health and addiction is large and, as discussed below, is likely to be the result of historical patterns of sector development and funding.

**Table 6. Workforce rates (estimated total FTEs) per 100,000 adults by DHB and NGO adult mental health and addiction services**

Sector	Total reported workforce FTEs at 1 March 2014	Total including estimated workforce FTEs	Adult population (aged 20-64) 2013 census	Rates of DHB FTEs per 100,000 population	Rates of NGO FTEs per 100,000 population	Rates of total estimated FTEs per 100,000 population
Mental health	7,545.6	8,002.7	2,473,404	201.9	121.7	323.6
Addiction	1,383.5	1,506.3	2,473,404	26.8	34.1	60.9
<b>Total</b>	<b>8,929.1</b>	<b>9,509.0</b>	<b>2,473,404</b>	<b>228.7</b>	<b>155.8</b>	<b>384.4</b>

As demonstrated in Table 7, the average Vote Health funding in relation to FTE positions is \$107,401. It is important to note that average funding by FTE position does not relate to average salaries, as average funding includes building,

equipment and other associated costs with running a health service. The average funding by FTE is useful as it provides a way of comparing the relationship between funding and workforce ratios across organisational types and sectors.

**Table 7. Average DHB and NGO Vote Health funding by FTE position for adult mental health and addiction services**

Sector	Total estimated FTE	Total vote health funding 2012/2013	Average funding by DHB FTEs (estimated)	Average funding by NGO FTEs (estimated)	Average funding by FTEs (estimated)
Mental health	8,002.7	\$894,399,173	\$132,826	\$76,802	\$111,762
Addiction	1,506.3	\$126,878,355	\$94,682	\$76,023	\$84,232
<b>Total</b>	<b>9,509.0</b>	<b>\$1,021,277,528</b>	<b>\$128,358</b>	<b>\$76,632</b>	<b>\$107,401</b>

Table 7 shows the average funding by FTE position is higher for DHBs (\$128,358) compared to NGOs (\$76,632). This may be because of a higher proportion of clinical positions and higher infrastructure costs within DHBs as not all funding is used solely in relation to staffing. DHBs reported that 74 per cent of their total workforce was in clinical roles. In comparison, NGOs reported that 22 per cent of their workforce was in clinical roles. The average NGO funding received by organisations will also be impacted by lower contract pricing paid to some NGO services.<sup>37</sup>

The average total Vote Health funding received per mental health sector FTE position is also much higher than that reported for the addiction sector; average funding per mental health FTEs is \$111,762 compared to average funding per addiction FTE position of \$84,232.

However, as the National Committee for Addiction Treatment (NCAT) highlighted, many of the differences between mental health and addiction are driven by historical arrangements and differences in the histories of the two sectors. The addiction sector predominantly emerged

37 – A recent “Fair Funding” campaign highlighted variances of between \$17,855 and \$33,389 funding per FTE paid by DHBs to NGOs for a range of services. See the Fair Funding campaign, [www.fairfunding.org.nz/fairfunding](http://www.fairfunding.org.nz/fairfunding), date accessed 7/04/2015.



out of the NGO sector delivered mostly by staff without specialist qualifications (2011, p. 6). In the 1990s, the sector expanded as a result of additional increased funding provided through the ring fence of Vote Health mental health and addiction funding, and the addiction sector sought to become more aligned with secondary health services. The historical differences are reflected in the addiction sector's smaller workforce in nursing and medical professional roles compared to the mental health sector.<sup>38</sup>

The following table (Table 8) profiles the distribution of workforce, funding and consumers seen across adult mental health and addiction DHB and NGO services. The percentage distribution of workforce, funding and consumers seen across mental health and addiction DHB and NGO services shows some important differences.

DHB services saw a higher proportion of consumers relative to the proportion of funding received and workforce FTEs across DHB provider arm services. In contrast the

NGO sector had a higher proportion of the workforce and consumers seen relative to the amount of funding it received. The differences in relation to workforce and funding appears to be strongly influenced by the greater numbers of clinical workers in DHB services compared to the greater number of support workers in the NGO sector. This results in a much higher number of workforce FTEs in the NGO sector relative to funding.

Addiction services see a much higher proportion of consumers relative to FTEs and allocated funding. This is likely to be related to a very different provision of services by addiction compared to mental health. There may be group-orientated treatment options and each consumer may be seen fewer times than in mental health. This is reflected in the much lower number of contact sessions reported by AOD services compared to mental health services (see Appendix D.3).

**Table 8. Comparing the distribution of estimated workforce FTEs, Vote Health funding and consumers seen by mental health and addiction sector for DHB and NGO services**

Sector	% of total estimated workforce	% of total Vote Health funding	% of total consumers seen*	FTEs (estimated)	Funding received	Consumers seen*
DHB <sup>^</sup>						
Mental health	52%	65%	64%	4,993.8	\$663,308,216	65,192
Addiction	7%	6%	27%	662.7	\$62,746,050	27,534
Sub-total	59%	71%	84%	5,656.5	\$726,054,266	85,870
NGO <sup>^</sup>						
Mental health	32%	23%	26%	3,008.9	\$231,090,957	27,076
Addiction	9%	6%	17%	843.6	\$64,132,305	17,561
Sub-total	41%	29%	38%	3,852.5	\$295,223,262	39,253
Total	100%	100%		9,509.0	\$1,021,277,528	102,573

\* The total consumer numbers seen by DHB NGOs include 20,270 consumers seen by both DHB and NGO mental health services, 7,575 consumers seen by both DHB and NGO addiction services, with a total of 22,162 consumers seen by both mental health and addiction DHB and NGO services. This means the percentage for DHB and NGO consumers seen is higher than 100 per cent. The total consumer numbers seen is lower than the numbers seen by either DHB or NGO because many consumers are seen by both NGOs and DHBs. Problem gambling consumers (n= 6,074) have been excluded. They were excluded as it is not possible to know the unique clients seen in problem gambling services. This will result in the number of consumers seen by addiction services being underestimated in the above table.

<sup>^</sup> As funding and consumer information is only recorded as either mental health or addiction, the combined mental health and addiction group reported in the survey results have been split between mental health and addiction occupational groups. Funding distribution across mental health and addiction has been used to distribute the combined mental health and addiction workforce across mental health and addiction. This enables comparison between workforce, funding and consumers seen.

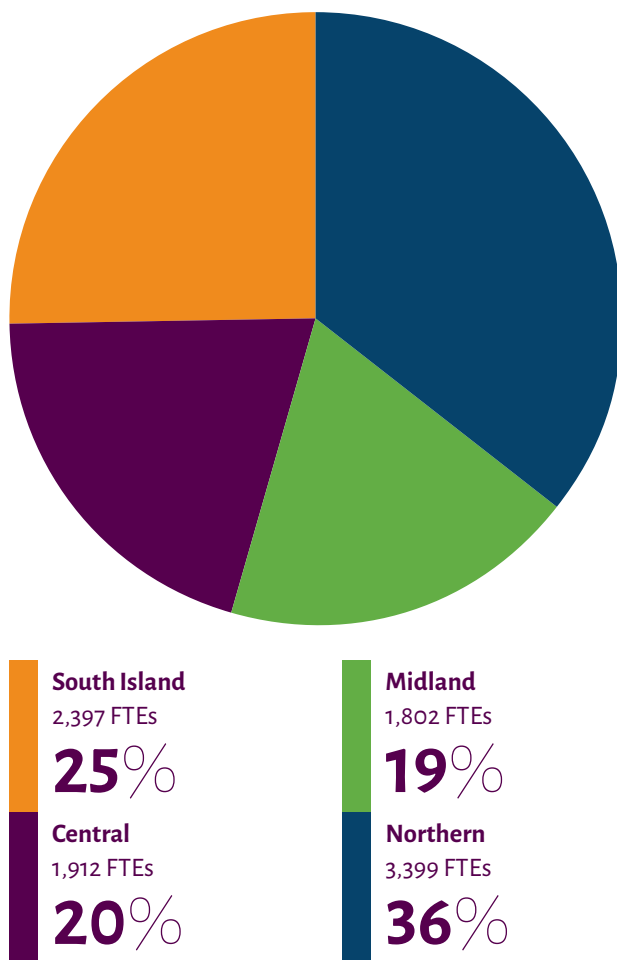


## 4.2 Regional workforce in relation to population, funding and consumers seen by services

The following section describes the regional Vote Health funded workforce for adult mental health and addiction services. The relationship between workforce, population, funding and consumers seen within a region is examined. The distribution of the workforce across the four health service regions (Northern, Midland, Central, South Island) suggests an alignment between workforce and resourcing. The proportion of the workforce in each region is similar to the population served, regional Vote Health funding for adult mental health and addiction services, and the proportion of consumers seen in each region.

The following graph (Figure 5) highlights the distribution of the workforce across the four regions.<sup>39</sup>

- The highest proportion of the workforce is based in the Northern region.
- The smallest workforce is located in the Midland region.



**Figure 5. Distribution of workforce across the four health regions for adult mental health and addiction services (9,509 reported plus estimated FTEs)**

However, the distribution of the workforce across DHB and NGO adult mental health and addiction services does vary by region.

- The Midland mental health workforce is evenly distributed between NGO and DHB services. In the other regions DHBs employ a greater proportion of the mental health workforce.
- The Central region has more than half (54 per cent) of their addiction workforce in DHB services. Other regions have less than half (40 to 44 per cent) of their addiction workforce in DHB services.

As demonstrated in Table 9 on the following page, the adult population living in each region and funding received by each region for adult mental health and addiction services is closely aligned with the estimated adult mental health and addiction workforce. Workforce distribution across the regions closely aligns with regional distribution of the adult population, funding for adult mental health and addiction services and consumers seen by services in each region. The results suggest that at a regional level PBFF is working to distribute resources across New Zealand in relation to population. Some small differences in distribution can be seen.

- Both Midland and Central regions see a higher proportion of consumers relative to the workforce and population in each region.
- The South Island region sees a lower proportion of consumers relative to the size of the workforce.

<sup>39</sup> – The chapter used estimated FTE position grouped into mental health and addiction, including both reported FTE and estimates for missing FTE. See Appendix F1, Table F.1 for an outline of regional and local workforce FTEs reported in the survey.

**Table 9. Comparison by region of adult mental health and addiction workforce (estimated total FTEs) in relation to population, funding and consumers seen by each region**

Region	Workforce FTEs (estimated)	Workforce (estimated %)	Adult Population (20-64) (%)	Vote health funding (%) <sup>*</sup>	Consumers seen (%) <sup>#</sup>
Northern	3,398.9	35.7	38.2	37.3	35.8
Midland	1,801.8	18.9	18.4	18.5	22.6
Central	1,911.6	20.1	19.7	18.6	20.0
South Island	2,395.6	25.2	23.8	21.9	21.5

<sup>\*</sup> This excludes 3.8% (problem gambling) funding that is funded nationally rather than regionally.

<sup>#</sup> The number of consumers seen by region and local DHB district is based on domicile of the consumer (ie where they live) rather than the location of the service. In most cases, consumers and location of services are in the same domicile area, but not always. This is especially the case for regional services. Unique consumers seen = 102,573 across the regions. The percentage is based on total consumers seen across the region, and includes a number of consumers seen by more than one region.

The following map of New Zealand for the four health regions expands on the information included in Table 9. It shows the proportions of Vote Health funded FTEs filled by staff and vacant, for both addiction and mental health services in each region (Figure 6). It presents regional population size, funding per capita and addiction and mental health consumers seen. It also identifies the proportion of each region's workforce in DHBs and NGOs and the distribution across mental health and addiction services in each region.

The map highlights that the Midland region has a higher proportion of NGO workforce relative to the DHB workforce compared to the other three regions. The other three regions had a much greater proportion of the workforce based in DHB services. The proportion of the workforce working in mental health compared to addiction services was similar across the regions. The Central region reported the highest percentage of vacancies relative to its total workforce (six per cent).

### 4.3 DHB district workforce in relation to population, funding and consumers seen by services

The following section describes the Vote Health funded DHB district workforce in adult mental health and addiction DHB and NGO services. The relationship between workforce, population, funding and consumers seen is examined. Distribution of the workforce across the 20 DHB districts suggests a broad alignment between workforce

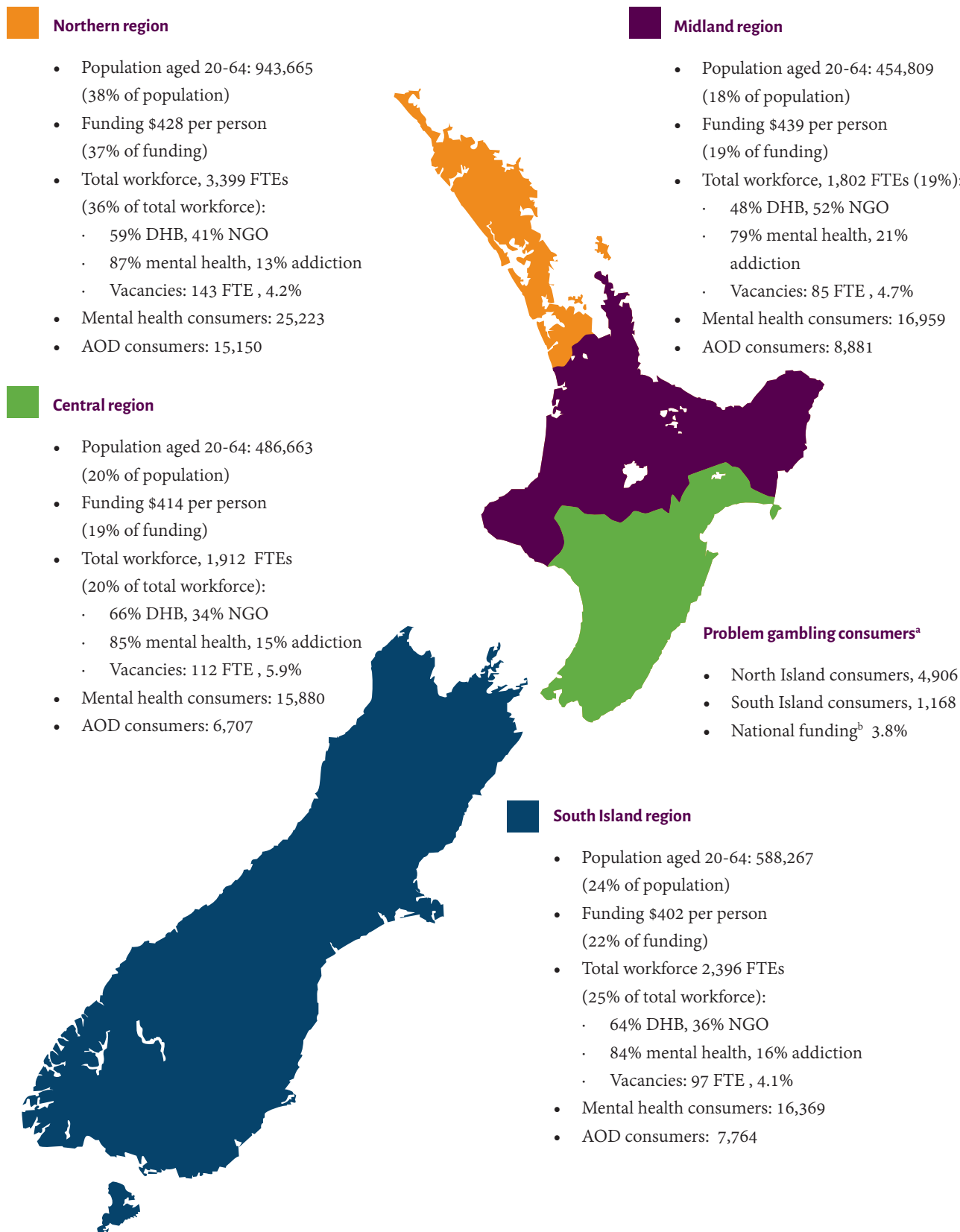
and resourcing across the DHB districts. The proportion of the workforce in each local DHB district tends to be similar to population served, Vote Health funding for adult mental health and addiction services, and the proportion of consumers seen in that district. However, there are some minor variations across DHB districts in the relationship between workforce, population and consumers seen.

The following two graphs profile the distribution of the DHB provider arm workforce for DHB districts from largest to smallest workforce (see Figure 7) and for NGOs (see Figure 8) across adult mental health and addiction services.<sup>40</sup>

Comparing Figure 7 and Figure 8, DHB district NGO services show some differences from DHB services in the distribution of reported FTEs. Canterbury reported the highest number of NGO FTEs for both mental health and addiction services. Southern had a larger proportion of DHB FTEs compared to NGO positions.

Overall the highest number of FTEs was reported by Waitematā DHB. This reflects that it is both the largest DHB and includes the regional AOD workforce in its total FTEs. Waitematā DHB provides regional AOD services for the greater Auckland region including Auckland and Counties Manukau. This is also the reason Auckland and Counties Manukau DHB services did not report any FTEs working in addiction.

40 – See Appendix F1 for additional information on the distribution of reported FTEs across DHB districts.



**Figure 6. Distribution of the estimated Vote Health funded workforce for adult mental health and addiction services by the four health regions**

Note. National and missing FTEs have been distributed into the totals for each region, see Appendix F.1 for details.

a. Problem gambling consumers numbers are taken from the CliC database and do not represent all consumers nor do the numbers represent unique consumers.

b. 3.8 per cent of funding was allocated to national organisations which could not be accurately distributed to the regional funding figures.

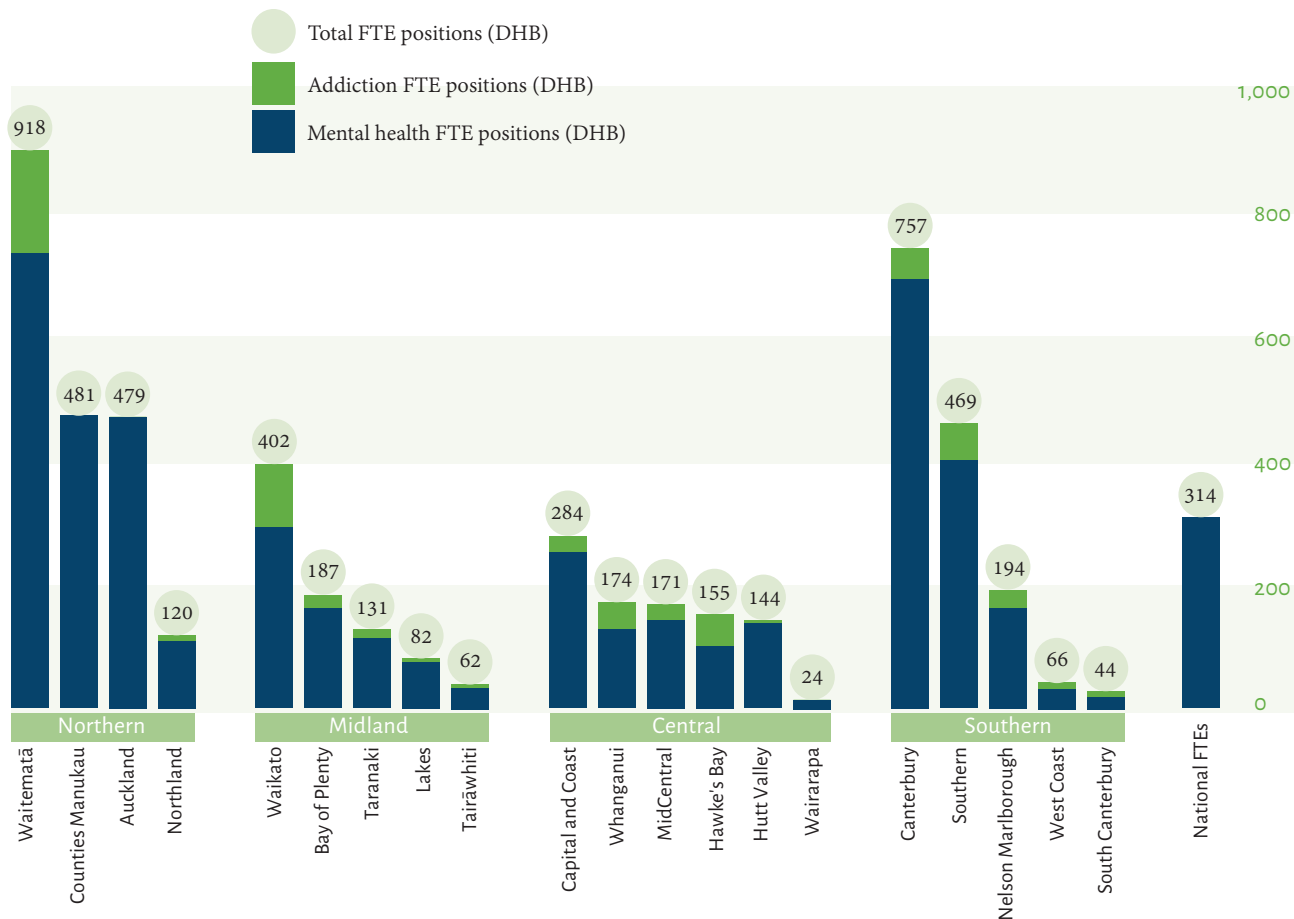


Figure 7. Total (reported plus estimated missing) DHB FTEs across mental health and addiction services by DHB district

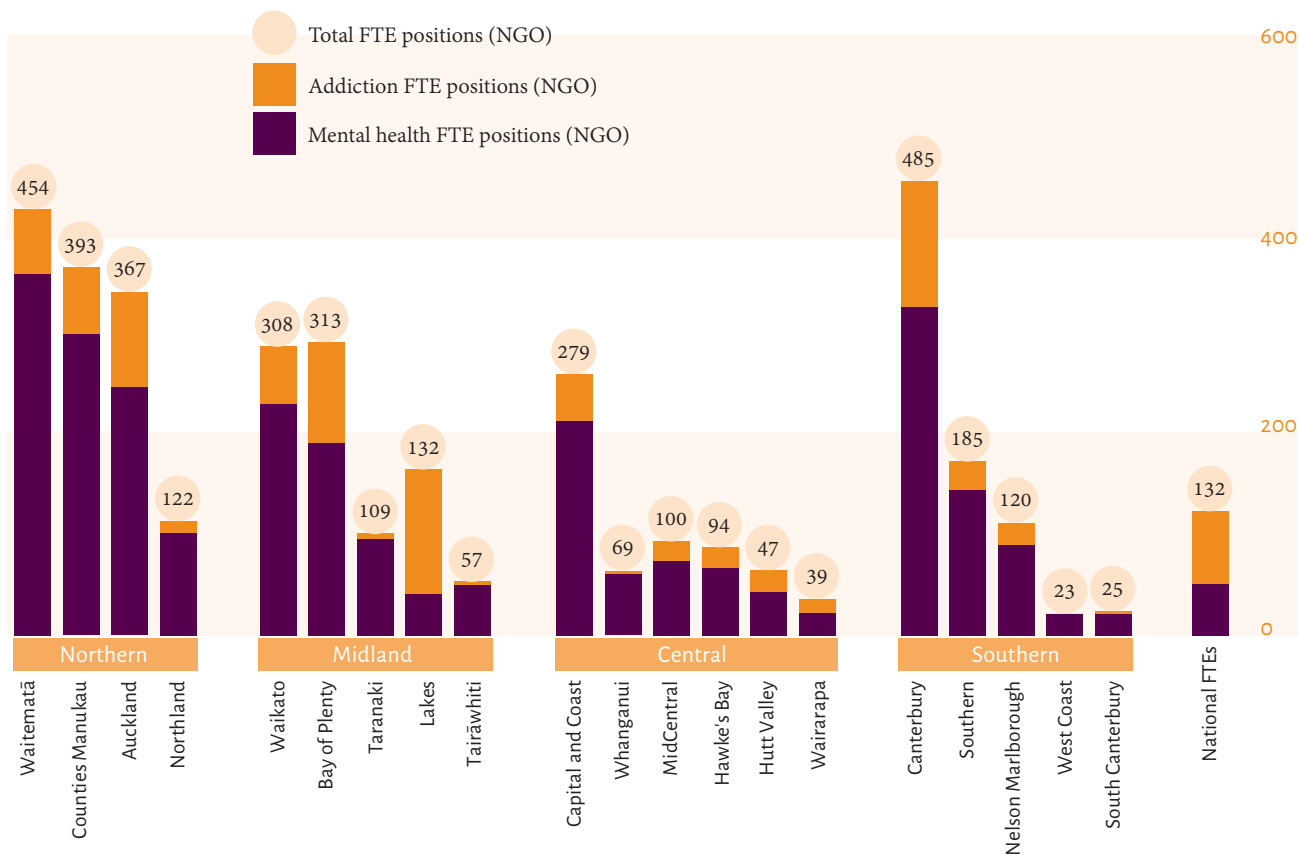


Figure 8. Total (reported plus estimated missing) NGO FTEs across mental health and addiction services by DHB district

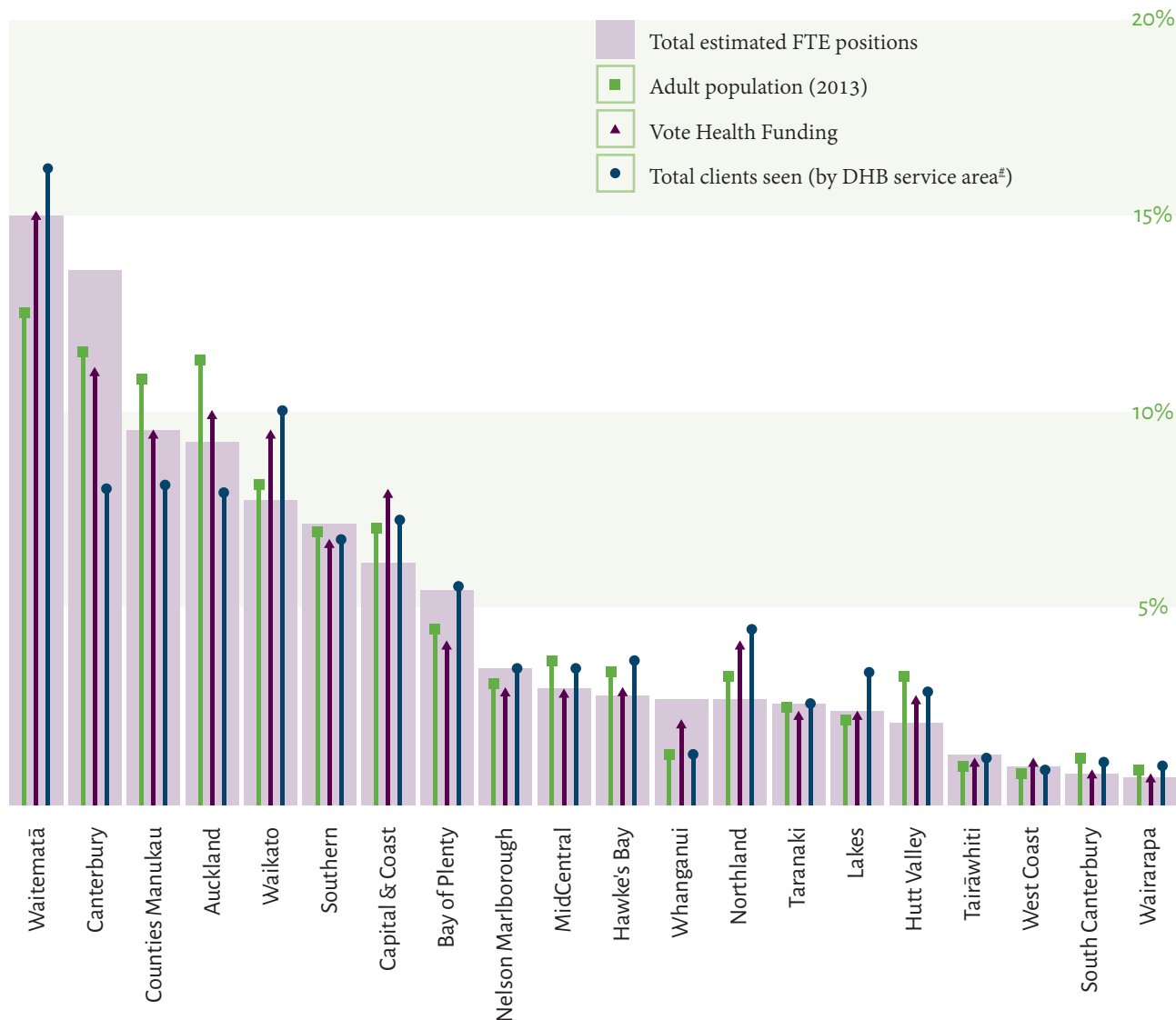
The following graphs (see Figure 9) highlight the similarities in the percentage distribution of workforce FTEs in relation to both funding of adult mental health and addiction services and population across most DHB districts. It indicates a reasonably consistent trend for the distribution of workforce FTEs, population and funding across the DHB districts.

Figure 9 shows how the majority of national workforce FTEs and population are situated within the Waitematā, Canterbury, Auckland and Counties Manukau DHB districts, along with the majority of Vote Health funding. The smallest DHB districts also have the smallest proportion of national FTEs, funding and population. These DHB districts include West Coast, Wairarapa, Tairāwhiti, South Canterbury and Whanganui. For most DHB districts there is no more than a one to three per cent difference between the proportion of the national workforce, funding and population for each DHB district.

Some of the differences in proportion of the workforce relative to funding and population are due to regional services, particularly in the Auckland region. As can be seen in the figure below (Figure 9), Waitematā has a higher proportion of the national workforce FTEs (15 per cent) in comparison to the proportion of population in its geographical area (13 per cent). In contrast, Auckland and Counties Manukau have a higher proportion of the national population relative to FTEs. This is largely the result of the inclusion of the DHB addiction workforce for the three Auckland districts in the Waitematā DHB workforce numbers discussed previously. The regional DHB addiction service also accounts for the higher proportion of consumers seen relative to workforce FTEs for Waitematā DHB, and the reverse pattern for Auckland and Counties Manukau DHB where there is a lower proportion of consumers seen relative to workforce FTEs.

The other large DHB district showing the greatest variation in proportion of the national workforce in relation to funding, population and consumers seen is Canterbury. This DHB has a higher proportion of the total national workforce (14 per cent) relative to the proportion of national funding (11 per cent), but a much lower proportion of consumers seen as reported to PRIMHD (eight per cent). This is likely to be an artefact of under-reporting to PRIMHD. Many Canterbury DHB district NGOs are not currently reporting to PRIMHD. Some of the differences may also be the result of the impact of the earthquakes the region has experienced in the past four years.

Across the other DHB districts, there are small differences between proportions of the population and funding. Some of this difference may be attributable to funding adjustments due to greater levels of deprivation and a higher proportion of the population identified as Māori or living in rural areas (Ministry of Health, 2004; Penno et al., 2012). The population-based funding formulae makes adjustments for these factors. Yet, the close alignment between population and funding distribution across most DHB districts indicates that variation due to deprivation, rural or ethnic population adjustments from population is small.



**Figure 9. The distribution of total adult mental health and addiction workforce (reported plus estimated missing FTEs), Vote Health funding, population and consumers seen by DHB district**

# The number of consumers seen by region and DHB district is based on the DHB district in which the service is located (ie where they are seen) rather than domicile of the consumer (ie where they live). In most cases, consumers and location of services are in the same domicile area, but not always (eg consumers seen by regional services).

The comparison of the distribution of workforce, funding and population served across regions and DHB districts highlights overall alignment of workforce, funding and population. It is an indication that for many, but not all DHB districts, PBFF is ensuring funding is proportional to the population living in the area. It is likely that some of the discrepancies between workforce numbers and other results reflect missing information from within a service. For example those services who did respond to the survey may not have provided information about their entire workforce. Based on comparisons with data routinely collected by the Health Workforce Information Programme (personal communication, 30 March 2015), incomplete responses from within a DHB service appear to explain the relatively low

workforce numbers relative to population for Northland, Waikato and Capital and Coast DHBs. At the same time, there are issues with some DHB districts having a greater need for funding as a result of rapid changes in population and significant adverse events. For example, the Canterbury earthquake has resulted in a decreasing population, but increased need for mental health and addiction services among the population that remains. Other DHB districts such as the three Auckland DHBs have experienced significant increases in population through migration. PBFF funding allocations are updated periodically as new population projections are released by Statistics New Zealand.



## 4.4 Chapter summary

Overall, the adult mental health and addiction services workforce represented 384 FTEs per 100,000 adults living in New Zealand. There are some key differences between mental health and addiction DHB services. DHB addiction services had 27 FTEs per 100,000 adults whereas DHB mental health services had 202 FTEs per 100,000 adults. There were similar differences in terms of average funding and clients seen by DHB and NGO mental health and addiction services.

The comparison of the distribution of workforce, funding and population served across regions highlights a reasonable close alignment between workforce, funding and population. The relationship between workforce, funding and population at the DHB district level overall is aligned but does show greater variability between DHBs than is noted at a regional level. It suggests that for many, but not all DHB districts, PBFF is resulting in a distribution of funding close to the proportion of the population.

The next chapter examines the distribution of the adult mental health and addiction workforce by occupations and roles. It explores the composition of the mental health and addiction workforce by key occupational groups (ie support workers, nursing, medical, allied health, cultural and administration/management). It then goes on to examine the distribution of specific roles across DHB and NGO adult mental health and addiction services.

# 5.0 Composition of the workforce by occupation

This chapter examines the composition of the DHB and NGO adult mental health and addiction workforce by occupational groups and roles. It describes the composition of the workforce in relation to major occupational groups (eg nursing, allied health, support workers). The chapter then delves more deeply into the distribution of roles across DHB and NGO mental health and addiction services. Key issues in relation to workforce vacancies and recruitment are also examined. Similar to Chapter Four, workforce numbers include the reported plus estimated workforce (ie survey results adjusted for the estimated workforce in organisations who did not respond to the survey).<sup>41</sup>

A variety of mental health professions and roles are involved in service delivery to people with a range of severe mental health and addiction issues. The current adult mental health and addiction services workforce is a mix of clinical professions trained in psychiatry, nursing, social work, psychology, occupational therapy or various talking therapy or counselling modalities. There is also a range of support and cultural workers with both formal training in mental health (eg mental health support worker certificate) or other fields or informal training through experience of using services (eg consumer or family advisor roles). Over time there has been an introduction or increased emphasis on certain roles, such as co-existing problems clinician, consumer and family advisors, peer support workers and employment specialist roles integrated into the mental health team.

In the past decade, mental health and addiction services have moved towards working within multi-disciplinary teams. Providing interdisciplinary collaborative care can potentially improve care to consumers, working relationships among different disciplines and reduce professional rivalries. As a result, New Zealand has a mental health and addiction workforce with a range of disciplines, skills and knowledge that are critical to provide a continuum of services in each geographical region or district health board area. The distribution of workers within mental health and addiction

organisations does suggest some blurring of the boundaries between roles and functions for many in the workforce, for example, nurses, social workers and occupational therapists are all employed as key workers in community mental health teams.

There is a predominantly clinical (regulated) mental health workforce in the DHB provider arm, in contrast to the NGO mental health workforce that comprises mainly non-clinical roles (the non-regulated workforce). However within addiction services there is a more even mix of clinical and non-clinical roles across DHB and NGO services.

There is considerable diversity across the regions in the distribution of roles within the mental health and addiction workforce. Differences in the employment of mental health and addiction professions reflect different models of care, and are also indicative of differences in the supply of and demand for health professions. These are also, in turn, influenced by available resourcing of health services.

Survey participants were asked to identify staff numbers and FTE positions (FTEs) employed and vacant for a list of roles common to adult mental health and addiction services. They were asked to categorise staff according to the role performed, not the incumbent's qualifications or professional body affiliations. For example, a qualified social worker employed to perform the role of community support worker would be recorded as the latter. Therefore, the analysis here is relevant only to roles and does not necessarily reflect employees' qualifications or skills.<sup>42</sup>

41 – See Section 3.2 and Appendix E for a description of how these estimates were derived.

42 – For the purposes of the survey and this report each role is allocated to an occupational group of similar roles (allied health, medical and other professionals, nursing, support workers, cultural advice and support, administration and management). These groups have been based on those used by Australian and New Zealand Standard Classification of Occupations (ANZSCO) (eg allied health, nursing) or for roles with similar functions (eg support workers, administration and management). See Appendix C3 for an outline of roles and definitions. A data dictionary was available to survey respondents. It outlined a general description for each role and showed how these have been used in other workforce surveys and data sets, including the Australian and New Zealand Standard Classification of Occupations codes.

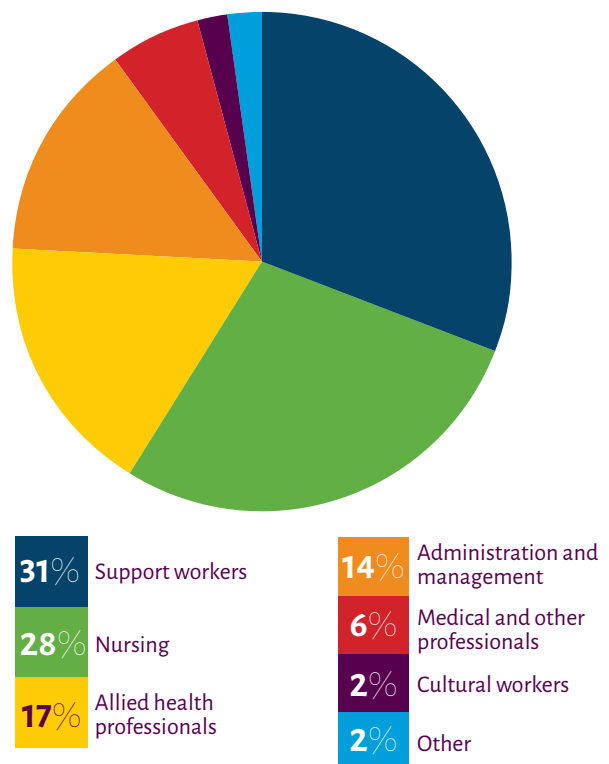
## Key results

- Support workers (31 per cent) and nurses (28 per cent) together comprised more than half the adult mental health and addiction services workforce.
- The addiction services workforce has a different occupational composition to the overall mental health and addiction workforce.
  - For addiction services allied health is the largest occupation group. It makes up 42 per cent of the DHB addiction workforce and 48 per cent of the NGO addiction workforce.
- Nurses working in DHB adult mental health services were the single largest workforce group identified in the survey (25 per cent).
- Major clinical and non-clinical groups that are part of the overall rate of 384 FTEs per 100,000 adults are as follows:
  - doctor - 22 FTEs per 100,000 adults
  - allied health - 66 FTEs per 100,000 adults
  - nurses - 109 FTEs per 100,000 adults
  - support worker - 121 FTEs per 100,000 adults.
- Of the 9,509 FTEs in adult mental health and addiction services, five per cent were vacant.
  - Most of the vacancies were in DHB mental health services (66 per cent of all vacancies).
  - Nurses were the largest group of identified vacancies (41 per cent of all vacancies).
- The DHB adult mental health and addiction services workforce is approximately 10 per cent of the total DHB health workforce. The DHB adult mental health and addiction services workforce has a higher proportion of nurses and a lower proportion of medical staff compared to the DHB workforce as a whole.

## 5.1 Composition of the adult mental health and addiction services workforce

As demonstrated in Figure 10, nursing and support workers together comprise more than half of the estimated adult mental health and addiction services workforce.

- The largest workforce is support workers (31 per cent) with 2,988 FTEs.
- The nursing workforce is the second largest group (28 per cent) with 2,704 FTEs.<sup>43</sup>
- As described later in this chapter, the addiction services workforce has a different occupational composition relative to the total adult mental health and addiction workforce.

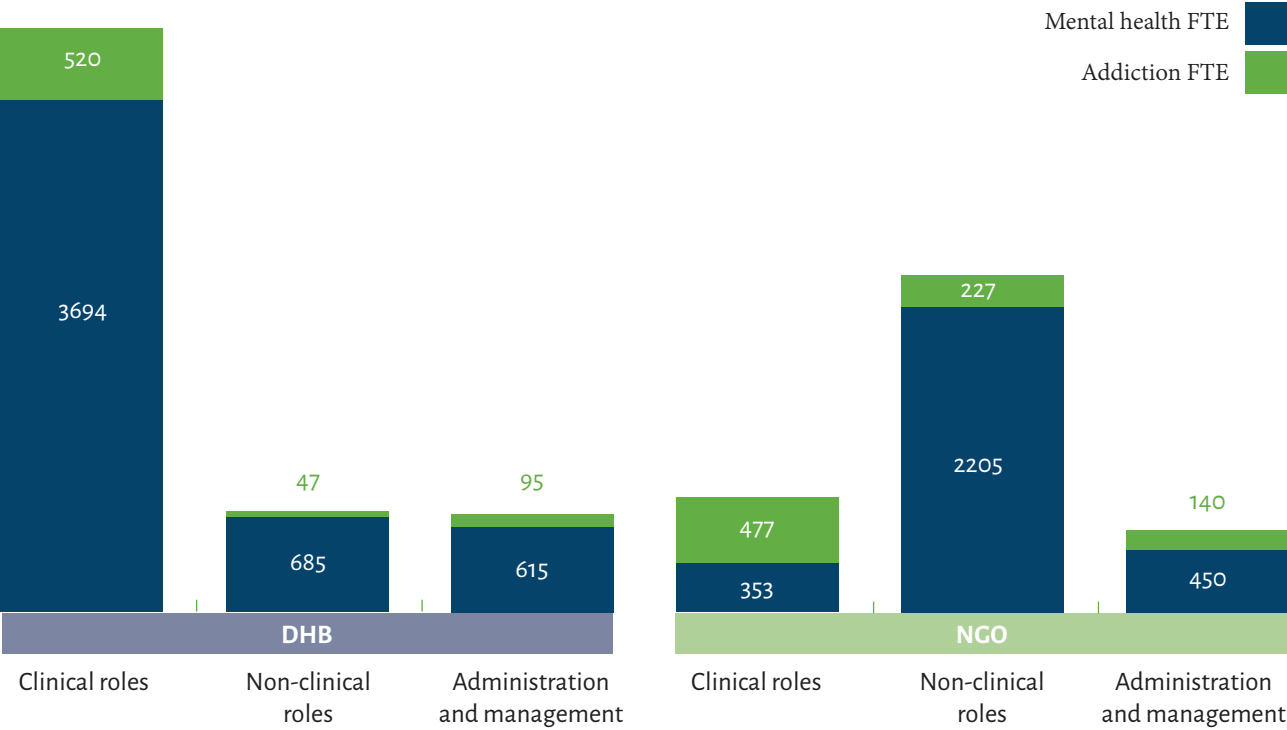


**Figure 10. Adult mental health and addiction services workforce (percentage of reported plus estimated missing FTEs)\***

\* These percentages add to 99% due to rounding.

43 – There may be small discrepancies between percentages and FTE position totals due to the impact of rounding.

Figure 11 shows that just over half of the adult mental health and addiction services' workforce (reported plus estimated FTEs, employed and vacant) is in clinical roles (53 per cent)<sup>44</sup>. Most clinical roles are based in DHB mental health services (73 per cent). The rest of the workforce is a mix of non-clinical roles (33 per cent) or management and administration roles (14 per cent)<sup>45</sup>.



**Figure 11. Distribution of clinical and non-clinical roles across DHB and NGO mental health and addiction services (reported plus estimated missing FTEs)**

Figure 12 below shows the distribution of major occupational groups for DHBs and NGOs for both mental health and addiction services (total estimated FTEs employed plus vacant). At 47 per cent (2,338 FTEs), nursing makes up the largest group of the DHB adult mental health workforce. Support workers comprise the majority of the NGO mental health workforce (71 per cent, 2,142 FTEs). Only a small proportion of adult mental health nursing, medical and allied health FTEs are based within NGO services (12 per cent of the NGO mental health workforce).

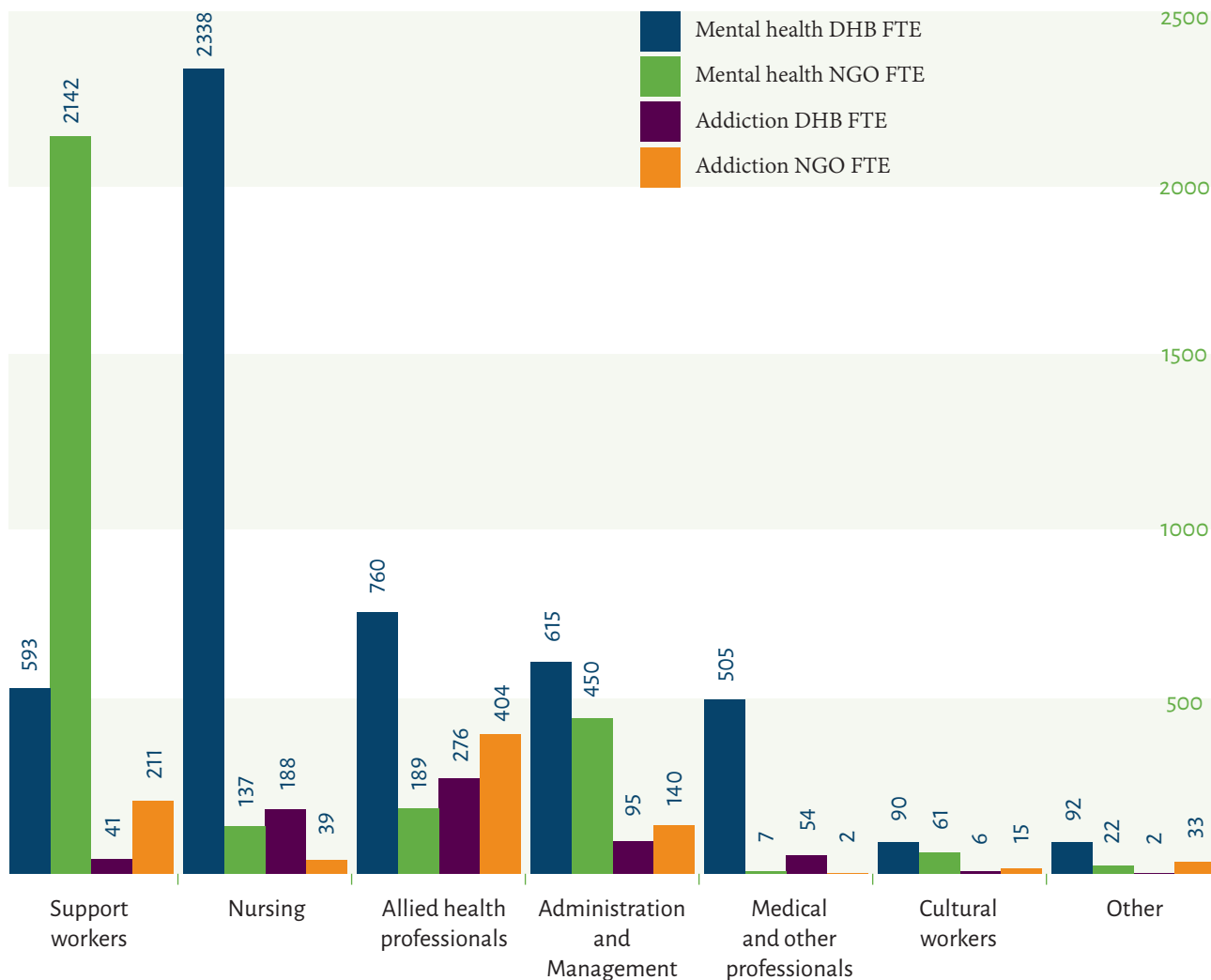
As shown in Figure 12, the addiction workforce looks very different from the mental health workforce in terms of both the major occupational groups and how they are distributed

across DHBs and NGOs. The dominant workforce group for addiction is allied health<sup>46</sup> across both DHB and NGO addiction services. The addiction allied health workforce comprises 42 per cent of the DHB addiction workforce and 48 per cent of the NGO addiction workforce. There is a much smaller proportion of nurses and support workers in the addiction workforce; nurse roles comprise only 28 per cent of the DHB addiction workforce and support worker roles comprise 25 per cent of the NGO addiction workforce. This is likely to reflect different models of care within addiction services compared to mental health services resulting in different workforce compositions.

44 – The definition of ‘clinical staff’ provided for the survey was: professionals who are qualified and competent to provide intervention and/or treatment independently, albeit while part of a team. They will typically be registered under the HPCA Act 2003, Social Workers Registration Act 2003 or DAPAANZ practitioner registration.

45 – The regulated and non-regulated workforce used by HWNZ (2014) is very similar to the clinical and non-clinical categories used in the adult mental health and addiction workforce survey. The regulated workforce included the workforce registered under the Health Practitioners Competence Assurance Act. This included medical, nursing and many allied health staff. The clinical workforce reported in the adult mental health and addiction survey closely matches the regulated workforce identified by HWNZ. The only occupational roles that HWNZ include in the regulated workforce that is included in the non-clinical workforce within the adult mental health and addiction workforce survey are scientific roles. The non-regulated workforce included care and support staff, cultural workers, and administration and management staff working in health services. The non-clinical and administration/management categories in the adult mental health and addiction workforce survey are similar to the roles and occupations HWNZ have included in the non-regulated workforce.

46 – Dominant allied health roles in addiction services included addiction practitioners, CEP clinician and counsellors.



**Figure 12. Distribution of the adult mental health and addiction workforce by DHB and NGO (reported plus estimated missing FTEs)<sup>47</sup>**

The 2011 Matua Raki workforce survey reported a total of 863 FTEs across 51 organisations providing addiction services.<sup>48</sup> The 2011 survey results suggest that a high proportion of the workforce was addiction counsellors/practitioners, (52 per cent), and a much lower proportion identified as nurses (16 per cent). This compares with 30 per cent of the addiction workforce in the current survey identifying as addiction practitioners or counsellors, and 15 per cent as nurses. However, this may be more reflective of changes in the way in which roles are identified and reported in

services, than a change in recruiting practices or a change in roles and responsibilities. The trend in requiring staff to hold registration under the Health Practitioners Competence Assurance (HPCA) Act 2003 may be influencing the shift to a greater number of nurses being identified as nurses rather than addiction practitioners. The differences may also be the result of different response rates and the selection of organisations to participate.

47 – See Table F.6 for the distribution of the estimated FTEs across the occupational groups, and Table F. 4 shows the rates per 100,000 adults for the different occupational groups by region.

48 – This is fewer FTEs than identified in the current survey. The difference is likely to be due to fewer organisations participating in the 2011 workforce. The 2011 survey did not assess how representative the workforce identified in the survey was of the addiction sector as a whole. In contrast, the 2006 survey of the AOD workforce included a representative sample of that workforce. However, the methodology makes comparison with the survey results from the current survey difficult as it included the entire AOD workforce including child and youth, and interviewed individuals in the workforce, rather than reporting on organisation level information on the workforce. As a result, comparison results will mainly be drawn from the 2011 survey.

Of the 9,509 FTEs estimated to comprise the adult mental health and addiction workforce, five per cent were vacant (438 FTEs). This is lower than the vacancy rate of eight per cent across the infant, child and adolescent mental health and addiction workforce (Werry Centre, 2015).

Most adult mental health and addiction workforce vacancies

were in DHB provider arm adult mental health services (66 per cent) and NGO mental health services (22 per cent). The remaining 12 per cent was evenly distributed across DHB and NGO addiction services (6.5 and 5.3 per cent). The largest group of vacancies reported in the survey was nurses with 180 FTE vacancies, then support workers with 97 FTE vacancies, and allied health with 89 FTE vacancies (see Table F.7).<sup>49</sup>

**Table 10. Vacancies (reported plus estimated missing FTEs) across mental health and addiction DHB and NGO services**

	Mental health		Addiction		Total
	DHB	NGO	DHB	NGO	
Vacancies (FTE)	290.4	95.6	28.3	23.4	437.6
Percentage of vacancies across DHB and NGOs	66.4%	21.8%	6.5%	5.3%	100%
Percentage of vacancy of all FTEs (employed and vacant)	5.8%	3.2%	4.3%	2.8%	4.6%
Total FTEs (employed and vacant)	4,993.8	3,009.0	662.7	843.6	9,509.1

Both the 2011 Matua Rāki survey and the current survey results reported a similar proportion of addiction service vacancies (around four per cent). The current survey indicated that addiction practitioner roles had the highest vacancy rate and were perceived to be the most difficult role for addiction services to recruit in the foreseeable future.

Survey participants were asked to indicate whether they thought there would be any risks of shortages in recruiting the different occupational roles in the next two years.<sup>50</sup> They were also invited to consider any likely changes to service scope or capacity that might affect the need for particular workforce roles. The roles for which more than half of the respondents indicated risks of shortages in the next two years included dual diagnosis/CEP practitioner (77 per cent), addiction practitioner/clinicians (77 per cent), registered nurses (64 per cent) and consultant psychiatrists (60 per cent).<sup>51</sup>

### 5.1.1 The adult mental health and addiction workforce in relation to the overall DHB health workforce

It is important to recognise that the secondary mental health and addiction services' workforce described here comprises only a small part of the overall health workforce.

This is important because mental health and addiction needs are not solely the domain of secondary services. Engaging with the general health workforce and enhancing its support of people with mental health and addiction issues will become increasingly important in the context of increased integration across different parts of the health sector. A number of challenging trends are influencing this, including:

- increased consumer demand for mental health and addiction support
- the poorer physical health of people with mental health and addiction issues
- many people with physical health experience mental health issues.

49 – See Appendix F.2, Table F. 7 for a description of vacancies for each role by adult DHB and NGO mental health and addiction services.

50 – The analyses for each role included just the results for Vote Health funded roles and only included respondents who currently employ people in each role or identified vacancies for that role. As respondents were only answering the question for existing roles in their teams the total number of responses for each role varies.

51 – Only those roles for which there were a total of at least 20 responses were reported here. Some roles, particularly those with small numbers of responses, had large perceived shortages, for example, traditional Māori practitioner (56% of 9 responses) and employment support workers (50% of 16 responses). The result may be the artefact of small numbers of responses.



Consequently, it is important to consider the adult mental health and addiction workforce in the context of the wider health workforce.

As can be seen in Table 11 below, the DHB adult mental health and addiction services' workforce is estimated to be approximately 10 per cent of the entire workforce across all DHB services, as estimated by DHB Shared Services (2014, p. 7).<sup>52</sup> As mentioned in Chapter 3, the mental health and addiction workforce including those in DHB and NGO services represented seven per cent of the health workforce (DHB and NGO) estimated in the *Health of the health*

*workforce 2013-2014* report (Ministry of Health, 2014).

Only seven per cent of the total DHB medical workforce is in adult mental health and addiction services (eg consultant psychiatrists and psychiatric registrars). There was a lower proportion of corporate and other FTEs reported in the survey relative to DHB shared services numbers for the total DHB health workforce. This is likely due to only including management and administration roles within mental health and addiction teams in DHBs. DHB shared services' estimates of the total DHB health workforce include corporate and board level staff serving the whole DHB.

**Table 11. Employed DHB health services workforce compared to the employed adult mental health and addiction DHB workforce (reported plus estimated missing FTEs)**

Workforce group	All of health DHB employed workforce* (FTEs)	DHB employed adult mental health and addiction positions ^ (FTEs)	Employed adult mental health and addiction workforce as a proportion of total DHB health workforce (%)
Nursing	20,521.7	2,372.9	11.6
Allied health and scientific**	8,076.7	974.2	12.1
Care and support ***	6,822.2	690.6	10.1
Medical	7,556.5	537.6	7.1
Midwifery ****	1,003.0	-	-
Corporate and other#	11,572.5	780.4	6.7
<b>Total FTEs</b>	<b>55,552.6</b>	<b>5,356.0</b>	<b>9.6</b>

\* Source: DHB Shared Services, District Health Board Employed Workforce Quarterly Report, 1 January to 31 March 2014. p. 7.

^ The figures only include Vote Health funded employed workforce.

\*\* Allied and scientific have been combined in the DHB Shared Services report. There were few scientific positions reported in the adult mental health and addiction workforce survey results. This will result in some under-estimation of the workforce in the allied health result.

\*\*\* Care and support include those staff working in cultural and support roles in mental health services.

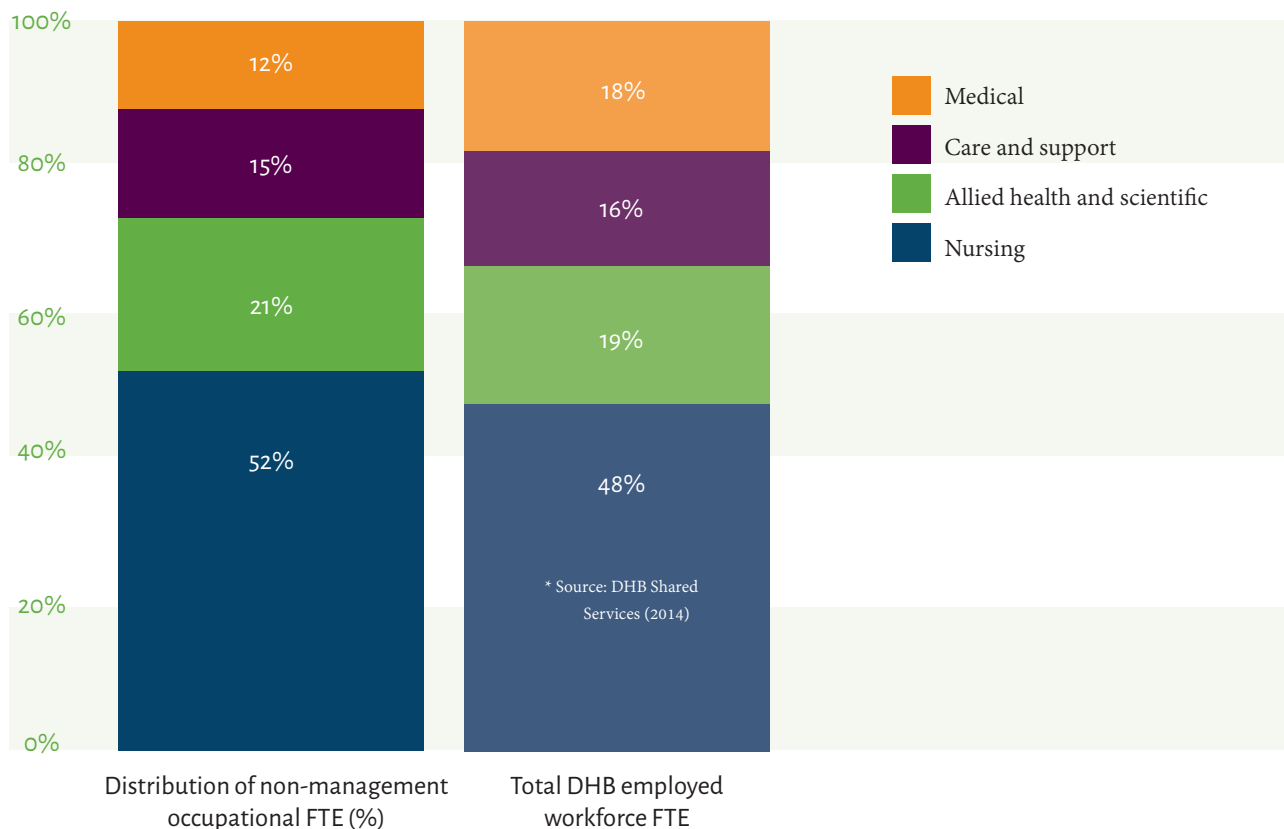
\*\*\*\* No midwives were identified as part of the adult mental health and addiction workforce reported in the survey.

# Corporate and other include management and administrative roles in mental health services, and include 94.3 FTEs that were not able to be categorised in any of the other occupational groups.

52 – There is not an equivalent workforce profile of the NGO health services workforce from which to compare the results of the adult mental health and addiction workforce. The largest mental health and addiction workforce survey to date has been the NgOIT survey (Platform Trust, 2007). The NgOIT 2007 workforce survey included 1,833 individual respondents from people employed within 212 organisations working across mental health and addiction NGO sector (p.2). This survey included 2,589 Vote Health funded FTEs in the NGO sector across 169 NGOs. There are some methodological differences between this survey and the NgOIT survey. The current workforce survey included only organisations who were receiving funding through Vote Health to deliver adult mental health and addiction services results survey organisations. Organisations were surveyed to identify total FTEs by roles and occupations rather than individuals. There is overlap between the organisations that participated in both the NgOIT and this survey. However, NgOIT surveyed individuals rather than organisations or FTEs and spanned child and adolescent, adult and older adult mental health and addiction services. In addition, the inclusion criteria differed. The NgOIT survey included all NGO organisations in mental health and addiction services no matter their source of funding (Platform Trust, 2007, p. 15). As a result of these differences in survey methodology, the distribution of occupational groups differs markedly between the NgOIT results and the NGO adult mental health and addiction workforce FTE reported in this survey.

The following graph (Figure 13) highlights the proportion of nursing roles reported in the non-management<sup>53a</sup> adult mental health and addiction workforce compared to that reported by the direct care DHB workforce as a whole (52 per cent compared to 48 per cent). However, this needs to be seen in the context of a lower proportion of medical staff in the non-management adult DHB mental health and

addiction workforce (12 per cent compared to 18 per cent across DHB health services). The slightly lower allied health workforce across DHBs compared to the adult mental health and addiction DHB workforce is likely to be influenced by the inclusion of the scientific workforce (such as radiation therapists) in the total DHB health workforce statistics.



**Figure 13. Comparison of the occupation distribution of the employed DHB mental health and addiction services workforce and the total DHB employed workforce (i.e. all of health) for non-management roles**

\* Source: DHB Shared Services, District Health Board Employed Workforce Quarterly Report, 1 January to 31 March 2014. The figures used here exclude the Corporate and other and midwifery roles.

## 5.2 Distribution of roles within the major occupational groups across adult mental health and addiction services

The following sections outline the distribution of different roles within each of the major occupational groups. The distribution of the main occupational roles nationally and regionally is reported.<sup>53b</sup>

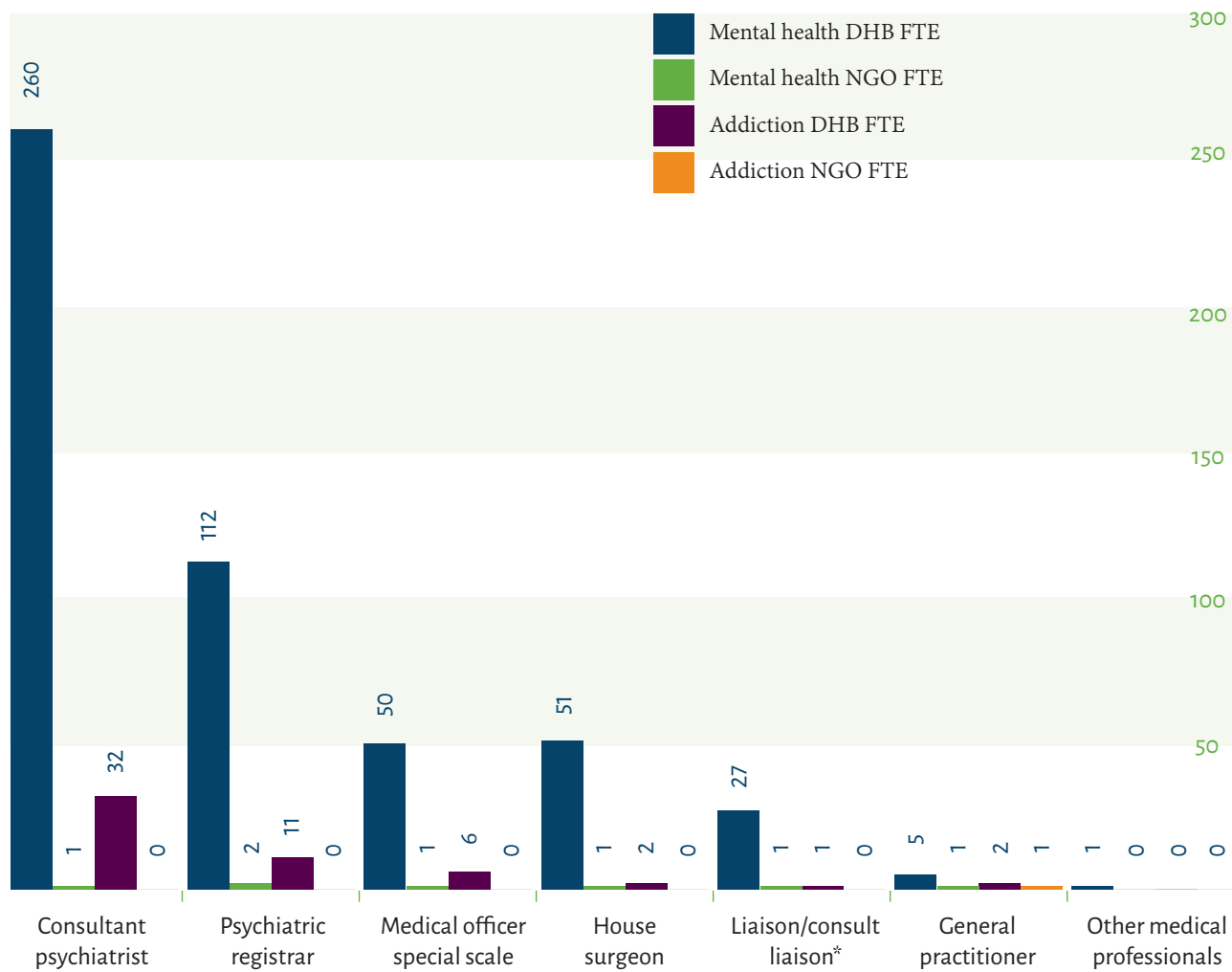
### 5.2.1 Medical workforce

Most of the medical staff identified in Figure 14 work in adult mental health DHB services (89 per cent). Only 10 per cent work within DHB addiction services and just one and a half per cent work within the NGO sector.

There were 568 medical FTEs (reported plus estimated) within adult mental health and addiction services. This mostly included roles filled by doctors, including consultant psychiatrists (293 FTEs), psychiatric registrars (125 FTEs), medical officer special scale (57 FTEs), house surgeons (54 FTEs) and general practitioners (nine FTEs). There were a small group of consult liaison positions identified (30 FTEs) that are likely to include a mix of people with nursing or medical training.

53a – The non-management workforce excludes administration, management and corporate services roles as some of the mental health and addiction roles of this type will sit outside mental health and addiction teams and thus the proportions would not be comparable.

53b – See Appendix F.2 Chapter five additional tables, which presents total reported FTEs by roles for the mental health only, addiction only, and the combined mental health and addiction group. Small discrepancies between total FTEs reported above and in the table will be due to rounding of decimal points.



**Figure 14. Distribution of the medical workforce for adult mental health and addiction DHB and NGO services (reported plus estimated missing FTEs)**

\* Liaison/consult liaison roles are not included in summaries of the number of doctors as some of the people in these roles may have nursing or allied health qualifications.

Overall, consultant psychiatrists and psychiatric registrars comprise four per cent of the total adult mental health and addiction workforce. In the adult mental health and addiction workforce most (89 per cent) doctors specialising in psychiatry<sup>54a</sup> worked in DHB mental health services. Very few doctors specialising in psychiatry were based in adult addiction services (10 per cent, 49 of 475 FTEs).

The medical workforce group was distributed in proportion to each region's population. Rates for medical staff ranged between 18 FTEs per 100,000 adults in the Midland region to 23 FTEs per 100,000 adults in the South Island region.<sup>54b</sup> There were some small regional differences in the distribution of medical officer special scale (MOSS) and consult liaison roles, with the Northern region employing the majority of the MOSS workforce nationally (67 per cent) and the Central region employing most of the consult liaison workforce reported in the survey (74 per cent).

Only four per cent of the total FTEs for medical and other professions group were vacant (23 FTEs). Most of these vacancies were either consultant psychiatrists (seven FTEs) or psychiatric registrars (11 FTEs). Survey respondents were also more likely to identify potential future recruitment shortages for consultant psychiatrists (60 per cent) and psychiatric registrars (57 per cent) compared to the other medical roles identified in the survey.<sup>55</sup>

Survey results (adjusted for estimated FTEs) indicated that doctors comprised 22 FTEs per 100,000 adults. It is important to acknowledge that this rate does not include all doctors reported in the survey. There are a number of psychiatrists who will be working as clinical directors or in other roles that are not included in the definition of medical positions for this survey.

54a – This includes Medical officer special scale roles as well as consultant psychiatrist and psychiatric registrars

54b – See Appendix F2, Table F.4 for detail about the rates per 100,000 adults for occupational groups

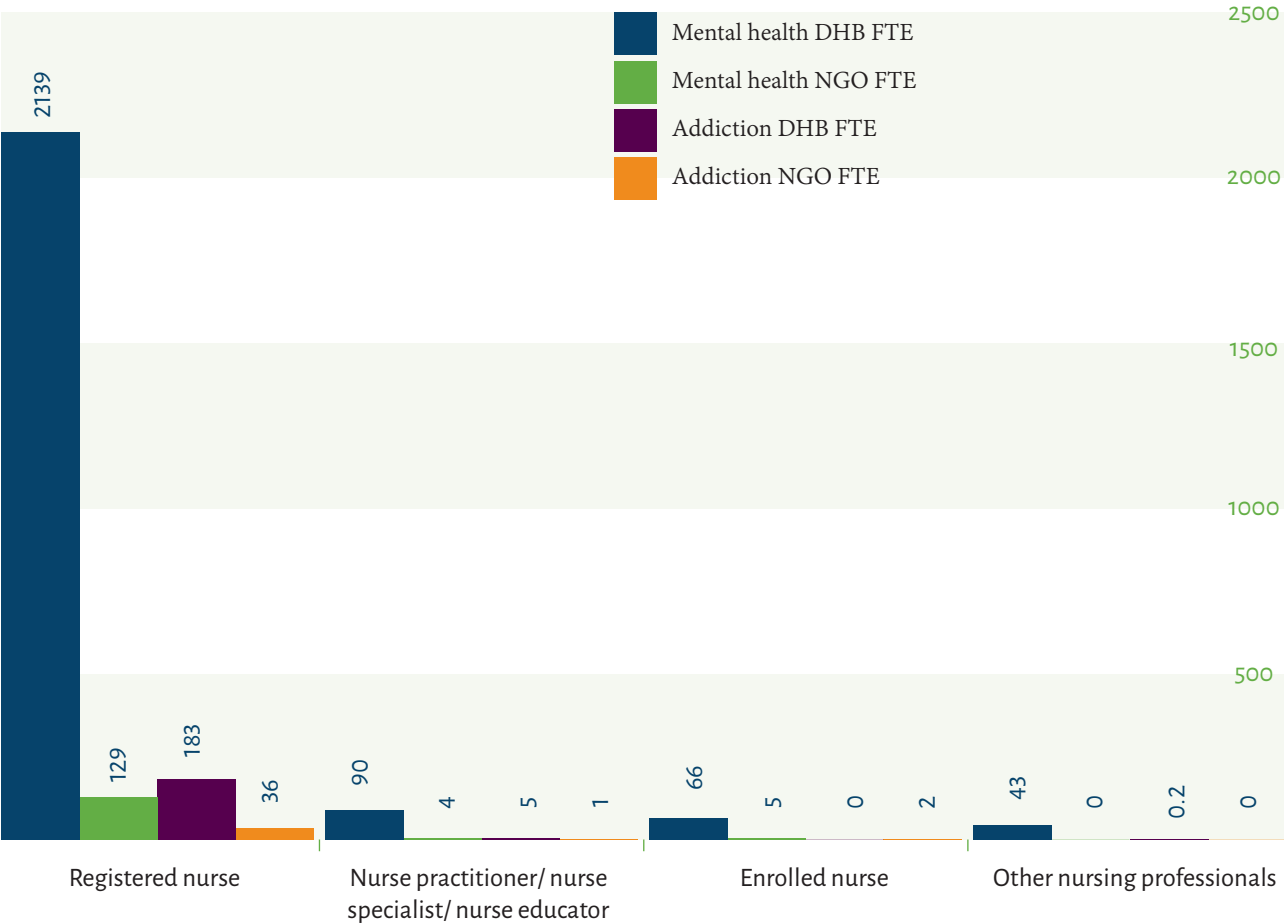
55 – Survey respondents were asked to identify if there was a risk of shortage for any of the roles they employed within their service. Only responses where the service employed people in a particular role were included in the results, eg responses where the service employed a psychiatrist were included in the survey counts.

A total of 750 doctors (reported head count) were identified in the survey.<sup>56</sup> This is significantly higher than the 604 doctors reported to be working in psychiatry in the 2012 New Zealand medical workforce report (Medical Council of New Zealand, 2012, p. 8). This is likely to be due to a number of factors including doctors being counted more than once due to working in more than one service, the different inclusion criteria for the survey and registration, and different categories used for reporting work types and vocation to the New Zealand medical council.

### 5.2.2 Nursing workforce

Most nursing roles are located in adult mental health DHB services (87 per cent). Only seven per cent work within DHB addiction services. Another six per cent are distributed across NGO adult mental health (five per cent) and addiction (one per cent) services.

Most nursing staff in adult mental health and addiction services fill registered nurse roles (92 per cent). Only four per cent of the nursing workforce was working in specialist nursing roles such as nurse practitioner, nurse specialist or nurse educator. Enrolled nurses comprised a very small proportion of the identified nursing workforce (three per cent). Note that, similar to doctors, the nursing roles do not capture all registered nursing professionals as some may be working in other roles such as managerial positions. Nurse managers are included within the management occupation group rather than nursing occupation group.



**Figure 15. Distribution of the nursing workforce for adult mental health and addiction DHB and NGO services (reported plus estimated missing FTEs)**

56 – This figure includes both Vote Health and non-Vote Health funded doctors and excludes liaison/consult liaison medical roles.

The nursing workforce reported a higher proportion of vacancies relative to the proportion of nurses in the total workforce (41 per cent of all vacancies, yet nurses comprise 28 per cent of the total mental health and addiction workforce). Of a total 2,704 FTEs in the nursing workforce, 180 FTEs were vacant (seven per cent).

Most nursing vacancies were for registered nurses (170 FTEs), which is to be expected as registered nurses make up most of this workforce group. The high number of nurse vacancies was also reflected in survey respondents concerns about the future recruitment of mental health and addiction nurses. More than half indicated a perceived risk in a shortage of registered nurses in the next two years (64 per cent of survey respondents that answered the question about potential nursing shortages).

Based on the survey results (with adjustments for estimated FTEs), in 2014 there were approximately 109 FTE nursing positions per 100,000 adults funded through Vote Health.<sup>57</sup> There was some variation in the rates of nursing positions per 100,000 adults across the regions. Northern (94), Central (94) and Midland (97) regions were very similar. The South Island region had a much higher rate of nurses (135 FTEs per 100,000 adults) than the other three regions.

The total number of nursing roles and actual nurses identified through this workforce survey is only a small part of the total New Zealand nursing workforce reported by the Nursing Council. Of the 51,387 nurses with annual practicing certificates registered with NCNZ at 31 March 2014, approximately 3,900 nurses (eight per cent) were reported to be working in mental health and approximately 200 nurses (0.4 per cent) were working in addiction services (Ministry of Health, 2014).

The number of people in nursing roles reported in this workforce survey was 2,847 (people [not FTEs] and included both Vote Health and nurses funded through other sources).<sup>58</sup> This is lower than the approximately 3,900 nurses identified as working in mental health and addiction by the nursing council outlined above. The difference will be influenced by the nursing council's inclusion of mental health and addiction services for child and youth, aged care and primary health. It will also be partly due to this workforce survey's focus on roles rather than qualifications, as described earlier people registered as nurses may be working in other roles. It is very likely that there are many nurses included among the team leaders, educators, consult liaison or other support roles identified in the survey.

### 5.2.3 Allied health workforce

There were a number of professions included in the allied health workforce group, many of whom are registered under the HPCA Act, and social workers who have voluntarily registered under the Social Workers Registration Act 2003. Allied health professionals identified in the survey include social workers, psychologists, occupational therapists, addiction/dual diagnosis practitioners and counsellors. This group will include many counsellors trained in various therapies, but may also include practitioners with training in nursing or other clinical professions.

Of the allied health group, 64 per cent worked in DHBs and 36 per cent in NGOs. Overall, the allied health group was more evenly distributed across mental health and addiction services than either the nursing, medical or support occupational groups, with 58 per cent working in mental health services and 42 per cent working in addiction services.

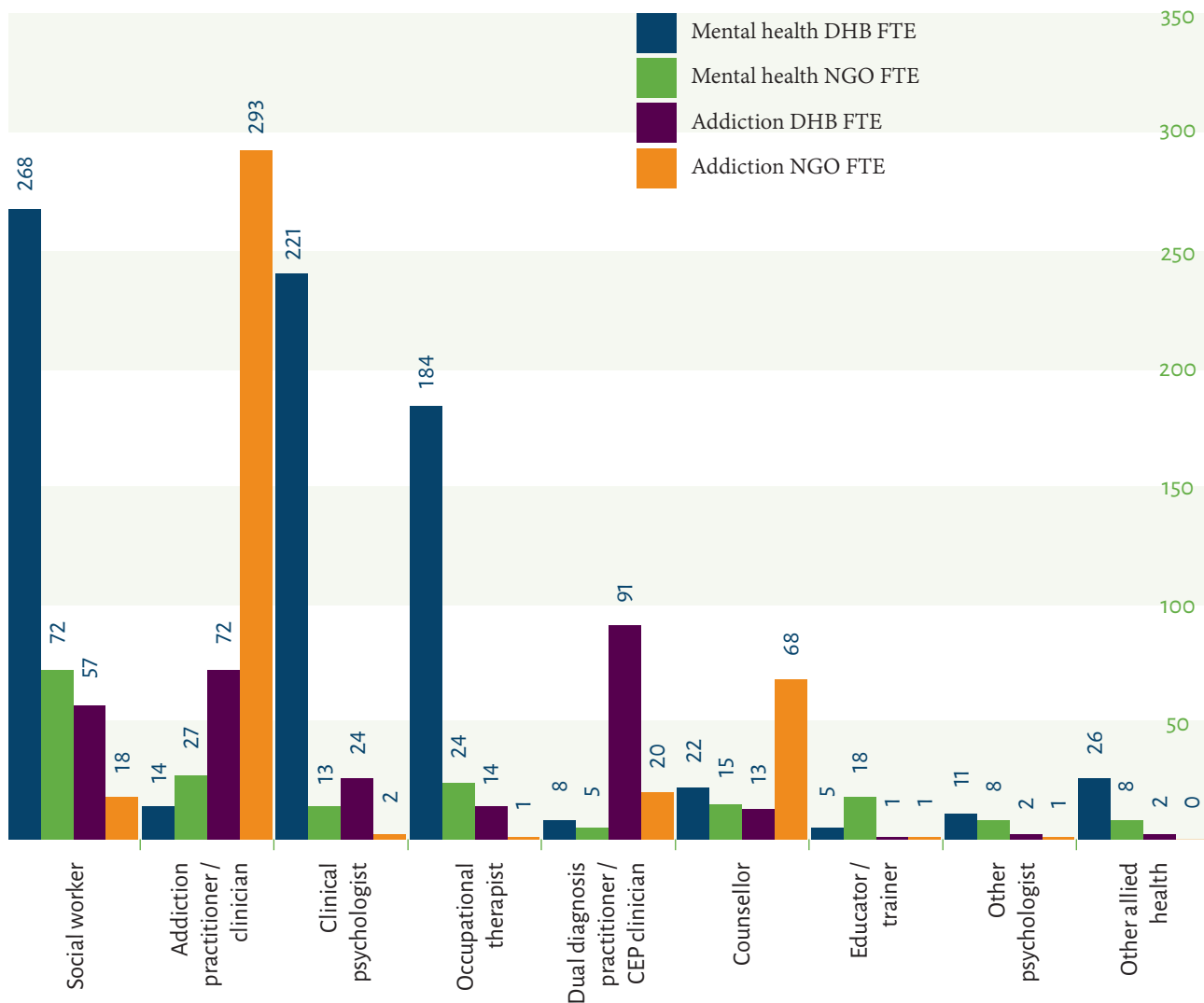
The largest allied health workforce group are social workers (416 FTEs) across adult mental health and addiction services. Followed closely by addiction practitioners/clinicians (405 FTEs), and then clinical psychologists (260 FTEs).

The dual diagnosis/co-existing problems (CEP) clinician role aims to improve meeting the needs of consumers with co-existing addiction and mental health issues. Most of the dual diagnosis/CEP clinicians identified in the survey are based in DHB addiction services (73 per cent). Addiction respondents perceived large shortages of staff for dual diagnosis practitioners as well as addiction practitioner roles.

The distribution of allied health professions across mental health and addiction services differ markedly. Within addiction services, 59 per cent of the allied health group were in NGOs whereas within mental health services only 20 per cent of the allied health group roles were in NGOs. DHB mental health services had the majority of the social worker (268 of 416 FTEs), clinical psychologist (221 of 260 FTEs) and occupational therapist (184 of 224 FTEs) roles (employed plus vacant). NGO addiction services reported the majority of addiction practitioner (293 of 405 FTEs) and counsellor (68 of 118 FTEs) roles.

57 – The number of people employed in the above nursing positions reported in the survey includes both Vote Health funded and nurses funded through other sources. It is difficult to estimate how representative the survey results are of the positions funded through other sources. The survey results suggest that there are 121.7 mental health and addiction nurses per 100,000 adult population based on the number of mental health and addiction nurses reported in the survey.

58 – The total FTE for Vote Health funded nurses was 2,704 FTEs (reported plus estimated for missing FTE). The total FTE for other funded nursing positions reported in the survey was 115 FTEs, most of which were employed in the NGO addiction sector.



**Figure 16. Distribution of the allied health workforce for adult mental health and addiction DHB and NGO services (reported plus estimated missing FTEs)**

Of the 1,629 FTEs in the allied health workforce, 89 FTEs were vacant (six per cent). Clinical psychologists reported the highest proportion of vacancies to total workforce (nine per cent with 24 FTEs vacant), followed by occupational therapists (eight per cent involving 19 FTEs vacant). Most other allied health vacancies were for social worker, occupational therapists or addiction practitioner positions (33 FTEs vacant).

Interestingly, the perceived risk of future shortages for specific allied health roles was not directly related to the roles with the highest proportion of vacancies. The roles that survey respondents identified as being at greatest risk of shortage in the next two years among the allied health workforce were dual diagnosis/CEP practitioner (77 per cent) and addiction practitioners (77 per cent). Respondents identified a risk of shortages for clinical psychologists (53 per cent), occupational therapists (44 per cent), and social workers (31

per cent). This difference is possibly the result of a perceived need to increase the number of addiction practitioners and co-existing problems clinicians across mental health and addiction services as demand for addiction and co-existing problems treatment grows.

Allied health roles had a ratio of 66 FTEs per 100,000 adults across adult mental health and addiction services. There was some variation in the rates per 100,000 adults across the four regions. The Central region had the lowest rate with 52 FTEs per 100,000 adults, while Midland reported the highest regional rate with 75 FTEs per 100,000 adults. Midland region's high rate of allied health roles is likely to be linked to the higher proportion of addiction counsellors and other types of counsellors reported in the survey within this region. Thirty-five per cent of all addiction counsellors/clinicians and other counsellors were located in the Midland region relative to only 18 per cent of the population living in that region.

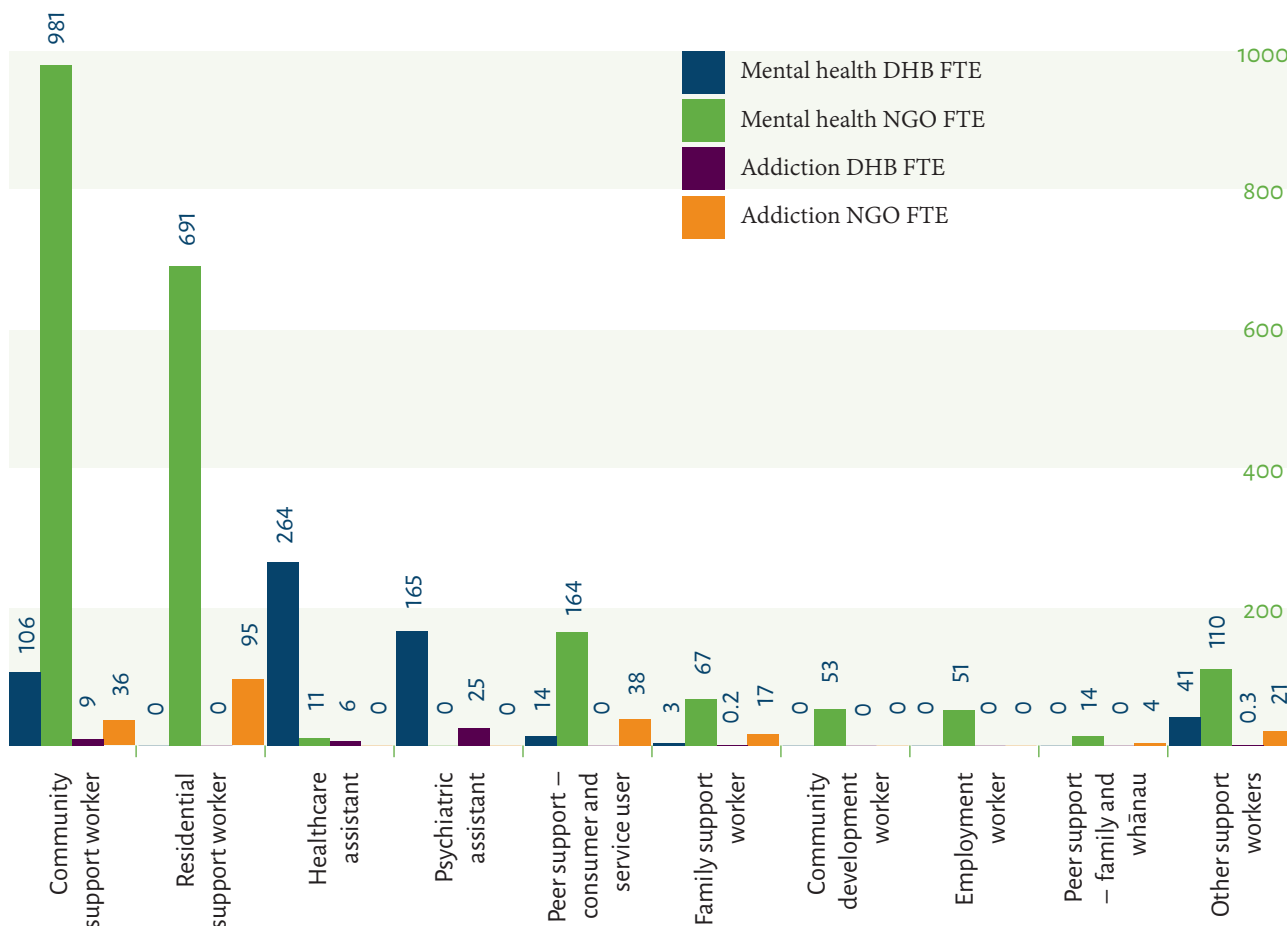


## 5.2.4 Support workforce

Most of the support workforce worked within adult mental health NGO services (72 per cent; 2,142 of 2,988 FTEs) and 20 per cent worked within DHB mental health services. Seven per cent worked in NGO addiction services and one per cent worked in DHB addiction services.

The support workforce is comprised of predominantly community (38 per cent) or residential support workers (26

per cent). The peer support workforce includes consumer and service user positions (seven per cent) and family and whānau peer support positions (one per cent). There were a total of 52 FTE employment consultant positions among the Vote Health funded adult mental health and addiction workforce. However, employment consultants are under-represented in the results reported here as most employment consultants are funded through sources of funding other than Vote Health.



**Figure 17. Distribution of the support workforce for adult mental health and addiction DHB and NGO services (reported plus estimated missing FTEs)**

There were 97 FTEs vacant out of a total of 2,988 FTEs among support workers (three per cent). Most vacancies were among community and residential support workers (55 FTEs vacant) and were in NGO mental health services. Just under half of the survey respondents perceived a risk of future shortages for community support roles (50 per cent) and fewer perceived a risk of future shortages for residential support roles (49 per cent). Around a third (38 per cent) of the respondents employing peer support workers perceived potential difficulties recruiting sufficient peer support workers in the next two years.

The rate per 100,000 adults for support workers was 121 FTEs. This was the highest rate among the six occupational

groups identified in the survey. It was higher than the rate for nurses which averaged 109 FTEs per 100,000 adults. There was not a lot of variation in the rates for support workers across the regions. Central region had the lowest rate at 104 FTEs per 100,000 adults, while Midland had the highest rate at 136 FTEs per 100,000 adults.

Support workers make up just under one third (31 per cent) of the adult mental health and addiction services workforce. These include community and residential support workers, along with peer support, healthcare and psychiatric assistants. Nearly all (79 per cent) support workers are based in NGOs. In light of the predicted increase in demand for mental health services and ongoing resourcing shortages in the clinical

workforce, there may be a substantial opportunity for the support workforce to extend its skills and competencies in ways that can potentially reduce pressures in formal clinical care (see Platform Trust & Te Pou o Te Whakaaro Nui, 2015). For example, increasing the capacity and capability of the NGO workforce to undertake brief problem-solving interventions or navigation roles. A more in-depth examination of the support workforce and its capabilities is required in order to support earlier brief interventions that enhance self-care for people experiencing mental health and addiction issues. This could enable mental health and addiction services to more effectively manage the predicted increase in demand for services.

The growth and development of the consumer and peer support workforce has been signalled as a key workforce development area in order to increase capacity and capability across a spectrum of self-care support in both *Rising to the challenge: The mental health and addiction service development plan 2012–2017* (Ministry of Health, 2012b) and *Towards the next wave of mental health and addiction services and capability: Workforce service review report* (Mental Health and Addiction Service Workforce Review Working Group, 2011, p. 55).

There were 216 FTEs in peer support roles, making up 2 per cent of the total estimated workforce. These roles were predominantly located in mental health NGO services. There were an additional 42 consumer advisor FTEs most of whom were located in mental health DHB services.<sup>59</sup> Considering the increased focus on growing this workforce in the past five years, the survey results appear to be low. Family support workers and family peer support workers are also a small group of the mental health and addiction workforce (105 FTEs<sup>60</sup>). It will be important to establish if peer and family support roles have been reduced as a result of fiscal constraints in services or if this result is due to the way in which they have been reported. It is possible that the numbers of peer support workers have increased in the past five years but have either not been included in survey responses or have been included in other roles such as community support workers. It appears to be an area for workforce expansion given the importance of increasing the peer support workforce in *Rising to the challenge* (Ministry of Health, 2012b, p.28).

Increasing access to employment specialists using evidence-informed individual placement and support services for populations with low prevalence and/or high needs has also been identified as a priority policy area in *Rising to the challenge* (Ministry of Health, 2012b, p.28). Studies have shown the individual placement and support approach to be more effective than the train-then-place model (Drake, Bond & Becker, 2012). *Rising to the challenge* (Ministry of Health, 2012b, p.28) set a goal to increase the number of people in employment or education who are adversely impacted by mental health and addiction issues. NGOs and DHBs both provide some employment support services. The survey results included employment specialist roles totalling 90 FTEs in the NGO sector across 19 organisations. Just over half (51 per cent) of these positions were funded through sources of funding other than Vote Health.<sup>61</sup> The small workforce in employment specialist roles identified in the survey indicates a need to better understand how the employment support workforce is funded. It is likely the Ministry of Social Development funds a number of employment roles within NGO mental health and addiction services.

### 5.2.5 Cultural workforce

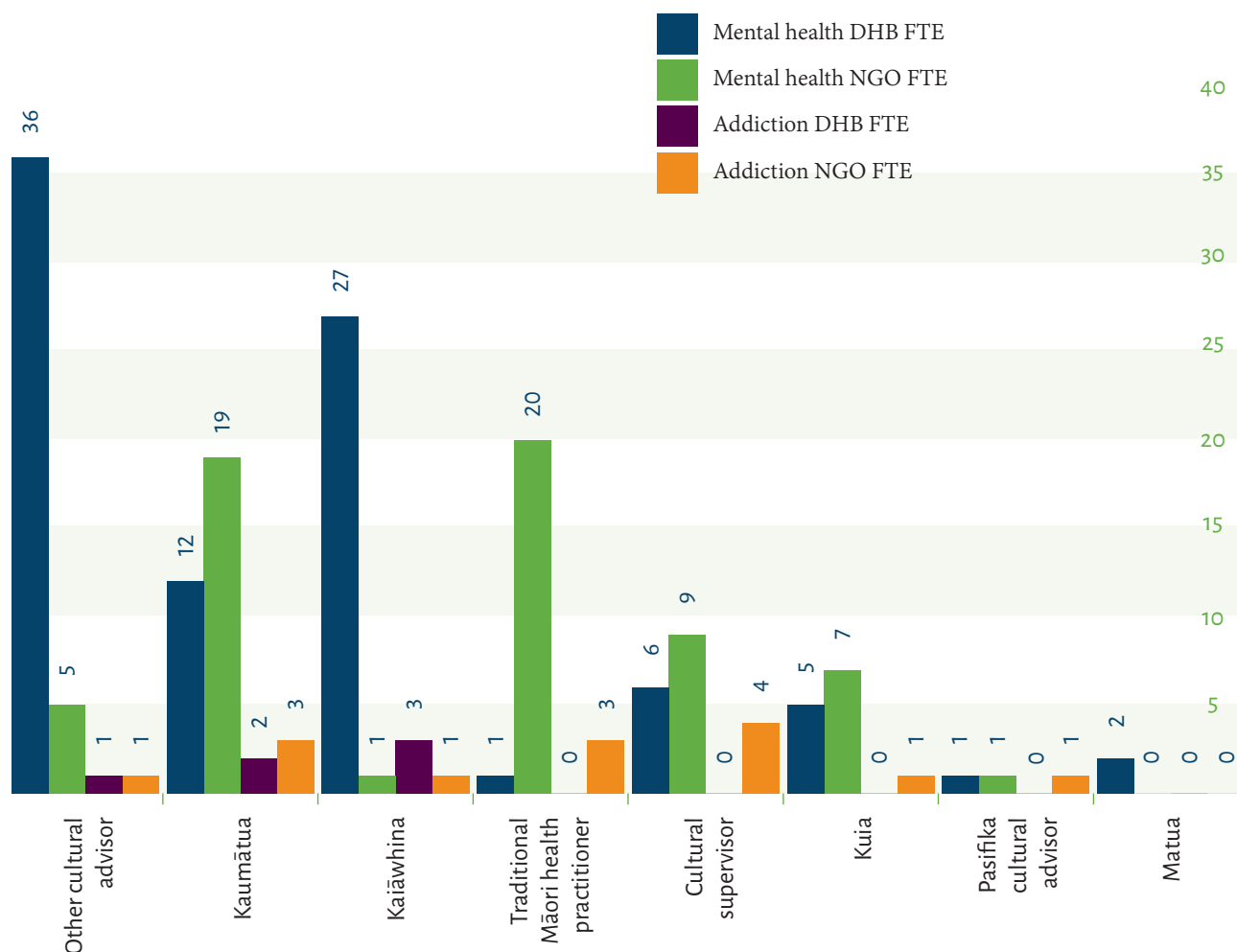
The cultural workforce is only a very small proportion of the total adult mental health and addiction workforce (172 FTEs in total). The rate per head of population for the cultural workforce across New Zealand was seven FTEs per 100,000 adults. DHB mental health services reported employing the majority of the cultural workforce (52 per cent). Most identified as other cultural advisors and included some positions with unidentified ethnic-focus, meaning it is not possible to identify the proportion of cultural roles that focus on each ethnic group.

Kaumātua and kuia roles had a total of 49 FTEs. Eighteen per cent of the workforce identified as kaiāwhina roles. Most kaumātua, kuia and kaiāwhina roles were based within mental health services. Most (20 of 24 FTEs) traditional Māori health practitioner roles were based within NGO mental health services. In addition to these paid roles, volunteers may provide cultural support within a number of services.

59 – The peer support and consumer advisor roles add to 258 FTEs, which is greater than the 223 FTE consumer advisor and peer support positions identified in 2010 (Te Pou o te Whaakaro Nui, 2010, p. 5).

60 – This includes 18 FTEs in Peer support - family and whānau roles.

61 – The survey result showed that non-health funded employment workers totalled 46 FTEs (44 employed and two vacant) while Vote Health-funded employment workers totalled 44 FTEs, with only 0.5 vacant. The survey will not have captured those employment workers in organisations that receive no Vote Health funding.



**Figure 18. Distribution of the cultural support workforce for adult mental health and addiction DHB and NGO services (reported plus estimated missing FTEs)**

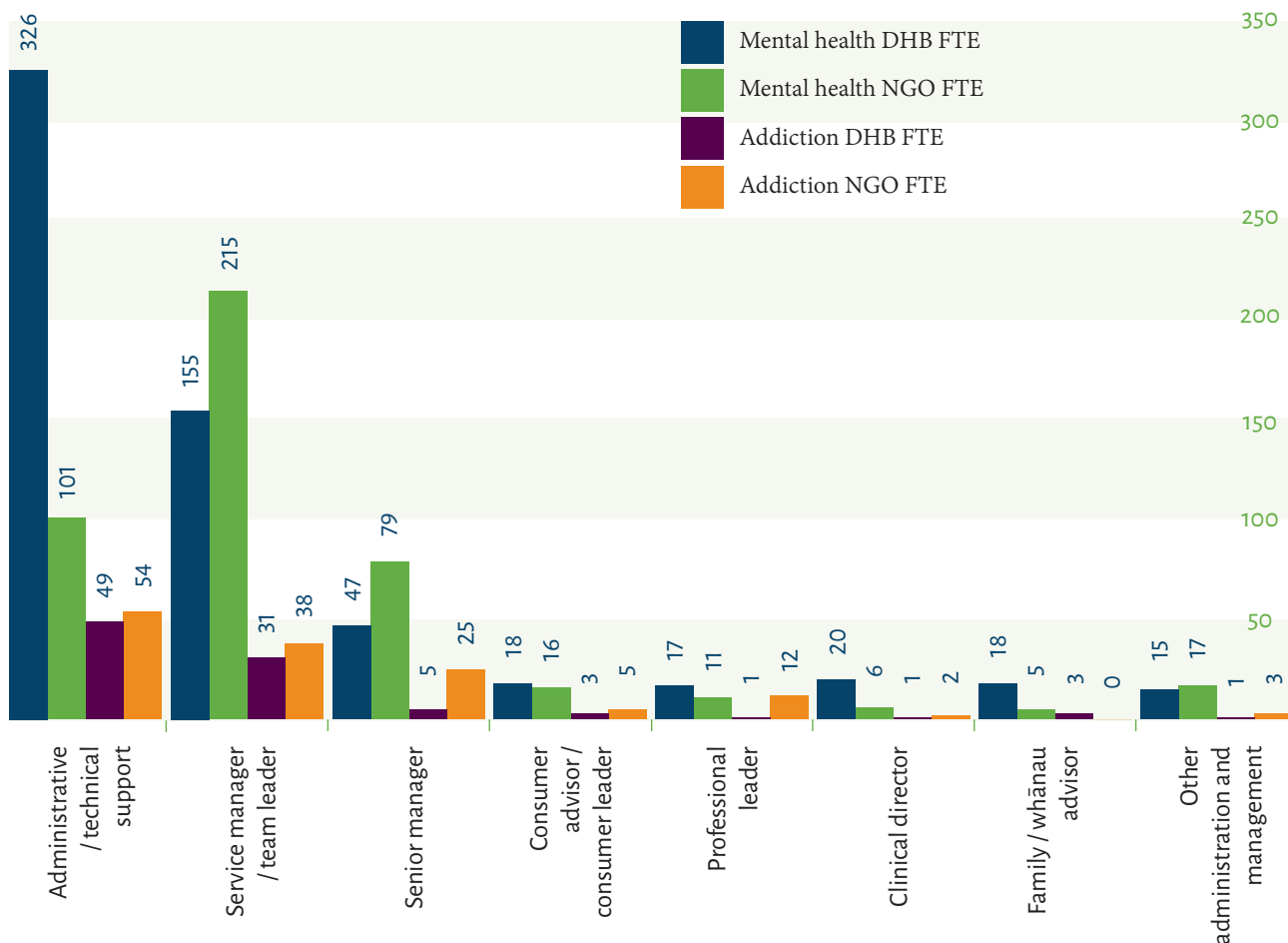
There were nine FTEs (five per cent) reported vacant from a total 172 FTEs. Most vacancies were for kaumātua and kuia in mental health services (five FTEs). A number of respondents perceived potential shortages for recruiting kaumātua (31 per cent) and cultural supervisor roles (28 per cent) in the next two years.

### 5.2.6 Administration and management workforce

The administration and management workforce comprises 14 per cent of the adult mental health and addiction workforce. The proportion of administration and management roles ranged from 12 per cent of the DHB adult mental health services workforce to 17 per cent of the NGO adult addiction services workforce. The survey results are likely to underreport management within DHB services because the survey did not capture all DHB management teams that will have some

oversight of mental health and addiction services. Nearly 14 per cent of administration and management roles were identified as serving both mental health and addiction teams.

The administration and management occupation group aimed to capture both administrative support roles and identified leadership or management roles. While the majority of the positions in this group were in administrative or technical support (41 per cent, 530 of 1,301 FTEs), a higher proportion of FTEs were in leadership roles. This included service manager/team leaders (34 per cent, 439 FTEs), senior managers (12 per cent, 156 FTEs), clinical directors (two per cent, 30 FTEs), professional leaders (three per cent, 42 FTEs) and family or consumer advisor roles (five per cent, 69 FTEs).



**Figure 19. Distribution of the administration and management workforce for adult mental health and addiction DHB and NGO services (reported plus estimated missing FTEs)**

From a total of 1,301 administration and management FTEs, 30 were vacant (two per cent). A third of the vacancies were for service managers/team leader positions (10 FTEs).

Family/whānau advisors reported a high proportion of vacancies relative to total FTEs (22 per cent of 26 FTEs). Respondents reporting roles in the administration and management group indicated a small risk that there would be a recruitment shortage for these roles in the next two years. The role perceived to be at greatest risk of shortage was consumer advisor/leaders (34 per cent). Approximately one quarter of respondents identified senior managers, service managers and team leaders, and administration and technical staff as at potential risk of shortages in the next two years.

The rate of administration and management positions per 100,000 adults was 53 FTEs. There was some variation in the rates for the administration and management workforce group across the regions. Northern region had the lowest rate of 44 FTEs per 100,000 adults, while the South Island had the highest rate of 60 FTEs per 100,000 adults.

### 5.3 Chapter summary

The adult mental health and addiction workforce comprises of a diverse mix of roles. The fact that both nurses and support workers comprise the largest group in the workforce indicates the reliance on both the clinical and non-clinical workforce to support people with mental health and addiction issues.

The support workforce forms the largest workforce in adult mental health services and suggests a reliance on support workers in meeting the needs of people with mental health issues. There are many opportunities to support an enhanced scope of practice with this workforce, particularly among peer consumer and family support workers.

The survey results indicate that the addiction workforce looks very different from the mental health workforce in terms of both the major occupational groups and their distribution across DHBs and NGOs. The key differences include the greater proportion of clinical roles, especially nurses and medical staff in DHB mental health services, along with a higher proportion of addiction practitioners and counsellors

within the addiction services. These differences reflect the different historical developments and differences in describing the roles within the two sectors.

Vacancies among clinical roles need further exploration, particularly in light of the predicted increase in demand for mental health and addiction services in the next 10 years (Mental Health and Addiction Service Workforce Review Group, 2011) and the time required to train clinical staff. Current recruitment and retention strategies for this workforce (such as post-entry clinical training programmes, overseas recruitment, career development planning, and leadership development) are important and may need to be strengthened, alongside the exploration of potential workforce substitution opportunities that require briefer training periods. The nursing workforce continues to be the mainstay of mental health DHB services. However this workforce continues to experience recruitment issues.

The composition of the workforce described in this chapter has evolved over time to support current models of care in mental health and addiction services. The Mental Health and Addiction Service Workforce Review Working Group, (2011, p. 55) signals the need to develop new models of care that reflect a stepped care approach across primary and secondary care services. This will mean the current composition of the workforce will need reviewing, with consideration given to the future needs of different roles. Examples of emerging roles already signalled include an increase in demand for peer support workers and employment consultants (Ministry of Health, 2012b). To meet future needs, changes to the scope of practice are being signalled as critical for some roles and professions, for example, supervisory type roles for psychiatrists and clinical psychologists (The Mental Health and Addiction Service Workforce Review Working Group, 2011). Information on the composition of the current workforce is useful when considering and forecasting for the recruitment, retention and training of a workforce that will deliver future models of care.

# 6.0 Ethnic makeup and cultural competence

This chapter presents information about the workforce in ethnic-specific services, cultural advice and support roles. It also presents information on the reported ethnic makeup of the overall workforce and the perceived needs for developing the cultural competency of the overall workforce. Unlike chapters four and five, workforce numbers reported in this chapter describe only the actual FTE positions (FTEs) reported by services completing the survey, and do not include an estimate for non-responding organisations due to the complexity of estimating ethnicity in non-responding organisations.

*Rising to the challenge: The mental health and addiction service development plan 2012–2017* (Ministry of Health, 2012b) reiterates that services need to be culturally responsive to Māori and other large ethnic groups (p. 60) and to have a workforce that reflects the populations served (p. 61). The cultural competency of the workforce is important for facilitating culturally responsive service delivery.

Cultural responsiveness, and thus cultural competency, is particularly important given certain ethnic groups are disproportionately affected by mental health and addiction concerns. The *Te Rau Hinengaro* (Oakley Browne, Wells & Scott, 2006) prevalence study showed that Māori experience the greatest burden due to mental health issues compared to any other ethnic group in New Zealand.

Māori were more likely than any other ethnic group to experience a serious mental health disorder and co-morbidities. Pasifika also have higher rates of mental health issues and lower rates of mental health visits compared to the general population. Māori and, to a lesser extent, Pasifika were also more likely to experience alcohol and drug abuse and dependence, compared to the general population. As a result, the need to increase the proportion of the Māori and Pasifika workforce within mental health services remains a priority (Ministry of Health, 2012b). Data about prevalence in Asian communities was not collected in *Te Rau Hinengaro* (Oakley Browne et al., 2006), however, the New Zealand health survey did suggest that Asian adults have lower (unadjusted) diagnosed rates of lifetime prevalence of common mental health disorders at four per cent. This is much lower than that reported for Māori (16 per cent)

and Pasifika (seven per cent) in the New Zealand health survey (Ministry of Health, 2012a, p. 59). However, Asian communities tend to access services at very low rates. This may be partly due to stigma around accessing services (Chan and Parker, 2004) and low perceived relevance of these services to their needs, combined with lower prevalence rates (Sue and Sue, 1987).

Mainstream ways of working do not necessarily reflect the beliefs, values, language and interpersonal relationship structures common among ethnic populations. Improving cultural responsiveness should help increase services' ability to meet the needs of Māori, Pasifika and Asian communities.

The survey collected information on a number of strategies for improving workforce cultural responsiveness:

- providing ethnic-specific services
- establishing roles that provide cultural advice and support to other staff members
- recruiting staff who match the ethnic population of the group being served
- developing the cultural competence of all staff.

Within New Zealand resourcing has been directed to these areas. This includes funding for ethnic-specific services, undertaking cultural competency for working with Māori and Pasifika as part of tertiary and other training programmes, leadership and scholarship programmes to support the recruitment and retention of Māori and Pasifika into the mental health and addiction workforce.



## Key results

- Ethnic-specific services employed 11 per cent of the mental health services' workforce and 16 per cent of the addiction services' workforce.
  - For both mental health and addiction, most of the ethnic-specific services workforce was located in kaupapa Māori services.
- Cultural advice and support roles made up 1.8 per cent of the estimated workforce, as noted in the previous chapter.
- The reported Māori and Pasifika workforce under-represents the proportion of consumers who identify with these groups, particularly in clinical roles.
  - For example 26 per cent of consumers identified as Māori but only 15 per cent of the clinical workforce were reported as Māori.
- Addiction services had a higher proportion of Māori and Pasifika workers, particularly in DHB services, whereas the proportion of staff identifying as Asian was higher in mental health services.
- Around three quarters of respondents reported a need for increased knowledge and skills related to various aspects of cultural competency when working with Māori, Pasifika and Asian consumers.

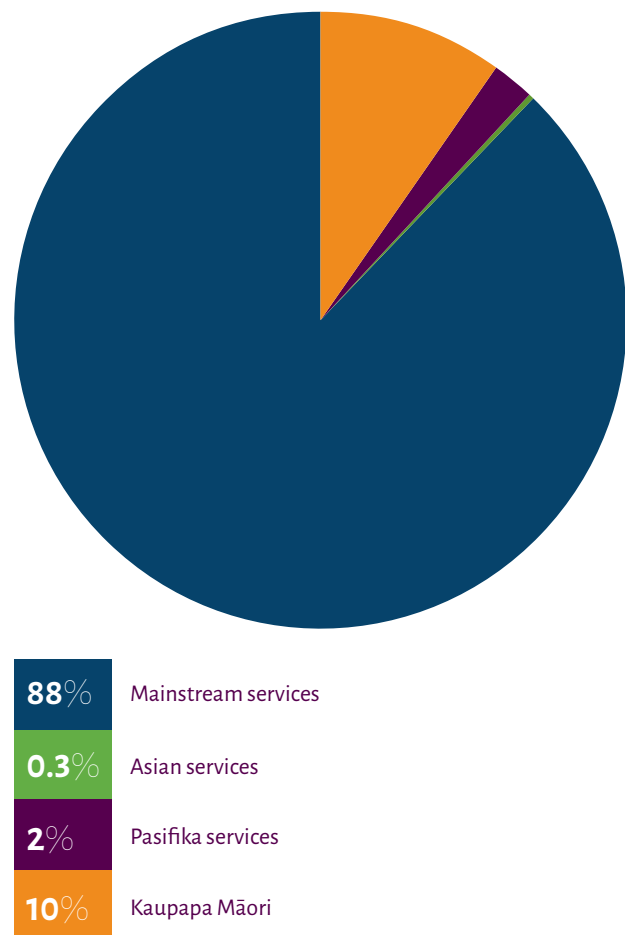
### 6.1 Ethnic-specific services workforce

Overall, ethnic-specific services made up 12 per cent of the mental health and addiction services workforce. Ethnic-specific services had 11 per cent of the reported mental health services' FTEs and 16 per cent of the reported addiction services' FTEs. This represents 844 FTEs in mental health ethnic-specific services and 235 FTEs in addiction ethnic-specific services.

Kaupapa Māori services are by far the largest ethnic-specific service type in terms of FTEs, employing 911 FTEs across mental health and addiction services. Kaupapa Māori services reported around one tenth of the mental health sector workforce, and 13 per cent of the addiction sector workforce. Most of the workforce employed in ethnic-specific services was located in kaupapa Māori services; this is true for both mental health (86 per cent) and addiction (79 per cent) services.

On average, 78 per cent<sup>62</sup> of staff in ethnic-specific services identified as belonging to the broad ethnic group the services are designed to serve. Conversely, 22 per cent of staff working in ethnic-specific services do not belong to the broad ethnic group that is the focus of the service.

Table 12 presents the number of FTEs reported by ethnic-specific services for DHBs and NGOs separately for mental health and addiction.



**Figure 20. Proportion of total reported mental health and addiction workforce in ethnic-specific services (8,929 reported FTEs)**

62 – The addiction ethnic-specific services 78.6 per cent of the workforce reflected the broad ethnic group they were designed to serve. For mental health ethnic-specific services 77.2 per cent of the workforce reflected the broad ethnic group they were designed to serve.

**Table 12. Reported FTEs (employed plus vacant) in ethnic-specific services and all services for DHBs and NGOs by mental health and addiction services**

	Mental health reported FTEs				Addiction reported FTEs			
	Kaupapa Māori	Pasifika services	Asian services	Total FTE (all services)	Kaupapa Māori	Pasifika services	Asian services	Total FTE (all services)
DHB	456.4	55.2	3.3	4,993.7	21.9	17.0	-	662.8
NGO	268.1	51.6	9.8	2,551.8	164.1	19.3	12.9	720.8
<b>Total FTEs</b>	<b>724.5</b>	<b>106.7</b>	<b>13.1</b>	<b>7,545.5</b>	<b>186.0</b>	<b>36.3</b>	<b>12.9</b>	<b>1,383.6</b>

In addition there was an estimated total of 172 FTEs in cultural support roles. These are described in Chapter 5.2.5. These roles provide cultural advice and support to other staff members who directly deliver services. Specific cultural advice and support roles include cultural supervisors, kaumātua and Pasifika cultural advisors.

## 6.2 Ethnic-makeup of the workforce

Another strategy for pursuing cultural responsiveness is to employ a workforce that matches the ethnic diversity of the population it serves. Information about population rates, consumer rates and staff that identified as Māori, Pasifika and Asian is presented in Figure 21. This data provides an estimate of the ethnicity of the workforce but does not capture the exact proportion identifying as each ethnicity as the information was not self-identified and not all services responded to the survey or provided ethnicity information. Services that did and did not respond to the ethnicity question may differ therefore our results may not be representative of all services. In Appendix F.3 we include an estimate of the ethnic composition of the total workforce. This estimate includes an adjustment for the likely ethnic profile of those services who did respond to the survey. The adjustment is based on the ethnic profile of similar services who did provide ethnicity data.

Based on the survey responses from services who provided ethnicity information, the proportion of staff who were identified as belonging to a cultural group was much lower for clinical roles relative to non-clinical roles. Around one quarter of all non-clinical roles were filled by Māori staff, while 15 per cent<sup>63</sup> of clinical roles were filled by Māori staff. Likewise, Pasifika staff were employed in seven<sup>64</sup> per cent of non-clinical roles but only three per cent of clinical roles.

Asian staff were employed in six per cent of non-clinical roles but only four per cent of clinical roles.

Survey results indicate that the proportion of Māori in the overall workforce (19 per cent) under-represents the proportion of Māori accessing mental health and addiction services (26 per cent). These results may under-report the number of Māori working in mental health and addiction services. Adjusting for service non-response suggests that Māori may make up 17 per cent of the reported clinical workforce and 25 per cent of the reported non-clinical workforce (see Appendix F.3)<sup>65</sup>, however the clinical estimates are still substantially lower than the proportion of Māori consumers.

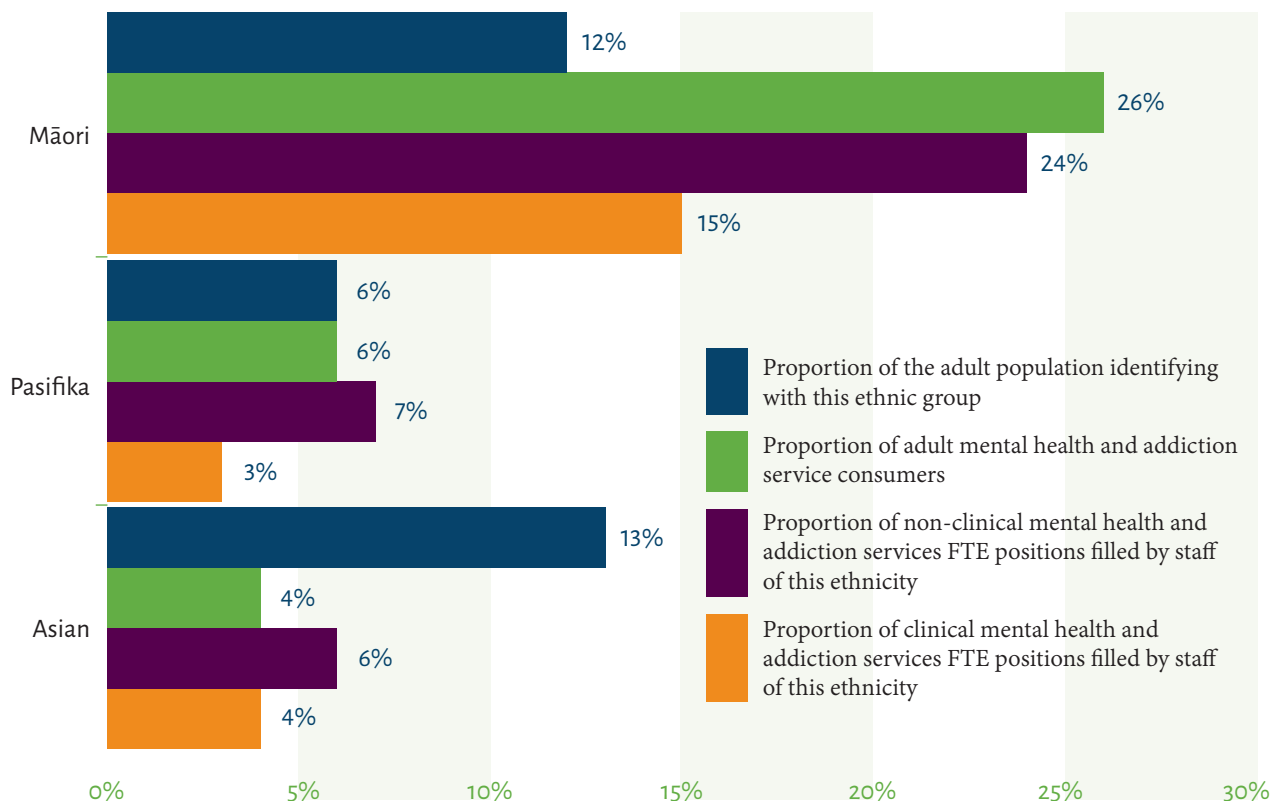
The reported Pasifika and Asian representation in the workforce is similar to the proportion of consumers identifying as each ethnicity, but under-represents the number of people who identify as Asian in the New Zealand adult population. The Pasifika mental health and addiction workforce (five per cent of the total reported workforce) is lower than the proportion of the adult Pasifika population (six per cent) and the proportion of Pasifika consumers (six per cent). The reported proportion of Asian people in the workforce (five per cent) is much lower than the proportion of Asian people in the population (13 per cent) but relatively comparable to the proportion of consumers identified as Asian (four per cent).

Around 30 per cent of Māori staff were located in kaupapa Māori teams (366 of 1,223 FTEs), 27 per cent of Pasifika staff were located in Pasifika teams (88 of 321 FTEs) and seven per cent of Asian staff were located in Asian cultural teams (23 of 336 FTEs). The remainder were located in mainstream services.

63 – Estimates accounting for missing FTE suggest the percentage of clinical staff who are Māori might be closer to 17 per cent.

64 – Estimates accounting for missing FTE suggest the percentage of non-clinical staff who are Pasifika might be closer to 6 per cent.

65 – The calculation used to estimate the percentage ethnic makeup to estimate the likely make-up of services who did not respond. This was done separately for mainstream and ethnic-specific services, NGOs and DHBS and clinical and non-clinical staff because exploratory analysis suggested the response rates and ethnic makeup of these categories differed.



**Figure 21. Māori, Pasifika and Asian peoples as a proportion of the adult population, consumers and the workforce (reported employed FTEs) in adult mental health and addiction services<sup>66</sup>**

The proportion of the workforce identified as Māori, Pasifika or Asian was generally higher in NGO services relative to DHB services (see Table 13). This mirrors the greater ethnic representation in non-clinical roles relative to clinical roles discussed previously.

Consistent with the national pattern shown in Figure 21, regional data indicated that the workforce's ethnic composition typically reflected the Asian and Pasifika population in each region, but not the proportion of Māori in relation to consumers accessing services. Within addiction services, the ethnic makeup of the addiction sector workforce under-represented Māori consumers of AOD services for all regions. The mental health workforce in the Central

and South Island regions also under-represented Māori consumers. Pasifika were slightly under-represented in the Central region addiction workforce and Asian peoples were slightly under-represented in the Midland region mental health workforce.

As shown in Table 13, addiction services overall had a higher proportion of Māori and Pasifika staff, particularly in DHB services, whereas the proportion of staff identifying as Asian was higher in mental health services. These differences may partly reflect strategies to increase the ethnic diversity of the addictions workforce and the greater proportion of non-clinical staff in addiction services, non-clinical staff tend to be more ethnically-diverse, as shown in Figure 21.

**Table 13. Proportion of reported FTEs filled by staff who were identified as Māori, Pasifika and Asian**

	Mental health			Addiction		
	Proportion Māori (%)	Proportion Pasifika (%)	Proportion Asian (%)	Proportion Māori (%)	Proportion Pasifika (%)	Proportion Asian (%)
DHB	12.4	2.8	3.7	15.9	6.4	2.3
NGO	27.0	7.6	8.0	27.5	5.9	5.0
Total %	18.7	4.9	5.6	22.6	6.1	3.9

*Note.* These percentages are based on respondents' report of the ethnic identification of their staff. Some services did not report on ethnic identification. The above percentages are based on responses from services who did report ethnic identification (6,329 FTEs).

<sup>66</sup> – The workforce ethnicity calculation excludes the workforce in teams who did not respond to this question. Estimates included in Appendix F.3 indicate that the numbers in this figure may slightly underrepresent the number of Māori clinical and non-clinical staff. The proportion of staff who identify as Māori may be closer to 17 per cent for clinical staff and 25 per cent of non-clinical staff.

The ethnic make-up of the workforce does not provide an exact proxy for the cultural competency of the workforce or the cultural responsiveness of the services they deliver. The broad ethnic groups reported here comprise a number of cultures, customs and languages. The workforce identifying as a particular ethnic group may not necessarily reflect that perspective in the way they work. Nor will they necessarily be supported to work with consumers in a way that acknowledges that cultural perspective. Similarly, ethnic-specific services cannot automatically be equated with a culturally competent workforce or service delivery, data reported in Appendix F.3 suggests the workforce in these services also has room to improve the cultural competency of their staff.

### 6.3 Reported cultural competency

Another strategy to improve cultural responsiveness is to increase the cultural competence of the entire workforce, regardless of individual ethnic identification. Survey

respondents were asked to estimate the need for developing a number of skills and knowledge areas for staff working in their team or service. Cultural responsiveness was among the most commonly reported skills needing some or a large increase in development. Respondents' perceived needs to improve cultural competency related knowledge and skills is reported in Figure 22. Chapter 7 presents other knowledge and skill areas that participants reported as important.

Increasing the cultural knowledge and skills of staff working with Māori consumers and people from Pasifika cultures was rated as important by most respondents. In particular respondents reported increasing knowledge and skills in whānau-centred practice, capability for Māori outcome measurement, competence in language and customs. Around three quarters of the participants reported needing some or a large increase in skills for working with Asian ethnic groups, suggesting that participants perceived that training in this area was also a priority.

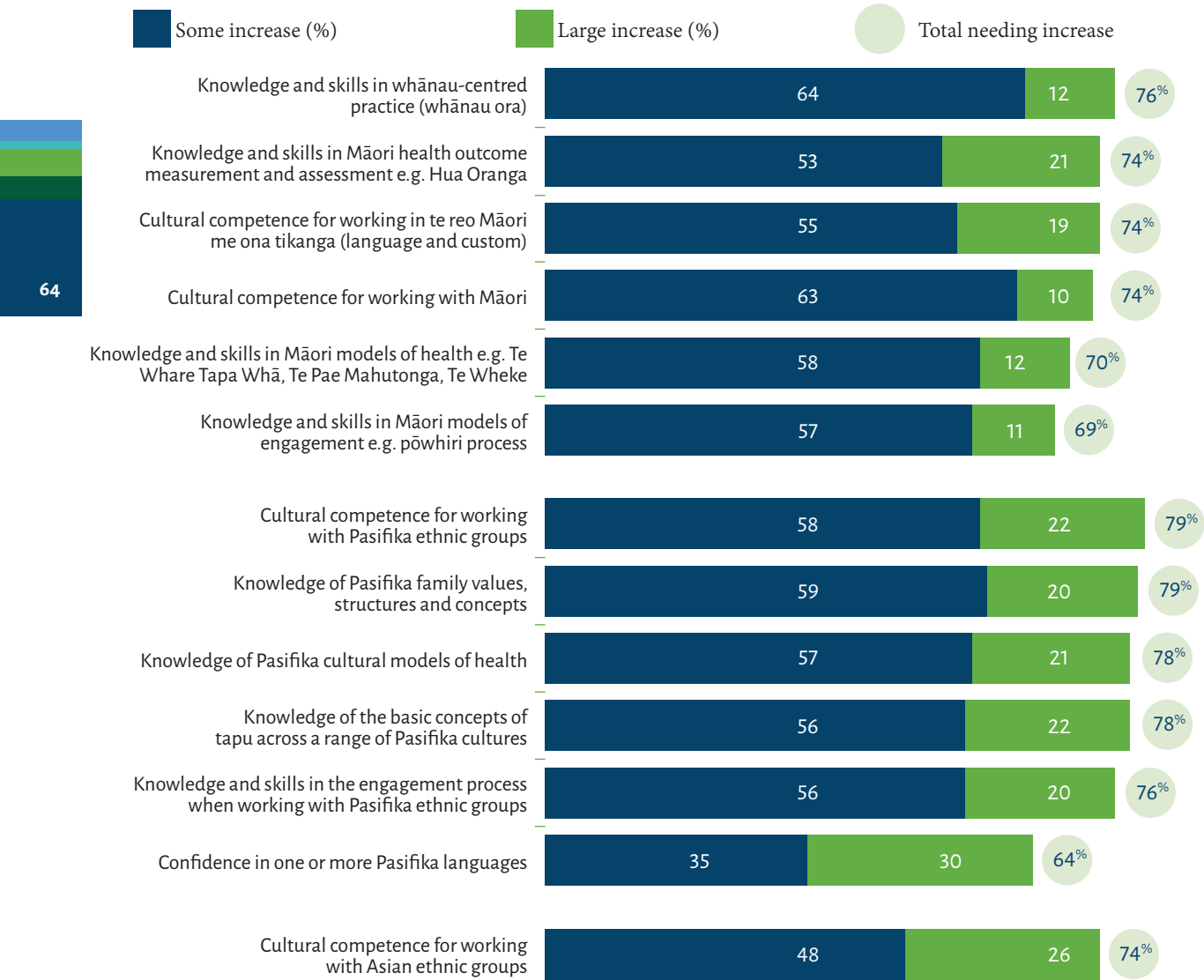


Figure 22. Proportion of respondents perceiving a need to improve knowledge and skills for working with Māori, Pasifika and Asian ethnic groups (n = 772 responses)

Figure 22 presents the proportion of individuals who identified that their workforce needed some or a large increase in various aspects of cultural competency for working with Māori, Pasifika and Asian ethnic groups.

Reported cultural competency needs were similar between addiction and mental health services. DHB services were slightly more likely to report needs for increased cultural competency for each ethnic group than NGO services. Appendix F.3 includes the breakdown of total respondents reporting a need for some improvement separately for DHB and NGO services and mental health and addiction.<sup>67</sup> Appendix F.3 also presents the cultural competency reported by ethnic-specific services. Perhaps surprisingly, a similar proportion of respondents from ethnic-specific services reported the need to improve cultural competency with the ethnic-group they serve. The similarity may be the result of ethnic-specific services seeing consumers with higher cultural needs, greater expectations about what counts as cultural competence within ethnic-specific services. It may also reflect the complexities of achieving cultural competency given that each ethnic group reflects a range of languages, customs, values and customs.

At least 64 per cent of respondents in all regions reported that improving cultural competency for working with Māori, Pasifika and Asian consumers was needed. Nonetheless, there was some regional variation in the specific proportion of people reporting skill and knowledge needs for each ethnic group. In particular, the South Island region reported greater skill and knowledge needs for working with Pasifika and Asian groups compared to the national results. Northern region respondents reported lower needs for building skills and knowledge relevant for working with Māori and Asian groups relative to the national results. Specific percentages of respondents reporting a need in each area are provided in the regional reports.

## 6.4 Chapter summary

A number of workforce strategies can foster effective therapeutic relationships with consumers of all ethnicities. The survey suggests that increasing the ethnic makeup and cultural competence of the workforce remains a priority for surveyed services. Refugees also represent a high needs group that was not asked about in this survey but they are an important ethnic group that should be considered in workforce development programmes.

67 – In these tables responses from services contracted to deliver mental health and addiction services are grouped in the mental health responses.

# 7.0 Workforce and service challenges

This chapter describes responses to questions about workforce and service challenges facing adult mental health and addiction services. The specific questions focused on workforce planning and service challenges, knowledge and skills development areas and the quality of existing cross-

sector relationships. Responses from mental health and addiction respondents were combined for this section. The responses reflect the opinions of respondents, in most cases team leaders and managers, including any input they sought from others.<sup>68</sup>

## Key results

- Managing pressure on staff due to increased complexity and increased demand for services were most commonly reported as major challenges for workforce development.
- Static or reduced funds was more commonly reported as a challenge by NGO services.
- Working with new technologies and IT, and CEP capability were consistently reported as priority skill and knowledge needs.
- A range of other core skills were also identified as needing some or a large increase by the majority of services.
- Overall, the majority of respondents identified that relationships were working well with most services or agencies.
  - However, around one third of both mental health and addiction respondents reported the need to develop better relationships with Housing New Zealand Corporation and accommodation providers.
  - Around one third of respondents identified the need to build relationships with other sectors, but the sectors of greatest need varied between mental health and addiction and regions.

66

## 7.1 Workforce planning and development challenges

Anecdotally services have reported a number of challenges to service provision. The survey provides an indication of how important a number of challenges were across the mental health and addiction sector. Respondents were asked to rank a list of seven workforce planning and development challenges from 1 to 4, with 1 being the biggest challenge and the option of adding other challenges.<sup>69</sup> A total of 647 responses were received for this question (80 per cent of all respondents who returned a survey); of which 196 were from DHBs and 451 were from NGOs.

Figure 23 shows the proportion of respondents ranking each challenge as the 1st or 2nd highest and the 3rd or 4th highest. The percentage at the end of the bar represents the proportion of respondents who selected this challenge as one of their four key challenges.

Overall, managing pressure on staff due to increased complexity and managing pressure on staff due to increased demand for service were the most commonly ranked challenges (64 per cent of respondents ranked these in their top four). The perceived pressure created by increased complexity may reflect respondents' recognition of co-morbidity of mental health, addiction and other issues. Pressures relating to increased demand for services are likely to reflect the push for services to do more with less. The push is also likely to be reflected in the fact that reduced or static funding was the challenge most likely to be ranked highest (37 per cent) by respondents.

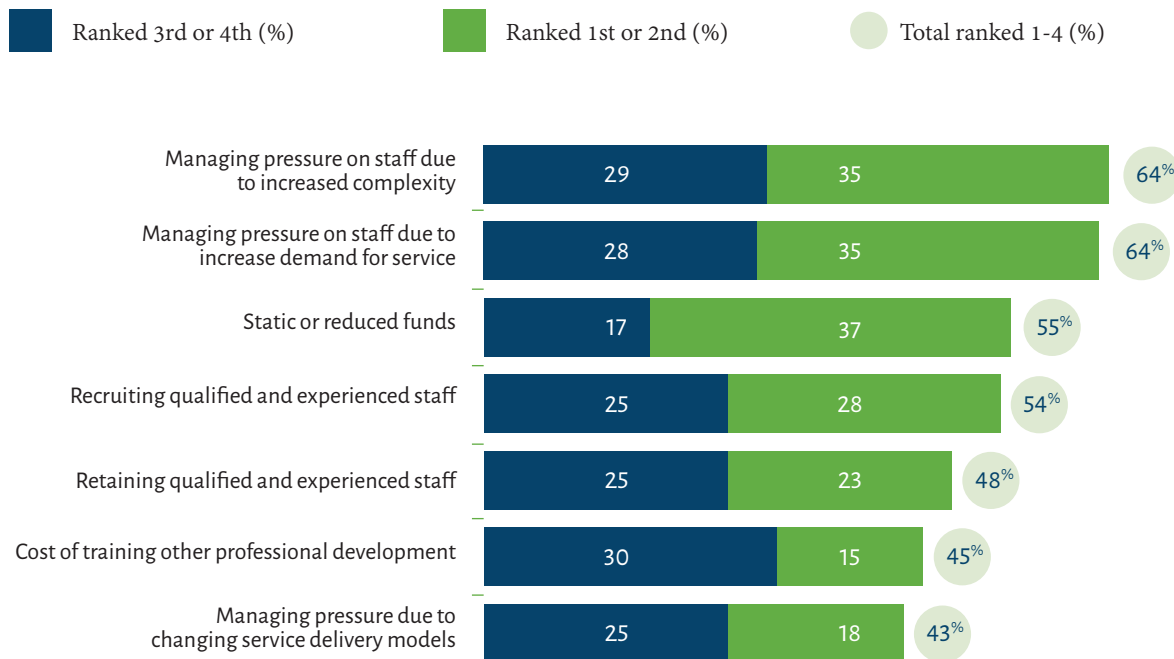
There was some regional variation in the proportion of respondents who reported each need. Respondents from Midland more commonly reported recruiting qualified and experienced staff (64 per cent of respondents) and the cost of training or other professional development in their key challenges (54 per cent).

68 – Some respondents indicated that although they had completed the questions on only one Section B form for many teams in one organisation, the answers were applicable across some or all other forms submitted by the organisation. In these cases, the answers supplied as a template for the specified surveys have been used.

69 – Responses giving the same number for more than one option were removed from the data set.

Static or reduced funds and the cost of staff training were more frequently identified as a challenge among NGO respondents (65 and 51 per cent) compared to DHB respondents (30 and 31 per cent). DHB respondents were more likely to list managing pressure on staff due to increased demand for services and change in service delivery models

as key challenges (77 and 57 per cent compared to 58 and 37 per cent). Staff retention was more commonly reported as an important challenge by addiction respondents compared to mental health respondents. A table reporting DHB and NGO responses separately for mental health and for addiction respondents is provided in Appendix F.4.



**Figure 23. Proportion of respondents reporting various workforce planning challenges (n = 647 responses)**

Many of these challenges are likely to be interconnected. For example, pressure on staff is likely to have implications on staff retention, and static or reduced funding is likely to exacerbate challenges in terms of the cost of training and other professional development. Strategies which support one area, such as pressure on staff due to increased demand for service, may help reduce some of the other perceived challenges.

## 7.2 Knowledge and skill development areas

Adequately responding to demand for services requires a workforce that has the right skills (World Health Organisation, 2010). A wide range of skills are required for effectively delivering mental health and addiction services, and new policy and service initiatives have implications for the skill needs of the workforce (Mental Health and Addiction Service Workforce Review Working Group, 2011, Ministry of Health, 2012b).

To support increased integration, the Mental Health and Addiction Service Workforce Review Working Group (2011) recommended secondary care mental health and addiction services be reconfigured by reducing clinical staff case-loads. This reconfiguration would allow clinical staff to provide increased supervision and support of the primary and community-based mental health and addiction workforce. This would support more people earlier preventing the need to enter secondary services (2011, p. 56). To provide supervision of the primary and community care workforce, clinical staff will need the capability and skills for these settings (eg screening, brief interventions and being able to promote self-managed care).

Respondents to the survey were asked to record the level of increase they perceived their staff needed in a variety of knowledge and skill areas in the next two years. Respondents could identify a large increase needed, some increase, no increase, not applicable or do not know for each area. Of the 808 respondents, 772 (96 per cent) completed this question.



435 responses were from mental health NGOs, 192 from mental health DHBs, 103 from addiction NGOs and 42 from addiction DHBs. Figure 24 shows the percentage of respondents indicating a need to increase knowledge and skills in a variety of areas.

Most respondents reported a need for improved knowledge and skills related to working with new technologies and IT (80 per cent) and co-existing problems capability (77 per cent). Challenges working with new technologies and IT suggests there may be gaps between staff computer and IT literacy and the IT and electronic tasks required to deliver responsive and coordinated services.

Increased co-existing problems capability is a key priority highlighted in *Rising to the challenge*, however these results indicate staff may require further upskilling to respond effectively to people with co-existing problems.

Responding to co-existing problems was also identified as a skill gap among new addiction services' recruits in the 2011 Matua Rāki workforce snapshot. The joint co-existing problems workforce development programme being undertaken by Te Pou and Matua Rāki will continue to be essential in the coming years to ensure service capability in this area.

At least 60 per cent of respondents reported that their staff needed some or a large increase in a range of therapeutic skills; psychological interventions, supporting self-managed care, risk assessments and using strengths based approaches. Developing capability around self-care support was also highlighted as a significant need by the Mental Health and Addiction Service Workforce Review Working Group (2011).

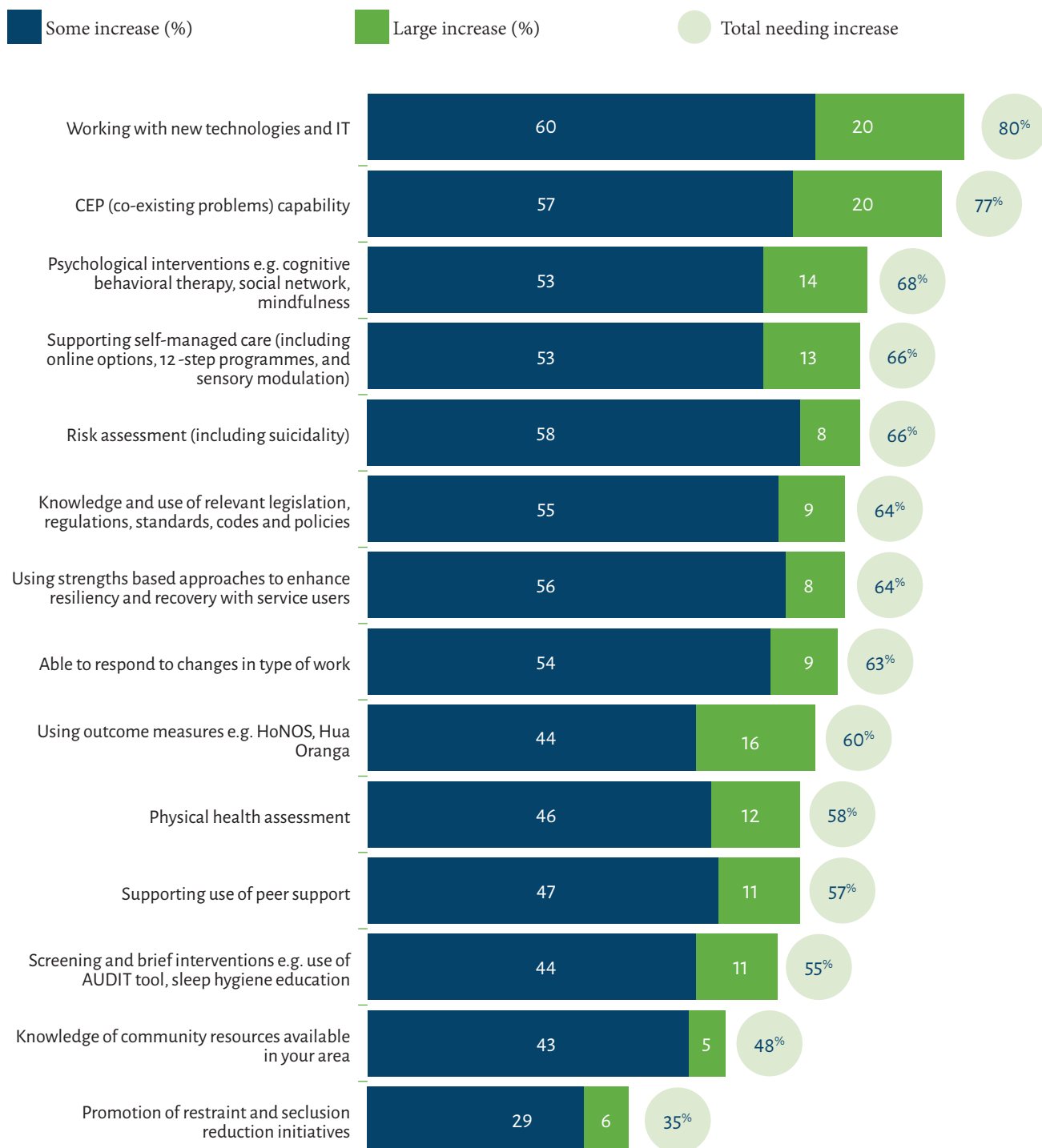
Developing capability might include increasing awareness of the value and limitations of online programmes, other self-help programmes and identifying who is most likely to benefit from these programmes. Other therapeutic skills

(psychological interventions, risk assessment and strengths based approaches) are important for service delivery and many services identified these as needing a skill increase. This highlights the importance of a continued focus on these therapeutic skills in training, supervision and other activities that support skill and knowledge building.

A small proportion of people reported a need for increased knowledge and skills in promoting the reduction of seclusion and restraint (35 per cent). This may partly reflect the limited relevance of this skillset outside inpatient mental health services but likely also reflects the significant development work that has gone into this area in the past five years.

There was some small variation in the skill needs most commonly identified for each region, however, working with new technologies and co-existing problems capability were rated as an important need for respondents in all regions.

Overall DHB services reported greater needs for increased knowledge and skills in most areas. Addiction DHB services tended to report greater levels of need for most questions relative to addiction NGO services or DHB or NGO mental health services. Particular areas of skill and knowledge development needs for addiction DHB services included co-existing problems capacity (91 per cent), supporting the use of peer support (88 per cent), psychological interventions (86 per cent) and supporting self-managed care (83 per cent). A full table outlining DHB and NGO responses separately for mental health and for addiction is provided in Appendix F.4.



**Figure 24. Proportion of respondents perceiving a need to improve various knowledge and skill areas (n= 772 responses)**

Between 50 and 62 per cent of respondents indicated a need for increased skill development in working with children, youth, other agencies, older people and families (see Figure 25). This is much less than the reported needs for increased skills for working with different ethnic groups discussed previously. However these reported needs may still be

substantial. The current workforce in adult mental health and addiction services may not possess the skills needed to transfer into services for older or younger populations. Whānau Ora models of care talk about the need to work from a family-centred approach, and many respondents reported the need to grow their skills in this area.

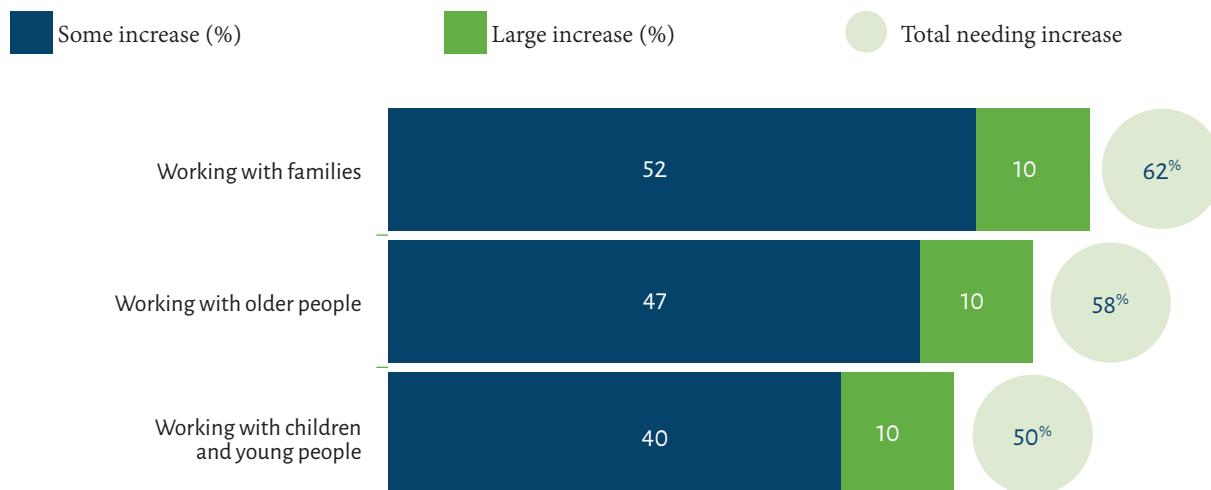


Figure 25. Proportion of respondents identifying various skill development needs for working with other groups (n = 772 responses)

### 7.3 Cross-sector relationships

Current policy initiatives encourage the development of cross-sector relationships. There is increased pressure to work across primary and secondary care in order to more effectively meet all the health needs of people with low prevalence mental health conditions or very severe mental health issues.<sup>70</sup>

*Rising to the challenge* has signified a strong shift to integrating primary health services and secondary mental health services (Ministry of Health, 2012). Alongside the focus on integrating primary and secondary mental health services, there has been increased attention given to developing effective cross-sector relationships (eg Ministry of Social Development, Housing New Zealand Corporation (HNZC) or the Department of Corrections).

Collaboration between services is needed to move towards greater integration across mental health and addiction services and primary services (Ministry of Health, 2012). It is also important to foster collaborative relationships with child, youth and family services, and the justice and education sectors (Mental Health and Addiction Service Workforce Review Working Group, 2011, p. 8). Housing

services promote social inclusion (Ministry of Health, 2012) and physical health needs are highly interdependent with mental health needs, indicating collaborative relationships with accommodation and general health sectors and agencies are essential for improving mental health.

Respondents to this survey were asked to describe the strength of their relationships with a range of sectors. Overall, 773 respondents (96 per cent) answered this question. However, not all respondents provided answers for every sector on the survey list. The following analysis excludes non-responses and those indicating that a relationship with a particular sector is 'not applicable'.<sup>71</sup> Figure 26 shows the distribution of responses to this question for each sector.

The results presented in Figure 26 indicated many services felt they were working well across different sectors. This suggests a number of good practices are already being implemented in this area.

Nonetheless, some services indicated that relationships with various sectors and agencies needed improvement. Relationships with HNZC and accommodation providers (33 per cent), the disability sector (30 per cent), mental health services for older people (30 per cent) and the education

70 – Primary care already deliver the majority of mental health care for common mental health disorders (Dowell, et al., 2009). The MaGPIe study reported that 36 per cent of people attending general practice had one or more of the three most commonly presentation mental health issues; anxiety, depression and substance use disorders (MaGPIe Research Group, 2003).

71 – Responses with more than one tick against a given sector have also been excluded.

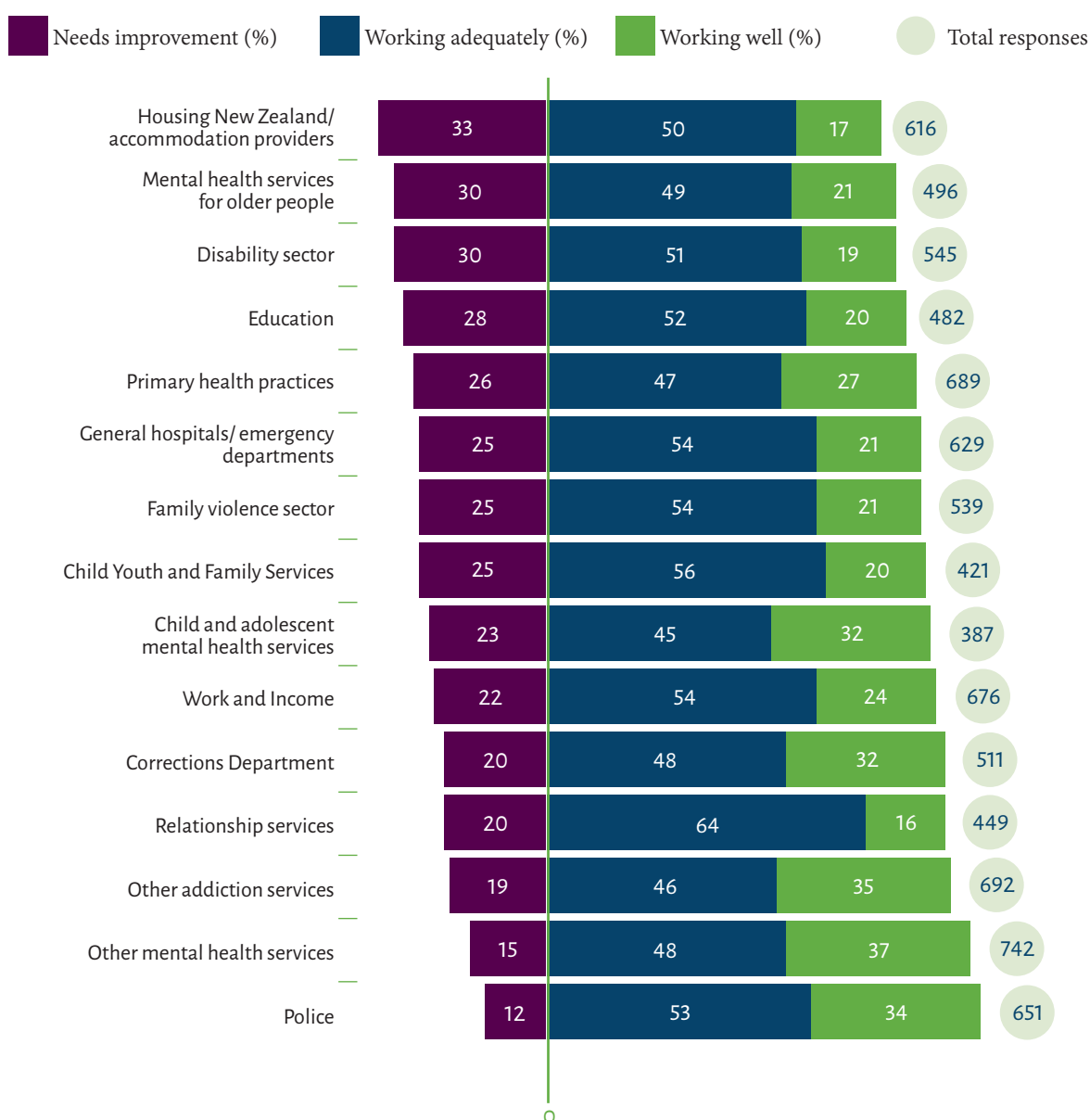
sector (28 per cent) were most commonly identified as needing improvement.

The need to improve relationships with HNZC and accommodation providers and primary health practices was consistently recorded across all regions. There was some regional variability in the relationships identified as needing further improvement and overall relationship building was seen as a more important need within the Central region.

DHB addiction services were more likely to report their relationships with a number of sectors needed improvement. These included HNZC and accommodation providers (72 per cent), general hospitals/emergency departments (50 per cent), education (48 per cent), mental health services for older people (49 per cent), primary health care practices (41 per cent) and other mental health services (37 per

cent). Addiction NGOs also reported the need to improve relationships with mental health services for older people (45 per cent) and HNZC and other accommodation providers (41 per cent).

For DHB mental health services the relationship identified as needing the most improvement was with the disability sector (38 per cent). For mental health NGOs the relationships commonly perceived to be needing improvement were with child and adolescent mental health services (30 per cent) the disability sector (29 per cent), education (29 per cent), Child, Youth and Family (28 per cent) and HNZC and accommodation providers (27 per cent). A full table outlining DHB and NGO responses separately for mental health and for addiction is provided in Appendix F.4.



**Figure 26. Proportion of respondents perceiving relationships with other sectors were working well or needed improvement (n= 773 responses)**

## 7.4 Chapter summary

The areas identified by survey respondents as needing development will be useful for planning future priority workforce development activities. A number of the knowledge and skill areas identified as significant needs reflect priority areas for future service delivery (ie CEP capability and supporting self-managed care) as well as core aspects of service provision (ie risk assessment and psychological interventions).

Many respondents identified that relationships were working well with other sectors, but around a third identified the need for improving collaboration in each area. Strengthening cross-sector relationships has been identified as an important strategy for improving consumer outcomes and making use of scarce resources. Relationships identified as requiring further development are worthy of consideration.

Many of the workforce planning and development challenges reported (ie recruitment needs, static or reduced funds and managing pressure on staff due to increased complexity) are likely to be interconnected, reflecting the push to provide more and better services with tighter resources. This situation is reflective of international trends in health services. Clear workforce planning and development strategies will be important to maintain, improve and expand on the existing quality of services provided to people experiencing mental health and addiction concerns.

# 8.0 Future workforce needs for mental health and addiction services

One of the primary reasons for this survey is to support the modelling of possible changes in the size of the workforce and its composition to meet the future needs of the adult population.

This chapter provides some preliminary modelling work in relation to the future workforce needs of adult mental health and addiction services. In this modelling, projected workforce numbers are based on current FTEs (both reported and estimated for non-reported FTEs) as at 1 March 2014. This chapter draws on two models.

The first uses a simple population projection model. The second model considers the impact of more people accessing and using services and population growth on the need for additional staff. This draws on work undertaken in *Towards the next wave of mental health and addiction services and capability: Workforce service review report* (Mental Health and Addiction Service Workforce Review Working Group, 2011) to expand services' abilities to meet a greater need for mental health and addiction services.

This model provides a number of scenarios regarding potential future changes to consumer access to services. A third set of analyses considers the impact of service delivery models and workforce composition on different occupation groups.

Effectively projecting future workforce needs requires a much better understanding of future models of care than what we currently have. Developing future models of care and the workforce required to deliver them is still in an early stage of development, as indicated by both *Rising to the challenge* (Ministry of Health, 2012b) and *Towards the next wave* (Mental Health and Addiction Service Workforce Review Working Group, 2011). Exploring future models of care will enable more nuanced forecasting to take place. This chapter provides some initial considerations and projections based on the survey's estimated total workforce number. A model of workforce planning is outlined, providing an example of how changes in service design can effect workforce composition, including the growth required in different occupation groups.

## Key results

### Adult mental health and addiction services workforce: forecasting projections

- Based on increased consumer demand as a result of projected medium-sized population growth and an assumption that the current dominant models of care remain unchanged, an additional 856 FTE positions (FTEs) would be required in the workforce. This would increase the adult mental health and addiction workforce to 10,365 FTEs by the year 2030.
- Based on projected increases in the number of people accessing mental health and addiction services outlined in *Towards the next wave* (Mental Health and Addiction Service Workforce Review Working Group, 2011) an additional 1,424 to 2,034 FTEs could be required. These additional FTEs are likely to represent a different mix of roles than what is in the current workforce and it is likely that these roles would be distributed differently between settings.<sup>72</sup>

72 – Current policy directions have signalled a need to change how and where services are delivered as well as some changes in the roles and functions of the future mental health and addiction workforce which would have implications for total workforce numbers. As a result there is a need to treat these estimates with caution.

## 8.1 Projected increases in the adult mental health and addiction workforce as a result of population increases

The following section examines the future needs for adult mental health and addiction workforce development as a result of population increases. Projections are based on either a ratio of current FTEs (reported and estimated) at 1 March 2014 to population numbers or the number of people accessing services in 2012/2013.

An important question to ask initially is whether or not current workforce numbers are sufficient to meet the population's need for mental health and addiction services. Historically, this has been benchmarked using *Blueprint I* resource guidelines for mental health and addiction services. The *Blueprint for mental health services in New Zealand* (Mental Health Commission, 1998) introduced a relatively simple population-based indicator to estimate the workforce required to deliver a mental health service. The indicator was based on a ratio of workforce per 100,000 adults to meet the three per cent population access target. This benchmark has been used to measure sector performance and benchmark workforce numbers by occupations for many years.

*Blueprint I* resource guidelines indicate that, based on the 2014 population, there should be a total of 5,116 FTEs across adult community<sup>73</sup> mental health and addiction services. The equivalent FTEs for the community workforce reported in the survey (including an estimate for missing FTEs) was 5,037 FTEs. In relation to the *Blueprint I* benchmark, the current size of the community workforce is very close, only 1.5 per cent less than the benchmark indicated in relation to the 2014 projected population.<sup>74</sup>

Increasingly, however, it has been recognised that this model needs updating to better meet the needs of a wider range of people requiring the use of mental health and addiction services, and to reflect a different mix of services. In light of recent service reviews and the strategic shifts highlighted in current mental health and addiction plans, the *Blueprint I* benchmarks are inadequate to use as a measure of ideal workforce numbers and service demand for the future. There is a need to develop workforce supply and demand models based on more flexible models of care. It is essential that a more responsive approach to workforce planning is taken that addresses increased demand for services with limited increases in funding, while still providing effective mental health and addiction services.

It is still critical to assess projected increases in population growth and the impact this might have on the demand for services. The population-based model below indicates that an additional 856 FTEs would be required (ranging from 513 to 1,216 FTEs for low to high projected population increases) to meet medium projected increases in the adult population to the year 2030. Medium projected population growth would indicate a nine per cent increase in workforce numbers is needed between 2014 and 2030 if current services, level of demand met, and workforce productivity and composition remain unchanged.

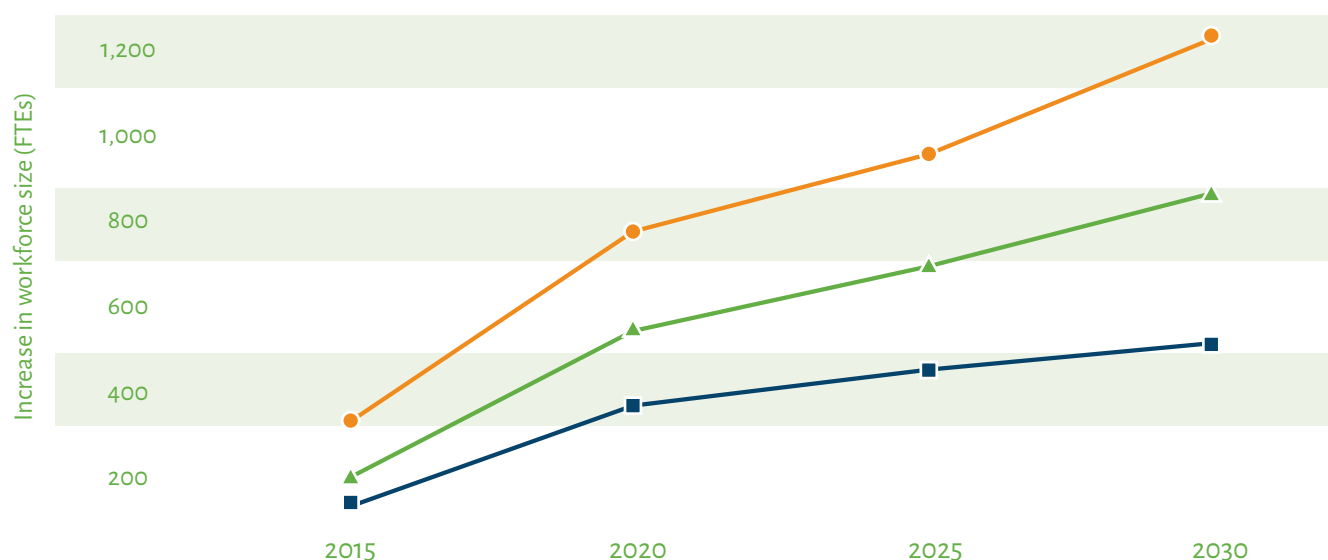
Figure 27 and Figure 28 estimate changes in the size of the workforce to match current workforce to population ratios in low, medium and high population growth scenarios. Figure 27 presents the growth in terms of a cumulative increase in FTEs and Figure 28 presents this same growth as an estimate of the total size of the workforce at each year.

73 – The definition of community here is complex and wider than the community services group discussed in this survey. It includes contracting of particular roles as well as services types.

74 – *Blueprint I* resourcing guidelines for inpatient and residential were only provided by bed nights or packages of care, this makes it difficult to assess the inpatient or residential workforce in relation to the benchmarks.



**Estimated cumulative change in FTEs needed to meet population growth**

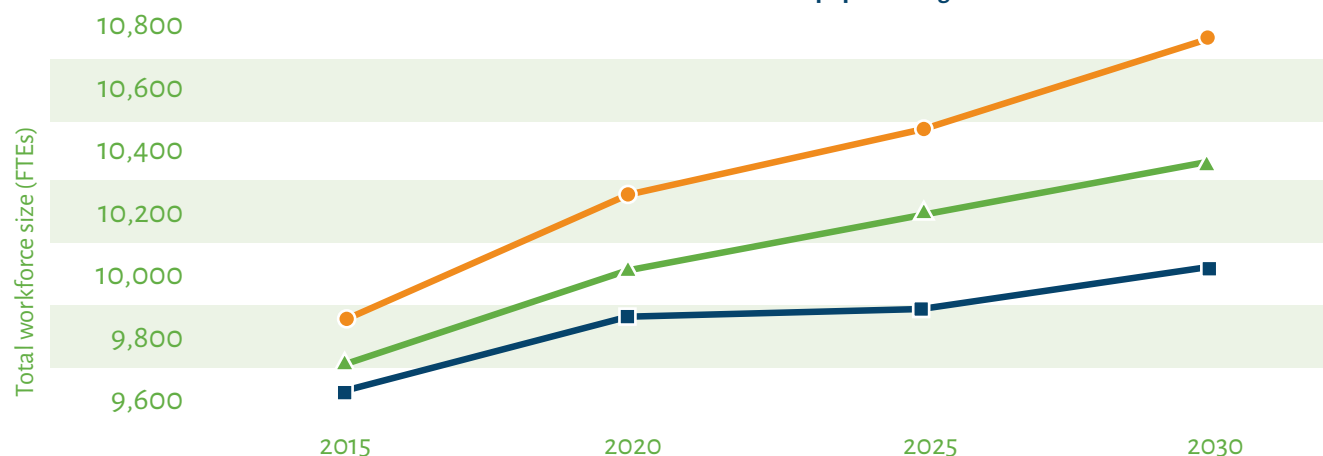


	2015	2020	2025	2030
□ Very low population growth	105	344	424	513
△ Median population growth	179	526	692	856
○ High population growth	321	752	983	1,216

**Figure 27. Estimate of cumulative increase in adult mental health and addiction FTEs based on adult population increases, 2015-2030**

*Note.* Projected increases are based on an estimated 2014 workforce of 9,509 FTEs. Also, the results presented here are for the 18-64 age group estimated resident population projections. Low population growth is based on the 5th percentile population growth estimates from Census New Zealand. Medium population growth is based on the 50th percentile and high population growth is based on the 95th percentile population growth estimates.

**Total estimated FTE needed to meet population growth**



	2015	2020	2025	2030
□ Very low population growth	9,614	9,853	9,933	10,022
△ Median population growth	9,688	10,035	10,201	10,365
○ High population growth	9,830	10,261	10,492	10,725

**Figure 28. Total estimated increases in adult mental health and addiction FTEs based on adult population increases, 2015-2030**

*Note.* Projected increases are based on an estimated 2014 workforce of 9,509 FTEs. Also, the results presented here are for the 18-64 age group estimated resident population projections. Low population growth is based on the 5th percentile population growth estimates from Census New Zealand. Medium population growth is based on the 50th percentile and high population growth is based on the 95th percentile population growth estimates.

The projected workforce needed by 2030 is based on population increases ranging from low to high population growth (5th, 50th and 95th percentiles) projections (Statistics New Zealand, no date). The median (50th percentile) projected population growth suggests an increase in the total workforce of nine per cent by the year 2030.

### 8.1.1 Modelling limitations

The projections are limited because the adult population is treated as one homogenous group. It is important to recognise there are differences by age group, gender and deprivation that impact on access to and demand for services. It also relies on an assumption that current workforce numbers are appropriate and does not take into account how current service models are changing, changing expectations about how much of the population demand services respond to and the impact this will have on workforce numbers and composition.

The profile of people accessing mental health and addiction services is also likely to change over time. Changes may arise from population growth, increases in the proportion of disorder that is recognised, referred and seen, and an increased focus on early intervention (The Mental Health and Addiction Service Workforce Review Working Group, 2011). These changes will impact on the workforce requirements for adult mental health and addiction services both in terms of FTE numbers and the mix of occupation groups and occupations required in the future.

### 8.1.2 Future trends to consider

Although population-based workforce projections indicate increases in the size of the workforce, the analysis does not address changes in future models of care and the associated changes that will be required to the composition of the entire mental health and addiction workforce. There are a number of trends that are likely to influence the composition of the mental health and addiction workforce for child and youth, adult and older adult services.

These trends include:

- an ongoing shortage of some professions (eg experienced mental health nurses and psychiatrists)
- a greater focus on earlier interventions for children and adolescents
- an increased focus on talking therapies
- more use of e-therapy tools
- delivering more mental health services through the primary care setting
- an increased focus on integrated health and social supports through primary and NGO settings
- increases in the older adult population.

Many of these trends have been captured in modelling scenarios in *Towards the next wave* (Mental Health and Addiction Service Workforce Review Working Group, 2011) which looks at child and youth as well as older adult population needs. These trends will influence decisions about future models of care and the development of a workforce with the ability to successfully meet consumer demand.

## 8.2 Projected increases in the adult mental health and addiction workforce needed to meet scenarios of increased service demand

This section considers what the future workforce will potentially require in order to meet the anticipated growth in demand for services. It uses modelling from *Towards the next wave* (Mental Health and Addiction Service Workforce Review Working Group, 2011), adjusted to reflect new information about service access and 2014 base figures, in order to estimate the size of the workforce to meet future service demand. Technical details about the original *Towards the next wave* modelling and the workforce projections applied to these figures can be found in Appendix F.5.

Both *Rising to the challenge* (Ministry of Health, 2012b) and *Towards the next wave of mental health and addiction services capability* (Mental Health and Addiction Service Workforce Review Working Group, 2011) signal a need to support more people with services than the three per cent of people experiencing severe mental health and addiction issues benchmarked in the 1998 *Blueprint for mental health services in New Zealand* (Mental Health Commission, 1998). Services are well on their way to meeting new KPIs for service access (see Ministry of Health, 2014b).

*Towards the next wave* (Mental Health and Addiction Service Workforce Review Working Group, 2011) proposed a model of care that is consumer-centred and integrated across the continuum; from self-care through to primary and secondary care settings. The workforce modelling in this section draws on three of the consumer groups and three of the service areas identified as likely to require the involvement of secondary adult mental health and addiction services.<sup>75</sup> The modelling uses the current ratio of consumers seen to workforce size, and apply this to the number of consumers expected to access services in the future. To ensure the modelling in this report is based on the latest information about service access, the modelling in *Towards the next wave* has been adjusted to 86 per cent of the original numbers. For this reason, and due to fact that a large proportion of the increase in services modelled in *Towards the next wave* occurs outside secondary mental health and addiction services, the results reported below do not capture the full workforce requirements that are likely to be needed to achieve the original *Towards the next wave* vision.

### 8.2.1 Towards the next wave service demand scenarios

*Towards the next wave* (Mental Health and Addiction Service Workforce Review Working Group, 2011) modelled an increase in the number of people that were likely to access mental health and addiction treatment and support. *Towards the next wave* calculated this increase based on a combination of population growth, slight increases in need, increased recognition of mental illness and addiction, and an increase in the proportion of successful referrals. The two key scenarios in *Towards the next wave* are described below. More detail about these scenarios can be found in the *Towards the next wave* report.

## Scenario one

To increase access to services, the following model of care was proposed in *Towards the next wave*.

- A system-wide integration of adult mental health and addiction services care (eg a stepped care approach) to improve access at a lower overall cost per consumer. This will include increasing the capability of primary care to support people with mental health and addiction issues, with increased support from specialist mental health and addiction clinicians and more access to primary-based packages of care.
- Influencing pathways through the high risk mental health and justice systems to reduce system-wide impacts.
- Proactively influencing the effects of aging on mental health.
- Increased use of a full spectrum of self-care.
- Most of the model changes occur in primary, child and older adult services.

## Scenario two

This *Towards the next wave* scenario follows the same assumptions and model of care as scenario one. However, it also assumes there will be flow on effects of early intervention which generate reductions in the number of adults with mental health and addiction needs over time.

75 – Three of the eight journeys included many of those consumers who could benefit from access to adult mental health and addiction services, and are listed below.

1. Adult 'big 5 high prevalence'. This cluster of overlapping experiences characterised by anxiety, depression, drug and alcohol abuse, complex psycho/social stress and medically unexplained symptoms.
2. Adult low prevalence, high severity. This journey encompasses multiple pathways for people with severe mental health and addiction conditions.
3. Adult forensic and/or justice system involved. This pathway is generated by the overlapping nature of some high severity mental health and addiction issues and criminal behaviour.

Three of the seven service areas were likely to involve the adult mental health and addiction secondary care workforce.

1. Community-based mental health and addiction support.
2. Specialist mental health and addiction support.
3. Hospital inpatient and acute services support.

## 8.2.2 Workforce to consumer access modelling results

Table 14 and Figure 29 present the estimated workforce required to deliver secondary adult mental health and addiction services based on each of the scenarios outlined above. The workforce is projected to grow by at least 2,034 FTEs to meet the access numbers modelled in scenario one (resulting from population growth, increased recognition of need and successful referrals). In scenario two (which uses similar change models to scenario one but assumes early intervention in other parts of the social and health system will help reduce the need for secondary mental health and

addiction services) the workforce will need to grow by at least 1,424 FTEs over the same period. These numbers do not include the FTEs needed to replace people who retire or leave the sector for other reasons.

The projected needed increase in adult mental health and addiction FTEs is based on the three adult services consumer journeys modelled in *Towards the next wave* (Mental Health and Addiction Service Workforce Review Working Group, 2011). Additional details on the modelling and adjustments are provided in Appendix F5.

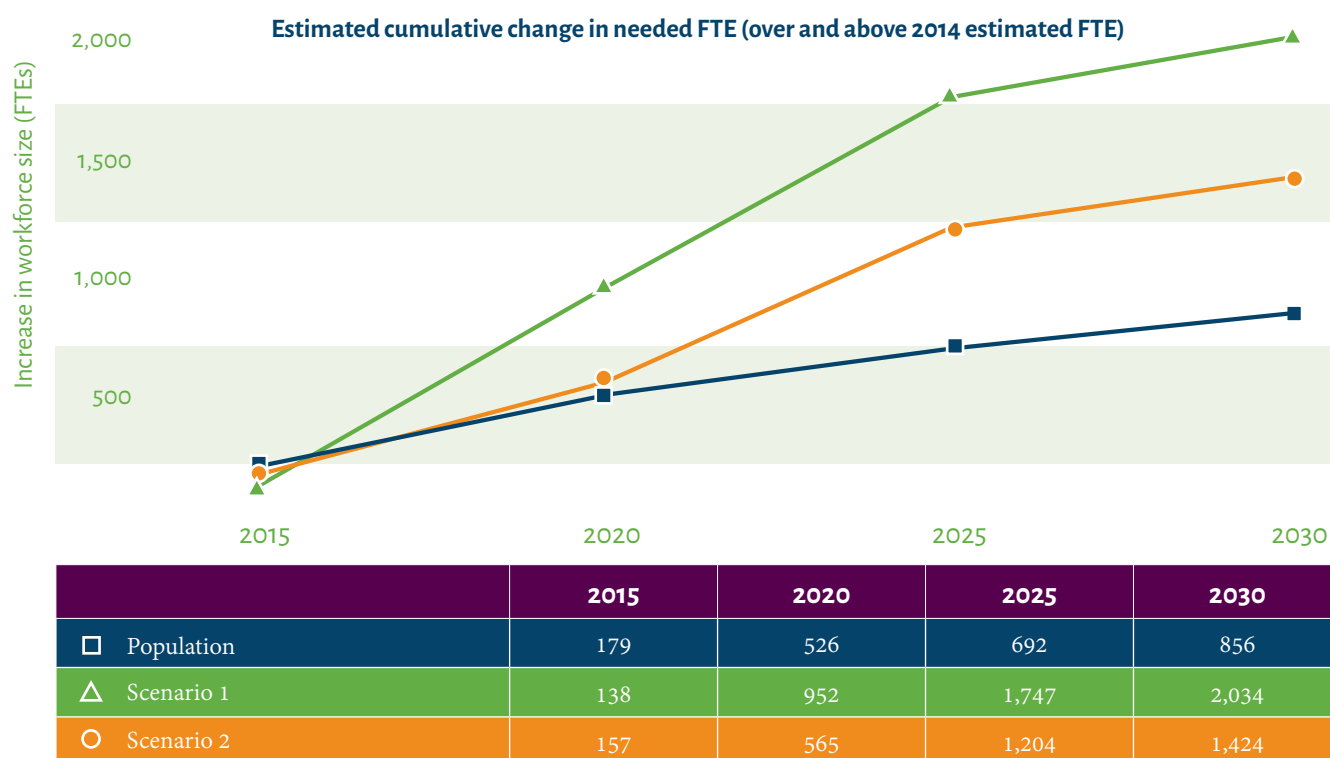
**Table 14. Summary of additional FTEs needed in the year 2030 based on increased access rates and population growth in various scenarios**

	Access scenario in 2030	Increase in people accessing services	Additional FTEs needed in 2030 <sup>a</sup>	Required workforce growth (% of current FTE)
Population only model	3.92%	9.0%	856 FTEs	9.0%
<b>Access and population models</b>				
Adjusted <sup>b</sup> scenario two	4.14%	15.0%	1,424 FTEs	15.0%
Adjusted <sup>b</sup> scenario one	4.38%	21.4%	2,034 FTEs	21.4%

*Note.* Increase in access rates is based on a 3.92 per cent access rate calculated based on PRIMHD consumer access numbers and estimated census resident population counts. This access rate is an approximation only as consumer access numbers are an approximation.

a. This does not include the FTEs needed to replace people who retire or leave the sector for other reasons.

b. *Towards the next wave* (Mental Health and Addiction Service Workforce Review Working Group, 2011) scenarios have been re-based to PRIMHD consumer access numbers and will underestimate the total change in access and the workforce needed to achieve the vision originally modelled in *Towards the next wave*. For further information on the modelling and adjustments please refer to Appendix F5.



**Figure 29. Estimated cumulative increases in the adult mental health and addiction workforce (FTEs) needed to meet increased consumer access to services based on scenarios (adjusted) from *Towards the next wave* or to meet predicted population growth from 2014 numbers to 2030<sup>76</sup>**

76 – The increase in adult mental health and addiction FTEs is calculated based on the three adult services consumer journeys modelled in *Towards the next wave* (Mental Health and Addiction Service Workforce Review Working Group, 2011) and small adjustments described in Appendix F5.

Figure 29 illustrates the cumulative increase in the adult mental health and addiction workforce based on the population growth and adjusted *Towards the next wave* (Mental Health and Addiction Service Workforce Review Working Group, 2011) access scenarios outlined in Table 14.

As mentioned above, the numbers presented in Table 14 and Figure 29 will underestimate the total increase in workforce needed to meet the *Towards the next wave* (Mental Health and Addiction Service Workforce Review Working Group, 2011) vision as it does not account for the number of people who leave the workforce or the growth needed in the primary, early intervention, child, adolescent or older adult workforce where most of the proposed changes were located. See Appendix F.5. for more details.

### 8.3 Modelling future workforce composition

The forecasting models discussed in the previous section estimate that the total workforce size needs to grow to meet projected increases in population growth and consumer demand for services. However, this does not take into account potential changes in future models of care, locations of services and the implications for workforce composition by occupations and roles.

Workforce composition will change in response to changes in models of care. For example, the implementation of stepped care, more and earlier interventions and more peer support services and/or psychological therapies, will influence future workforce needs. The following section provides a simple example of how changes in the model of care might impact on the need for different workforce roles in future (in this case an increase in the number of support workers). It is not intended to be a prediction of what the workforce will or should look like but rather an example of the impact of service design on workforce development needs.

#### 8.3.1 Workforce composition scenario one: Projected increase by occupation groups based on current workforce distribution

If the growing workforce retains its current composition, the support worker and nursing occupation groups will have the largest projected increases in size.

Figure 30 (on the following page) presents the current workforce composition (top left) and growth in FTEs required to maintain this composition and maintain the current total workforce to population ratio to the year 2030 (bottom right). To identify how many FTEs each occupation group may need

in future to maintain the status quo of service delivery, the current workforce composition is multiplied by the projected increase in FTEs to meet population growth (856 FTE, see Figure 27).

In a current workforce composition scenario, the support worker group would need to increase by 269 FTEs and the nursing group would need to increase by 243 FTEs. The medical workforce would need to increase by 49 FTEs, the allied health workforce would need to increase by 147 FTEs and the group of other roles would need to increase by 148 FTEs. The scenario assumes the relative proportion of each group remains constant, therefore increases in FTEs are proportional to overall increases in the size of the workforce.

The number of FTEs needing to be trained or recruited will be substantially greater than these numbers because by 2030 a proportion of the current workforce will retire or leave for other reasons. In addition, given the current large number of vacancies in some roles (e.g. nurses), these occupation groups will require significant investment in recruitment and retention to meet future demand if the current workforce composition is maintained.

#### 8.3.2 Workforce composition scenario two: Projected increase by occupation groups based on potential changes to the dominant model of care

The second composition scenario is an example of how the future workforce composition may change as a result of changes to the model of care. It describes how changes to the model of care may impact on the need to increase the size of different occupation groups. It is only intended to provide a basic example of modelling future workforce composition and to highlight how understanding the model of care is critical for forecasting the future needs of different workforce roles.

Composition scenario two assumptions are based on the changes recommended in *Rising to the challenge* and *Towards the next wave* (Mental Health and Addiction Service Workforce Review Working Group, 2011), and include:

- a large increase in the provision of support through the peer support and community support workforce, much of which will take place in a variety of settings
- earlier interventions through primary care, with significant increases in having social supports in place
- the medical workforce primarily providing supervision to others across primary and secondary services
- an assumption that increases in productivity gained through stepped care will result in less demand for increasing the size of the clinical occupation groups.

Figure 30 presents an alternative workforce composition in the year 2030 based on these scenario assumptions (top right) and the FTE growth in each occupation group required to reach this workforce composition (bottom right).

The scenario models a large projected increase in support workers (23 per cent, 685 FTEs), and a small increase in the

allied health (five per cent, 81 FTEs), nursing (three per cent, 81 FTEs) and medical occupation groups (two per cent, nine FTEs), with no increase in the administration or management group. As above, these numbers underestimate how many people will need to be trained or recruited as many of the current workforce will retire or leave the workforce for other reasons by 2030.

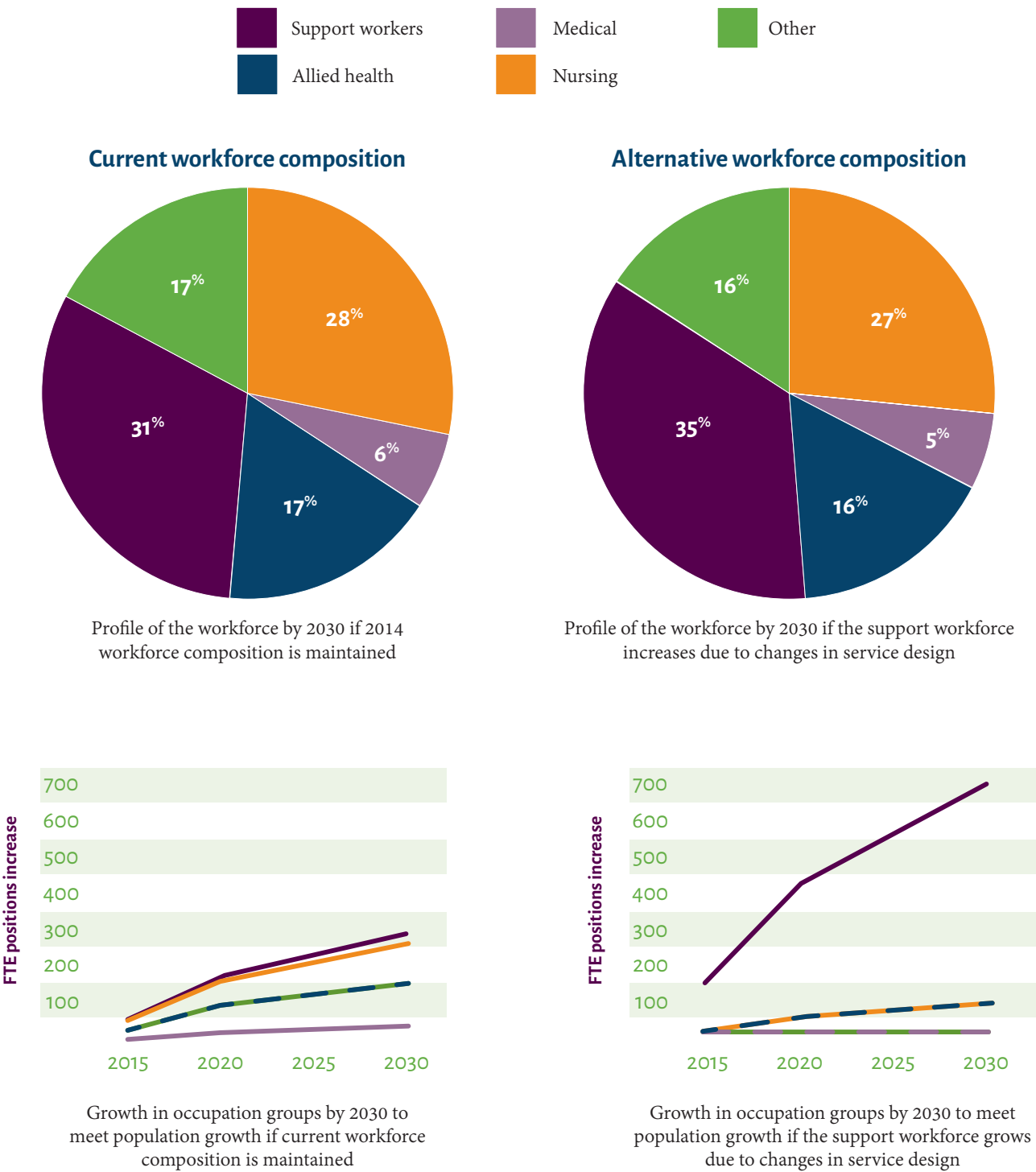


Figure 30. An example of changes to workforce composition and size based on changes to service design and population growth 2015-2030

## 8.4 Getting it right workforce planning approach

Evidence shows workforce planning is most effective when a systematic and logical approach is used. This involves:

- envisaging and predicting future service patterns and requirements
- identifying all of the resources needed to meet those requirements.

The *More than numbers* organisation survey results described in this report provide the first comprehensive description of the adult mental health and addiction workforce across DHB and NGO settings. It provides a baseline for mapping future changes in the workforce and an important evidence base to inform and start conversations about whether the current workforce is optimal for meeting the needs of consumers now, and what growth and change in the workforce will be important for meeting the needs of consumers in the future. A systematic approach that considers forecasts for demand, service design and workforce composition is important to translate what we now know about the current workforce into priorities for future workforce development.

As mentioned in Chapter 1, *Getting it right* (Te Pou o Te Whakaaro Nui, 2014a) is a six step workforce planning approach promoted by Te Pou and adapted from the UK's NHS six steps methodology.



**Figure 31. Getting it right, a six-step workforce planning approach (Te Pou o Te Whakaaro Nui, 2014a)**

### The six steps approach

#### Step one: Scope the plan

Ensure the workforce planning exercise is worth doing, and you have everything you need to develop the plan.

#### Step two: Map service design

Map the service in response to changes in service user needs, modes of service delivery, practice, technology and finances. This involves identifying, describing and calculating future scenarios.

#### Step three: Define the required workforce

Identify the workforce needed to deliver future services, and outline the required numbers, characteristics and capabilities of this workforce.

#### Step four: Analyse workforce capacity and capability

Profile the numbers, roles and levels of experience in the existing workforce, and identify and measure the gaps between this and the required future workforce.

#### Step five: Prioritise, strategise, operationalise

Put together the workforce development plan, and determine the most cost-effective way to address priorities.

#### Step six: Implement, monitor and evaluate

Regularly evaluate and report on the effectiveness, relevance and feasibility of the plan.



Step one of *Getting it right* involves assessing whether workforce development activities are worthwhile and whether relevant stakeholders are engaged. The case for better workforce development has been outlined in Chapter 1 and 2. In short, the workforce is the most costly and important resource in the health sector (World Health Organization, 2010, p. 1) and services are already experiencing challenges recruiting and retaining people with suitable values, qualifications and experience.

Step five and six involve the selection, implementation and monitoring of strategies to build the required workforce. The central steps (two, three and four) are critical to ensuring the right workforce development activities are selected.

In regards to this planning approach, the *More than numbers* survey provides data which is needed to assess the gaps between the current and required future workforce (Step four). Earlier sections of this chapter provided examples of what the requirements of the future workforce might be under different scenarios. Latter examples, based on *Towards the next wave* (Mental Health and Addiction Service Workforce Review Working Group, 2011), took into account potential changes to service design (step two of *Getting it right*) and how this may impact on the total size of the future workforce (step three of *Getting it right*).

## 8.5 Chapter summary

The modelling in this section has called on a number of different scenarios with results providing various estimates for the size of the projected future adult mental health and addiction workforce.

Based on projected medium population increases, the workforce size would need to grow by nine per cent (856 FTEs) by the year 2030. Based on low projected population increases the required growth would be 513 FTEs and based on high projected increases it would need to grow by 1,216 FTEs. If the current service model and workforce composition remained unchanged, most of the increases needed would be for mental health support workers and nurses.

The modelling based solely on population increases does not take into account changes in consumer access to services. Using adjusted figures from *Towards the next wave* (Mental Health and Addiction Service Workforce Review Working Group, 2011) that consider increased recognition of the need for services, as well as increased access to services, the projected growth in workforce positions to 2030 is much greater. The forecast in growth ranges from 1,424 to 2,034 FTEs depending on the extent of change in consumer access to services. Additional research to investigate workforce demographics and turnover will be needed to understand the implications of higher demand for services and how many more people will need to be trained and/or recruited to replace the number of people who leave the workforce each year.

It is also important to consider the broader context of service delivery in workforce development planning. For example, how changes in service delivery models, and the subsequent impact of these changes on workforce composition, may have dramatic impacts on different occupation groups. The modelling in this chapter highlighted the need to clarify and map future models of care in order to do good workforce planning.

The *Getting it right* framework supports a systematic approach to workforce planning by focussing attention on service design, workforce needs, current workforce, workforce development activity, recruitment and selection, and monitoring.

# 9.0 Conclusion and recommendations

Evidence-based workforce development is essential for ensuring the workforce has the capacity and capability to deliver effective services to people experiencing mental health and addiction issues. Workforce development is not simply a case of maintaining the status quo. Despite the positive changes that have been made, there is still room for services to improve the treatment and support they provide. The need for more services based on population growth, expectations on service providers to deliver more with less and best practice requirements mean the current workforce will not be sufficient to respond to future need.

*Towards the next wave* (Mental Health and Addiction Service Workforce Review Working Group, 2011) challenged the mental health and addiction sector to respond to a predicted doubling in demand for mental health and addiction services with only a 30 to 40 per cent increase in funding in the next ten years.

To meet this challenge, the system will need to change its model of service delivery so that consumers are seen earlier in the life course of conditions, when support tends to be more cost effective. Resources and capabilities that exist in secondary mental health and addiction services will need to be partially redirected to community and primary care services to support people to manage their own health and wellbeing. The extent of the required changes raises questions about the capacity and competencies of the generalist and specialist mental health and addiction workforce, and what will be required to meet this new service direction. Some decisions need to be made now so that the current and future workforce is well-equipped to deliver the kind of mental health and addiction services that New Zealanders want and need.

Workforce development must also be responsive to changing demographics and models of care, more technological input and an emphasis on evidence-based planning. Workforce development must also be responsive to policy direction (eg Ministry of Health, 2012b) which favours more use of the peer support workforce, integrated clinical pathways and an emphasis on primary and community service delivery. The broader context of mental health and addiction services in New Zealand reflects international examples of shifts in

health and social systems in the face of major economic, technological and social upheaval. In addition to policy direction, change pressures include meeting the needs of an increasingly diverse and ageing population, higher expectations on service providers to implement best practice requirements and improved technology.

The 2014 *More than Numbers* survey described in this report aims to establish a benchmark for measuring the current capacity of the adult mental health and addiction workforce and to identify some strategic priorities for workforce policy, planning and investment. The intention is for the survey results to be used to inform workforce planning that reflects new models of service delivery and also prompt more initiatives and strategies for effective recruitment, training and retention of staff.

This final chapter provides an overview of the survey results, highlights the major findings and offers some recommendations to help address workforce-related deficiencies in different parts of the mental health and addiction sector.

## 9.1 Findings and recommendations related to workforce size and composition

### 9.1.1 Future workforce demand

Modelling the needs of the future workforce based on expected levels of demand for services is an important aspect of workforce planning. It is critical so that steps can be developed and put in place to ensure the workforce can meet these needs. Forward planning is particularly important given the time required to train clinical staff or modify service delivery to account for changes in workforce size and/or composition.

Forecasting projections presented in Chapter eight suggest that total workforce numbers will need to grow by 856 FTEs (from 9,509 to 10,365 FTEs) by the year 2030 to meet current workforce to population ratios. This modelling does not take into account changes to models of care, productivity, policies

or workforce composition. To improve the way care is currently provided, there may need to be substantially more growth in the overall workforce size.

*Rising to the challenge* (Ministry of Health, 2012b) and *Towards the next wave of mental health and addiction services capability* (Mental Health and Addiction Service Workforce Review Working Group, 2011) signal a need to support more consumers than the three per cent of people experiencing severe mental health and addiction issues benchmarked in the 1998 *Blueprint for mental health services in New Zealand* (Mental Health Commission, 1998). *Towards the next wave* (Mental Health and Addiction Service Workforce Review Working Group, 2011) promotes early intervention and integrated cross-sector responses to increase access and reduce demand, however, the secondary mental health and addiction workforce would also need to grow to meet increased access targets. Using future consumer access estimates which are based on adjusted figures from *Towards the next wave*, new modelling suggests the workforce would need to grow by 1,424 to 2,034 FTEs to meet potential future demand based on current workforce to consumer ratios.

The estimated workforce growth can be divided into specific numbers for each occupation group. However, as discussed in Chapter eight, how this growth should be allocated will depend on the model of care and the implications for workforce composition. The growth that is needed in each occupation group looks very different if we maintain the current service delivery model compared to a model in which medical staff work in liaison roles, and support workers perform an increasing amount of the day-to-day service provision.

The estimates that increase the total workforce size do not take into account the number of people leaving the workforce over the same period of time. The number of people that will need to be trained or recruited will be substantially greater than what is presented in this report.

## Recommendations

- The projections for future workforce needs, while basic, indicate that substantial investment will be required in training and strategies to retain existing members of the workforce, as well as recruit new people to the workforce.
- It will also be important to think about different ways of working and new models of care that support the workforce to provide quality treatment and services to a larger population.

## 9.1.2 Workforce composition

Just under a third of the total adult mental health and addiction workforce comprises support workers (31 per cent; 34 per cent of the mental health workforce and 16 per cent of the addiction workforce).

Occupation composition differs within subsections of the overall mental health and addiction workforce. In addiction services, allied health is the largest occupation group. It makes up 42 per cent of the DHB addiction workforce and 48 per cent of the NGO addiction workforce. There are also large differences in the mental health and addiction workforce composition between DHBs and for NGOs. For example most (79 per cent) support workers are based in NGOs and almost all medical positions are based in DHBs (98 per cent). The composition and location of the current workforce will have implications for the ability of the workforce to move towards models of care that involve more integration of the clinical and non-clinical workforce.

The total number of peer support workers appears to be low given that this group was identified as a priority for additional workforce development in *Rising to the challenge* (Ministry of Health, 2012). The growth and development of the consumer and peer support workforce has been signalled as a significant workforce development area in order to increase capacity and capability across a spectrum of self-care support. Survey results identified a total of 259 FTEs in consumer and peer support workforce roles comprising three per cent of the total workforce. These included consumer peer support workers (216 FTEs) or consumer advisors (42 FTEs).

## Recommendations

- More attention needs to be paid to the optimal model of care and broad range of factors that impact on consumer wellbeing. Both of these factors have implications for determining the ideal workforce composition and location of each occupation group within each service type. The skillsets associated with each occupation group will also be important when considering opportunities for the substitution of roles within the workforce that may require substantial resources or are difficult to recruit and retain.
- It will also be important to support the peer workforce to develop and thrive, through activities such as committed resourcing, leadership and equity of opportunities.
- It will also be important to identify and measure the growth of the peer workforce over time, and understand the contribution that this occupation group is making, particularly on people's capacity to manage their own health and wellbeing.

### 9.1.3 Role vacancies, recruitment and retention

Overall, around five per cent of the roles reported to the survey were vacant. These vacancies may reflect challenges in regards to recruiting people to particular roles and strategies to meet budget constraints. Most adult mental health and addiction workforce vacancies were in DHB provider arm adult mental health services (66 per cent) with the largest professional group being nurses (180 FTEs vacant), followed by allied health professionals (89 FTEs vacant).

Respondents predicted future shortages in a number of roles. In mental health services these included registered nurses, psychiatrists, psychologists and community support workers. In addiction services respondents perceived the greatest shortages would be in addiction practitioner and dual diagnosis clinician roles.

#### Recommendations

- These findings suggest the need to strengthen recruitment and retention strategies for a range of roles. There is a continued need to examine the number of clinical vacancies in DHB mental health and addiction services and model the workforce development pipeline (ie training, recruitment and retention) for a variety of occupation groups.
- Associated with this work is the need to develop an investment plan for the full workforce, further investment in strategies such as post-entry clinical training and identify and test options for workforce substitution, such as the allocation of some tasks traditionally performed by clinical staff to non-clinical staff (Te Pou o Te Whakaaro Nui, 2015).
- In light of the predicted increase in demand for mental health and addiction services and ongoing shortages in the clinical workforce, a renewed focus on responding early to people in need of help is likely to decrease the impact of illness on people's lives and increase the likelihood that they will recover more quickly, in their own home environment, thereby potentially reducing the need for more specialist clinical services (Te Pou o Te Whakaaro Nui, 2015).
- Opportunities may also exist to extend the skills and competencies of the non-clinical workforce to help with activities that do not require a clinical qualification but are currently being performed by clinicians.

### 9.1.4 Knowledge and skill development

The ability of the workforce to deliver high quality treatment and support to consumers is not simply a matter of size or composition. The knowledge, skills and competencies of the workforce and its ability to collaborate and respond to external pressures are also critical. *On Track: Knowing where we are going* (Platform Trust & Te Pou, 2015) poses a number of questions about the extent to which the current workforce is ready to engage in a process of co-production with consumers.

- Do frontline staff understand their role as coach and mentor to consumers and their families/whānau?
- Is the workforce culturally competent?
- Are staff ready to engage with local communities to help identify and grow the assets of those communities?
- Are staff comfortable working across professional and organisational boundaries to deliver high quality, integrated health and social treatment and support?

The survey results highlighted the number of knowledge and skill areas that leaders, managers and teams have identified as being important for future development. These cover cross-professional boundaries and represent areas that are important to a wide range of occupation groups.

#### Recommendations

- Increasing the knowledge and skills of staff so they are comfortable working with people who have co-existing problems, new technologies and IT systems, and in a range of skill and knowledge areas discussed in Chapter seven. For addiction services, commonly reported knowledge and skill needs included co-existing problems capacity, supporting the use of the peer workforce, psychological interventions and supporting self-managed care.
- Many of the knowledge and skill areas (for example working with new technologies and IT systems and co-existing problems), were not specific to a region or service type, therefore regional and national strategies to develop these skillsets would be worthwhile.

### 9.1.5 Ethnic makeup and cultural competence

The cultural competency of the workforce has many implications, including the ability of workers to form effective therapeutic relationships with consumers of all ethnicities, the quality of treatment and support received, service outcomes achieved and access and dropout rates from services. Survey responses indicated that supporting cultural competency remains a priority.

Survey results indicate that Māori and Pasifika are under-represented in the workforce, particularly in clinical roles. In addition, services reported a need to improve the cultural competency of staff working with Māori, Pasifika and Asian peoples. Ethnic-specific services and cultural roles may help to mitigate these gaps but it is likely that a combination of strategies is important.

Refugees are also a high needs group that was not investigated in this survey, but will need a workforce that is both trauma-informed and culturally competent.

#### Recommendations

- Training programmes to increase cultural competency among mainstream staff and the funding and development of cultural roles and ethnic-specific services will also help to promote culturally responsive service delivery.
- There are a number of existing strategies for increasing the ethnic diversity of the workforce that could be extended. These include scholarships led by Le Va and Te Rau Matatini for the Māori and Pasifika workforce and leadership training to promote retention of this workforce.

### 9.1.6 Relative workforce size between children and youth, adult and older adult services

Adult addiction services have a much smaller workforce (61 FTE positions per 100,000 adults in the population) compared to mental health services (324 FTE positions per 100,000 adults aged 20-64). Some of these differences may reflect the fact that this survey only captured Vote Health funded workforce and differences in the level of treatment and support required by people accessing addiction compared to mental health services.

Child and youth services have 152 FTE positions per 100,000 children and youth (The Werry Centre, 2015) and older adults have an estimated 139 FTEs per 100,000 older adults (in DHBs with responding MHSOP services, as at 2010). The differences in these ratios may, to some extent, reflect the fact that the

secondary workforce deals with a different range of need for each sector. For example, school counsellors, in the case of child and youth, and health workers in aged care facilities may respond to some of the need seen in adult secondary services.

Nonetheless the comparisons indicate different levels of resourcing between the areas of the sector that may warrant further investigation.

#### Recommendations

- It is important to investigate whether the relatively small estimated workforce size of the addiction, mental health and addiction older adult, and child and youth services is adequate in relation to the identified population of need.
- In addition, there is also a need for adult mental health and addiction services to take more responsibility for addressing child and family issues that become evident in the course of their day-to-day work with adult service users.

### 9.1.7 Service planning and collaboration

The survey asked respondents about their perceptions of cross-sector relationships and service and team challenges. Developing cross-sector relationships is important for addressing some of the social determinants of health and providing holistic approaches to treatment and support. Likewise, the ability of staff to work effectively will be largely determined by the context in which they are working including staffing levels and competence and service funding. The results indicate a number of areas for further development.

#### Recommendations

- Increase access to knowledge, tools and frameworks that build effective cross-sector collaborative relationships in ways that enhance consumer access to community resources and support.
- It may also be important to provide tools, resources and training that enable leaders and managers to enhance their skills in addressing the increased demand for services with limited increases in funding. Areas that might benefit from the provision of tools include those that:
  - (a) contribute to workforce productivity
  - (b) assist the workforce to work at the top of its scope (Te Pou, 2015); and
  - (c) improve the capacity of services to work collectively to address demand as well as the drivers of this demand. (Platform Trust & Te Pou, 2015)



## 9.2 Ongoing mental health and addiction workforce planning

The survey provides the first comprehensive picture of the Vote Health funded mental health and addiction services' workforce.

To support robust workforce planning activities, it is essential that a considered, longer-term approach to mental health and addiction workforce planning and development is implemented. The survey results reported here contribute to such an approach.

This is the first time information of this type about the adult mental health and addiction sector has been collected and made available. However, it is important that information gathering continues so the sector has access to the most robust and up-to-date data and analysis. In addition, the report represents a first step in forecasting future needs and demand. However, additional research that takes into account broad environmental changes, trends in workforce supply and further scenarios related to alternative models of care is needed.

Economists (eg Maynard, 2006) have highlighted some of the challenges associated with forecasting the future health workforce, particularly the possible impact of changes in productivity and new workforce roles (Maynard, 2006). It is acknowledged that it is possible to improve productivity through workforce innovations and reforms such as changes to models of care, adjustments to skill mix, staff working to their full or expanded scope of practice and the introduction of technological innovations such as eHealth and telehealth. The aging of the workforce will also have some implications for future workforce development. The desire for more productivity and better quality treatment and support, together with Government policies, health promotion and illness prevention measures, and the changing expectations of consumers, will likely generate an ongoing reduction in the demand for certain services (eg residential beds) and an increase in the demand for others (eg peer support services and lifestyle coaches). In addition, national workforce development actions, such as training generalists and specialists, will also influence how service demand is translated into workforce development requirements. These contextual factors, and others, need to be taken into account when considering future workforce development needs. Further, primary care is a critical part of current responsiveness to mental health and addiction needs but was not included in this survey. Future work is needed to develop a better picture of the primary care workforce.

It is recommended that the knowledge developed through this organisation survey is strengthened through the following activities.

## Recommendations

Implement a considered, longer-term approach to mental health and addiction workforce planning and development that supports the forecasting of future workforce and demand. The approach will need to:

- gather information about demographics, retention and registration, in addition to monitoring the size and the composition of the workforce
- be guided by relevant strategic policy initiatives, service development and client outcome priorities
- consider how demographics (ie aging) and technological and environmental changes will impact on how and where work is conducted
- be based on a more explicit understanding of the drivers of health care demand and workforce supply and the determinants of health care utilisation
- include a clear methodological approach to workforce forecasting
- be strongly linked to existing health workforce planning and systems
- be linked to educational planning and workforce supply
- enhance and support local provider workforce planning and development
- be underpinned by systems of collection and management that enable reliable and robust workforce data.

One of the significant challenges for the New Zealand mental health and addiction sector has been the lack of baseline data to inform the workforce planning process. The results presented in this report offer an invaluable starting point for the workforce planning that is now required.

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# Appendices

# Appendix A: Glossary of terms

## A.1 Key terms

### Addiction services:

Includes alcohol and other drug (AOD) and problem gambling services.

### Consumer:

A person who accesses mental health and addiction services (i.e. a “consumer” of services). The use of the term in this report is equivalent to the term “service user”.

### Health regions:

There are four health regions in New Zealand: Northern, Midland, Central and South Island. The following DHBs come within each.

**Table A. 1. List of DHB districts in each health region**

Region	DHB districts
Northern	Northland Waitematā Auckland Counties Manukau
Midland	Waikato Bay of Plenty Lakes Tairāwhiti Taranaki
Central	Hawke's Bay Whanganui MidCentral Hutt Valley Wairarapa Capital & Coast
South Island	Nelson Marlborough West Coast Canterbury South Canterbury Southern

### FTE position:

A full time equivalent (FTE) position is a unit of measurement of the hours spent in work as a ratio of the total possible hours in a typical role (i.e. 40 hours). An FTE of 1.0 equates to full time employment.

### Kaupapa Māori services:

They have been specifically developed, and are delivered by, providers who identify as Māori. Providers and teams are expected to use a Māori framework and models of care that encompass a holistic approach to health and are cognisant of the health and wellbeing aspirations of Māori.

### Non-health funding:

Funding received from sources other than the Ministry of Health or DHBs.

### Pasifika services or teams:

Provide a holistic approach that recognises Pasifika frameworks as necessary to increase the service access rates of Pasifika people and engage them within a service for the duration of treatment. Services and teams recognise the significance of the family for wellbeing. Key values for Pasifika people are acknowledged in the delivery of services: love, respect, humility, caring, reciprocity, spirit quality, humour, unity and belief in the importance of family.

### Provider type:

The type of provider may be non-government organisation (NGO) or district health board (DHB).

### Respondents:

Managers, team leaders and staff working at organisations invited to complete the survey, who completed and returned valid organisation workforce survey sections.

#### Service setting:

The focus of service delivery.

**Table A. 2. High level service setting categories used in this report**

Service setting	Definition
Inpatient	Services delivered within DHB inpatient units or NGO residential accommodation.
Community	DHB and NGO services delivered in the community.
All other services	DHB and NGO services not identified as specific to inpatient or community settings, or present in both settings. In the context of addiction services, this group includes dual diagnosis and co-existing problem services.

#### Team and service types used by PRIMHD:

See Appendix E.

#### Vote Health funding:

Funding associated with the Ministry of Health or DHB mental health and addiction service delivery contracts. This definition of health funding does not include Ministry of Health whānau ora or primary care funding.

## A.2 Service type groups used to present survey results

**Table A. 3. Service type groups used in this report**

Group name	Services included	
	Mental health	Addiction
Inpatient and residential	Inpatient Residential	Residential addiction treatment Withdrawal management (inpatient)
Community	Community Crisis assessment and emergency treatment Early intervention Home-based treatment Maternal mental health Psychiatric liaison Peer support Family and whānau support	Problem gambling interventions Dual diagnosis and CEP services Community-based services (home, community) Opioid treatment services Peer support Withdrawal management (home, community)
Forensic	Forensic – inpatient Forensic – community	
Management	Management administration and support	
Other	Employment Advocacy	Housing/supportive landlord Driving programmes Consumer advisor services

## A.3 List of acronyms

CLIC: Ministry of Health Client Information Collection database

DHB: District Health Board

FTE: Full-time equivalent

HWNZ: Health Workforce New Zealand

MH&A: Mental health and addiction

PRIMHD: Programme for the integration of mental health data

NGO: Non-governmental organisation

# Appendix B: Organisation workforce survey method

The organisation workforce survey and associated documents are available online at:

[www.tepou.co.nz/supporting-workforce/workforce-planning/more-than-numbers](http://www.tepou.co.nz/supporting-workforce/workforce-planning/more-than-numbers)

## B.1 Survey aims

The organisation workforce survey aimed to collect information consistent with that which the Werry Centre collects through its workforce stocktake of child and youth services. This was done in order to ensure the information from both surveys could be combined to give an overview of the child, youth and adult mental health and addiction workforce. The survey asked about the:

- number of people employed
- full-time equivalent (FTE) positions employed and vacant by role (to two decimal places). For roles we included all the major professional groups, support workers, cultural advice and support, administration and management roles. As no one previous survey or classification system included all the roles identified in adult mental health and addiction services, the list of roles was drawn from the Werry Centre survey, the NgOIT survey, the Matua Raki surveys and the Australian and New Zealand Standard Classification of Occupations codes.
- FTEs filled by Māori, Pasifika and Asian staff in clinical and non-clinical roles
- type of mental health or addiction service delivered. Respondents could select from a range of common service choices including community, inpatient, residential, early intervention, peer support and so on
- DHB districts where the service is delivered. Respondents had the option of identifying a number of DHB districts, as well as specifying the DHB district they predominantly provided services in.

In addition, we asked organisations to provide information about the workforce (employed and vacant) that was not health funded, and about sources of additional funding.

A number of additional questions were included in the survey in relation to:

- recruitment and retention issues for their workforce
- the biggest workforce challenges they experienced in their services
- the knowledge and skills needs of their workforce
- their views on the effectiveness of cross-sector and agency collaborative relationships.

## B.2 The research process

The planning of workforce information collection, including this survey, aims to ensure the information collected is as reliable and robust as possible within the constraints of funding and time. The survey process was supported by the national workforce centres, including Le Va, Te Rau Matatini and the Werry Centre. The centres worked closely to ensure that the Werry Centre and Te Pou and Matua Raki organisation workforce surveys were similar, to allow for joint reporting about the workforce across adult and child and youth. Le Va and Te Rau Matatini helped develop the list of organisation roles and the skill and knowledge needs questions. Achieving high quality information involves some key strategies and these are presented below.

### Pilot survey testing

The survey was piloted with 12 services: two DHBs and 10 NGOs. Each pilot site was asked to fill the survey out and then provide feedback on the process in terms of ease of obtaining the information requested, along with an assessment of clarity and perceived usefulness of the questions asked. Minor changes were made to the survey as a result of the pilot. A further review of the survey instructions and structure resulted in further changes to improve clarity and ease of completion. The latter review did not result in substantive changes to the survey questions.

### The survey package

Each organisation received a survey pack that included a letter to the service manager with information about how to distribute the survey. Each survey pack included blank surveys with instructions and information about the survey.

The pack included one copy of the Section A, and a number of copies of Section B

### Distribution and collection

The survey packs were posted out by a distribution company during the week of 1 April 2014 and were in the field initially for an eight-week period. The collection period was then extended for another five weeks to enable more organisations to participate in the survey. Key support people were engaged with each organisation depending on its location, size and service provided. Regional workforce planning leads liaised with DHBs and provided support to most mental health NGOs. Matua Raki engaged with most alcohol and other drug (AOD) and problem gambling services, and Te Pou supported some of the national mental health organisations. All organisations were given the option of either filling in a hard copy survey or an electronic version.

Senior managers completed one Section A for the entire organisation. The organisation filled out as many Section B surveys as they felt were needed, dependent on region, DHB district and type of service(s) delivered. Respondents were asked to fill in one Section B for the main DHB district served. Section B was commonly filled out by a team leader or service manager.

Completed surveys were returned to Te Pou, checked and collated. A data entry company entered the returned surveys twice in order to reduce the risk of data entry errors. The dataset was then provided to Te Pou to undertake analysis.

## B.3 Survey sample and responses

The survey scope included all organisations contracted by the Ministry of Health or DHBs to deliver adult mental health and addiction services during 2012/13. The organisations were identified from the Ministry of Health's Price Volume Schedule.

Organisations were excluded if their total contracts were limited to the following:

- Ministry of Health Te Kete Hauora and Te Ao Auahatanga contracts (Whānau Ora)
- mental health services for older people and aged care services
- primary health services
- youth services
- disability support services
- non-health-funded employment services
- non-health-funded day activity services
- health promotion activities

- private health services
- health-funded policy and workforce development, telephone helplines, parenting programmes, quality and audit activities.

Exclusions were identified through the purchase unit codes and descriptors, which outlined the service that was being contracted for by the Ministry of Health or DHB.

Twenty district health boards (DHBs) and 261 non-government organisations (NGOs) were invited to complete the survey. Following distribution, 30 NGOs were withdrawn from the sample for the following reasons.

- Twenty-two did not employ mental health or addiction treatment staff, 20 of these organisations were rest homes receiving funding for bed nights only. One organisation used volunteers to deliver its services and another organisation subcontracted out all its adult mental health services.
- Six organisations were no longer funded to provide adult mental health and addiction service contracts and did not provide a service in 2014.
- One organisation had merged with another surveyed organisation and the information was combined into the one survey.
- One organisation was unable to be contacted.

### Responses

The final survey sample included 20 DHBs and 231 NGOs. In total, 189 organisations returned completed surveys; all 20 DHBs and 169 NGOs (73 per cent): the response rate was 75 per cent overall.

Table B.1 shows the numbers of organisations invited to participate in the survey for each region (based upon postal address) and the number of surveys that were returned (for NGOs only, all DHBs returned surveys). The second to last column shows the response rate for NGO services and the last column gives the overall response rate for DHB and NGO services in each region.



**Table B.1. Survey return rates for each region by DHB and NGO**

Region	DHBs returning surveys	NGO services invited to participate				Overall response rate (%)
		Survey returned	Survey not returned	Total	NGO response rate (%)	
Northern	4	35	10	45	78	80
Midland	5	40	19	59	68	70
Central	6	37	6	43	86	88
South Island	5	44	27	71	62	64
Sub-total region	20	156	62	218	72	74
National/ sub-national organisations*	-	13	-	13	-	-
<b>Total</b>	<b>20</b>	<b>169</b>	<b>62</b>	<b>231</b>	<b>73</b>	<b>75</b>

\*The national and sub-national organisations provided survey returns for multiple regions.

Organisations completing the survey received 96 per cent of the Vote Health funding for all organisations invited to participate in the survey. Table B.2 shows the regional response rates by funding. These response rates were calculated using the total funding received by organisations completing the survey as a proportion of the funding received by all those invited to participate. Note that the allocation of funding to regions is based upon the location of the contracting DHB provider arm, not the NGO's postal address as was the case in the previous table.

**Table B.2 Survey response rates for each region based on funding**

Region	DHB response rate (%)	NGOs invited to participate				Overall response rate (%)
		Survey returned (\$)	Survey not returned (\$)	Total (\$)	NGO response rate (%)	
Northern	100.0	96,102,510	10,938,046	107,040,556	89.8	97.2
Midland	100.0	49,545,828	10,253,685	59,799,513	82.9	94.4
Central	100.0	46,399,188	1,382,963	47,782,151	97.1	99.3
Southern	100.0	43,592,140	13,542,809	57,134,949	76.3	94.0
National/sub-national	100.0	20,303,356	3,162,736	23,466,092	86.5	87.9
<b>Total</b>	<b>100.0</b>	<b>255,943,022</b>	<b>39,280,240</b>	<b>295,223,262</b>	<b>86.7</b>	<b>96.2</b>

Organisations were asked to provide survey returns for each team or service in a DHB district or region.<sup>77</sup> The 189 organisations completing the survey provided 808 responses across the four health service regions; 258 (32 per cent) were completed by DHBs and 550 (68 per cent) by NGOs. Of these responses, 616 (76 per cent) provided services in the mental health sector group, 151 (19 per cent) provided services in the addiction sector group and 41 (five per cent) identified as combined mental health and addiction services.<sup>78</sup> Table B. 3 shows the national distribution of survey returns.

**Table B. 3. Survey returns by DHB and NGO services**

Provider type	Met criteria for inclusion		Surveys completed		Response rate (%)
	No. of organisations	Proportion of total (%)	Section A	Section B	
DHB	20	32	20	258	100
NGO	231	68	169	550	73
<b>Total</b>	<b>251</b>	<b>100</b>	<b>189</b>	<b>808</b>	<b>75</b>

## B.4 Additional data sources

The analyses presented in this report use the survey results and information from five other sources.

- Population information from the 2013 New Zealand Population Census for adults aged 20 to 64 years.
- Vote Health funding information for adult mental health, alcohol and other drug (AOD), and problem gambling services (sourced from the Ministry of Health Price Volume Schedule 2012/13).
- Information about adult mental health and addiction consumers and service activity from the Ministry of Health's Programme for the Integration of Mental Health Data (PRIMHD).
- Information about problem gambling consumers from the Ministry of Health Client Information Collection (CLIC) database.
- Information from *Te Rau Hinengaro: The New Zealand Mental Health Survey* (Oakley Browne et al., 2006).

## B.5 Limitations

There were several limitations to the organisation workforce survey.

The survey was limited to reporting on health-funded organisations delivering mental health and addiction services. Participating organisations were asked to provide information about roles in their workforce funded by other sources of income (eg from the Department of Corrections or Ministry of Social Development). However, they were not obliged to do so. Therefore, the survey provides a partial view of the breadth of mental health and addiction services being delivered in New Zealand and funded through other sources than the Vote Health budget.

There are likely to be gaps in the survey results in relation to the following mental health and addiction services:

- independent practitioners, unless also employed by a participating organisation
- employment substance-testing services
- services funded solely by primary care or the Department of Corrections.

The same survey structure, service and role options were used for both DHB services and NGO services. Some of the detail about core differences between these two workforces may be lost as a result. This is particularly so in management roles, which may be clinical roles within DHB services and non-clinical in NGOs.

<sup>77</sup> – This strategy enabled workforce data to be presented at the region or DHB district level.

<sup>78</sup> – These figures represent the distribution of responses to the survey and may not accurately reflect the distribution of services in the community.

A key aim of the workforce survey was to describe the workforce in terms of ethnicity. Respondents were asked to utilise employee self-identified ethnicity information only. As surveys were completed by employers, managers or team leaders this information may not have been available so it is likely that under-reporting of staff ethnicity has occurred. However, it is also possible that the information provided was determined by respondents instead.

The survey asked people to identify the service their workforce provided from lists categorised into sector groups including mental health, addiction, and combined mental health and addiction (combined services). Responses in the last group covered a wide range from those offering integrated mental health and addiction treatment services to those providing mental health services to consumers with mental health and addiction service needs or to their family and whānau. For reporting purposes survey responses indicating a combined service were reduced to those from organisations with Ministry of Health or DHB provider arm contracts to provide both mental health and AOD or problem gambling services. This strategy limited this group to services provided by organisations contracted to employ both addiction and mental health staff. However, it also means the integration of mental health and addiction services will be under-reported. In practice, many services are working with people with mental health and addiction issues and supporting them, albeit with different skill sets.

The survey consisted of two sections: A and B. Each organisation invited to participate in the survey was asked to complete one Section A form for the entire organisation. Section B was requested at team or service level; respondents were invited to complete as many of these forms as they felt were needed to reflect their workforce and services provided by DHB district. This meant multiple responses could be returned from one organisation. Some large organisations chose to complete one form for all services of the same type working in the same DHB district. Consequently the findings drawn from these responses may not fully represent the diverse views held within larger organisations.

To identify services provided and workforce roles the survey used lists of pre-defined categories and set response options. These lists were drawn from funding categories (Ministry of Health contract purchase code descriptions) existing data sets (eg PRIMHD team types) or other surveys (eg NgOIT and the Werry Centre stocktake of child and youth mental health and addiction services). While such an approach allows for comparison across different surveys, it assumes similar role and service structures exist across all service providers. It

is likely the results do not fully identify variations that exist across the sector and may obscure differences in roles or services.

Questions about total staff numbers or FTEs requested information about paid employees. Volunteers were not included in the scope of the survey. This exclusion may mean cultural roles are under-reported in the survey results. A number of services indicated they use unpaid kaumātua and kuia. One organisation was excluded from the sample because its service delivery was entirely provided by volunteers.

PRIMHD is updated by DHBs and NGOs to record mental health and AOD service consumer contact information, demographics and outcomes. During the year ended 30 June 2013, all 20 DHBs and 233 NGOs (88 per cent of all NGOs delivering services) achieved PRIMHD compliance. However, following the merger of Otago and Southland DHBs there are known gaps in the data for Southern DHB.

Adult mental health and addiction services are funded for people aged from 18 to 64 years, although in practice adult services may see older or younger people and child and youth services may see people up to the age of 24 years. However, the population and some service use and activity information provided in this report uses the age range from 20 to 64 years,<sup>79</sup> because of the way that this information is recorded. The analyses present in this report specifies if it includes the 20-64 year age group or the 18-64 year age group.

PRIMHD records the ethnicity of consumers using a prioritised scale set by the Ministry of Health. If a consumer indicates multiple ethnic backgrounds only one ethnicity is recorded; the one with the highest priority on the scale. The scale begins with Māori, followed by Pasifika ethnic groups, then Asian ethnic groups, then others. This means that PRIMHD statistics are likely to slightly under-represent Pasifika, Asian and other non-Māori ethnic groups (Ministry of Health, 2013, p. 7).

In addition, PRIMHD consumer ethnicity information has other limitations. These limitations include under-reporting of consumer ethnicity and that ethnicity may be determined by others rather than self-identified. The PRIMHD information collection system has improved the collection and recording of ethnicity by consumers and staff. However, it is difficult to determine the extent to which staff members may guess a consumer ethnicity.

79 – The PRIMHD consumer information uses the age range from 20 to 64 years to identify access rates by population, with this being consistent with the New Zealand Population Census groups.

# Appendix C: Survey data dictionaries

## C.1 Data dictionary on ethnic-based groups

For this survey, ethnicity was defined according to the ethnicity data protocols for the health and disability sector. These are available at: [www.health.govt.nz/publications/ethnicity-data-protocols-health-and-disability-sector](http://www.health.govt.nz/publications/ethnicity-data-protocols-health-and-disability-sector). The text below displays how ethnicity is grouped under these protocols.

**Table C.1 Health and disability sector ethnicity data protocols**

Ethnicity	Includes			
Māori	Māori			
Pasifika	<i>Samoa</i>  <i>Fijian</i> Except: Fijian Indian Indo-Fijian	<i>Tongan</i>  <i>Cook Islands:</i> Aitutaki Islander Atiu Islander Cook Island Māori Mangaia Islander Manihiki Islander Mauke Islander Mitiaro Islander Palmerston Islander Penrhyn Islander Pukapuka Islander Rakahanga Islander Rarotongan	<i>Niuean</i>  <i>Others including:</i> Admiralty Islander Austral Islander Australian Aboriginal Belau/Palau Islander Bismark Archipelagoan Bougainvillean Caroline Islander Easter Islander Gambier Islander Guadalcanalian Guam Islander/ Chamorro Hawaiian I-Kiribati/ Gilbertese Kanaka/Kanak Malaitian Manus Islander Marianas Islander Marquesas Islander Marshall Islander Nauru Islander New Britain Islander New Georgian/ New Irelander	Tokelauan   Ocean Islander Banaban Papuan New Guinean Phoenix Islander Pitcairn Islander Rotuman Islander Santa Cruz Islander Society Islander (incl. Tahitian) Solomon Islander Thursday Islander Torres Strait Islander Tuamotu Islander Tuvalu Islander Ellice Islander Vanuatu Islander New Hebridean Wake Islander Wallis Islander Yap Islander
Asian	Burmese Cambodian Filipino Indonesian/ Javanese Kampuchean/ Khmer Lao/Laotian Malay/Malayan South East Asian Sundanese/ Sumatran Thai/Tai/Siamese Vietnamese	Chinese Hong Kong Chinese Kampuchean Chinese Malaysian Chinese Singaporean Chinese Taiwanese Chinese Vietnamese Chinese	Anglo Indian Bengali Fijian Indian Gujarati Indian Punjabi Sikh Tamil Afghani Bangladesh Eurasiani	Japanese Korean Nepalese Other Asian Pakistani Sinhalese Tibetan Sri Lankan Tamil

## C.2 Data dictionary for service and team types

The following table presents descriptions of service types described in the survey. This table was developed based on PRIMHD team types, services described in previous surveys, and a review of prior documents and sector intelligence. It was made available online during data collection to support consistent categorisation of services on the survey returns.

**Table C.2 Data dictionary for service and team types**

Service type	Services provided	Corresponding PRIMHD teams
Mental health and addiction		
Dual diagnosis/ co-existing problems (CEP)	Services focused on the interaction of substance use and mental health problems. Also known as dual diagnosis, co-occurring substance use and mental health disorders, co-existing disorders and comorbidity. 'Co-existing' implies more interaction than 'co-occurring' or 'dual'.	Co-existing problems team  Kaupapa Māori dual diagnosis alcohol and other drug (AOD) services (until 17/2014)
Management, administration and support	Senior managers, administration, service and other support staff including technical support.	n/a
Addiction		
Community- based services (home, community)	Services based within the community that may be delivered in the community or in hospital outpatient settings.	Community team
Opioid treatment services	Treatment services for consumers /tāngata whai ora addicted to opioids including the use of methadone, buprenorphine, or naltrexone. Services may include medically supervised withdrawal and/or maintenance treatment, psychosocial and other types of supportive care.  May also be referred to as methadone maintenance or opioid substitution treatment.	Alcohol and [other] drug team
Peer support	Peer support teams can be located within NGOs, DHBs and/or organisations that are consumer owned, developed and operated.  There are many styles of peer support services including community support, phone support, peer run 24-hour respite and alternatives to acute inpatient stays.	Alcohol and [other] drug team
Problem gambling interventions	Services that may include a spectrum of interventions such as a helpline and information services, assessment, brief intervention, full intervention and follow-up.	n/a
Residential treatment	Services providing 24-hour-a-day intensive/structured treatment, typically based in non-hospital settings integrating a range of treatment modalities including modified 12-step approaches.  This treatment is distinct from other supportive forms of residential housing.	Residential/accommodation team
Withdrawal management (home, community)	Medical and/or social support for consumers/tāngata whai ora. These services ensure the safety and alleviation of symptoms of withdrawal from a substance. Provided through home visits or in community settings.	Alcohol and [other] drug team

Service type	Services provided	Corresponding PRIMHD teams
Withdrawal management (inpatient)	Medical and/or social support for consumers/tāngata whai ora dependent on particular substances. These services ensure the safety and alleviation of symptoms of withdrawal from a substance. Provided in a hospital or residential setting.	Alcohol and [other] drug team
Management, administration and support	Senior managers, administration, service and other support staff including technical support.	n/a
Mental health		
Community (including but not limited to community knowledge/skills enhancement and recovery)	Services based within the community that may be delivered in the community or in hospital outpatient settings.	Community team
Crisis assessment/emergency treatment	Services providing emergency psychiatric care for consumers/tāngata whai ora experiencing a mental health crisis.	
Early intervention (in psychosis/related mood disorders)	Services for consumers/tāngata whai ora with first presentation of psychosis or related mood disorders.	Early intervention team
Employment	Supporting education and employment for consumers/tāngata whai ora.	Employment/supported team
Forensic – community	Community-based forensic teams providing assessment and treatment services to alleged offenders charged with criminal offences, who have or are thought to have an illness. Includes individuals who are unable to be managed safely with general mental health services due to a high level of serious and persistent danger to others.	Forensic team
Forensic – inpatient	Forensic teams in residential or inpatient settings providing assessment and treatment services to alleged offenders charged with criminal offences, who have or are thought to have an illness. Includes individuals who are unable to be managed safely with general mental health services due to a high level of serious and persistent danger to others.	Forensic team
Home-based treatment	Intensive home based treatment and support for people who would otherwise be admitted to a mental health inpatient unit.	
Inpatient	Services in a medical environment such as a hospital for eligible people who are in need of a period of close observation, intensive investigation or intervention.	Inpatient team
Maternal mental health	Assessment and treatment services for pregnant women, women in the post-partum period and their infants. Includes inpatient, residential or community-based maternal mental health teams.	Maternal mental health team

Service type	Services provided	Corresponding PRIMHD teams
Psychiatric liaison	Services provide support to consumers/tāngata whai ora in general hospital settings who may have mental health problems that can cause complications for their physical healthcare.	
Peer support	Peer support teams can be located within NGOs, DHBs or organisations that are consumer owned, developed and operated.  There are many styles of peer support services, including community support, phone support, peer run 24-hour respite and alternatives to acute inpatient stay.	
Residential, eg supported accommodation, respite	Accommodation, rehabilitation and support provided in a community residence to eligible consumers/tāngata whai ora with mental health issues.	Residential team
Management, administration and support	Senior managers, administration, service and other support staff including technical support.	
Other		<ul style="list-style-type: none"> <li>• Kaupapa Māori team (until 1/7/2014)</li> <li>• Intellectual disability dual diagnosis team</li> <li>• Eating disorder team</li> <li>• Needs assessment and service coordination team</li> <li>• Specialist psychotherapy team</li> <li>• Services for profoundly deaf team</li> <li>• Refugee team</li> <li>• Speciality team</li> </ul>
Kaupapa Māori services or teams	These have been specifically developed and are delivered by providers who identify as Māori. Providers and teams are expected to use a Māori framework and models of care that encompass a holistic approach to health, and are cognisant of the health and wellbeing aspirations of Māori.	
Pasifika services or teams	These teams provide a holistic approach that recognises Pasifika frameworks as necessary to increase the service access rates of Pasifika people and engage them within a service for the duration of treatment. Services and teams recognise the significance of the family for wellbeing. Key values for Pasifika people are acknowledged in the delivery of services: love, respect, humility, caring, reciprocity, spirit quality, humour, unity and belief in the importance of family.	



### C.3 Data dictionary on occupational groups and roles

The following table presents descriptions of roles and occupational groups described in the survey. This table was developed based on roles in the Australian and New Zealand Standard Classification of Occupation (ANZSCO) tables, roles described in previous surveys and identified in a review of prior documents, and sector intelligence. It was made available online during data collection to support consistent categorisation of roles on the survey returns. Note: In the third column, the six-digit numerical codes are the ANZSCO codes.

**Table C.3** *Data dictionary on occupational groups*

Role name	Description	Included on other surveys and occupation classification codes
Support workers		
Community development worker	Work with individuals, families and communities to empower them to improve quality of life.	NgOIT
Employment worker	Support consumers/tāngata whai ora to improve employment opportunities.	NgOIT
Community support worker	Support consumers/tāngata whai ora and families and whānau in their regular daily activities, build relationships with people and support them to manage their health and wellbeing. They may also assist people in attending appointments and activities.	411711
Family support worker	Work with families and whānau to reduce the impact of mental illness, offering support and advocacy and holding a holistic view of families and whānau. Many have social work or support worker qualifications.	411713
Healthcare assistant	A support worker in a clinical area who works under the supervision of a registered practitioner who is accountable for the support worker's standards and activities.	
Peer support - consumer and service user	Social and emotional support mutually offered or provided by people with a mental health condition to others sharing a similar mental health condition to bring about a desired social or personal change.	Matua Raki, Werry Centre, NgOIT
Peer support - family and whānau	Services provided for families and whānau who have a loved one experiencing a mental health condition.	Matua Raki, Werry Centre, NgOIT
Psychiatric assistant	Support consumers/tāngata whai ora with mental or emotional conditions or disabilities, following the instructions of physicians or other health practitioners.	
Residential support worker	Support consumers/tāngata whai ora in their regular daily activities, build relationships with people and support them to manage their health and wellbeing. They may also assist people in attending appointments and activities.  Includes addiction residential night supervisor.	NgOIT 411715

Role name	Description	Included on other surveys and occupation classification codes
Allied health professionals		
Addiction practitioner	Clinicians working with AOD and problem gambling. May include social workers, occupational therapists, counsellors and nurses.	Matua Rāki, Werry Centre 272112
Dual diagnosis practitioner/CEP clinician	Clinicians providing clinical case work, support and consultancy to consumers/tāngata whai ora with co-existing mental health and addiction-related problems.	
Counsellor	Professionally-registered counsellors, therapists and psychotherapists.	Werry Centre, NgOIT 272199 272314
Educator/trainer	Educators and tutors not including nurse educators (see nurses group).	Werry Centre, NgOIT
Occupational therapist	Registered health professionals who enable occupation to optimise human activity and participation in all life domains across the lifespan, and thus promote the health and wellbeing of individuals, groups and communities.	Matua Rāki, Werry Centre, NgOIT 252411
Clinical psychologist	Psychologists investigate, assess and provide treatment and counselling for behavioural and mental health issues. Registered with the NZ Psychologists Board.	Matua Rāki, Werry Centre, NgOIT 272311
Other psychologist	Registered psychologists, educational and organisational psychologists not including clinical psychologists.	Matua Rāki, NgOIT 272312 272313 272313
Social worker	Provide advice, advocacy and support to individuals and families and whānau with personal and social problems, including emotional and mental health concerns. They also help with community and social issues.	Matua Rāki, Werry Centre 272511
Medical and nursing professionals		
General practitioner	Registered medical professional who covers a variety of medical problems in patients of all ages, usually working in primary care.	253111
House surgeon	New Zealand registered medical professionals employed by a district health board as an intern or house officer/surgeon, typically for a period of two years, supporting the functions of the consultant/surgeon.	253112 253999
Consultant psychiatrist	Medical professionals registered as Fellows of the Royal Australian and New Zealand College of Psychiatrists providing assessment, diagnosis and treatment of people with psychological, emotional, or cognitive problems resulting from psychiatric disorders, physical disorders or any other cause.	Werry Centre, NgOIT 253411

Role name	Description	Included on other surveys and occupation classification codes
Medical officer special scale	Qualified medical professionals who work in a specialist role, eg opioid treatment service. This role is a non-training position for a doctor who has not yet specialised or gained a post-graduate qualification, or an international medical graduate who is not eligible for a consultant role.	Matua Raki
Psychiatric registrar	Registered medical professionals working towards becoming specialist psychiatrists, who support the functions of their consultant psychiatrist.	Werry Centre, NgOIT 253411
Registered nurse	Registered nurses who use nursing knowledge and complex nursing judgement to assess health needs and provide care, advice and support for people to manage their health.	Matua Raki, Werry Centre, NgOIT 254422 254414 254499 254416 254412 254417 254413
Enrolled nurse	Enrolled nurses practise under the direction of a registered nurse or midwife to implement nursing care for people who have stable and predictable health outcomes in situations that do not call for complex nursing judgement.	NgOIT 411411
Nurse practitioner/ nurse specialist/ nurse educator/nurse researcher	Nurse practitioners are expert nurses who work within a specific area of practice incorporating advanced knowledge and skills.	254211 254212 254411
Liaison/consult liaison	Examples include mental health and eating disorders liaison, Police, court liaison.	Werry Centre
Cultural advice and support		
Cultural supervisor	Facilitates a process that explores and reconciles clinical and cultural issues. Provide appropriate management strategies, and develops skills and confidence for supervisees working across cultures, and/or wishing to retain their cultural identity and integrity. Cultural supervision may take place on a one-to-one basis or as part of a group.	
Kaumātua and kuia	Elders or knowledgeable Māori who offer cultural support to the workforce and/or consult and liaison role with whānau, hapū, iwi and/or hāpori.	Werry Centre, NgOIT
Kaiāwhina	Includes a number of roles including community health workers, support workers, addiction practitioners and counsellors. Responsible for delivering services that will assist consumers and family and whānau to improve access to services, exercise better self-management of their health and wellbeing, and/or improve relationships and networks in the community and with other services.	Werry Centre, NgOIT 411512
Traditional Māori health practitioner	Rongoā Māori is the traditional healing system of Māori, incorporating the use of plant-based remedies, physical therapies and spiritual healing. Tohunga are the practitioners of Rongoā Māori.	252215

Role name	Description	Included on other surveys and occupation classification codes
Matua	Elders or knowledgeable Pasifika who offer cultural support to the workforce and/or consult and liaise with Pasifika consumers/tāngata whai ora and families and whānau.	
Pasifika cultural advisor	Elders or knowledgeable Pasifika who offer cultural support to the workforce and/or consult and liaise with Pasifika consumers/tāngata whai ora and families and whānau.	
Other cultural advisor		Matua Rāki, Werry Centre
Administration and management		
Administrative and/or technical support	Administration roles supporting direct service provision.	Matua Rāki, Werry Centre, NgOIT
Senior manager	CEOs, general managers and other management.	Werry Centre, NgOIT 132111 132511 132211 111211 132311 111111 132411 134212
Clinical director	n/a	Werry Centre 134212
Professional leader	n/a	
Service manager/team leader	Managers and team leaders managing service delivery teams.	Werry Centre NgOIT 134299 134111 134214 254311
Family/whānau advisor	Promote the family/whānau voice, enabling families and whānau of consumers/tāngata whai ora to have a positive and beneficial experience when attending a service with their family member.	Werry Centre, NgOIT
Consumer advisor/consumer lead	Provide a bridge between consumers and service providers. Advisors combine personal experience with professional skills and expertise.	
Other		
Other allied health professionals	Needs assessors and coordinators, dieticians and other social professionals.	Matua Rāki, Werry Centre, NgOIT 251111 272499
Other support worker	Include nursing support worker, personal care assistant, caregivers, aged care and domestic duties aide.	411716 421111 272612 272613 411311 411412 411712 423111 423311 423312 423313 423314 423411 423412 423413

# Appendix D: About population, funding and service provision for adult mental health and addiction services

This appendix describes the context in which organisations participating in the organisation workforce survey deliver services. The information presented here is drawn from the New Zealand Population Census 2013, Vote Health funding information from the Ministry of Health Price Volume Schedule for the year ended 30 June 2013, and the Ministry of Health Programme for the Integration of Mental Health Data (PRIMHD) for the year ended 30 June 2013.

## D.1 Adult New Zealand population

### D.1.1 Population

Table D. 1 uses the New Zealand Population Census 2013 to describe the New Zealand adult population by regional groups, and shows each region's proportion of the total adult population. For the purposes of this report, the adult population is defined as people aged 20 to 64 years. The adult population was nearly 2.5 million people, an increase of five per cent since the 2006 census. The Northern region experienced the largest growth in adult population between 2006 and 2013 (8 per cent).

**Table D.1. New Zealand adult (20–64 years) population by region**

Region	NZ adult population (aged 20–64 years)		
	NZ Census 2013	Percentage adult population	% increase from 2006 census
Northern	943,665	38.2	7.5
Midland	454,809	18.4	3.8
Central	486,663	19.7	2.5
South Island	588,267	23.8	2.6
Total	2,473,404	100.0	4.6

Source: Statistics New Zealand (2014)

Figure D. 1 highlights the proportion of the adult population aged 20-64 across the four regions.

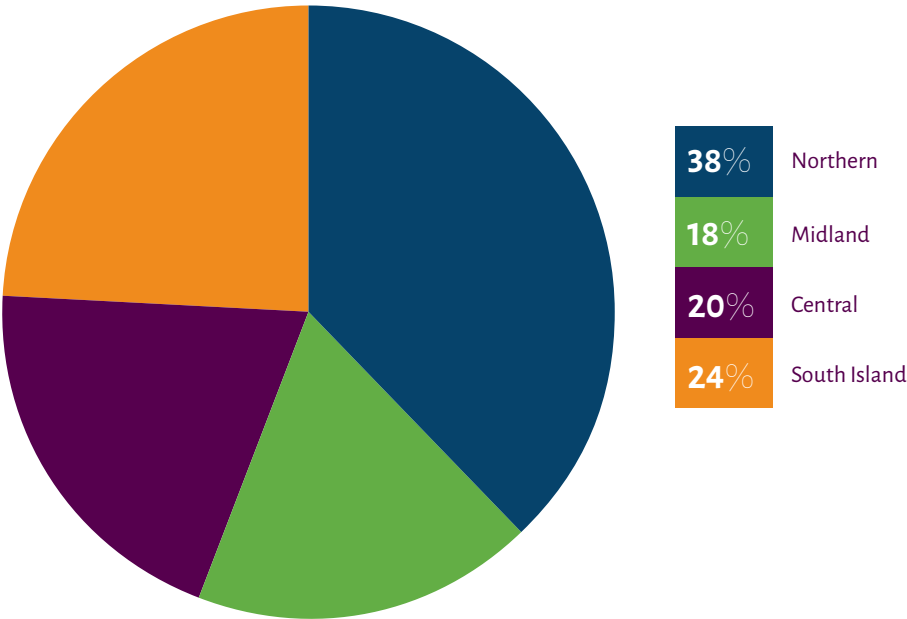


Figure D. 1. Percentage of New Zealand adult population (aged 20–64 years) by region



# Population table

Table D. 2. Adult New Zealand population aged 20–64 years by ethnicity, region and DHB district

DHB district and region	Total people			Māori			Pasifika			Asian			All other		
	2006 Census	2013 Census	% change	2006	2013	% change	2006	2013	% change	2006	2013	% change	2006	2013	% change
Northern															
Northland	81,642	81,546	-0.1	20,949	22,314	6.5	1,407	1,755	24.7	1,524	2,472	62.2	57,771	55,008	-4.8
Waitematā	288,024	312,123	8.4	21,720	23,805	9.6	17,280	19,647	13.7	43,794	59,274	35.3	205,233	209,406	2.0
Auckland	261,378	281,043	7.5	17,028	18,123	6.4	25,401	26,898	5.9	63,774	79,533	24.7	155,178	156,483	0.8
Counties Manukau	246,906	268,953	8.9	32,961	33,687	2.2	43,902	50,772	15.6	44,910	64,839	44.4	125,133	119,649	-4.4
Midland															
Waikato	193,050	202,947	5.1	33,498	37,542	12.1	4,650	6,150	32.3	10,986	16,098	46.5	143,922	143,160	-0.5
Lakes	55,638	54,867	-1.4	15,771	16,083	2.0	1,566	1,692	8.0	2,049	3,243	58.3	36,246	33,846	-6.6
Bay of Plenty	107,010	111,339	4.0	22,581	23,706	5.0	1,572	2,067	31.5	3,090	5,853	89.4	79,773	79,722	-0.1
Tairāwhiti	24,021	23,742	-1.2	9,879	10,056	1.8	555	663	19.5	402	591	47.0	13,179	12,438	-5.6
Taranaki	58,506	61,914	5.8	7,704	9,018	17.1	573	735	28.3	1,365	2,337	71.2	48,867	49,830	2.0
Central															
Hawke's Bay	82,875	83,049	0.2	16,836	17,409	3.4	2,367	2,877	21.5	2,106	3,114	47.9	61,569	59,649	-3.1
Whanganui	33,954	32,781	-3.5	7,062	7,239	2.5	573	801	39.8	702	918	30.8	25,614	23,820	-7.0
MidCentral	89,778	90,882	1.2	12,945	14,019	8.3	2,049	2,604	27.1	4,491	5,970	32.9	70,290	68,289	-2.8
Hutt Valley	79,449	81,432	2.5	10,980	11,253	2.5	5,850	6,054	3.5	6,072	8,280	36.4	56,550	55,851	-1.2
Capital and Coast	167,193	176,019	5.3	14,334	15,633	9.1	11,199	11,700	4.5	17,073	21,624	26.7	124,587	127,068	2.0
Wairarapa	21,525	22,500	4.5	2,589	3,099	19.7	369	471	27.6	333	549	64.9	18,228	18,378	0.8
Southern															
Nelson Marlborough	76,479	77,631	1.5	5,499	6,219	13.1	789	1,074	36.1	1,446	2,613	80.7	68,736	67,722	-1.5
West Coast	18,627	18,993	2.0	1,398	1,644	17.6	135	162	20.0	213	474	122.5	16,878	16,710	-1.0
Canterbury	278,109	287,199	3.3	16,944	19,758	16.6	5,124	6,225	21.5	18,822	23,034	22.4	237,225	238,179	0.4
South Canterbury	30,084	30,774	2.3	1,497	1,848	23.4	225	261	16.0	456	879	92.8	27,909	27,777	-0.5
Southern	169,968	173,670	2.2	11,538	13,017	12.8	2,274	2,898	27.4	5,820	8,481	45.7	150,339	149,274	-0.7
Total nationwide	2,364,216	2,473,404	4.6	283,713	305,472	7.7	127,860	145,506	13.8	229,428	310,176	35.2	1,723,227	1,712,259	-0.6



### D.1.2 Prevalence of mental health disorders

*Te Rau Hinengaro: The New Zealand mental health survey* (Oakley Browne et al., 2006) presents the results from a New Zealand community prevalence study for major mental disorders among those aged 16 and over. The survey examined four groups of mental disorders. These included anxiety, mood, substance use and eating disorders. The survey highlighted that mental disorders in these groups are common in New Zealand with 46.6 per cent of the population predicted to meet the criteria for a disorder some time in their lives, and 21 per cent of the population having had an experience of mental disorder in the previous 12 months (Oakley Browne et al., 2006, p. xix).

*Te Rau Hinengaro* did not identify the prevalence of psychotic disorders in New Zealand. There is a paucity of information about their prevalence. The 2006/07 New Zealand health survey identified that 0.3 per cent of New Zealand adults meet a diagnosis of schizophrenia (Ministry of Health, 2008a, p.24).

### D.1.3 Prevalence of substance use disorders

*Te Rau Hinengaro* identified the prevalence rate for any substance use disorder was 3.5 per cent of the adult population, (Oakley Browne et al., 2006).<sup>80</sup> However, the prevalence rates for Māori and Pasifika adults are higher at 8.6 per cent and 5.3 per cent respectively.<sup>81</sup> Table D. 3 shows the prevalence rates for Māori and Pasifika against the national averages, indicating that Māori and Pasifika are affected by alcohol dependence at three times the rate of the general population.

No prevalence data for substance use disorders was published for the New Zealand Asian population as part of *Te Rau Hinengaro* (Oakley Browne et al., 2006). *The health of New Zealand adults 2011/2012: Key findings of the New Zealand Health Survey* (Ministry of Health, 2012a) reported that Asian people were similar to the total sample for 'having any risk of gambling problems'. The rate described for Asian ethnic groups was 3.3 per cent (2.0 to 5.7 per cent), compared with the total sample rate of 3.1 per cent (2.7 to 3.5 per cent).

**Table D. 3. Prevalence of substance use disorders for people aged 16 years and over: total sample, Māori and Pasifika**

Substance use disorders	12-month prevalence total sample (%)	12-month prevalence Māori (%)	12-month prevalence Pasifika (%)
Alcohol abuse	2.6 (2.3-3.0)	6.7 (5.5-8.1)	3.7 (2.8-5.0)
Alcohol dependence	1.3 (1.1-1.5)	3.9 (3.0-5.0)	3.4 (2.4-4.7)
Drug abuse	1.2 (0.9-1.4)	3.7 (2.8-4.8)	1.1 (0.7-1.8)
Drug dependence	0.7 (0.5-0.9)	1.9 (1.3-2.8)	0.7 (0.4-1.3)
Any substance use disorder	3.5 (3.1-4.0)	8.6 (7.1-10.4)	5.3 (4.1-6.8)

Source: Oakley Browne et al., 2006.

### D.1.4 Problem gambling

*The health of New Zealand adults 2011/2012: Key findings of the New Zealand Health Survey* (Ministry of Health, 2012a) reported that the population rate for having any risk of gambling problems was 3.1 per cent (2.7 to 3.5 per cent). The rate for Māori was 7.0 per cent (5.6 to 8.7 per cent) and for Pasifika was 7.8 per cent (5.4 to 11.1 per cent).

80 – Including 2.6 per cent for alcohol abuse and 1.2 per cent for drug abuse.

81 – No prevalence data for substance use disorders was published for the New Zealand Asian population as part of *Te Rau Hinengaro* (Oakley Browne et al., 2006).

## D.2 Funding of adult mental health and addiction services

### D.2.1 Vote Health funding for adult mental health and addiction services

The Ministry of Health's Price Volume Schedule documents Vote Health funding for mental health and addiction services. The following two tables summarise the total mental health and addiction funding for the year ended 30 June 2013.

Total Vote Health funding for adult mental health and addiction services during 2012/13 was \$1.082 billion.<sup>82</sup> Mental health services received 88 per cent of Ministry of Health funding; AOD services received 10.7 per cent; problem gambling services 1.5 per cent.<sup>83</sup>

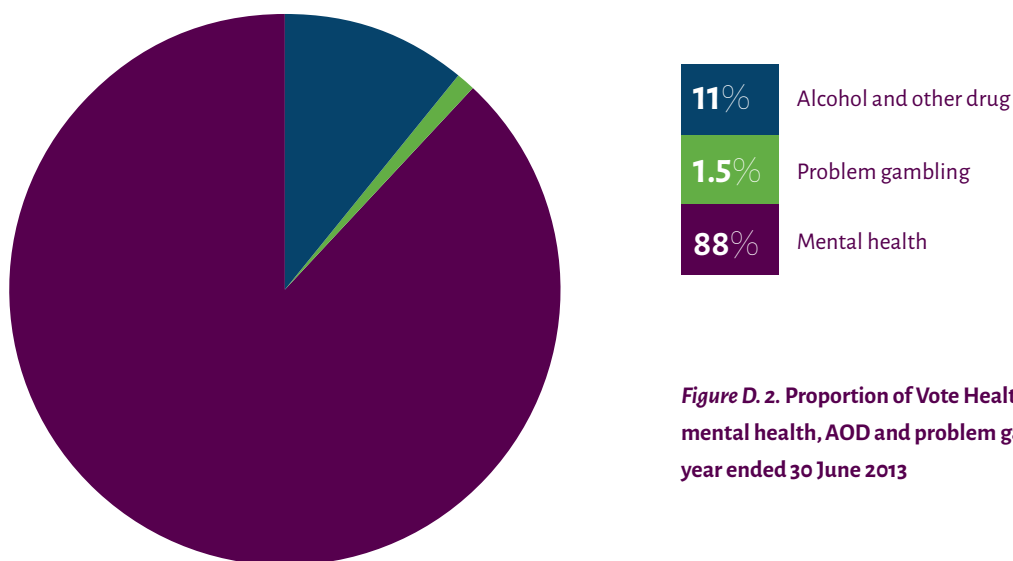
Table D. 4 describes the total Vote Health funding received by DHB and NGO providers for adult mental health, AOD and problem gambling services.

**Table D. 4. Vote Health funding for adult mental health and addiction services by provider type for 2012/13**

Provider type	Sector			Total health funding
	Mental health	AOD	Problem gambling	
DHB	\$663,308,216	\$62,393,122	\$ 352,928	\$726,054,266
NGO	\$287,569,376	\$53,362,169	\$15,482,314	\$356,413,859
<b>Total</b>	<b>\$950,877,592</b>	<b>\$115,755,291</b>	<b>\$15,835,242</b>	<b>\$1,082,468,125</b>

*Note.* These numbers included organisations that provided services that were exclusively out of scope. Funding identified as 'not mental health' was excluded from this table.

Figure D. 2 shows the proportion of total Vote Health funding allocated to mental health, AOD and problem gambling contracts.



**Figure D. 2. Proportion of Vote Health funding allocated to mental health, AOD and problem gambling contracts for the year ended 30 June 2013**

82 – \$1.082B excludes funding of \$ 3,368,613 specified as not mental health funding in the Price Volume Schedule.

83 – In this report, the term 'addiction service' is used to describe both alcohol and other drug (AOD) and problem gambling services.

Just over two-thirds (67 per cent) of total Vote Health funding for mental health and addiction services went to DHBs, although there was a marked difference in the DHB share across services. DHBs received 70 per cent of mental health funding, 54 per cent of AOD funding and two per cent of problem gambling funding (as reported in the Price Volume Schedule 2012/13).

Table D. 5 uses the Ministry of Health Price Volume Schedule 2012/13 and NZ Census 2013 data to calculate the health spend per head of adult population on adult mental health and addiction services in each of the four regions.<sup>84</sup> The Central and South Island regions have the lowest spend per adult, followed by the Northern region. Midland has the highest spend. The total average spend includes \$41 million in national funding that is not allocated regionally; this figure includes \$16 million allocated to problem gambling funding.

**Table D. 5. Adult mental health and addiction service spend per head of population for 2012/13 by region**

Region	\$ spend per adult
Northern	\$ 428
Midland	\$ 439
Central	\$ 413
South Island	\$ 402
Total average spend including problem gambling	\$ 437*

\* Total average spend includes national funding for problem gambling, which is not included in funding allocated to a region.  
Source: Ministry of Health's Price Volume Schedule 2012/13 and NZ Census 2013 data (Statistics New Zealand, 2014).

The total Vote Health funding of \$1.082 billion included a range of contracts unrelated to direct care services and therefore outside of the scope of the organisations included in the survey (\$61 million) for example contracts related to research, and infrastructure or workforce development.

The organisations invited to participate in the survey had adult mental health and addiction contracts totalling \$1.021 billion. These organisations included all 20 DHBs, which received \$726 million (71 per cent) and 231 NGOs, which received just over \$295 million of funding (29 per cent). The survey was completed by 75 per cent of invited organisations: all the DHBs and 73 per cent of NGOs. Together these organisations received 96 per cent of the survey sample's total funding. NGOs completing the survey received 87 per cent of the funding for NGOs.

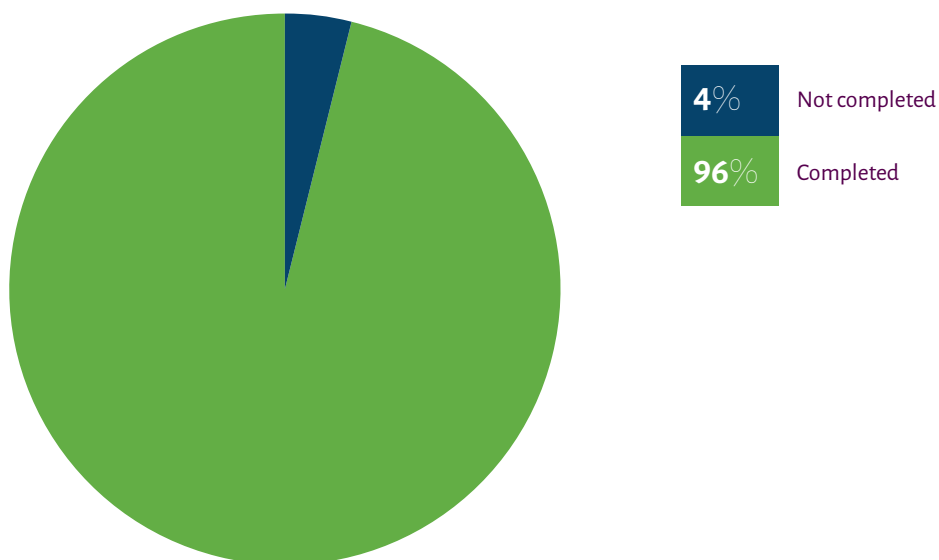
Table D. 6 shows the distribution of Vote Health funding among organisations that completed the survey and those that did not.

84 – This includes only a small proportion of the problem gambling funding, which is mostly distributed nationally rather than to local DHBs or regions.

**Table D. 6. Vote Health funding for mental health and addiction surveyed organisations by survey outcome and contracted service**

Survey outcome	Service provided			Total health funds
	Mental health	Alcohol and other drug	Problem gambling	
Not completed	\$32,423,263	\$5,135,129	\$1,721,848	\$39,280,240
Completed	\$861,975,911	\$110,346,562	\$9,674,816	\$981,997,288
<b>Total surveyed</b>	<b>\$894,399,173</b>	<b>\$115,481,691</b>	<b>\$11,396,664</b>	<b>\$1,021,277,528</b>

Figure D. 3 shows the proportion of survey sample's Vote Health funding received by organisations that completed the survey and those that did not.



**Figure D. 3. Proportion of Vote Health funding for mental health and addiction services received by survey outcome**

## Vote Health funding tables

Table D. 7 and Table D.8 show the total Vote Health funding for adult mental health, AOD and problem gambling contracts for DHBs and NGOs in each of the DHB districts, organised by regions. This includes all funded services, not just those who participated in the survey.

**Table D. 7. Vote Health funding for adult mental health and addiction services by region and DHB district**

DHB district	Mental health (\$)	Alcohol and other drug (\$)	Problem gambling (\$)	Total health funding (\$)
<b>Northern region total</b>	<b>363,242,664</b>	<b>40,697,631</b>	<b>-</b>	<b>403,940,295</b>
Auckland	96,616,149	7,766,616	-	104,382,765
Counties Manukau	94,460,166	3,805,632	-	98,265,798
Northland	36,139,196	6,214,180	-	42,353,375
Waitematā	136,027,153	22,911,203	-	158,938,356
<b>Midland region total</b>	<b>175,984,909</b>	<b>23,859,910</b>	<b>-</b>	<b>199,844,819</b>
Bay of Plenty	35,927,567	6,218,138	-	42,145,705
Lakes	19,730,194	3,715,393	-	23,445,587
Tairāwhiti	10,224,294	1,416,106	-	11,640,399
Taranaki	21,105,137	3,086,307	-	24,191,444
Waikato	88,997,717	9,423,966	-	98,421,683
<b>Central region total</b>	<b>183,200,395</b>	<b>18,039,334</b>	<b>-</b>	<b>201,239,729</b>
Capital & Coast	78,930,526	4,814,397	-	83,744,923
Hawke's Bay	26,705,603	3,778,064	-	30,483,667
Hutt Valley	24,964,974	3,301,178	-	28,266,152
MidCentral	26,715,698	3,368,441	-	30,084,139
Wairarapa	6,310,467	941,004	-	7,251,471
Whanganui	19,573,126	1,836,251	-	21,409,377
<b>South Island region total</b>	<b>211,825,855</b>	<b>24,784,801</b>	<b>-</b>	<b>236,610,655</b>
Canterbury	101,778,663	13,757,300	-	115,535,963
Nelson Marlborough	26,295,872	3,863,922	-	30,159,794
South Canterbury	7,728,537	925,238	-	8,653,775
Southern	64,853,090	5,466,357	-	70,319,447
West Coast	11,169,693	771,984	-	11,941,677
<b>Other national total</b>	<b>16,623,770</b>	<b>8,373,615</b>	<b>15,835,242</b>	<b>40,832,627</b>
<b>Total</b>	<b>950,877,592</b>	<b>115,755,291</b>	<b>15,835,242</b>	<b>1,082,468,125</b>

*Note.* Funding identified as 'not mental health' was excluded from this table.

Source: Ministry of Health's Price Volume Schedule 2012/13. Data extracted 28 April 2014.

**Table D. 8. Vote Health funding for adult mental health and addiction services by provider type, and by region and local DHB district**

Region and DHB	Mental health (\$)		Alcohol and other drug (\$)		Problem gambling (\$)		All funding (\$)	
	DHB	NGO	DHB	NGO	DHB	NGO	DHB	NGO
<b>Northern region total</b>	<b>266,000,942</b>	<b>97,241,721</b>	<b>24,606,628</b>	<b>16,091,003</b>	-	-	<b>290,607,570</b>	<b>113,332,724</b>
Auckland	71,091,115	25,525,034		7,766,616	-	-	71,091,115	33,291,650
Counties Manukau	59,544,046	34,916,120		3,805,632	-	-	59,544,046	38,721,752
Northland	26,109,337	10,029,859	4,359,160	1,855,020	-	-	30,468,496	11,884,879
Waitematā	109,256,444	26,770,708	20,247,468	2,663,735	-	-	129,503,913	29,434,443
<b>Midland region total</b>	<b>111,310,409</b>	<b>64,674,500</b>	<b>11,880,233</b>	<b>11,979,677</b>	-	-	<b>123,190,643</b>	<b>76,654,177</b>
Bay of Plenty	22,591,345	13,336,222	2,856,476	3,361,662	-	-	25,447,821	16,697,884
Lakes	10,861,518	8,868,676	1,031,964	2,683,429	-	-	11,893,483	11,552,105
Tairāwhiti	5,979,718	4,244,576	989,482	426,624	-	-	6,969,199	4,671,200
Taranaki	14,218,110	6,887,027	2,116,527	969,780	-	-	16,334,637	7,856,807
Waikato	57,659,718	31,337,998	4,885,784	4,538,182	-	-	62,545,503	35,876,181
<b>Central region total</b>	<b>129,666,630</b>	<b>53,533,765</b>	<b>10,565,884</b>	<b>7,473,450</b>	-	-	<b>140,232,514</b>	<b>61,007,215</b>
Capital & Coast	56,108,802	22,821,724	3,513,812	1,300,585	-	-	59,622,614	24,122,309
Hawke's Bay	18,169,157	8,536,446	2,104,385	1,673,679	-	-	20,273,542	10,210,125
Hutt Valley	18,640,943	6,324,031	1,120,095	2,181,083	-	-	19,761,038	8,505,114
MidCentral	20,246,544	6,469,153	2,332,325	1,036,116	-	-	22,578,869	7,505,269
Wairarapa	3,739,600	2,570,867		941,004	-	-	3,739,600	3,511,871
Whanganui	12,761,583	6,811,543	1,495,268	340,983	-	-	14,256,851	7,152,526
<b>South Island region total</b>	<b>154,755,913</b>	<b>57,069,942</b>	<b>14,567,177</b>	<b>10,217,624</b>	-	-	<b>169,323,090</b>	<b>67,287,565</b>
Canterbury	70,515,309	31,263,354	5,949,485	7,807,816	-	-	76,464,794	39,071,170
Nelson Marlborough	19,236,891	7,058,981	2,666,406	1,197,516	-	-	21,903,297	8,256,497
South Canterbury	5,340,171	2,388,366	768,590	156,648	-	-	6,108,761	2,545,014
Southern	51,225,993	13,627,097	4,410,713	1,055,644	-	-	55,636,707	14,682,741
West Coast	8,437,549	2,732,144	771,984		-	-	9,209,533	2,732,144
<b>Other national</b>	<b>1,574,322</b>	<b>15,049,448</b>	<b>773,199</b>	<b>7,600,416</b>	<b>352,928</b>	<b>15,482,314</b>	<b>2,700,449</b>	<b>38,132,178</b>
<b>Total</b>	<b>663,308,216</b>	<b>287,569,376</b>	<b>62,393,122</b>	<b>53,362,169</b>	<b>352,928</b>	<b>15,482,314</b>	<b>726,054,266</b>	<b>356,413,859</b>

Note. Funding identified as 'not mental health' was excluded from this table.

Source: Ministry of Health's Price Volume Schedule 2012/13. Data extracted 28 April 2014.

## D.2.2 Other sources of funding for the NGO workforce

This section presents findings from the organisation workforce survey in relation to non-Vote Health or other sources of funding reported by NGOs. The results combine information reported by both mental health and addiction services.

NGOs fund their services from a variety of sources to meet demand. The survey asked respondents to identify the proportion of their organisation's total income for adult mental health and addiction services received from health contracts.<sup>85</sup> One-hundred and fifty-six NGOs answered this question (response rate 92 per cent). Sixty-four NGOs (41 per cent) stated that they received all funding through Vote Health and 92 NGOs (59 per cent) reported they did not receive all funding through Vote Health.

For the 156 responding organisations, health funding averaged 83 per cent of their organisation's income, ranging from two per cent to 100 per cent. For the 92 NGOs indicating they received funding from both Vote Health and other sources, the average health funding was 72 per cent, with a minimum of 2 per cent and a maximum of 99 per cent. Of those 92 organisations, 86 selected the source of that income by choosing from a list provided on the survey with the option to add others (a response of 87 per cent to this question).

Figure D.4 shows the proportion of these 86 NGOs who selected each of the specified other sources of income.<sup>86</sup> The majority of organisations identified charity, fundraising and the Ministry of Social Development as key sources of income.

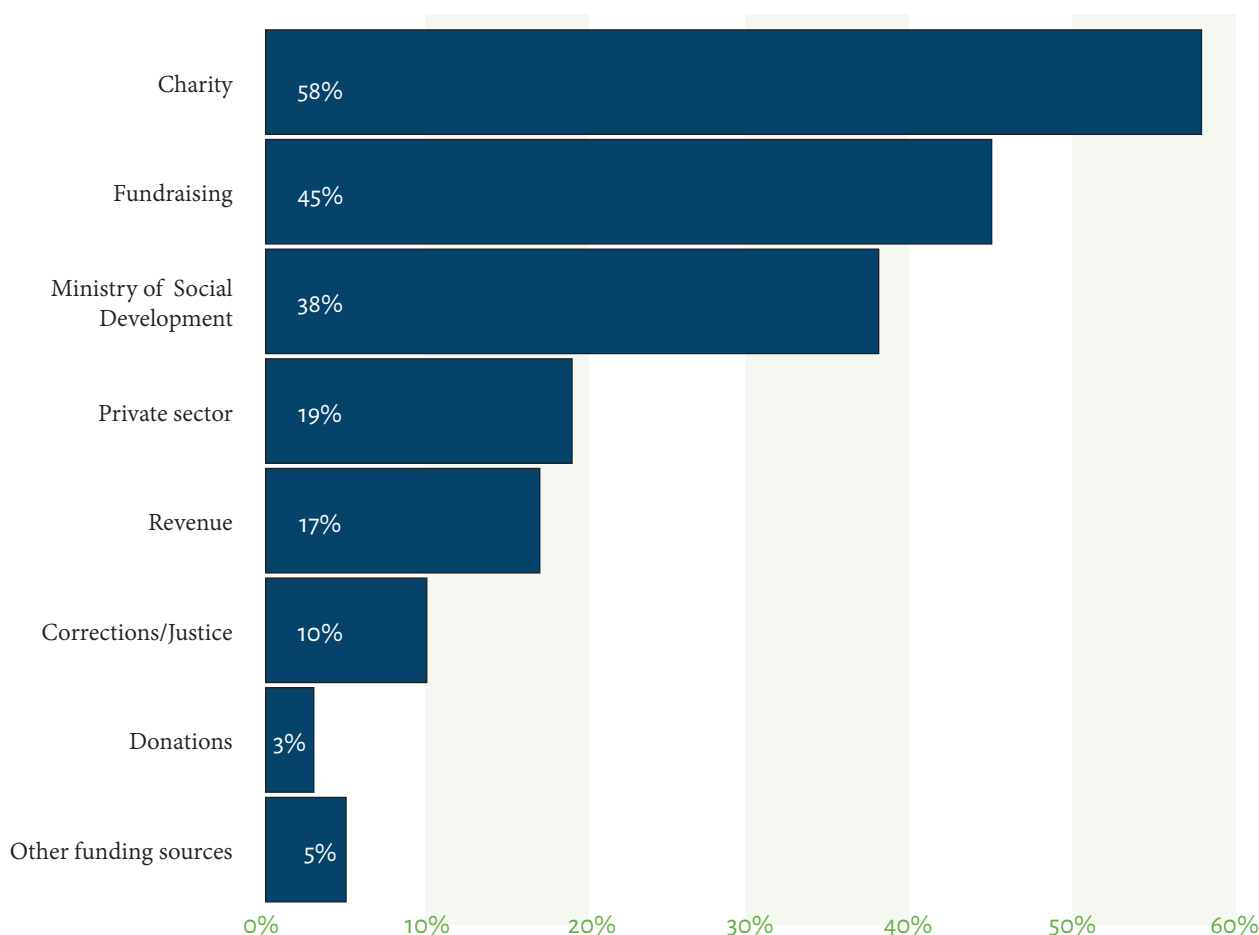


Figure D.4. Sources of funding other than Vote Health received by NGOs (n=86)

85 – This question was based on the Matua Rāki Addiction Services: Workforce and service demand survey 2011 report (2011).

86 – The percentages do not relate to the amount of funding received.



## D.3 Service use and activity

PRIMHD collects information about access to mental health and addiction services and related service activity. This section provides information available for the period from 1 July 2012 to 30 June 2013. The information consists of national and regional totals for all adult services reporting to PRIMHD.<sup>87</sup>

DHBs and NGOs to record mental health and AOD service consumer contact information, demographics and outcomes in PRIMHD. It is important to note that most but not all NGOs are reporting to PRIMHD.

### D.3.1 Adult mental health services

Table D.9 summarises by region the number of mental health service consumers seen by DHBs only, NGOs only, and those seen by both provider types. Because the same consumers may be included in more than one region, the bottom row records the total number of unique consumers seen by mental health services.

Sixty-two per cent of consumers were seen only by DHBs, and nine per cent only by NGOs. However, 28 per cent of consumers were seen by both DHB and NGO mental health services.

**Table D. 9. Total adult (20–64 years) mental health service consumers for 2012/13 by DHB and NGO for each region**

Region <sup>#</sup>	Adult mental health service consumers aged 20–64* seen by				Access rate
	DHBs	NGOs	DHBs and NGOs	Total	
Northern	16,306	1,522	7,395	25,223	2.7
Midland	9,240	2,155	5,564	16,959	3.7
Central	9,687	1,846	4,347	15,880	3.3
South Island	11,530	1,463	3,376	16,369	2.8
<b>Total unique consumers seen</b>	<b>44,922</b>	<b>6,806</b>	<b>20,270</b>	<b>71,998</b>	<b>2.9</b>

*Note.* This table includes consumers seen by both mental health and AOD services, but not those seen only by AOD services. The final row represents the unique adult mental health service consumers seen in New Zealand. As a result, the sum of consumers seen by the regions is higher than the total unique consumers seen nationally.

<sup>#</sup> Consumer allocation to regions is based on where the person reported they lived. The location of the service provider may differ. Consumers are counted only once in a region, but may be included in more than one region if they have moved during the year.

\* The 20–64 year age group has been included in this table to enable a population access rate to be determined using the available census information at a DHB district level which is provided in age bands of 5 years, eg 20–24.

Source: PRIMHD 2012/13 data extract obtained 30 January 2014.

87 – PRIMHD access data counts some individual consumers more than once, for example if consumers move from one DHB district to another (access data is based upon consumer domicile, not location of service provider). In the following tables, presentation of unique consumer data is signalled in the row and column descriptors and the table notes.

The following two tables summarise the number of consumers seen (aged 18-64 years), the number of contacts and bed nights reported to PRIMHD by DHBs and NGOs respectively. Twenty-eight per cent of consumers seen by DHBs were also seen by NGOs.

Table D.10 describes 2012/2013 service activity for DHBs, most DHB mental health service consumers were seen in the community.

**Table D.10. DHB 2012/13 service activity for adult mental health service consumers (aged 18–64) by PRIMHD team type<sup>88</sup>**

DHB team types	Consumers seen	Bed nights	Contacts	Face-to-face activities <sup>#</sup>
Community <sup>^</sup>	66,968	3,363	1,517,984	892,964
Inpatient	7,799	231,075	847	8,973
Other MH service teams	6,103	10,907	77,753	45,103
Forensic	5,029	79,648	51,225	30,442
Residential/Accommodation	467	4,041	9,230	8,123
<b>Total (for all team types)</b>	<b>69,556*</b>	<b>329,034</b>	<b>1,657,039</b>	<b>985,605</b>

*Note.* Some consumers are seen by more than one service type therefore the total unique consumers does not equal the sum of consumers seen by each service type.

<sup>#</sup>Face-to-face activities are when a consumer is physically present. Care and liaison coordination activities, contact with family and whānau-written correspondence, telephone calls and text messages are excluded from this count.

<sup>^</sup>Community teams includes community skills enhancement teams.

Source: PRIMHD 2012/13 data extract obtained 9 July 2014.

Table D.11 shows that NGO mental health service consumers were mostly seen by community teams. As expected, the majority of NGOs bed nights were provided by residential and accommodation services.

**Table D.11. NGO 2012/13 service activity for adult mental health service consumers (aged 18–64) by PRIMHD team type**

NGO team types	Consumers seen	Bed nights	Contacts	Face-to-face activities <sup>#</sup>
Community <sup>^</sup>	24,734	16,480	991,829	764,878
Forensic	35	7,322	722	629
Residential/accommodation	5,475	512,088	92,755	83,130
Other mental health service teams	1,736	2,584	17,705	9,537
<b>Total (for all team types)</b>	<b>26,280*</b>	<b>538,474</b>	<b>1,103,011</b>	<b>858,174</b>

<sup>\*</sup>Some consumers are seen by more than one service type therefore the total unique consumers does not equal the sum of consumers seen by each service type.

<sup>#</sup>Face-to-face activities are when a consumer is physically present. Care and liaison coordination activities, contact with family and whānau-written correspondence, telephone calls and text messages are excluded from this count.

<sup>^</sup>Community teams includes community skills enhancement teams.

Source: PRIMHD 2012/13 data extract obtained 9 July 2014.

88 – The team type categories used in this analysis predate the July 2014 HISO changes to team type codes.

The 18 and 19 year olds reported in Table D. 10 and Table D. 11 represent a small proportion of the total consumers seen by adult mental health services. DHB services saw 4,753 people aged 18 and 19 years during the period from 1 July 2012 to 30 June 2013, while NGO services saw 1,385 people of the same age during the same period.<sup>89</sup> It is possible that some of the 18 to 19 year olds accessing adult services also continue to be seen by child and adolescent services, including early intervention in psychosis services with child and adolescent mental health services.

### D.3.2 Adult AOD services

Table D.12 summarises by region the number of adult consumers of AOD services seen by DHBs only, NGOs only and those seen by both provider types reported in PRIMHD. Because the same consumers may be included in more than one region, the bottom row records the total number of unique consumers contained in these figures.

A total of 37,520 consumers were seen by adult AOD services for the year end 30 June 2013. Of this group, 53 per cent were seen by DHBs only, 27 per cent by NGOs only and 20 per cent were seen by both DHBs and NGOs.

**Table D.12. Total adult (20–64 years) consumers of AOD services for 2012/13 by DHB and NGO for each region**

Region*	Adult consumers of AOD services aged 20–64* seen by				Access rates
	DHBs	NGOs	DHBs and NGOs	Total	
Northern	10,426	1,990	2,734	15,150	1.6
Midland	3,389	3,532	1,960	8,881	2.0
Central	2,926	2,423	1,358	6,707	1.4
South Island	3,885	2,255	1,624	7,764	1.3
<b>Total unique consumers seen</b>	<b>19,959</b>	<b>9,986</b>	<b>7,575</b>	<b>37,520</b>	<b>1.5</b>

*Note.* Consumer allocation to regions is based on where the person reported they lived. The location of the service provider may differ. Consumers are counted only once in a region, but may be included in more than one region if they have moved during the year. This table includes consumers seen by both AOD and mental health, but not those seen only by mental health services. The final row represents the unique adult consumers of AOD services seen in New Zealand. As a result, the sum of consumers seen by the regions is higher than the total unique consumers seen nationally.

\* The 20–64 year age group has been included in this table to enable a population access rate to be determined using the available census information which is provided in age bands of 5 years, eg 20–24.

Source: PRIMHD 2012/13 data extract, data extract obtained 30 January 2014

As already outlined above, PRIMHD collates activity information for specified team types. The following tables summarise service activity for DHBs and NGOs respectively, by PRIMHD team types. Consumers seen by both DHBs and NGOs are included in the tables set out below.

Table D.13 and Table D.14 summarise consumers seen (aged 18 to 64 years), contacts and bed nights for DHBs and NGOs respectively, reported to PRIMHD for adult AOD services. As shown in Table D. 13, the majority of consumers were seen by general adult AOD teams. A very small number were seen by co-existing problems teams.

89 – These people represent unique consumers.

**Table D.13 DHB 2012/13 service activity for adult consumers of AOD services (aged 18–64) by PRIMHD team type**

DHB team types	Consumers seen	Bed nights	Contacts	Face-to-face activities <sup>#</sup>
AOD community	26,180	637	365,633	203,632
Co-existing problem community	1,034	-	12,701	6,818
AOD inpatient	775	6,185	-	149
AOD residential/ co-existing problems	88	-	538	510
<b>Total (all team types)</b>	<b>26,690*</b>	<b>6,822</b>	<b>378,872</b>	<b>211,109</b>

\*Some consumers are seen by more than one service type therefore the total unique consumers does not equal the sum of consumers seen by each service type.

<sup>#</sup> Face-to-face activities are when a consumer is physically present. Care and liaison coordination activities, contact with family and whānau-written correspondence, telephone calls and text messages are excluded from this count.

Source: PRIMHD 2012/13 data extract obtained 9 July 2014.

Like the DHB adult AOD services, most consumers were seen by general NGO community services. A much smaller proportion was seen by the NGO co-existing problems services (Table D. 14).

**Table D.14. NGO 2012/13 service activity for adult consumers of AOD services (aged 18–64) by PRIMHD team type**

NGO team types	Consumers seen	Bed nights	Contacts	Face-to-face activities <sup>#</sup>
AOD community	15,823	4,052	184,083	133,200
AOD residential	2,095	113,558	7,197	6,626
Co-existing problem community	414	-	7,660	5,669
Co-existing problem residential	166	16,811	21	18
AOD inpatient	23	92	-	-
<b>Total (by all team types)</b>	<b>16,468*</b>	<b>134,513</b>	<b>198,961</b>	<b>145,513</b>

\*Some consumers are seen by more than one service type therefore the total unique consumers does not equal the sum of consumers seen by each service type.

<sup>#</sup>Face-to-face activities are when a consumer is physically present. Care and liaison coordination activities, contact with family and whānau-written correspondence, telephone calls and text messages are excluded from this count.

Source: PRIMHD 2012/13 data extract obtained 9 July 2014.

The 18 and 19 year olds reported in Table D.13 and Table D.14 represent a small proportion of the total consumers seen by adult AOD services. DHB services saw 1,451 people aged 18 and 19 years during the period from 1 July 2012 to 30 June 2013, while NGO services saw 1,096 people of the same age during the same period. These are unique consumers seen by services.

### D.3.3 Adult problem gambling services

Organisations providing problem gambling services funded by the Ministry of Health are required to supply monthly data to the Ministry of Health on service use by consumers, and their families or others who are affected by the behaviour of problem gamblers. Data from this problem gambling national database, known as CLIC, is shown in Table D.15 and Table D.16 below.<sup>90</sup>

In the 12 months up to 30 June 2013, 4,471 problem gamblers aged 20 to 64 years received treatment. Services were also provided to 1,603 family members and others in the same age range. These figures exclude those receiving brief interventions alone. When all age groups were considered, 4,882 problem gamblers and 2,049 family members and affected others were identified.

**Table D.15. Problem gambling services consumers and their family/affected others aged 20–64 years**

Consumer type	July 2012 to June 2013	
	Consumers (count)	Consumers (%)
Family/affected other	1,603	26
Gambler	4,471	74
<b>Total</b>	<b>6,074</b>	<b>100</b>

Source: Problem Gambling Client Information Collection (CLIC) database 2012/13 data extract February 2014.

CLIC data is not collected by DHB districts. Regional analysis can be provided for the North Island and South Island only. The South Island region had 1,168 consumers, which was 19 per cent of the total (those using services as problem gamblers and as family/affected others are combined).

**Table D.16. Adult (20–64 years) problem gambling consumers and family/affected other by region**

Consumer type	July 2012 to June 2013	
	Consumers (count)	Consumers (%)
North Island	4,906	81
South Island	1,168	19
<b>Total</b>	<b>6,074</b>	<b>100</b>

Source: Problem Gambling Client Information Collection (CLIC) database 2012/13; data extract February 2014.

90 – The CLIC data relies on self-report by services, but there are checks on the quality of the data submitted.

### D.3.4 Consumer and service use tables from PRIMHD

Table D.17. Total adult (20 to 64 years) DHB and NGO mental health consumers by region and DHB district

Region and DHB	Adult mental health service consumers seen by				Access rate (%)
	DHBs only	NGOs only	DHBs and NGOs	Total	
<b>Northern region</b>	<b>16,306</b>	<b>1,522</b>	<b>7,395</b>	<b>25,223</b>	<b>2.7</b>
Northland	1,671	154	1,060	2,885	3.5
Auckland	5,911	303	2,140	8,354	3.0
Waitematā	5,395	492	1,970	7,857	2.5
Counties Manukau	4,747	650	2,616	8,013	3.0
<b>Midland region</b>	<b>9,240</b>	<b>2,155</b>	<b>5,564</b>	<b>16,959</b>	<b>3.7</b>
Waikato	3,365	1,204	2,882	7,451	3.7
Lakes	1,975	162	704	2,841	5.2
Bay of Plenty	2,301	612	1,199	4,112	3.7
Tairāwhiti	841	71	189	1,101	4.6
Taranaki	1,049	144	664	1,857	3.0
<b>Central region</b>	<b>9,687</b>	<b>1,846</b>	<b>4,347</b>	<b>15,880</b>	<b>3.3</b>
Hawke's Bay	2,226	624	621	3,471	4.2
MidCentral	1,300	415	944	2,659	2.9
Whanganui	526	171	373	1,070	3.3
Capital and Coast	3,648	253	1,410	5,311	3.0
Hutt Valley	2,155	239	846	3,240	4.0
Wairarapa	279	204	258	741	3.3
<b>Southern region</b>	<b>11,530</b>	<b>1,463</b>	<b>3,376</b>	<b>16,369</b>	<b>2.8</b>
Nelson Marlborough	1,689	94	611	2,394	3.1
West Coast	598	23	103	724	3.8
Canterbury	4,785	828	1,475	7,088	2.5
South Canterbury	722	90	126	938	3.0
Southern	4,098	445	1,093	5,636	3.2
<b>Total unique consumers seen</b>	<b>44,922</b>	<b>6,806</b>	<b>20,270</b>	<b>71,998</b>	<b>2.9</b>

Note. Information is based on consumer domicile. The location of the service provider may differ. This table includes consumers seen by both mental health and AOD services, but not those only seen by AOD services. Consumers are counted only once in a DHB row, but may be included in more than one DHB row. Region totals represent unique consumers for that region. Consumers may be included in more than one region. The final row represents the unique adult mental health service consumers seen in New Zealand.

Source: PRIMHD 2012/13 data extract 9 July 2014.

**Table D.18. Total adult (20–64 years) DHB and NGO consumers of AOD services by region and DHB district**

Region and DHB	Adult alcohol and other drug consumers seen by				Access rate (%)
	DHBs only	NGOs only	DHBs and NGOs	Total	
<b>Northern</b>	<b>10,426</b>	<b>1,990</b>	<b>2,734</b>	<b>15,150</b>	<b>1.6</b>
Northland	1,405	519	423	2,347	2.9
Auckland	3,267	505	816	4,588	1.6
Waitematā	3,936	410	818	5,164	1.7
Counties Manukau	2,737	702	804	4,243	1.6
<b>Midland</b>	<b>3,389</b>	<b>3,532</b>	<b>1,960</b>	<b>8,881</b>	<b>2.0</b>
Waikato	959	1,641	880	3,480	1.7
Lakes	160	893	271	1,324	2.4
Bay of Plenty	1,222	822	525	2,569	2.3
Tairāwhiti	263	92	38	393	1.7
Taranaki	852	136	266	1,254	2.0
<b>Central</b>	<b>2,926</b>	<b>2,423</b>	<b>1,358</b>	<b>6,707</b>	<b>1.4</b>
Hawke's Bay	1,083	70	195	1,348	1.6
MidCentral	705	612	328	1,645	1.8
Whanganui	508	128	140	776	2.4
Capital and Coast	501	818	406	1,725	1.0
Hutt Valley	211	423	243	877	1.1
Wairarapa	4	444	87	535	2.4
<b>Southern</b>	<b>3,885</b>	<b>2,255</b>	<b>1,624</b>	<b>7,764</b>	<b>1.3</b>
Nelson Marlborough	1,404	156	218	1,778	2.3
West Coast	327	20	38	385	2.0
Canterbury	753	1,431	801	2,985	1.0
South Canterbury	324	39	79	442	1.4
Southern	1,227	658	519	2,404	1.4
<b>Total unique consumers seen</b>	<b>19,959</b>	<b>9,986</b>	<b>7,575</b>	<b>37,520</b>	<b>1.5</b>

*Note.* Consumer allocation to regions is based on where the consumer reported they lived. The location of the service provider may differ. Consumers are counted only once in a region, but may be included in more than one region if they have moved during the year. Consumers are counted only once in a DHB, but may appear in more than one DHB. This table includes consumers seen by both mental health and AOD services, but not those seen only by mental health services. Regional totals represent the unique consumers seen for that region. The final row represents the unique adult consumers of AOD services seen in New Zealand. As a result, the sum of consumers seen by the regions is higher than the total unique consumers seen nationally

Source: PRIMHD 2012/13 data extract 9 July 2014.



# Appendix E: Estimating the Vote Health funded adult mental health and addiction services workforce

The following appendix describes the calculations undertaken to prepare the survey results for analysis. There were three areas that were addressed.

1. The combined mental health and addiction services group reported a workforce of 515 FTEs. In order to analyse workforce by funding and consumers seen, the combined mental health group had to be distributed across the mental health and addiction groups. Both funding and consumers seen are only reported by either mental health or addiction categories. This section describes the method for distributing the combined mental health and addiction group.
2. There was some suggestion that organisations that had participated in the survey had underreported their total Vote Health FTEs. This section examines total Vote Health workforce by DHB and NGO in relation to funding to assess if there is a consistent pattern of underreporting by organisations.
3. A number of NGO organisations who met the criteria for inclusion did not participate in the survey. Among the NGOs organisations invited to participate, 27 per cent did not complete the survey, and they received approximately 13 per cent of the Vote Health funding for adult NGO mental health and addiction services. The section outlines the methodology for estimating the missing FTEs based on funding for these NGOs.

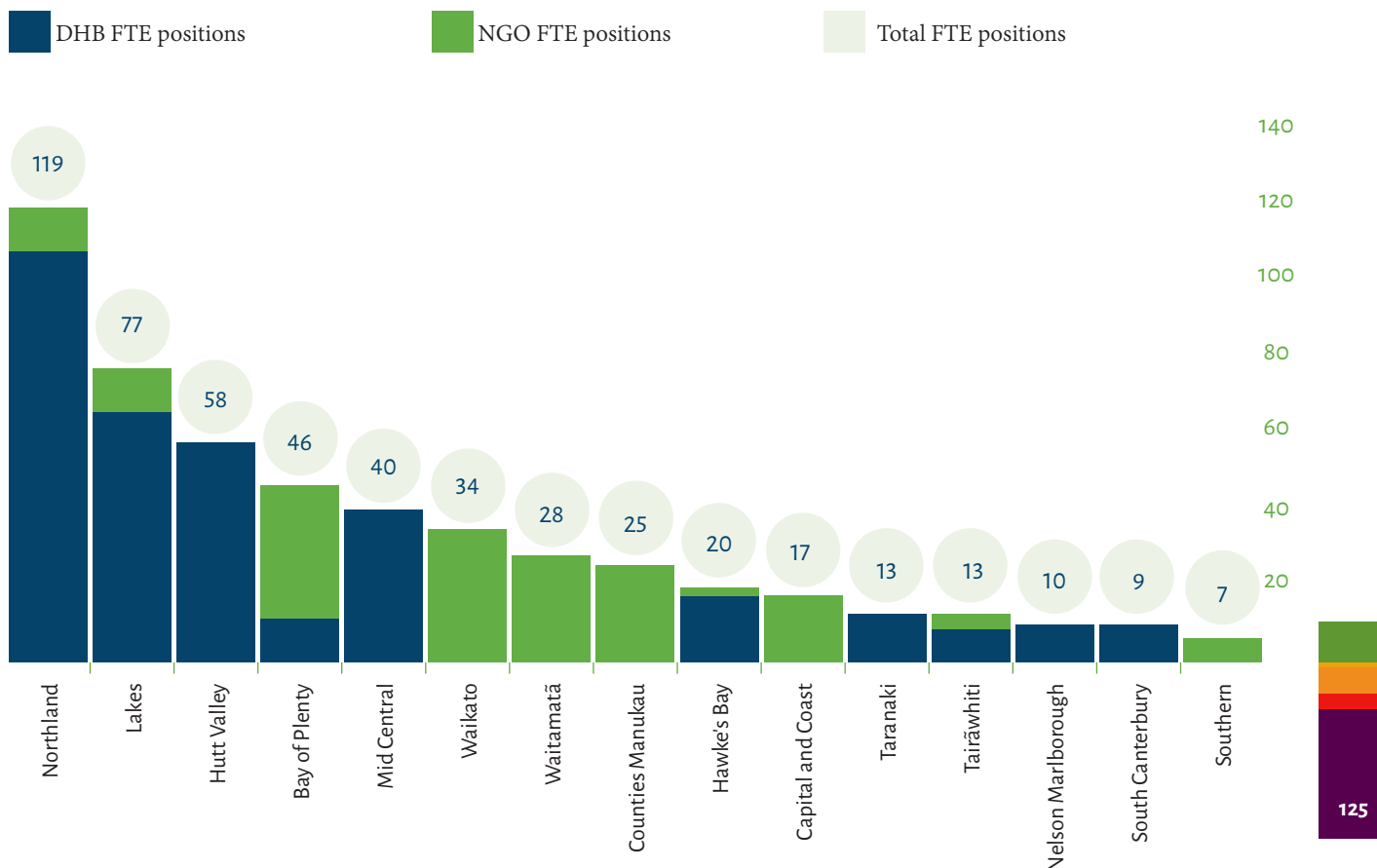
## E.1 Distributing the combined Vote Health mental health and addiction group

One of the areas that required some recoding of the survey results was the combined mental health and addiction group. This workforce of 515 FTEs was reported by services as delivering both mental health and addiction services, within organisations that received both AOD and mental health Vote Health funding. As demonstrated in the table below, the combined mental health and addiction group were distributed across both DHB and NGO services.

**Table E.1. Distribution of reported FTEs across DHB and NGO adult mental health and addiction services**

	DHB		NGO		Total FTEs	
	FTE	%	FTE	%	FTE	%
Mental health only	4,680.7	52.4	2,416.5	27.1	7,097.2	79.5
Addiction only	633.2	7.1	683.3	7.7	1,316.5	14.7
Mental health and addiction	342.6	3.8	172.8	1.9	515.5	5.8
Total	5,656.5	63.3	3272.6	36.7	8,929.2	100.0

As shown in the figure below, the majority of combined mental health and addiction FTEs reported in the survey are found in the smaller DHBs, in particular Northland and Lakes DHBs. A small number of DHB districts reported combined mental health and addiction teams across the NGO sector, with the majority of combined mental health and addiction FTEs reported in Waitematā, Counties Manukau, Waikato and Bay of Plenty DHB districts. Five DHB districts reported no combined mental health and addiction services.



**Figure E.1. Total combined mental health and addiction services workforce FTEs by local DHB district for DHBs and NGOs (reported FTEs)**

Further analysis of the distribution of occupational roles across the combined mental health and addiction group showed that the group was very similar to the mental health group, with slightly higher numbers of addiction and CEP practitioners (see Table F.5 for a comparison between the mental health, addiction and combined mental health and addiction group by occupational roles).

In order to analyse the workforce in relation to funding and consumers seen by services, it was essential to distribute the combined mental health and addiction group for much of the analysis in this report. The combined mental health and addiction group were split between the mental health and addiction in proportion to mental health and addiction Vote Health funding allocated to DHB and NGO services.

- The DHB combined mental health and addiction group was distributed across mental health and addiction according to funding of DHB adult mental health (91 per cent) and addiction (nine per cent) services.
- The NGO combined mental health and addiction group was distributed across mental health and addiction according to funding of NGO adult mental health (78 per cent) and addiction (22 per cent) services

This resulted in the allocation of the 448 combined mental health and addiction FTEs to mental health services and 67 FTEs to addiction services.

**Table E. 2. Distribution of the combined mental health and addiction group across DHB and NGO mental health and addiction sectors**

Sector	DHB FTEs reported	NGO FTEs reported	Total FTEs reported
Mental health			
Mental health reported FTE	4,680.7	2,416.5	7,097.2
Mental health and addiction reported FTE	313.1	135.3	448.4
Mental health total reported FTE	4,993.8	2,551.8	7,545.6
Addiction			
Addiction reported FTE	633.2	683.3	1,316.5
Mental health and addiction reported FTE	29.5	37.5	67.0
Addiction total reported FTE	662.7	720.8	1,383.5
<b>Total FTEs</b>	<b>5,656.5</b>	<b>3,272.6</b>	<b>8,929.1</b>

## E.2 Testing for underreporting by participating organisations

Although all DHB provider arm mental health and addiction services returned surveys, the extent to which these reflect the total DHB adult mental health and addiction workforce is unknown. Some DHBs may not have provided information for all the workforce in adult mental health and addiction services. Likewise, some NGOs may not have reported all staff they employ.

As a result, the total workforce among the organisations that participated in the survey may be higher than that which was reported. It is also possible that organisations reported workforce that is funded through other sources of income as part of the Vote Health funded workforce group. This would inflate the results for the Vote Health funded workforce. This is most likely to have occurred among some of the NGOs. It is difficult to estimate how much of an impact these factors have had on the survey results for Vote Health funded FTEs.

Further analysis was undertaken to determine if there were significant discrepancies between DHB provider arm services in terms of average FTEs reported in relation to Vote Health funding. It was found that there were inconsistencies between DHBs in terms of the relationship between reported FTEs and expected FTEs based on average funding.

The majority of DHBs reported Vote Health FTE position totals close to expected FTE totals based on Vote Health funding. However, four DHBs reported substantially (>20 per cent) higher FTEs than expected FTE totals (positive difference), and two DHBs reported substantially lower total FTEs than expected FTE results (negative difference). This may reflect different funding in each DHB, survey returns that did not report all of their staff numbers or differences in workforce composition which will have implications for average funding per FTE. As a result, it was difficult to calculate underreporting across the DHBs.

An analysis of the NGOs that completed the survey showed wide variation in average FTEs in relation to funding across the country. As such it was difficult to determine the level of workforce underreporting by participating organisations. It is also possible that some organisations may have reported larger workforces than they actually had.

A number of other factors may also account for differences in average funding per FTE position.

1. It is likely to be affected by regional funding of services.
2. A recent fair funding campaign by NGOs has highlighted large discrepancies in the funding they received per FTE position across the country for similar services therefore some of the differences in average funding may represent actual differences rather than under or over reporting.
3. The funding information is drawn from the 12/13 financial year, while the workforce data collection occurred in the 13/14 financial year (reliable 13/14 financial year information was not available at the time of the survey).
4. Multiple factors (for example, investment in housing stock, intensive service, mixed residential/community models) specific to the organisation or services can influence the size of the workforce relative to funding.
5. Organisations may estimate FTEs differently with some counting 40 hour positions as one FTE, while others will count positions with fewer hours (eg, 32 or 36 hours) as one FTE.
6. Some services may have included workforce that is funded using other sources of income as being Vote Health funded. All of these factors will influence the calculation of FTEs in relation to funding received.

Whilst the inconsistent mapping of funding to FTEs makes it difficult to determine the level of over or underreporting by services who did respond to the surveys, the analysis did identify that there is not a consistent bias for under or over reporting from services who did respond to the survey.

### **E.3 Estimating Vote Health funded FTEs for NGOs who did not participate in the survey**

Three quarters (75 per cent) of the targeted organisations participated in the survey (all DHBs and 73 per cent of NGOs). The organisations that participated in the survey received 96 per cent of the Vote Health funding for adult mental health and addiction services identified in the Price Volume schedule 2012/13. Those NGOs that completed the survey received 87 per cent of the Vote Health funding allocated to NGO adult mental health and addiction services. In contrast, those who did not complete the survey received 13 per cent of Vote Health funding for adult NGO mental health and addiction services. Many of the NGOs who did not complete the survey had funding for approximately one to nine FTEs. This indicates that they are either small to medium organisations or part of larger health and social service organisations with small contracts related to adult mental health and addiction services.

**Table E.3. Participation rates in relation to Vote Health funding by surveyed organisations and total reported FTEs by DHBs and NGOs**

	Participation rate by organisation	Total Vote Health funding received by all organisations invited to participate in the survey	Vote Health funding received by participating organisations	Percentage Vote Health funding received by the participating organisations	Total mental health and addiction FTEs reported
DHB	100%	\$726,054,266	\$726,054,266	100%	5,656.5
NGO	73%	\$295,223,262	\$255,943,022	87%	3,272.6
<b>Total group</b>	<b>75%</b>	<b>\$1,021,277,528</b>	<b>\$981,997,288</b>	<b>96%</b>	<b>8,929.2</b>

FTEs for the NGOs that met the criteria for participation but did not participate in the survey were estimated on the basis of Vote Health funding received by those organisations in relation to average funding per FTE position by participating organisations.

Steps to calculate FTEs for the organisations that met the criteria for inclusion in the survey but that did not complete it, are as follows.

1. Three groups were created based on the levels of funding. This grouping allowed for variations in funding per FTE position between the smaller and larger organisations. In particular, smaller organisations tended to have lower average funding per FTE position compared to larger organisations. The three groups were divided in terms of organisations receiving less than \$500,000 in Vote Health funding (small), receiving between \$500,000 and \$1 million (medium), and those receiving more than \$1million in Vote Health funding for adult mental health and addiction services (large).
2. Average funding per FTE position was then calculated on the basis of dividing the total funding (see Table E. 6 and Table E. 7 [column 1]) received by small, medium and large organisations that participated in the survey by the total reported workforce [2a]. This became the average funding per FTE position used to calculate the estimated FTEs [2b].
3. The total funding for small and medium organisations that did not participate in the survey (see Table E. 6 and Table E. 7 [column 3a]) was then divided by the average funding per FTE position for participating organisations [3b]. All large organisations participated in the survey. This provided an estimate of the total number of FTEs among the NGOs that did not participate in the survey for small to medium sized NGOs. Please note that all NGOs receiving more than \$1million in adult mental health and addiction services funding participated in the survey.

As demonstrated in the two tables below, a total of 457 missing mental health FTEs and 123 addiction FTEs were estimated using the above methodology.

**Table E. 4. Calculating the missing mental health FTEs by NGO services for organisations that did not participate in the survey**

Organisation size NGO	Funding* of participating NGOs [1]^	Total FTE for participating NGOs [2a]	Average funding per FTE by participating NGOs [2b]	Funding for non-participating NGOs [3a]	Missing NGO FTE based on funding [3b]	Total NGO FTE (reported plus missing estimated FTEs)
Small	\$14,987,099	321.5	\$46,620	\$4,950,866	106.2	427.7
Medium	\$108,510,464	1,385.8	\$78,300	\$27,472,397	350.9	1,736.7
Large	\$75,170,132	844.0	\$89,064	-	-	844.0
<b>Total</b>	<b>\$198,667,695</b>	<b>2,551.3</b>	<b>\$77,869</b>	<b>\$32,423,263</b>	<b>457.1</b>	<b>3,008.4</b>

\* Vote Health funding received by organisations was obtained from the 2012/13 Price Volume Schedule.

^ Numbers in square brackets [ ] identify text references identified above to information in each column.

**Table E. 5. Calculating the missing addiction FTEs by NGO services for organisations that did not participate in the survey**

Organisation size NGO	Funding* of participating NGOs [1]^	Total FTE for participating NGOs [2a]	Average funding per FTE by participating NGOs [2b]	Funding for non-participating NGOs [3a]	Missing NGO FTE based on funding [3b]	Total NGO FTE (reported plus missing estimated FTEs)
Small	\$3,420,053	99.4	\$34,411	\$2,394,023	69.6	169.0
Medium	\$37,168,923	443.3	\$83,850	\$4,462,954	53.2	496.5
Large	\$16,686,352	178.6	\$93,428	-	-	178.6
<b>Total</b>	<b>\$57,275,328</b>	<b>721.3</b>	<b>\$79,406</b>	<b>\$6,856,977</b>	<b>122.8</b>	<b>844.1</b>

\* Vote Health funding received by organisations was obtained from the 2012/13 Price Volume Schedule.

^ Numbers in square brackets [ ] identify text references identified above to information in each column.

The above method for estimating missing workforce across the NGO mental health and addiction sector resulted in an increase of 580 FTEs to take into account the potential size of the entire of the adult mental health and addiction workforce. The following table sets out the reported and estimated FTEs, and calculates the total FTEs across the sectors. It shows an increase of 18 per cent in NGO FTEs (an increase to 3,853 FTEs for the NGO sector from 3,273 FTEs).

**Table E. 6. DHB and NGO missing FTE estimates due to non-response by organisations**

Sector	Reported FTEs	Estimated missing FTE <sup>#</sup>	Percentage increase	Total FTEs (including estimated FTEs)
<b>DHB*</b>				
Mental health	4993.8	-	-	4,993.8
Addiction	662.7	-	-	662.7
DHB sub-total	5656.5	-	-	5,656.5
<b>NGO<sup>^</sup></b>				
Mental health	2551.8	457.1	18%	3,008.9
Addiction	720.8	122.8	17%	843.6
NGO sub-total	3272.6	579.9	18%	3,852.5
<b>Grand total</b>	<b>8929.1</b>	<b>579.9</b>	<b>6%</b>	<b>9,509.0</b>
Addiction total	1383.5	122.8	9%	1,506.3
Mental health total	7545.6	457.1	6%	8,002.7

\* The combined DHB MH&A group has been distributed across mental health and addiction according to funding of DHB adult mental health (91%) and addiction (9%) services.

<sup>^</sup> The combined NGO MH&A group has been distributed across mental health and addiction according to funding of NGO adult mental health (78%) and addiction (22%) services.

<sup>#</sup> All DHBs responded to survey, as a result estimates for missing FTEs due to non-response were not needed. Twenty-eight percent of NGOs did not respond. Missing FTEs were calculated on the basis of funding.

The distribution of estimated missing FTEs across the NGO sector has been calculated for regions and DHB districts (see Table E. 7 and Table E. 8). It was not possible to calculate small, medium and large organisation categories by region or DHB district as many organisations receive funding across multiple regions and districts.

The workforce estimates for the non-responding organisations were distributed across the regions and DHB districts according to the proportion of funding received by organisations that did not participate in the survey. This enabled an allocation of workforce across regions and DHB districts that took into account the rates of participation according to funding. As can be seen in the table below, the Central region proportion of national funding among the NGO mental health organisations that did not participate in the survey is very low at three per cent.

It was not possible to identify the locations of the FTE positions for estimated missing workforce across regions and thus these were distributed using information about organisations who did not participate. Among the organisations that did not complete the survey, a high proportion of their funding was for national AOD and problem gambling contracts. This meant that 49.1 of the estimated 133 missing FTEs (40 per cent) for AOD and problem gambling services was unable to be allocated regionally or to a DHB locality. Yet this workforce was unlikely to be working nationally. For mental health services, national funding for non-responding organisations was smaller, with only one of non-responding organisations' funding per cent being allocated nationally: equating to six FTEs out of an estimated 457 FTEs.

The estimated missing workforce relating to national contracts has been distributed across the regions in the same proportions as the funding received by non-responding organisations in each region. For example, the non-responding organisations in the Northern region received 38 per cent of the regional funding allocated to non-responding organisations. This method ensured that all the estimated missing FTEs were allocated to a region for the purposes of the analyses in this report. It is likely, however, that this method has contributed to some over or under reporting of AOD and problem gambling service workforce in the regions. It also means that the proportion of the estimated workforce in each region differs from the proportion of the reported workforce in each region.

**Table E. 7. Distribution across the regions of the estimated missing FTE for NGO organisations that did not participate in the survey**

Region	Addiction funding of non-participating organisations	Proportion of funding for addiction across region	Missing addiction FTEs based on percentage of funding	Mental health funding of non-participating organisations	Proportion of funding for mental health across region	Missing mental health FTEs based on percentage of funding
Central	\$765,105	11%	13.7	\$932,159	3%	13.1
Midland	\$2,319,667	34%	41.5	\$8,984,148	28%	126.7
Northern	\$2,611,276	38%	46.8	\$9,490,810	29%	133.8
South Island	\$1,160,929	17%	20.8	\$13,016,145	40%	183.5
<b>Grand total</b>	<b>\$6,856,977*</b>	<b>100%</b>	<b>122.8</b>	<b>\$32,423,263</b>	<b>100%</b>	<b>457.1</b>

\* Please note that some of the funding for missing organisations was allocated nationally rather than regionally. This was distributed across the regions according to the proportion of funding by non-participating organisations across the region.

The estimated regional FTEs were further distributed across the DHB districts. This involved calculating the proportion of funding for organisations that did not participate in the survey by DHB district within each region and then distributing the estimated regional FTEs accordingly.



**Table E. 8. Distribution across local DHB districts of the estimated missing FTE for NGO organisations that did not participate in the survey**

DHB district	Addition funding of non-participating organisations*	Proportion of regional funding on which to distribute FTE	Missing addition FTE based on percentage of funding	Mental health funding of non-participating organisations*	Proportion of regional funding on which to distribute FTE	Missing mental health FTE based on percentage of funding
Central	\$765,105	11%	13.7	\$932,159	3%	13.1
Capital & Coast	\$632,479	83%	11.3	\$496,090	53%	7.0
Hawke's Bay	-	-	-	-	-	-
Hutt Valley	-	-	-	-	-	-
MidCentral	\$132,626	17%	2.4	\$328,513	35%	4.6
Wairarapa	-	-	-	-	-	-
Whanganui	-	-	-	\$107,557	12%	1.5
Midland	\$2,319,667	34%	41.5	\$8,984,148	28%	126.7
Lakes	-	-	-	\$539,049	6%	7.6
Tairāwhiti	-	-	-	-	-	-
Taranaki	-	-	-	-	-	-
Waikato	\$192,384.60	8%	3.4	\$4,581,916	51%	64.6
Bay of Plenty	\$2,127,283	92%	38.1	\$3,863,184	43%	54.5
Northern	\$2,611,276	38%	46.8	\$9,490,810	29%	133.8
Counties Manukau	\$1,611,485	62%	28.9	\$1,596,813	17%	22.5
Northland	-	-	-	\$1,060,564	11%	15.0
Waitematā	\$999,791	38%	17.9	\$5,850,268	62%	82.5
Auckland	-	-	-	\$983,166	10%	13.9
Southern	\$1,160,929	17%	20.8	\$13,016,145	40%	183.5
Canterbury	\$129,271	11%	2.3	\$4,605,717	35%	64.9
Nelson Marlborough	\$822,787	71%	14.7	\$6,377,131	49%	89.9
South Canterbury	-	-	-	\$92,561	1%	1.3
Southern	\$208,871	18%	3.7	\$1,588,051	12%	22.4
West Coast	-	-	-	\$352,684	3%	5.0
<b>Grand total</b>	<b>\$6,856,977</b>		<b>122.8</b>	<b>\$32,423,263</b>		<b>457.1</b>

Note. This funding was distributed in proportion to the funding received by each DHB district and region.

\* Please note that there was a total of \$23,466,092 national funding not provided to a specific DHB district or region in the Price Volume Schedule. This funding was distributed in proportion to the funding received by each DHB district and region.

In order to account for the estimated missing FTEs across occupational roles and teams, the missing FTEs were distributed across the occupational roles and teams in proportion to the total FTE for each occupational role or team. For example, the estimated missing FTE for social workers in NGO mental health services is 11 FTE, resulting in a total of 72 FTEs (see Table E.11 below). A similar process was used to estimate vacancies by roles and estimate missing FTEs according to the different types of services.

**Table E. 9. Example of the distribution of NGO FTE positions (reported and estimated missing) across the mental health and addiction by DHB and NGO services for allied health professionals**

Allied health professionals	NGO reported FTEs	Percentage of the total NGO workforce	Estimated missing FTEs	Total reported plus estimated NGO FTEs
Mental health allied professionals				
Social worker	61.0	2.4%	10.9	71.9
Addiction practitioner/clinician	22.6	0.9%	4.0	26.7
Clinical psychologist	11.1	0.4%	2.0	13.1
Occupational therapist	20.3	0.8%	3.6	23.9
Dual diagnosis practitioner/CEP clinician	3.8	0.2%	0.7	4.5
Counsellor	12.8	0.5%	2.3	15.1
Other allied health professionals	6.4	0.3%	1.1	7.5
Educator/ trainer	15.2	0.6%	2.7	17.9
Other psychologist	7.0	0.3%	1.3	8.3
<b>Total for allied health occupational mental health roles</b>	<b>160.2</b>	<b>6.3%</b>	<b>28.7</b>	<b>188.9</b>
Addiction allied health professionals				
Social worker	15.5	2.1%	2.6	18.1
Addiction practitioner/clinician	250.1	34.7%	42.6	292.7
Clinical psychologist	2.1	0.3%	0.4	2.5
Occupational therapist	1.0	0.1%	0.2	1.2
Dual diagnosis practitioner/CEP clinician	17.4	2.4%	3.0	20.3
Counsellor	57.9	8.0%	9.9	67.8
Other allied health professionals	-	-	-	-
Educator/ trainer	0.8	0.1%	0.1	0.9
Other psychologist	0.5	0.1%	0.1	0.6
<b>Total for allied health occupational addiction roles</b>	<b>345.2</b>	<b>47.9%</b>	<b>58.8</b>	<b>404.0</b>

It is important to recognise that this is an estimated figure and it is based on three key assumptions.

- The organisations that did not complete the survey were similar in workforce composition to those that did complete the survey.
- The results assume that any funding changes between the 12/13 and 13/14 financial years will only have had a small impact on the adult mental health and addiction services workforce.
- The FTEs reported by organisations will not have resulted in a consistent and significant bias in the under or over reporting of total FTEs or in the reporting of specific roles.

# Appendix F:

## Additional tables

### F.1 Chapter four additional tables

#### The distribution of reported and estimated FTEs

Table F.1. Distribution of reported FTEs for mental health and addiction across the regions by DHBs and NGOs

	DHB or NGO	Mental health only (FTE, %)	Addiction (FTE, %)	Mental health and addiction (FTE, %)	Total (FTE, %)
Northern	DHB	1,732.4	169.2	107.6	2,009.3
	%	86%	8%	5%	100%
	NGO	937.6	207.7	63.8	1,209.1
	%	78%	17%	5%	100%
	Total	2,670.0	376.9	171.4	3,218.4
	%	83%	12%	5%	100%
Midland	DHB	613.9	149.2	99.5	862.6
	%	71%	17%	12%	100%
	NGO	525.1	162.8	83.1	770.9
	%	68%	21%	11%	100%
	Total	1,138.9	312.0	182.6	1,633.5
	%	70%	19%	11%	100%
Central	DHB	993.3	145.0	116.3	1,254.6
	%	79%	12%	9%	100%
	NGO	495.5	115.7	19.0	630.3
	%	79%	18%	3%	100%
	Total	1,488.8	260.7	135.3	1,884.9
	%	79%	14%	7%	100%
South Island	DHB	1,341.1	169.8	19.2	1,530.1
	%	88%	11%	1%	100%
	NGO	458.3	197.0	6.9	662.3
	%	69%	30%	1%	100%
	Total	1,799.4	366.8	26.1	2,192.4
	%	82%	17%	1%	100%
New Zealand	Grand- total	7,097.1	1,316.4	515.4	8,929.2
	%	79%	15%	6%	100%

**Table F.2. Total FTEs (reported plus estimated missing FTE) by DHB district for DHB and NGO services**

DHB district	DHB FTE	NGO FTE	Total FTE	Total FTE %
Waitematā	917.7	454.3	1,372.1	15%
Canterbury	757.0	484.5	1,241.5	14%
Counties Manukau	481.1	393.1	874.2	10%
Auckland	479.4	366.5	845.9	9%
Waikato	401.5	307.7	709.2	8%
Southern	468.7	185.1	653.9	7%
Capital & Coast	283.6	278.7	562.2	6%
Bay of Plenty	186.8	312.6	499.4	6%
Nelson Marlborough	194.2	120.1	314.3	3%
MidCentral	170.8	100.2	270.9	3%
Hawke's Bay	154.9	94.4	249.3	3%
Whanganui	174.2	69.0	243.2	3%
Northland	119.8	121.8	241.5	3%
Taranaki	130.9	108.6	239.5	3%
Lakes	81.7	132.3	214.0	2%
Hutt Valley	144.2	46.5	190.7	2%
Tairāwhiti	61.7	57.0	118.8	1%
West Coast	65.9	23.1	89.0	1%
South Canterbury	44.3	25.2	69.5	1%
Wairarapa	24.1	39.2	63.3	1%
<b>Sub-total</b>	<b>5,342.4</b>	<b>3,720.0</b>	<b>9,062.4</b>	<b>100%</b>
National FTEs	314.1	132.4	446.5	
<b>Grand total</b>	<b>5,656.5</b>	<b>3,852.4</b>	<b>9,508.9</b>	

**Table F.3. Proportion of the estimated workforce, funding and consumers seen by DHB and NGO adult mental health and addiction services**

Sector	% of total workforce	% of total Vote Health funding	% of consumers seen
DHB mental health	62%	70%	91%
NGO mental health	38%	30%	38%
DHB addiction	67%	48%	63%
NGO addiction	33%	52%	54%
<b>DHB total</b>	<b>59%</b>	<b>67%</b>	<b>79%</b>
<b>NGO Total</b>	<b>41%</b>	<b>33%</b>	<b>42%</b>

## F.2 Chapter five additional tables

The following graph shows the distribution of the reported and estimated missing FTEs by the major occupational groups

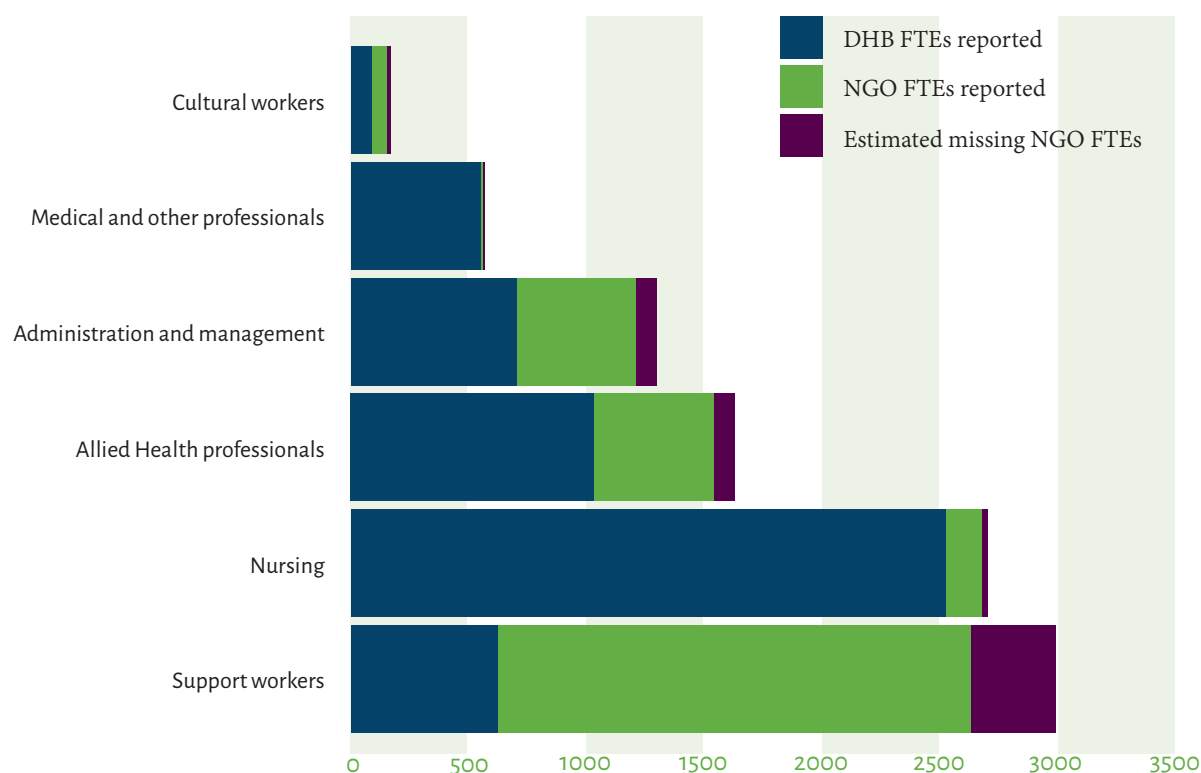


Figure F.1. DHB and NGO total workforce by occupational groups for adult mental health and addiction services for reported and estimated missing FTEs

Table F.4. Rates per 100,000 adults by region for occupational groups including reported and estimates for missing FTEs

Region	Population	Allied health	Medical	Nursing	Support Workers	Administration and management	Other	Total workforce
Northern	943,665	63.1	21.9	93.8	121.6	44.3	8.4	353.2
Midland	454,809	75.3	17.9	96.7	135.9	51.5	14.2	391.5
Central	486,663	52.3	19.9	94.2	103.7	50.2	4.8	325.1
South Island	588,267	61.8	23.2	134.8	101.3	59.5	21.7	402.4
Total (including FTE not based in one region)	2,473,404	65.8	23.0	109.3	120.8	52.6	13.0	384.5

**Table F.5. Reported adult mental health and addiction services workforce by roles (FTEs employed and vacant)**

Roles	Mental health		MH & A		Addiction		Total FTEs (employed plus vacant)	% of workforce
	DHB	NGO	DHB	NGO	DHB	NGO		
Allied health								
Addiction practitioner/ clinician	4.5	10.6	10.7	15.3	70.6	246.7	358.5	4.0%
Dual diagnosis practitioner/CEP clinician	5.5	1.5	3.0	3.0	90.3	16.7	120.0	1.3%
Counsellor	12.0	7.9	11.1	6.3	11.7	56.5	105.5	1.2%
Educator/ trainer	3.4	12.5	2.0	3.5	1.0	-	22.3	0.3%
Occupational therapist	175.3	20.3	9.5	-	13.6	1.0	219.7	2.5%
Clinical psychologist	204.1	11.1	18.1	-	22.1	2.1	257.5	2.9%
Other psychologist	10.4	7.0	0.8	-	1.8	0.5	20.5	0.2%
Social worker	255.5	57.5	14.0	4.5	56.2	14.5	402.1	4.5%
Other allied health professionals	24.7	6.4	1.5	-	2.3	-	34.8	0.4%
Sub-total (allied health)	695.4	134.7	70.7	32.6	269.5	338.1	1,541.0	17.3%
Medical and other professionals								
General practitioner	4.6	0.7	0.2	-	2.4	0.9	8.8	0.1%
House surgeon	49.0	1.0	2.0	-	2.0	-	54.0	0.6%
Consultant psychiatrist	241.9	0.4	19.8	0.2	30.0	-	292.4	3.3%
Medical officer special scale (MOSS)	45.1	1.0	5.0	-	5.3	0.4	56.8	0.6%
Psychiatric registrar	108.8	1.7	3.6	-	10.6	-	124.7	1.4%
Liaison/consult liaison	26.3	1.0	1.0	-	1.2	-	29.4	0.3%
Other medical professionals	0.6	-	-	-	-	-	0.6	-
Sub-total (medical and other professionals)	476.3	5.9	31.6	0.2	51.5	1.3	566.7	6.3%
Nursing								
Registered nurse	2,059.0	105.4	87.5	5.3	175.5	29.6	2,462.2	27.6%
Enrolled nurse	66.4	3.9	-	-	-	2.0	72.3	0.8%
Nurse practitioner/ nurse specialist/nurse educator	79.9	3.0	10.6	-	4.2	1.0	98.7	1.1%
Other nursing professionals	43.5	-	-	-	0.2	-	43.7	0.5%

Roles	Mental health		MH & A		Addiction		Total FTEs (employed plus vacant)	% of workforce
	DHB	NGO	DHB	NGO	DHB	NGO		
Sub-total (nursing)	2,248.8	112.3	98.1	5.3	179.9	32.6	2,676.9	30.0%
Other clinical roles	87.4	15.3	3.0	2.0	2.0	26.5	136.2	1.5%
Total (clinical roles)	3,507.8	268.2	203.3	40.1	502.9	398.5	4,920.8	55.1%
Non-clinical roles								
Support workers								
Community development worker	-	45.0	-	-	-	-	45.0	0.5%
Employment worker	-	42.0	-	1.9	-	-	43.9	0.5%
Community support worker	99.4	796.2	6.8	46.1	8.1	20.7	977.4	10.9%
Family support worker	1.5	54.3	2.0	3.0	-	13.5	74.3	0.8%
Healthcare assistant	260.1	9.0	4.4	-	5.8	-	279.2	3.1%
Peer support - consumer and service user	13.7	133.9	0.5	7.1	-	30.7	185.9	2.1%
Peer support - family and whānau	-	10.6	-	1.2	-	3.5	15.3	0.2%
Psychiatric assistant	165.4	-	-	-	25.4	-	190.7	2.1%
Residential support worker	-	586.1	-	-	-	81.3	667.4	7.5%
Other support workers	37.1	86.2	4.0	9.0	-	16.2	152.4	1.7%
<b>Sub-total (support workers)</b>	<b>577.2</b>	<b>1,763.3</b>	<b>17.7</b>	<b>68.3</b>	<b>39.2</b>	<b>165.8</b>	<b>2,631.4</b>	<b>29.5%</b>
Cultural advice and support								
Cultural supervisor	5.6	5.1	-	3.0	-	2.6	16.3	0.2%
Kaumātua	11.0	13.6	1.6	2.7	2.0	1.9	32.8	0.4%
Kuia	4.8	5.7	0.5	-	-	1.0	12.0	0.1%
Kaiāwhina	25.7	1.0	1.0	0.1	3.1	0.5	31.4	0.4%
Traditional Māori health practitioner	1.0	16.0	-	1.0	-	2.5	20.5	0.2%
Matua	1.5	0.2	-	-	-	0.3	2.0	-
Pasifika cultural advisor	1.0	1.2	-	-	-	1.1	3.3	-
Other cultural advisor	33.3	3.8	3.0	0.2	0.8	1.2	42.3	0.5%
<b>Sub-total (cultural advice and support)</b>	<b>83.9</b>	<b>46.6</b>	<b>6.1</b>	<b>7.0</b>	<b>5.9</b>	<b>11.0</b>	<b>160.5</b>	<b>1.8%</b>



Roles	Mental health		MH & A		Addiction		Total FTEs (employed plus vacant)	% of workforce
	DHB	NGO	DHB	NGO	DHB	NGO		
Other (non-clinical roles)	2.0	1.5	-	-	-	0.8	4.3	-
<b>Total (non-clinical roles)</b>	<b>663.1</b>	<b>1,811.4</b>	<b>23.8</b>	<b>75.2</b>	<b>45.1</b>	<b>177.6</b>	<b>2,796.2</b>	<b>31.3%</b>
Administration and management								
Administrative/ technical support	277.1	72.3	53.3	16.5	44.8	42.8	506.9	5.7%
Senior manager	38.7	57.3	8.6	12.6	4.7	18.7	140.6	1.6%
Clinical director	15.0	5.1	5.8	-	0.7	2.0	28.5	0.3%
Professional leader	13.4	7.9	4.3	2.0	0.6	10.0	38.3	0.4%
Service manager/team leader	133.3	163.8	23.5	24.1	28.9	27.1	400.7	4.5%
Consumer advisor/ consumer leader	15.9	11.8	2.4	2.2	3.1	3.9	39.3	0.4%
Family/whānau advisor	8.6	4.3	9.9	0.2	2.5	-	25.5	0.3%
Other administration and management	7.7	14.4	7.7	-	-	2.7	32.5	0.4%
<b>Total (administration and management)</b>	<b>509.8</b>	<b>336.9</b>	<b>115.5</b>	<b>57.6</b>	<b>85.2</b>	<b>107.2</b>	<b>1,212.2</b>	<b>13.6%</b>
<b>Grand total (all roles)</b>	<b>4,680.7</b>	<b>2,416.5</b>	<b>342.6</b>	<b>172.8</b>	<b>633.2</b>	<b>683.3</b>	<b>8,929.2</b>	<b>100%</b>

**Table F. 6. Distribution of FTEs (reported and estimated missing) across the mental health and addiction by DHB and NGO services**

<b>Roles</b>	<b>Mental Health DHB FTEs</b>	<b>Mental health NGO FTEs</b>	<b>Addiction DHB FTEs</b>	<b>Addiction NGO FTEs</b>	<b>Total estimated workforce (FTE)</b>	<b>Total estimated workforce (%)</b>
<b>Clinical roles</b>						
Allied health						
Social worker	268.3	71.9	57.4	18.1	415.7	4.4%
Addiction practitioner /clinician	14.3	26.7	71.5	292.7	405.1	4.3%
Clinical psychologist	220.6	13.1	23.7	2.5	259.8	2.7%
Occupational therapist	184.0	23.9	14.4	1.2	223.5	2.4%
Dual diagnosis practitioner /CEP clinician	8.2	4.5	90.6	20.3	123.6	1.3%
Counsellor	22.2	15.1	12.7	67.8	117.7	1.2%
Educator/ trainer	5.2	17.9	1.2	0.9	25.2	0.3%
Other psychologist	11.1	8.3	1.9	0.6	21.9	0.2%
Other allied health	26.1	7.5	2.4	0.0	36.0	0.4%
Sub-total (allied health)	760.0	188.9	275.6	404.0	1,628.5	
Medical and other professionals						
Consultant psychiatrist	260.0	0.7	31.7	0.1	292.5	3.1%
Psychiatric registrar	112.1	2.0	10.9	0.0	125.0	1.3%
Medical officer special scale	49.7	1.2	5.7	0.5	57.1	0.6%
House surgeon	50.8	1.2	2.2	0.0	54.2	0.6%
Liaison/consult liaison	27.2	1.2	1.3	0.0	29.6	0.3%
General practitioner	4.8	0.9	2.4	1.0	9.1	0.1%
Other medical professionals	0.6	0.0	0.0	0.0	0.6	0.0%
Sub-total (medical and other professionals)	505.1	7.1	54.2	1.5	568.0	
Nursing						
Registered nurse	2139.0	129.2	183.0	35.9	2,487.1	26.2%
Nurse practitioner/nurse specialist/ nurse educator	89.6	3.5	5.1	1.2	99.4	1.0%
Enrolled nurse	66.4	4.6	0.0	2.3	73.3	0.8%
Other nursing professionals	43.5	0.0	0.2	0.0	43.7	0.5%
Sub-total (nursing)	2338.4	137.3	188.3	39.4	2,703.5	
Other clinical roles	90.1	19.9	2.3	31.6	143.8	1.5%
<b>Non-clinical roles</b>						
Support workers						
Community support worker	105.7	981.4	8.7	35.9	1,131.7	11.9%

Roles	Mental Health DHB FTEs	Mental health NGO FTEs	Addiction DHB FTEs	Addiction NGO FTEs	Total estimated workforce (FTE)	Total estimated workforce (%)
Residential support worker	0.0	691.1	0.0	95.1	786.2	8.3%
Healthcare assistant	264.1	10.6	6.1	0.0	280.8	3.0%
Psychiatric assistant	165.4	0.0	25.4	0.0	190.7	2.0%
Peer support - consumer and service user	14.2	164.5	0.0	37.7	216.4	2.3%
Family support worker	3.3	66.8	0.2	16.6	86.9	0.9%
Community development worker	0.0	53.0	0.0	0.0	53.0	0.6%
Employment worker	0.0	51.3	0.0	0.5	51.7	0.5%
Peer support - family and whānau	0.0	13.6	0.0	4.4	18.0	0.2%
Other support workers	40.7	109.9	0.3	21.2	172.2	1.8%
Sub-total (support workers)	593.3	2142.1	40.7	211.4	2,987.6	
Cultural advice and support						
Other cultural advisor	36.0	4.6	1.1	1.4	43.2	0.5%
Kaumātua	12.5	18.5	2.1	2.9	36.0	0.4%
Kaiāwhina	26.6	1.3	3.2	0.6	31.7	0.3%
Traditional Māori health practitioner	1.0	19.8	0.0	3.2	24.0	0.3%
Cultural supervisor	5.6	8.8	0.0	3.8	18.2	0.2%
Kuia	5.3	6.7	0.0	1.2	13.2	0.1%
Pasifika cultural advisor	1.0	1.4	0.0	1.2	3.6	0.0%
Matua	1.5	0.2	0.0	0.4	2.1	0.0%
Sub-total (cultural advice and support)	89.5	61.4	6.4	14.6	172.0	
Other (Non clinical roles)	2.0	1.8	0.0	0.9	4.7	0.0%
Administration and management						
Administrative / technical support	325.7	100.6	49.4	54.3	530.0	5.6%
Service manager / team leader	154.8	215.4	30.9	37.8	438.9	4.6%
Senior manager	46.6	79.2	5.4	25.1	156.3	1.6%
Consumer advisor / consumer leader	18.1	15.9	3.3	5.1	42.4	0.4%
Professional leader	17.3	11.2	1.0	12.2	41.7	0.4%
Clinical director	20.3	6.0	1.1	2.3	29.8	0.3%
Family/ whānau advisor	17.7	5.2	3.4	0.0	26.3	0.3%
Other administration and management	14.7	17.0	0.7	3.2	35.5	0.4%
Sub-total (administration and management)	615.3	450.5	95.2	140.0	1,301.0	
Grand total	4,993.8	3,009.0	662.7	843.6	9,509.1	100.0%

The following table presents total vacancies for DHBs and NGOs. The last column includes a proportion of the missing FTE estimated for the organisations that did not participate in the survey.

**Table F.7. Adult mental health and addiction service workforce vacancies by roles**

Roles	Mental health		MH & A		Addiction		Total vacant FTEs	Total vacant FTEs including estimated missing FTEs
	DHB	NGO	DHB	NGO	DHB	NGO		
Clinical roles								
Allied health								
Addiction practitioner/ clinician	1.0	-	-	-	5.0	10.6	16.6	17.4
Dual diagnosis practitioner/ CEP clinician	1.1	-	-	-	4.0	-	5.1	5.4
Counsellor	-	-	-	-	0.3	5.5	5.8	6.1
Educator/ trainer	-	-	-	-	-	-	-	
Occupational therapist	12.8	1.0	2.0	-	2.1	-	17.9	18.8
Clinical psychologist	15.2	3.0	2.4	-	1.7	0.6	22.9	24.0
Other psychologist	1.3	-	-	-	-	-	1.3	1.4
Social worker	11.1	2.0	-	-	1.4	-	14.5	15.2
Other allied health professionals	-	1.2	-	-	-	-	1.2	1.3
Sub-total (allied health)	42.5	7.2	4.4	-	14.5	16.7	85.2	89.4
Medical and other professionals								
General practitioner	0.2	-	-	-	-	-	0.2	0.2
House surgeon	1.0	-	-	-	-	-	1.0	1.1
Consultant psychiatrist	6.7	-	-	-	0.1	-	6.8	7.1
Medical officer special scale (MOSS)	2.3	-	-	-	-	-	2.3	2.4
Psychiatric registrar	10.0	-	-	-	0.5	-	10.5	11.0
Liaison/consult liaison	1.0	-	-	-	-	-	1.0	1.1
Other Medical Professionals	-	-	-	-	-	-	-	-
Sub-total (medical and other professionals)	21.2	-	-	-	0.6	-	21.8	22.9
Nursing								
Registered nurse	133.4	16.0	2.4	-	9.4	1.0	162.2	170.1
Enrolled nurse	3.9	0.5	-	-	-	-	4.4	4.6
Nurse practitioner/nurse specialist/nurse educator	2.2	-	1.0	-	-	0.5	3.7	3.9

Roles	Mental health		MH & A		Addiction		Total vacant FTEs	Total vacant FTEs including estimated missing FTEs
	DHB	NGO	DHB	NGO	DHB	NGO		
Other nursing professionals	1.5	-	-	-	-	-	1.5	1.6
Sub-total (nursing)	141.0	16.5	3.4	0.0	9.4	1.5	171.8	180.2
Other clinical roles	2.5	3.0	-	-	-	2.4	7.9	8.3
<b>Total (clinical roles)</b>	<b>207.2</b>	<b>26.7</b>	<b>7.8</b>	<b>-</b>	<b>24.5</b>	<b>20.6</b>	<b>286.7</b>	<b>300.7</b>
Support workers								
Community development worker	-	0.5	-	-	-	-	0.5	0.5
Employment worker	-	0.5	-	-	-	-	0.5	0.5
Community support worker	6.0	27.4	-	1.5	-	-	34.9	36.6
Family support worker	-	-	-	-	-	1.2	1.2	1.3
Healthcare assistant	21.3	-	-	-	-	-	21.3	22.3
Peer support - consumer and service user	-	3.2	-	-	-	-	3.2	3.4
Peer support - family and whānau	-	-	-	-	-	-	-	-
Psychiatric assistant	3.5	-	-	-	-	-	3.5	3.7
Residential support worker	-	17.3	-	-	-	-	17.3	18.1
Other support workers	2.0	7.2	1.0	-	-	-	10.2	10.7
Sub-total (support workers)	32.8	56.0	1.0	1.5	0.0	1.2	92.5	97.0
Cultural advice and support								
Cultural supervisor	-	1.0	-	-	-	-	1.0	1.1
Kaumātua	1.9	1.0	-	0.2	-	-	3.1	3.3
Kuia	1.0	1.0	-	-	-	-	2.0	2.1
Kaiāwhina	-	-	-	-	-	-	-	-
Traditional Māori health practitioner	-	-	-	-	-	-	-	-
Matua	-	-	-	-	-	-	-	-
Pasifika cultural advisor	-	-	-	-	-	-	-	-
Other cultural advisor	2.7	-	-	-	-	-	2.7	2.8
Sub-total (Cultural advice and support)	5.6	3.0	-	0.2	-	-	8.8	9.2
Other (non-clinical roles)	1.0	-	-	-	-	-	1.0	1.1
<b>Total (non-clinical roles)</b>	<b>39.4</b>	<b>59.0</b>	<b>1.0</b>	<b>1.7</b>	<b>-</b>	<b>1.2</b>	<b>102.3</b>	<b>107.3</b>

Roles	Mental health		MH & A		Addiction		Total vacant FTEs	Total vacant FTEs including estimated missing FTEs
	DHB	NGO	DHB	NGO	DHB	NGO		
Administration and management								
Administrative/ technical support	2.8	1.0	-	0.4	1.0	-	5.2	5.5
Senior manager	3.5	1.0	1.0	-	-	-	5.5	5.8
Clinical director	-	-	1.0	-	-	-	1.0	1.1
Professional leader	-	-	0.4	-	-	-	0.4	0.4
Service manager/team leader	7.1	1.0	1.0	-	-	-	9.1	9.5
Consumer advisor/consumer leader	0.4	-	-	0.3	-	-	0.7	0.7
Family/whānau advisor	0.8	0.5	4.1	-	-	-	5.4	5.7
Other administration and management	1.0	-	-	-	-	-	1.0	1.1
Total (administration and management)	15.6	3.5	7.5	0.7	1.0	-	28.3	29.6
Grand total (All roles)	262.1	89.2	16.3	2.4	25.5	21.8	417.3	437.6

## F.3 Chapter six additional tables

### F.3.1 Estimating the ethnic-composition of all services who responded to the survey

The ethnic composition of staff was not provided by 14 per cent of survey respondents. Exploratory analysis suggested that non-respondents were more likely to be ethnic-specific services and DHB services. This may have implications for how well the ethnicity information we collected matched the ethnicity of the overall workforce in mental health and addiction.

Estimations suggest the average ethnic makeup of the mental health and addiction workforce is 21 per cent Māori, five per cent Pasifika, five per cent Asian and 70 per cent “Other”. These estimates assume those who provided no response are similar to those who returned a survey with or without ethnicity data.

The explanation of how these estimations were calculated is described below.

#### Estimation of ethnic makeup accounting for missing information

To explore the non-response to the ethnicity question we used ethnicity data from services who did respond to estimate the likely ethnic composition of the workforce in those services who did not report this data but returned a survey. This was done separately for mainstream and ethnic-specific services, NGOs and DHBs and clinical and non-clinical staff because the ethnic makeup of these categories differ.

While the proportion of Asian and Pacific staff in addiction services was slightly lower than in mental health services, the response rates did not differ between mental health and addiction services and, therefore, the estimation of overall missing data should not be biased by combining mental health and addiction services in this estimation.

For mainstream services, the ethnic composition of those that did not provide ethnicity data (workforce employed = 1,770 employed FTEs) was calculated based on the ethnic composition of mainstream services who responded to the survey (workforce employed = 5,714 employed FTEs). Ethnic composition was calculated separately for DHBs and NGOs and clinical and non-clinical staff within mainstream services.

For ethnic-specific services the best indicator of the ethnic makeup of the service is likely to be the ethnic focus of the service. For ethnic-specific services who did report ethnic composition, 77.6 per cent of FTEs were of the same ethnic group as the focus of the service (ie Māori in kaupapa Māori services). The ethnic composition of services who did not provide ethnicity data (workforce employed = 412 FTEs) was calculated based on the total workforce employed by that service multiplied by 77.6 per cent. Again, ethnic composition was calculated separately for DHBs and NGOs and clinical and non-clinical staff within ethnic-specific services.

Finally, the estimated missing FTEs from mainstream and ethnic-specific services were combined with data on ethnicity from services that did respond to this question. We then applied the correction for NGO response outlined in Chapter 2 by multiplying the NGO FTE by 18 per cent. The clinical and non-clinical NGO and DHB FTEs for each ethnicity were combined to calculate the total estimated ethnic composition across all services responding to the survey (including those who did not report ethnicity information).

**Table F.8. Estimated ethnic breakdown of services (including estimates of the ethnic composition of services who responded but did not provide ethnicity information)**

	Estimated employed clinical		Estimated employed non-clinical		Estimated employed FTEs	
	FTE	%	FTE	%	FTE	%
Māori	799.9	16.9%	1063.4	25.0%	1863.3	20.7%
Pasifika	151.7	3.2%	267.9	6.3%	419.6	4.7%
Asian	200.0	4.2%	243.8	5.7%	443.8	4.9%
Other	3581.2	75.7%	2677.8	63.0%	6259.0	69.7%
<b>Total<sup>a</sup></b>	<b>4732.6</b>	<b>100.0%</b>	<b>4253.6</b>	<b>100.0%</b>	<b>8986.2</b>	<b>100.0%</b>

*Note.* The total estimated FTE is based on the employed reported plus estimated figures. The ethnic breakdown applied to these totals is calculated on the basis of the ethnic breakdown of services who reported to the survey. Given that there is no way to assess if the services who didn't report to the survey had a similar ethnic breakdown these numbers are estimates only.

a. The estimated total FTE differ slightly from the estimated totals reported elsewhere, largely as a result of rounding and the focus on employed workforce rather than total workforce (employed plus vacant).

The non-response by ethnic-specific services appeared to lead to under-estimation of the Māori workforce.

There are a number of other limitations that these estimates do not account for.

1. Some of the services that did not respond at all to the survey were Māori specific. This suggests that our estimates may still slightly underestimate the proportion of Māori staff in the workforce.
2. Ethnicity was reported by organisations and may differ slightly if the data had been collected directly from individuals.
3. The above estimates do not account for the potential sources of bias in the ethnicity data presented by those services who did provide information on the ethnic composition of their services.

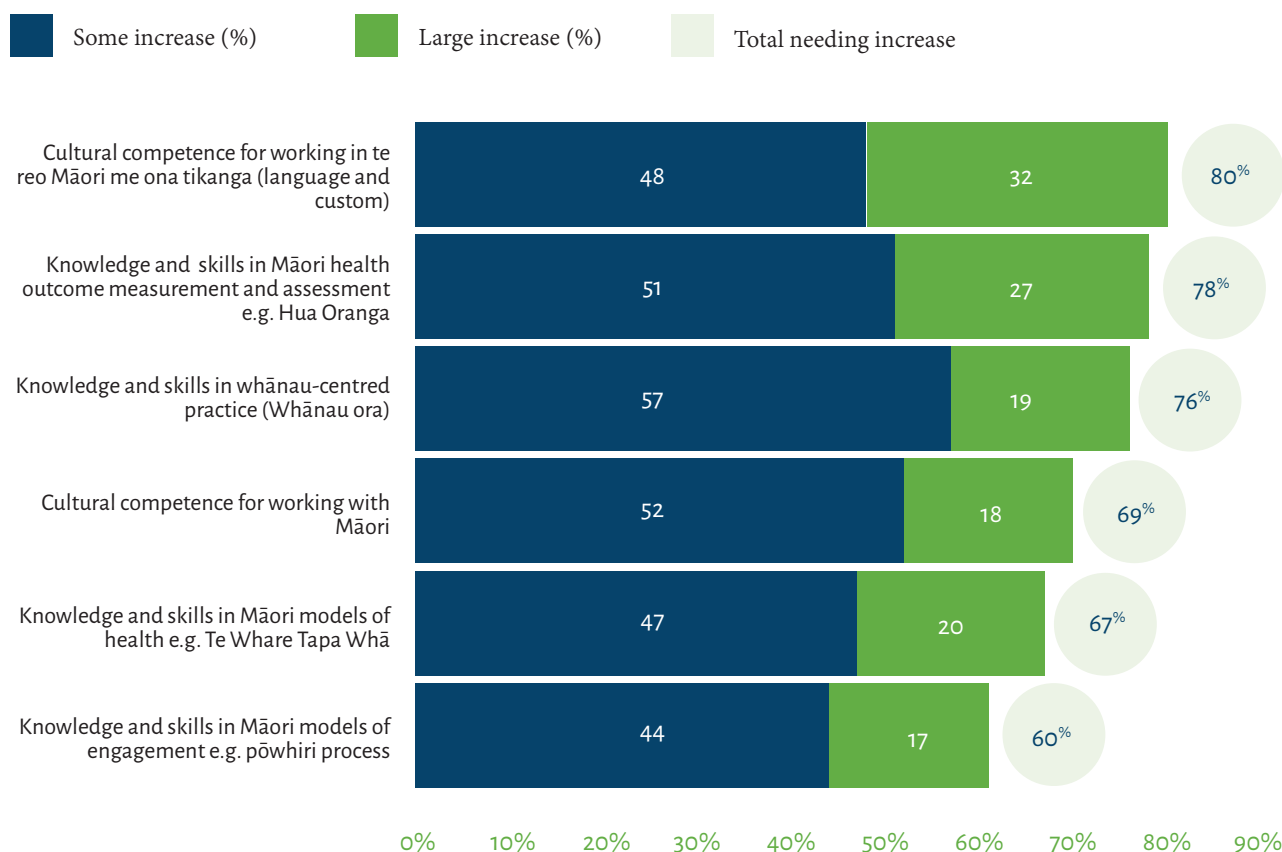
The results are, however, relatively consistent with the 2012 ethnic-profile of the child and youth workforce which is 22 per cent Māori, seven per cent Pasifika and four per cent

Asian (Werry Centre, 2013). Older adult services appear to be less ethnically diverse: a 2011 survey of mental health services for older people reported that the workforce was six per cent Māori, eight per cent Asian and two per cent Pasifika (Te Pou, 2011).

### F.3.2 Cultural competency needs reported by ethnic-specific services

Kaupapa Māori services' (shown in Figure F. 2) reported a similar need to increase Māori cultural competency areas compared with all services (average 72 per cent compared to 73 per cent). Kaupapa Māori services' respondents emphasised a greater need in cultural competence for te reo Māori me ona tikanga (language and custom), whereas overall, services emphasised a greater need for knowledge and skills in whānau-centred practice.

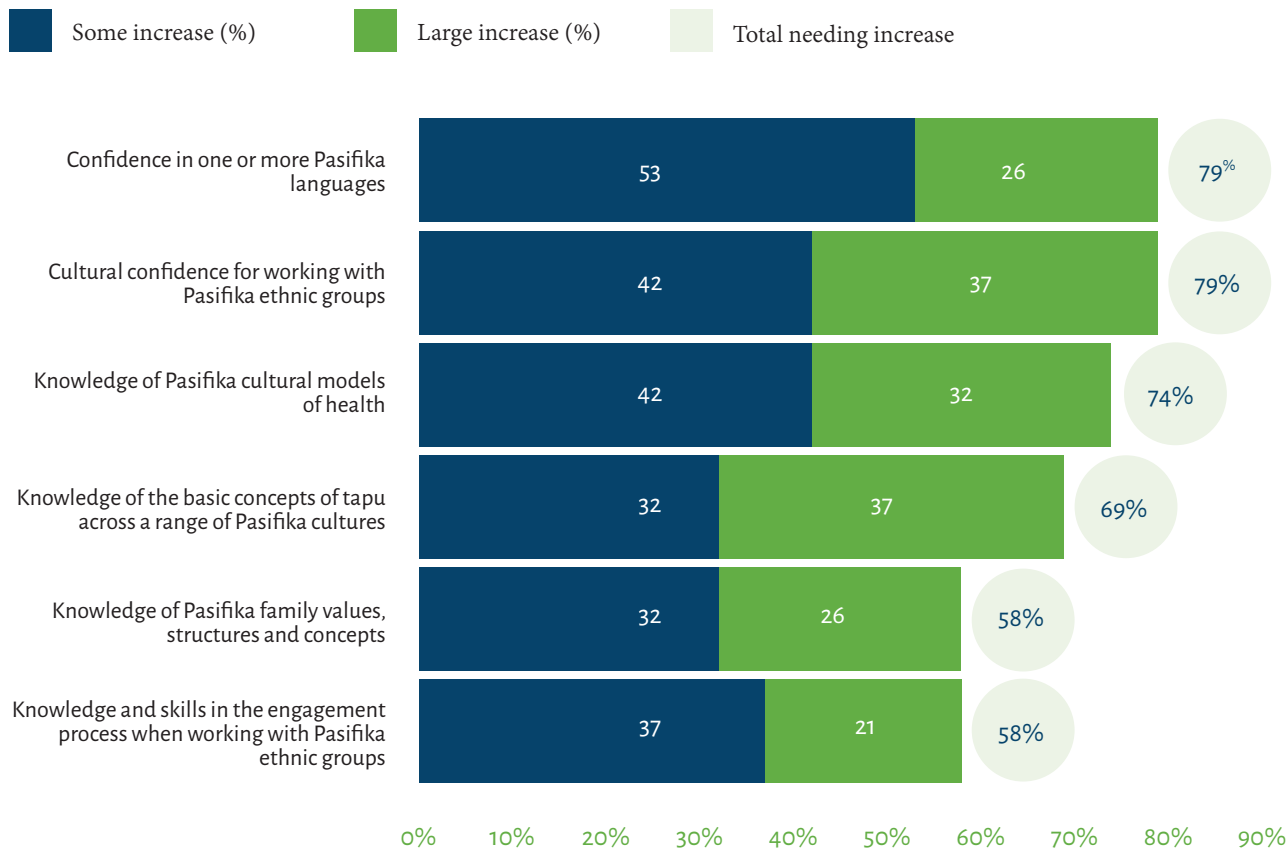




**Figure F.2. Proportion of kaupapa Māori service respondents perceiving a need to improve knowledge and skills for working with Māori (n=91 responses)**

Pasifika services' (shown in Figure F.3) reported a slightly lower average percentage of responses needing an increase in Pasifika cultural competency compared with all services (70 per cent compared to 76 per cent).

Pasifika services' respondents emphasised a greater need in confidence in one or more Pasifika languages, whereas overall services emphasised a greater need for cultural competence for working with Pasifika ethnic groups and Pasifika family values, structures and concepts.



**Figure F.3. Proportion of Pasifika service respondents perceiving a need to improve knowledge and skills for working with Pasifika (n=19 responses)**

## F.4 Chapter seven additional tables

In this section responses from services contracted to deliver mental health and addiction services are grouped with the mental health responses.

**Table F.9. Proportion of respondents perceiving a need to improve various knowledge and skill areas organised by mental health and addiction DHB and NGO services**

	Mental health (%)			Addiction (%)		
	DHB	NGO	Total	DHB	NGO	Total
	n = 192	n = 435	n = 627	n = 42	n = 103	n = 145
Knowledge and skills in Māori health outcome measurement and assessment	77.1	70.1	72.2	90.5	79.6	82.8
Cultural competence for working with Asian ethnic groups	84.9	67.6	72.9	92.9	73.8	79.3
Knowledge of Pasifika family values, structures and concepts	84.9	76.1	78.8	95.2	71.8	78.6
Cultural competence for working with Pasifika ethnic groups	85.9	76.8	79.6	97.6	69.9	77.9
Cultural competence for working with Māori	75.0	72.2	73.0	90.5	69.9	75.9
Knowledge of Pasifika cultural models of health	84.4	75.6	78.3	95.2	68.0	75.9
Knowledge of the basic concepts of tapu across a range of Pasifika cultures	85.4	74.9	78.1	95.2	68.0	75.9
Cultural competence for working in Te Reo Māori me ona tikanga (language and custom)	77.1	71.7	73.4	92.9	68.0	75.2
Knowledge and skills in Māori models of health	72.4	68.0	69.4	90.5	68.0	74.5
Knowledge and skills in whānau-centred practice (Whānau ora)	82.3	73.6	76.2	69.0	75.7	73.8
Knowledge and skills in the engagement process when working with Pasifika ethnic groups	82.8	75.9	78.0	61.9	72.8	69.7
Confidence in one or more Pasifika languages	68.2	61.8	63.8	90.5	57.3	66.9
Knowledge and skills in Māori models of engagement eg pōwhiri process	75.0	67.6	69.9	59.5	65.0	63.4

*Note.* The table has been organised by the item identified as the highest need to addiction services to aid comparisons between this and the combined mental health and addiction results reported in the main report which are influenced by a much higher proportion of mental health relative to addiction respondents.

**Table F.10. Proportion of respondents reporting various workforce planning challenges in their top four challenges organised by mental health and addiction DHB and NGO services**

	Mental health (%)			Addiction (%)		
	DHB	NGO	Total	DHB	NGO	Total
	n = 159	n = 374	n = 533	n = 37	n = 77	n = 114
Managing pressure on staff due to increased complexity	69.2	60.7	63.2	73.0	61.0	64.9
Managing pressure on staff due to increased demand for service	76.7	58.3	63.8	78.4	54.5	62.3
Retaining qualified and experienced staff	41.5	49.2	46.9	64.9	48.1	53.5
Recruiting qualified and experienced staff	62.3	50.5	54.0	43.2	55.8	51.8
Static or reduced funds	32.7	65.2	55.5	18.9	66.2	50.9
Cost of training and other professional development	34.6	49.7	45.2	16.2	58.4	44.7
Managing pressure due to changing service delivery models	52.2	40.1	43.7	78.4	22.1	40.4

*Note.* The table has been organised by the item identified as the highest need to addiction services to aid comparisons between this and the combined mental health and addiction results reported in the main report which are influenced by a much higher proportion of mental health relative to addiction respondents.

**Table F.11. Proportion of respondents perceiving a need to improve various knowledge and skill areas organised by mental health and addiction DHB and NGO services**

	Mental health (%)			Addiction (%)		
	DHB	NGO	Total	DHB	NGO	Total
	n = 192	n = 435	n = 627	n = 42	n = 103	n = 145
CEP (co-existing problems) capability	83.9	72.9	76.2	90.5	76.7	80.7
Working with new technologies and IT	90.6	75.9	80.4	88.1	73.8	77.9
Psychological interventions, eg cognitive behavioural therapy, social network, mindfulness, motivational approaches	73.4	63.9	66.8	85.7	66.0	71.7
Knowledge and use of relevant legislation, regulations, standards, codes and policies	57.3	65.3	62.8	76.2	64.1	67.6
Risk assessment (including suicidality)	64.1	66.4	65.7	76.2	61.2	65.5
Using strengths based approaches to enhance resiliency and recovery with service users	66.7	61.8	63.3	76.2	60.2	64.8
Supporting self-managed care (including on-line options, 12-step programmes, and sensory modulation)	72.4	64.8	67.1	83.3	55.3	63.4
Supporting use of peer support	60.9	54.5	56.5	88.1	50.5	61.4
Able to respond readily to changes in type of work	77.1	58.4	64.1	83.3	51.5	60.7
Using outcome measures, eg HONOS, Hua Oranga	63.5	58.9	60.3	54.8	60.2	58.6
Physical health assessment	69.8	53.1	58.2	81.0	47.6	57.2
Screening and brief interventions, eg use of AUDIT tool, sleep hygiene education	64.6	52.6	56.3	73.8	40.8	50.3
Knowledge of community resources available in your area	51.6	49.4	50.1	31.0	44.7	40.7
Promotion of restraint and seclusion reduction initiatives	57.3	28.3	37.2	23.8	25.2	24.8

*Note.* The table has been organised by the item identified as the highest need to addiction services to aid comparisons between this and the combined mental health and addiction results reported in the main report which are influenced by a much higher proportion of mental health relative to addiction respondents.

**Table F.12. Proportion of respondents perceiving relationships with other sectors needing improvement organised by mental health and addiction DHB and NGO services**

	Mental health (%)			Addiction (%)		
	DHB	NGO	Total	DHB	NGO	Total
Housing New Zealand and other accommodation providers	31.1	26.9	28.2	71.8	40.7	50.8
Mental health services for older people	22.3	28.1	26.1	48.7	44.8	46.4
General hospitals/emergency departments	26.6	21.1	23.0	50.0	24.7	32.8
Education	23.3	28.7	27.0	48.4	22.1	29.6
Primary health practices	31.4	22.6	25.4	41.0	24.5	29.2
Other mental health services	12.4	12.0	12.1	36.6	25.3	28.6
Family violence	26.5	24.6	25.4	12.2	28.4	23.3
Child Youth & Family	24.4	28.0	26.5	9.8	25.6	20.3
Work & Income	19.9	23.6	22.5	20.5	18.9	19.4
Relationship services	16.4	21.9	20.0	14.3	21.5	19.3
Disability sector	38.4	29.0	32.2	18.2	19.7	19.2
Child and adolescent mental health services	19.0	30.3	24.8	10.3	23.9	17.6
Corrections Department	20.9	24.6	23.3	-	16.2	11.6
Other addiction services	20.5	22.1	21.6	4.9	13.1	10.7
Police	11.4	13.1	12.5	7.5	11.8	10.5

*Note.* The number of respondents differed for every cell and therefore have not been included in the table. The table has been organised by the item identified as the highest need to addiction services to aid comparisons between this and the combined mental health and addiction results reported in the main report which are influenced by a much higher proportion of mental health relative to addiction respondents.

## F.5 Chapter eight additional information and tables

**Table F.13. Total funding and average DHB and NGO vote health funding per estimated FTE position for adult mental health and addiction services**

Sector	Total reported FTEs	Total estimated FTEs	Total DHB funding	Average funding per DHB FTEs (estimated)	Total NGO funding	Average funding per NGO FTEs (estimated)	Total group	Average funding per FTEs (estimated)
Mental health	7,545.6	8,002.7	\$663,308,216	\$132,826	\$231,090,957	\$76,802	\$111,762	\$894,399,173
Addiction	1,383.5	1,506.3	\$62,746,050	\$94,682	\$64,132,305	\$76,022	\$84,232	\$126,878,355
<b>Total</b>	<b>8,929.1</b>	<b>9,509</b>	<b>\$726,054,266</b>	<b>\$128,358</b>	<b>\$295,223,262</b>	<b>\$76,632</b>	<b>\$107,401</b>	<b>\$1,021,277,528</b>

**Table F.14. Estimated increased adult mental health and addiction FTEs in relation to increases in the adult population**

Year	Adult Population <sup>a</sup> (20-64)	Increased population	Percentage increase	Increased FTEs	Total estimated FTEs	Cumulative increase in FTEs in relation to population increases
2014	2,762,950	-	-	-	9509.1	-
2015	2,815,050	52,100	1.9%	179.3	9688.3	179.3
2020	2,915,740	100,690	3.6%	346.5	10034.8	525.8
2025	2,963,930	48,190	1.7%	165.9	10200.7	691.7
2030	3,011,690	47,760	1.6%	164.4	10365.1	856.1

<sup>a</sup> These population numbers use the usually resident population counts as their base. This differs from the census night population counts because it takes into account factors such as census undercount and residents temporarily overseas on census night. Source: National population projections, by age and sex, 2014(base)-2068, Statistics New Zealand.

### F.5.1 Technical details on the *Towards the next wave* service access modelling

The details of the scenarios and results of the modelling are presented in section 8.2 of the report. The information below provides additional technical information related to the workforce needs projection model.

#### Original modelling: *Towards the next wave*

*Towards the next wave of mental health and addiction services and capability* (Mental Health and Addiction Service Workforce Review Working Group, 2011) developed a model of service delivery that could meet a potential doubling of demand for services by 2030 with only a 30-40 per cent increase in funding to meet this demand.

To meet this challenge and provide the required increase in resourcing, *Towards the next wave* (Mental Health and Addiction Service Workforce Review Working Group, 2011) proposed a model of care that is consumer-centred and integrated across the continuum; from self-care through to primary and secondary care settings. The model assumes that intervening earlier in life, and at key transition points, can reduce both short-term and longer-term effects on the person that, when not addressed, may progress to need adult mental health and addiction services. The model of care also includes a system-wide integration of adult mental health and addiction services (eg a stepped care approach) to improve access at a lower overall cost per consumer. Many of the service delivery changes discussed in *Towards the next wave* (Mental Health and Addiction Service Workforce Review Working Group, 2011) involve increasing access to child, youth, older adult and early intervention services. However, meeting this vision will also require some growth in access to adult mental health and addiction secondary services.



*Towards the next wave* (Mental Health and Addiction Service Workforce Review Working Group, 2011) also outlined eight consumer journeys representing most of the major mental health and addiction needs across the life span.<sup>91</sup> The workforce modelling in this section draws on three of the consumer groups and three of the service areas identified as likely to require the involvement of secondary adult mental health and addiction services.<sup>92</sup> Note that in *Towards the next wave* (Mental Health and Addiction Service Workforce Review Working Group, 2011) the eight consumer journeys were modelled as a collective set. As such they were linked, and affected each other. Additional modelling has been undertaken to isolate the modelling to consumer journeys relevant to adult mental health and addiction services. Further adjustments and other factors outlined in this section mean that some of the outputs differ slightly from those in *Towards the next wave* (Mental Health and Addiction Service Workforce Review Working Group, 2011).

## F.5.2 Workforce to consumer access modelling method

### Consumer access to FTE ratio

One strategy for modelling future workforce needs is to use the current ratio of consumers seen to workforce size, and apply this to the number of consumers expected to access services in the future. This workforce modelling approaches assume the current ratio of consumer access to workforce will remain unchanged by any future changes in workforce productivity, composition and service delivery.<sup>93</sup>

Workforce estimates outlined in Table 14 and Figure 29 are based on the ratio of estimated FTEs from the *More than numbers* survey and the 2013/2014 consumer access numbers collected through PRIMHD. This ratio is then applied to potential future consumer access numbers.

### Adjustments to consumer access estimates

The original service access estimates in *Towards the next wave* (Mental Health and Addiction Service Workforce Review Working Group, 2011) needed to be adjusted in order to develop a workforce to consumer access ratio that reflected what we currently know about service access.

1. Consumer journeys in the original *Towards the next wave* (Mental Health and Addiction Service Workforce Review Working Group, 2011) changes were developed as an integrated unit which means the mapping of *Towards the next wave* (Mental Health and Addiction Service Workforce Review Working Group, 2011) access numbers to secondary mental health and addiction services is approximate.
2. The original models in *Towards the next wave* (Mental Health and Addiction Service Workforce Review Working Group, 2011) proposed changes starting from 2010, however some of the shifts in service access that were originally modelled had not occurred by 2014.
3. PRIMHD information was not used in the original modelling in *Towards the next wave* (Mental Health and Addiction Service Workforce Review Working Group, 2011) due to underreporting when this was developed.

91 – Key points to note regarding the modelling approach used in *Towards the next wave* (Mental Health and Addiction Service Workforce Review Working Group, 2011) and relevant to the workforce forecasting scenarios in this report are outlined below.

- The consumer journeys are not completely discrete, as consumers could participate in more than one journey.
- Estimates of need were applied to the population for each journey using sources such as *Te Rau Hingamaro* (Oakley Browne, Wells & Scott, 2006) or estimates from the literature. Need was based on 12-month prevalence rates for mental health and addiction issues and severity where that need would benefit from some form of organised mental health and addiction response (including self-care). Rates of need were assumed to be constant for the projection period.

92 – Three of the eight journeys included many of those consumers who could benefit from access to adult mental health and addiction services, and are listed below.

1. Adult 'big 5 high prevalence'. This cluster of overlapping experiences characterised by anxiety, depression, drug and alcohol abuse, complex psycho/social stress and medically unexplained symptoms.
2. Adult low prevalence, high severity. This journey encompasses multiple pathways for people with severe mental health and addiction conditions.
3. Adult forensic and/or justice system involved. This pathway is generated by the overlapping nature of some high severity mental health and addiction issues and criminal behaviour.

Three of the seven service areas were likely to involve the adult mental health and addiction secondary care workforce.

1. Community-based mental health and addiction support.
1. Specialist mental health and addiction support.
1. Hospital inpatient and acute services support.

93 – If future changes to models of care or other aspects of service delivery are able to improve the number of consumers seen per FTE without compromising the quality of service delivery, then this model will overestimate the growth needed to meet future demand.

To ensure the modelling in this report is based on the latest information about service access, the modelling in *Towards the next wave* (Mental Health and Addiction Service Workforce Review Working Group, 2011) has been adjusted to 86.5 per cent of the original numbers. This adjustment made the 2014 estimate of consumer access consistent with the 2013/2014 consumer access numbers in PRIMHD. While the adjusted numbers under-represent the full vision outlined in *Towards the next wave* (Mental Health and Addiction Service Workforce Review Working Group, 2011), they capture most of the impact of population growth, increased access levels and recognition of need, and successful referrals on predicted service access to the year 2030.

**Table F.15. Estimated increased adult mental health and addiction FTEs in relation to increases in the numbers of consumers accessing services based on adjusted figures from scenario one in *Towards the next wave***

Year	Total 18-64 year old consumers seen by services	Increase in clients	% increase	FTE increase needed <sup>a</sup>	Total FTEs	Cumulative FTEs increase
2014	108,555.0	-	-	-	9509.6	-
2015	110,126.1	1571.1	1.4%	137.6	9647.2	137.6
2020	119,417.5	9291.5	8.4%	813.9	10461.2	951.6
2025	128,501.4	9083.9	7.6%	795.8	11256.9	1747.3
2030	131,769.6	3268.2	2.5%	286.3	11543.2	2033.6

<sup>a</sup> This is estimated based on the ratio of reported plus estimated FTE to the number of 18 to 64 year olds accessing secondary mental health and addiction services in 2014 (PRIMHD). Source: Table F.15 is based on David Todd's modelling work for the three consumer journeys identified in *Towards the next wave* (Mental Health and Addiction Service Workforce Review Working Group, 2011) for scenario two. These were adjusted to 87 per cent of the consumer numbers originally modelled for the three consumer journeys include the Adult 'big 5', Adult high severity, and Adult forensic.

**Table F.16. Estimated increased adult mental health and addiction FTEs in relation to increases in the numbers of consumers accessing services based on adjusted figures from scenario two in *Towards the next wave***

Year	Total 18-64 year old consumers seen by services <sup>a</sup>	Increase in clients	% increase	FTE increase needed <sup>b</sup>	Total FTEs	Cumulative FTEs increase
2014	108,555.0	-	-	-	9509.6	-
2015	110,347.7	1792.7	1.7%	157.0	9666.6	157.0
2020	115,008.9	4661.2	4.2%	408.3	10075.0	565.4
2025	122,303.9	7295.0	6.3%	639.1	10714.0	1204.4
2030	124,816.6	2512.6	2.1%	220.1	10934.1	1424.5

<sup>a</sup> This is estimated based on the ratio of reported plus estimated FTE to the number of 18 to 64 year olds accessing secondary mental health and addiction services in 2014 (PRIMHD). Source: Table F.16 is based on David Todd's modelling work for the three consumer journeys identified in *Towards the next wave* (Mental Health and Addiction Service Workforce Review Working Group, 2011) for scenario two. These were adjusted to 87 per cent of the consumer numbers originally modelled for the three consumer journeys include the Adult 'big 5', Adult high severity, and Adult forensic.

### F.5.3 Underestimation in the *Towards the next wave* adjusted workforce models

For a number of reasons, the results in Table 14 and Figure 29 vastly underestimate the growth that will be required in the size of the workforce in order to meet the 250 per cent increase in service access originally modelled in *Towards the next wave* (Mental Health and Addiction Service Workforce Review Working Group, 2011).

1. The original access targets were adjusted so that the 2014 figures matched the 2013/2014 PRIMHD consumer access numbers. This adjustment allowed the modelling ratio to be based on the number of consumers seen, on average, by each FTE in 2014. However, to prevent this adjustment leading to an over-estimate of the required change in workforce size, all access numbers were adjusted by the same percentage (86.5 per cent) to ensure the 2014 access numbers matched PRIMHD figures.
2. The scenarios used in this chapter include only three of the eight consumer journeys outlined in *Towards the next wave* (Mental Health and Addiction Service Workforce Review Working Group, 2011), and only the portion of those consumers expected to access secondary mental health and addiction services. Modelling across the eight journeys identified the need for significant growth in the provision of mental health and addiction services for children, youth and older adults, as well as more early intervention and self-care strategies. Therefore, achieving the vision outlined in *Towards the next wave* (Mental Health and Addiction Service Workforce Review Working Group, 2011) will also require substantial growth in the workforce operating in a range of other services.
3. These results focus on total workforce growth and do not take into account the number of people who will leave the workforce over the next 15 years due to retirement, emigration or other reasons. The numbers therefore underestimate how many additional people will need to be recruited to meet future need. For example, if half the current workforce was no longer working in adult mental health and addiction services in 2030, the number of people that would need to be trained and recruited would be double the growth in the total estimated FTEs in Figure 27 to Figure 30 and Table 14. For some occupation groups, a turnover of half the current workforce may be a realistic figure. For example, 53 per cent of nurses who identified addiction or mental health as their main practice area were aged 50 or older in 2012-2013 (Nursing Council of New Zealand, 2014) and may be expected to retire by 2030.
4. Modelling in this section assumes the current number of consumers per FTE remains static. Given the large estimated growth in workforce size under this assumption, it is critical to consider alternative models of care, technological advances and ways of working that facilitate effective treatment and support to greater numbers of consumers.



**Te Pou**  
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