Abbreviations used in this document

DHB       district health board
NZGSS     New Zealand General Social Survey
OECD      Organisation for Economic Co-operation and Development
WHO       World Health Organization

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Commissioner’s foreword

In the current difficult economic environment, all government entities are being asked to be more prudent and innovative. In health, our goal is to find solutions that are better, sooner and more convenient. It is in this spirit that I am pleased to present this report, National Indicators 2011.

Good decisions need to be evidence-based. In the past, the Commission has relied on an ad hoc selection of information from various sources on which to base its advocacy and inform its strategic direction. While a large amount of statistics and information on mental health and addiction currently exists, this is the first collation of this important information in a concise and reader-friendly way. Its purpose is to bring together a number of important people-centred whole-of-society indicators across a structured framework for informed decision-making within the Commission and for cross-sector national policy-makers and planners. The report is also useful to those wanting a statistically based whole-of-society snapshot of the sector.

The Mental Health Commission’s vision is to improve mental health and wellbeing for all New Zealanders. The Commission focuses on society’s overall response to mental wellness and on services for people experiencing mental distress.

The Commission works to reflect the needs and perspectives of consumers and the family/whānau of people experiencing mental health and addiction challenges.

The core functions of the Commission are to provide advocacy and advice, monitor services and support innovation. The advocacy is on a systemic level rather than an individual level. Through its advocacy, the Commission impacts on society as a whole by highlighting where people are being disadvantaged and making constructive suggestions on how to improve inclusion into all aspects of society.

This is the first release of the National Indicators 2011 report, and it will be repeated biennially. This first release has had its challenges, in particular, a limited range of data in some areas of the framework and a lack of trend data in some indicators. Further versions of this report will address these challenges to ensure continual improvement happens.

The Commission hopes that you find this report useful, and we welcome any feedback to info@mhc.govt.nz

Dr Lynne Lane
Chair Commissioner
Executive summary

Introduction

The National Indicators 2011 report provides a whole-of-society picture of mental health and addiction in New Zealand.

The purpose of the report is to provide information that contributes to an understanding of outcomes related to people’s mental health. This information will assist cross-sector government policy development and help identify key areas for action or further research. It will also contribute to a better informed public debate on mental health and addiction issues.

There is no widely accepted understanding of what constitutes mental health and addiction. Therefore, this report makes use of a broad framework that is based on international frameworks, that fits with the Commission’s role as a general advocate for people with experience of mental distress and/or addiction and that takes account of the importance of recovery.

The report presents 15 mental health and addiction indicators across three high-level outcome domains:

- **Mental health of the population** – measures how mentally healthy the New Zealand population is across the two separate dimensions of wellbeing, and mental illness and/or addiction.
- **Health service delivery** – measures how well the health sector is assisting the recovery of those people who are most seriously impacted by mental illness and/or addiction.
- **Social inclusion** – measures how well people with mental distress are able to exercise their rights and participate, by choice, in New Zealand’s society.

Mental health of the population

The majority of New Zealanders (86 percent) report feeling satisfied with their life as a whole. Groups within the population who are less likely to report feeling satisfied are middle-aged people (45–54 years), Māori, Pacific people and people from the most deprived neighbourhoods.

New Zealanders’ overall life satisfaction was higher than the median for people in other OECD countries in 2006.

There has been no change in the proportion of people aged 15 years and over with a potentially hazardous drinking pattern between 1996/97 and 2006/07 (17.7 percent). In 2006/07, 6.6 percent of people aged 15 years and over had a high or very high probability of an anxiety or depressive disorder.

Groups within the population that have a higher prevalence of mental illness or hazardous drinking are Māori, Pacific people, young people and people from the most deprived neighbourhoods. Outcomes by gender are mixed, with females having a
greater rate of high or very high probability of an anxiety or depressive disorder, but males were more than twice as likely as females to have a potentially hazardous drinking pattern.

The suicide death rate has improved since the mid-1990s and, in 2008, was lower than it was in the mid-1980s. While New Zealand’s overall suicide rate was towards the middle of OECD countries, the female youth suicide rate is higher than any other OECD country, and the male youth rate is the third highest.

**Health service delivery**

The proportion of the population accessing secondary mental health and addiction services has increased from 2.2 percent in 2002/03 to 2.7 percent in 2008/09. Māori have a higher rate of accessing services than non-Māori and are also showing an increasing trend.

There is a significant unmet need for help with addiction, with 1.9 percent of the population aged 16–64 years wanting help to reduce their alcohol or drug use in the last 12 months but not receiving it. This equates to around 50,000 people. Pacific people, Māori and people from the most deprived neighbourhoods were significantly more likely than other groups to want help but not receive it.

The number of people secluded per 100,000 population in 2009 was 31.9, a slight increase on the rate of 30.6 people per 100,000 population in 2007. Groups in the population who are most likely to be secluded in secondary mental health and addiction services are males, people aged 20–49 years and Māori.

The majority (79 percent in 2009/10) of secondary mental health and addiction service users feel that their opinions and ideas are included in their treatment plan. There has been no significant change in this rate between 2006/07 and 2009/10.

A lesser but still high proportion (64 percent in 2009/10) of service users feel that staff in secondary mental health and addiction services provided their family with the education or supports they need to be helpful to them.

**Social inclusion**

Overall, people with symptoms of mental distress feel less included in society than those with no symptoms across the five indicators used in this report.

People with symptoms of mental distress are more likely than people with no symptoms to feel socially isolated and to feel discriminated against, are less likely to be employed and satisfied with their job and are less likely to be satisfied with their current housing. People with symptoms of mental distress also have lower levels of economic standard of living than people with no symptoms.

Amongst people with symptoms of mental distress, young people appear to be the most socially excluded of all groups. Younger people with symptoms of mental distress have
poorer social inclusion outcomes than older people with symptoms of mental distress across all five indicators.

Māori with symptoms of mental distress have poorer social inclusion outcomes than people with symptoms of mental distress in other ethnic groups across four of the indicators. People from the most deprived neighbourhoods with symptoms of mental distress have poorer social inclusion outcomes than people with symptoms of mental distress from the least deprived neighbourhoods across three of the indicators. There are no significant differences between males and females across the five social inclusion domain indicators once symptoms of mental distress are accounted for.

It is noticeable among some indicators, particularly isolation, once symptoms of mental distress are accounted for, the association between population characteristics and the social inclusion outcome is reduced.
1 Introduction

1.1 Purpose of the report

The three key aims of the National Indicators 2011 report are:

- to report on indicators that give a whole-of-society picture of mental health and addiction in New Zealand
- to assist cross-sector government policy development and to help identify key areas for action or further research
- to contribute to better informed public debate.

The report provides a whole-of-society picture of mental health and addiction in New Zealand, how this has changed over time and how outcomes vary for different groups in the population. The main audience for this report is cross-sector national policy-makers and planners. While the report is not designed to inform service change, DHBs may find it useful to support their planning.

This report is purely descriptive in nature and does not explore underlying factors or causal directions, but will provide a starting point for debate and further in-depth research. This report will provide the basis for on-going measurements of mental health and addiction in New Zealand as a whole.

1.2 Mental health and addiction

The Mental Health and Addiction Action Plan 2010 (Minister of Health, 2010) demonstrates the government’s on-going commitment to mental health and addiction. It builds on Te Tāhuhu and Te Kōkiri (Minister of Health, 2005, 2006), the national strategy and action plan for mental health and addictions to 2015, as well as the Blueprint for Mental Health Services in New Zealand (Mental Health Commission, 1998). Supporting these key documents are the Second Māori Mental Health and Addiction National Strategic Framework, Te Puawaihero (Ministry of Health, 2008c) and the mental health and alcohol and other drugs strategy for children and youth, Te Raukura (Ministry of Health, 2007).

Government funding for mental health and addiction has increased from $270 million in 1993/94 to $1.2 billion in 2008/09 (Ministry of Health, 2010b).

Data from the World Health Organization (WHO) showed that, in 1990, mental illness and addiction accounted for almost 11 percent of the total global burden of human disease, and this is expected to rise to around 15 percent by 2020 (Mental Health Commission, 1998). It was estimated that, in 2005/06, harmful alcohol and drug use caused an estimated $6.5 billion of social costs, made up of $4.6 billion of tangible resource costs and $2.0 billion of intangible welfare costs (Slack, Nana, Webster, Stokes & Wu, 2009).

What constitutes mental health and addiction is contested, and there is no widely accepted definition (Parkinson, 2007; Friedli, 2004; Herron & Mortimer, 1999). A broad
framework has been developed upon which this report will be based. The indicators are representative rather than comprehensive and are designed to provide a snapshot of progress in key areas.

The framework was developed so that:

- it is based on a number of international frameworks of mental health
- it fits with the Commission’s role as a general advocate for people with mental illness and addiction and their families
- it is inclusive of the importance of recovery.

Three high-level outcome domains have been selected to describe mental health and addiction in New Zealand. The indicator framework for measuring mental health and addiction in New Zealand is presented in Table 1 below.

Table 1: Framework for mental health and addiction in New Zealand

<table>
<thead>
<tr>
<th>OUTCOME DOMAINS</th>
<th>Mental health of the population</th>
<th>Health service delivery</th>
<th>Social inclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>How mentally healthy is New Zealand as a population?</td>
<td>How well is the health sector assisting the recovery of those people who are most seriously impacted by mental illness and/or addiction?</td>
<td>How well are people with mental distress able to exercise their rights and participate, by choice, in New Zealand’s society?</td>
<td></td>
</tr>
</tbody>
</table>

Key areas that will measure these outcomes

- Positive wellbeing
- Prevalence of mental distress and/or addiction
- Deaths and harm

- Access to treatment
- Broad range of treatments
- Service users directing their own care
- Family’s participation in care
- Relationships
- Civil rights and voice
- Employment
- Standard of living
- Housing

1.3 Indicators

An indicator is a measure that provides a summary of a condition or issue and allows the observation of progress or change. When measured over time, an indicator can give a clear picture of whether things are improving or declining with respect to the condition or issue it is being used to measure (Advisory Committee on Official Statistics, 2009).

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1 For a full explanation of the development of the framework, refer to Mental Health and Addiction Indicators: Development of an Indicator Framework (Mental Health Commission, 2011). This paper is available on the Commission website: www.mhc.govt.nz/

2 Mental Health Standing Committee of the Australian Health Ministers’ Advisory Council, 2008; Parkinson, 2007; Korkeila et al., 2003; Wilkinson, Bywaters, Simms, Chappel & Glover, 2008; World Health Organization, 2005.
Indicators are ‘big picture’ measures; therefore, they do not provide detailed explanations or analyses of the issues involved, the causes or the implications. Indicators are presented to evoke debate at the decision-making level and in the community as well as pointing to areas that require further research.

In order to help to reduce subjectivity in the selection of the indicators, they have been selected against the following criteria:

- **Relevant and meaningful** – the indicator should adequately reflect the social outcome it is intended to measure and is appropriate to the needs of the user.
- **Grounded in research** – there should be sound evidence to support the relationship of the indicator to the outcome it is measuring.
- **Statistically sound** – the measurement of indicators needs to be methodologically sound.
- **Intelligible and easily interpreted** – the indicators should be sufficiently simple to be interpreted in practice and be intuitive in the sense that it is obvious what the indicator is measuring.
- **Able to be disaggregated** – indicators should have the potential to be disaggregated to show differences between important population subgroups. The indicators must enhance understanding of disparities in the social outcomes of people with mental distress and/or addiction.
- **Consistent over time** – the usefulness of indicators is enhanced by the ability to track trends over time, so indicators should be consistent.
- **Timeliness** – data needs to be collected and reported frequently to ensure indicators are providing up-to-date information.

As some indicators perform well against some criteria and poorly against others, trade-offs between these criteria may be required, for example, it may be necessary to choose an indicator where data is produced at long intervals to ensure a consistent time series is available.

This report presents 15 indicators across the three domains, which are listed in the following table.

**Table 2: National Indicators 2011 indicators**

<table>
<thead>
<tr>
<th>Mental health of the population</th>
<th>Health service delivery</th>
<th>Social inclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life satisfaction</td>
<td>Access to services</td>
<td>Isolation</td>
</tr>
<tr>
<td>Psychological distress</td>
<td>Unmet need for help</td>
<td>Perceived discrimination</td>
</tr>
<tr>
<td>Potentially hazardous drinking</td>
<td>Seclusion</td>
<td>Employed and satisfied with job</td>
</tr>
<tr>
<td>Harmful effects of alcohol and drug use</td>
<td>Input into treatment</td>
<td>Standard of living</td>
</tr>
<tr>
<td>Suicide</td>
<td>Family participation</td>
<td>Housing satisfaction</td>
</tr>
</tbody>
</table>
There is not always suitable data available to match the framework that has been developed to measure mental health and addiction in New Zealand. In the **mental health of the population** domain and the **social inclusion** domain, there is an abundance of data from which to develop indicators. However, in the **health service delivery** domain, there is less data available, and this has resulted in fewer indicators in this domain. Advocating for the improvement of data quality in this area is a priority for the Commission in updating this report in future years.

To ensure accuracy, this report uses only published data. This means some of the data is 2 or 3 years old. Because of the range of data collection this report draws on, the latest published data will differ across indicators. Therefore, there is no common baseline year that can be used for comparison across the report.

This report draws widely on the New Zealand General Social Survey³ (NZGSS), which was first collected in 2008. When this report was written, only 1 year of NZGSS data was available. The next survey has been collected in 2010 and will be available for the next update of this report.

### 1.4 Structure of the report

This report is structured in three sections, each relating to one of the domains of the mental health and addiction framework. The first section describes the **mental health of the population**, the second section describes the **delivery of health services** for people with mental illness and addiction, and the third section describes the **social inclusion** experienced by people with mental distress.

Each section firstly outlines why that domain is important to mental health and addiction in New Zealand. Then the findings for each indicator are presented, starting with current level and, where possible, trends. Each indicator is broken down by gender, age, ethnicity and socioeconomic status where possible. Lastly, international comparisons are made if available.

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³ The NZGSS is a multi-dimensional survey of wellbeing run by Statistics New Zealand. It collects information on a range of social topics on a regular basis, to enable cross-sectorial and trend analysis of social outcomes.
2 Mental health of the population

2.1 Why is it important?

Good mental health is an important part of living a complete and fulfilling life. Without good mental health, people are less able to live a fulfilling life, their options are limited and their levels of satisfaction and happiness are likely to be reduced. As WHO says:

... no health without mental health (World Health Organization, 2010).

Mental health has two important dimensions: wellbeing and mental illness. While in the past, the focus has been on mental illness, recent research (Slade, 2010; Parkinson, 2007) explores the concept of the wellbeing of the whole population. Wellbeing is about more than the absence of mental illness. In fact, wellbeing and mental illness can be considered two separate dimensions of mental health, with wellbeing lying on a spectrum from bad to good and mental illness lying on a spectrum from absent to present. This recognises that people with a mental illness can still have high levels of wellbeing and, indeed, people free from mental illness can have low levels of wellbeing.

A concise definition of wellbeing is difficult because the needs and desires of different people and communities will vary in important ways. For example, people who get comfort and strength from their religion will find having access to a place of worship important (Ministry of Social Development, 2008).

The Social Report (Ministry of Social Development, 2008) describes wellbeing as:

... those aspects of life that society collectively agrees are important for a person’s happiness, quality of life and welfare.

WHO defines mental health as:

... a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community (World Health Organization, 2010).

Mental disorders are relatively common among the New Zealand population, with nearly half of the population meeting the criteria for a mental disorder at some time in their lives (Oakley Browne, Wells & Scott, 2006). Mental disorders can affect people in many ways, including impairing the ability to perform routine tasks, to foster healthy relationships or to cope with anger or stress.

2.2 Life satisfaction

2.2.1 Measure

The proportion of people aged 15 years and over who reported that they were ‘very satisfied’ or ‘satisfied’ with their life as a whole, in the New Zealand General Social Survey.
2.2.2 Relevance

Life satisfaction is a subjective indicator of wellbeing. A range of factors may influence the wellbeing of an individual, such as health, education, employment, participation in the political process, trust and altruism and the social and natural environment in which they live (Brown, Woolf & Smith, 2010; Stiglitz, Sen & Fitoussi, 2009). The variability between individuals in what is important for wellbeing makes a subjective life satisfaction indicator that is useful to gain comparability across the population.

While subjective wellbeing measures have their shortcomings, research has established that they are sufficiently reliable and valid for wider use (Ministry of Social Development, 2008). However, to gain an accurate picture of wellbeing, it is important to look at measures of subjective wellbeing alongside measures of objective conditions. This subjective measure of life satisfaction complements other objective measures in the report such as suicide, access to services, employment and standard of living.

2.2.3 Findings

In 2008, 86 percent of New Zealanders aged 15 years and over said they were satisfied with their life as a whole.

Figure 1: Proportion of people satisfied with their life overall, 2008

Source: Statistics New Zealand, New Zealand General Social Survey

There was no difference in life satisfaction between males and females. Older people were more satisfied with their life overall than younger and middle-aged people. People aged 65 years and over reported the highest levels of life satisfaction, and people aged 45–54 years had the lowest levels of life satisfaction.
Māori and Pacific people reported lower levels of life satisfaction than people from the European/Other ethnic group. People living in the least deprived neighbourhoods had higher levels of life satisfaction than people living in the most deprived neighbourhoods (Table 3).

Table 3: Proportion (%) of people satisfied with their life overall by NZDep 2006 Quintile, 2008

<table>
<thead>
<tr>
<th></th>
<th>1 – least deprived</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5 – most deprived</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very satisfied</td>
<td>39.2</td>
<td>35.7</td>
<td>28.7</td>
<td>28.1</td>
<td>23.3</td>
</tr>
<tr>
<td>Satisfied</td>
<td>49.4</td>
<td>52.6</td>
<td>56.7</td>
<td>54.8</td>
<td>55.9</td>
</tr>
<tr>
<td>Total satisfied</td>
<td>88.6</td>
<td>88.4</td>
<td>85.6</td>
<td>83.0</td>
<td>79.3</td>
</tr>
</tbody>
</table>

The OECD uses information from the 2006 Gallup World Poll to compare life satisfaction across member countries. The measure is a country’s average score on an 11-point scale from 0–10 (with 0 being the lowest and 10 being the highest levels of satisfaction), derived from individual respondents’ scores (OECD, 2009). New Zealand ranked sixth equal (with Australia and Canada) with a score of 7.4. This was above the median of 6.9 for 30 OECD countries. New Zealand ranked higher than the average scores of the United States (7.3), the United Kingdom (7.0) and well above that of Ireland (6.0).

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4 Neighbourhood deprivation is calculated through the New Zealand Deprivation Index 2006 (NZDep2006). For an explanation of the NZDep2006, refer to Appendix 1.
2.3 Psychological distress

2.3.1 Measure
The proportion of people aged 15 years and over who scored 12 or more on the Kessler 10-item scale (K10), as measured by the New Zealand Health Survey. The K10 questionnaire was included in the New Zealand Health Survey for the first time in 2006/07.

2.3.2 Relevance
The K10 is a set of questions used to measure non-specific psychological distress and serious mental illness of a population (Kessler et al., 2003). Many studies have found a strong association between the K10 score of a respondent and symptoms that meet the criteria for any mental disorder, especially anxiety and mood disorders (Ministry of Health, 2008b; Gill, Butterworth, Rodgers & MacKinnon, 2007; Kessler et al., 2002). There is a strong association between a K10 score of 12 or more and having a mental disorder both for the previous month and the previous 12 months (Andrews & Slade, 2001).

2.3.3 Findings
In 2006/07, 6.6 percent of the population aged 15 years and over had a high or very high probability of an anxiety or depressive disorder. This equates to around 204,600 people.

Females had a higher rate of high or very high probability of an anxiety or depressive disorder compared with males (Figure 3).

Figure 3: High or very high probability of anxiety or depressive disorder (K10 score of 12 or more) by gender, 2006/07

The rate of high or very high probability of an anxiety or depressive disorder was highest in adults aged 15–24 years (9.4 percent) and those aged 75 years and over (8.0 percent), while adults aged 55–64 years had the lowest rate (4.8 percent).
Māori (10.8 percent) and Pacific (12.9 percent) adults had higher rates of high or very probability of an anxiety or depressive disorder compared with Asian (7.7 percent) and European/Other (6.1 percent) ethnic groups (Figure 4).

Figure 4: High or very high probability of anxiety or depressive disorder (K10 score of 12 or more) by ethnic group (age-standardised), 2006/07

![Bar chart showing percentage of high or very high probability of anxiety or depressive disorder by ethnic group.]

Adults living in the most deprived neighbourhoods were more than three times as likely to have a high or very high probability of an anxiety or depressive disorder compared with adults living in the least deprived neighbourhoods.

In late 2003 and 2004, the Ministry of Health undertook the New Zealand Mental Health Survey to determine the prevalence rates of major mental disorders among the adult New Zealand population using clinical diagnostic criteria (Oakley Browne et al., 2006). This survey provides important information on the prevalence of mental distress and/or addiction in New Zealand to complement the information on self-reported symptoms of mental distress and/or addictions provided by the K10.

The survey found that 20.7 percent of the population had experienced a mental disorder within the past 12 months and 11.6 percent in the past month (Oakley Browne et al., 2006). The 12-month prevalence of serious disorder was 4.7 percent, moderate disorder 9.4 percent and mild disorder 6.6 percent, with the remaining 79.3 percent of the population not diagnosed with a disorder.

Anxiety disorders were the most common group of disorders in the past 12 months (14.8 percent), followed by mood disorders (7.9 percent), then substance use disorders (3.5 percent), with eating disorders the least common group (0.5 percent) (Oakley Browne et al., 2006).
2.4 Potentially hazardous drinking

2.4.1 Measure
The proportion of people aged 15 years and over who scored 8 or more on the Alcohol Use Disorders Identification Test (AUDIT), as measured in the New Zealand Health Survey.

2.4.2 Relevance
The AUDIT is a 10-item questionnaire developed by WHO as a tool to identify alcohol-related problems and abnormal drinking behaviour. The international definition of hazardous drinking, defined by an AUDIT score of 8 or more, is an established pattern of alcohol consumption that carries a high risk of future damage to physical or mental health, but may not yet have resulted in significant adverse effects (Babor, Higgins-Biddle, Saunders & Monteiro, 2001).

2.4.3 Findings
In 2006/07, 18 percent of the population aged 15 years and over had a potentially hazardous drinking pattern as indicated by an AUDIT score of 8 or more. This equates to around 551,300 adults who had a high risk of future damage to their physical and/or mental health due to drinking alcohol. There has been no change in the proportion of adults with a potentially a hazardous drinking pattern from the 1996/97 and 2002/03 surveys (17 percent for both years).

Males (26 percent) were more than twice as likely as females (10 percent) to have a potentially hazardous drinking pattern. The proportion of adults with a potentially hazardous drinking pattern was highest for those aged 18–24 years (43 percent) and declines at older ages (Figure 5). Over half of all males aged 18–24 years (54 percent) had a hazardous drinking pattern.

Figure 5: Hazardous drinking (AUDIT score of 8 or more) for people aged 15 years and over by age group, 2006/07

Source: Ministry of Health, New Zealand Health Survey
Māori adults (31 percent) were significantly more likely to have a potentially hazardous drinking pattern than other ethnic groups. Asian adults (5.2 percent) were four times less likely than any other ethnic groups to have a potentially hazardous drinking pattern (Figure 6).

Figure 6: Hazardous drinking (AUDIT score of 8 or more) for people aged 15 years and over by ethnic group (age-standardised), 2006/07

The proportion of adults with a potentially hazardous drinking pattern was significantly higher in the most deprived neighbourhoods than in the least deprived neighbourhoods (Table 4).

Table 4: Proportion (%) of people aged 15 years and over with a hazardous drinking pattern (AUDIT score of 8 or more) by gender and NZDep2006, 2006/07

<table>
<thead>
<tr>
<th></th>
<th>1 – least deprived</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5 – most deprived</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>26.9 (23.4–30.4)</td>
<td>23.7 (19.2–28.2)</td>
<td>28.0 (24.0–32.0)</td>
<td>28.6 (24.9–32.2)</td>
<td>31.3 (27.0–35.5)</td>
</tr>
<tr>
<td>Female</td>
<td>10.4 (7.5–13.2)</td>
<td>10.0 (7.2–12.9)</td>
<td>10.9 (8.8–12.9)</td>
<td>12.1 (9.7–14.5)</td>
<td>17.9 (14.4–21.4)</td>
</tr>
<tr>
<td>Total</td>
<td>18.2 (15.8–20.6)</td>
<td>16.8 (14.1–19.4)</td>
<td>19.3 (17.1–21.4)</td>
<td>19.9 (17.6–22.1)</td>
<td>24.2 (21.4–27.0)</td>
</tr>
</tbody>
</table>

While it is not possible to use the AUDIT method to make an international comparison, the OECD uses information on annual consumption of alcohol per person aged 15 years and over. From 2003–2009 New Zealand had the 12th lowest level of alcohol consumption out of 30 OECD countries. The OECD median in 2003–2009 was 10.0 litres of alcohol per person. In 2009, New Zealand’s alcohol consumption, at 9.3 litres per person, was higher than that of the United States (8.7 litres in 2007) and Canada (8.2 litres in 2009), but lower than that of Australia (10.0 litres in 2007), the United Kingdom (10.8 litres in 2008) and Ireland (12.4 litres in 2008).
2.5 Harmful effects of alcohol or drug use

2.5.1 Measure
The proportion of people aged 16–64 years who experienced any harmful effects due to their own alcohol or drug use in the last 12 months, as measured in the New Zealand Alcohol and Drug Use Survey. These questions were asked for the first time in the New Zealand Alcohol and Drug Use Survey 2007/08; therefore, trend information for this measure will not be available until the next edition of this report.

2.5.2 Relevance
Alcohol and drugs can cause harm to the user through three main mechanisms; intoxication, dependence and toxicity (World Health Organisation, 2007). The types of harmful effects that may be caused by alcohol or drug use include on friendships or social life, home life, work/study/employment opportunities, financial position, legal problems, difficulty learning things and injuries.

2.5.3 Findings
In 2007/08, 16 percent of the population aged 16–64 years had experienced at least one harmful effect in the last year due to their alcohol or drug use. Males (19 percent) were significantly more likely than females (13 percent) to experience at least one harmful effect in the last year due to their alcohol or drug use.

Younger people experienced a higher level of harmful effects in the last year due to their alcohol or drug use than people in the older age groups (Figure 7). Across all age groups, males were more likely than females to have experienced harmful effects due to their alcohol or drug use in the last year.

Figure 7: Experienced harmful effects due to alcohol or drug use in the last 12 months by gender and age group, 2007/08

Source: Ministry of Health, New Zealand Alcohol and Drug Use Survey
Māori (27 percent) are more likely than non-Māori (17 percent) to have experienced at least one harmful effect in the past year due to their own alcohol or drug use. Asians were significantly less likely than other ethnic groups to have experienced harmful effects in the last 12 months.

**Figure 8:** Experienced harmful effects due to alcohol or drug use in the last 12 months by gender and ethnic group (age-standardised), 2007/08

People living in more deprived neighbourhoods are more likely to have experienced harmful effects in the last year due to their own alcohol or drug use than people living in the least deprived neighbourhoods (Figure 9).

**Figure 9:** Experienced harmful effects due to alcohol or drug use in the last 12 months by NZDep2006 quintile (age-standardised), 2007/08

Source: Ministry of Health, New Zealand Alcohol and Drug Use Survey
2.6 Suicide

2.6.1 Measure

The number of suicide deaths per 100,000 population.

2.6.2 Relevance

Suicide is an indicator of the level of both the mental health and the social wellbeing of the population and a significant health and social issue in New Zealand (Ministry of Health, 2008a). Suicide is a tragic loss of potential and a devastating event for families and friends, with enduring emotional consequences. It often affects the wider community, both emotionally and economically. It is generally, although not always, associated with mental illness (Ministry of Health, 2008a).

2.6.3 Findings

In 2008, 497 people died by suicide, an increase from 487 people in 2007. The age-standardised rate of suicide death was 11.2 per 100,000 population in 2008, an increase from 11.0 per 100,000 population in 2007. The age-standardised rate of suicide death increased between 1985 and 1998 and peaked at 15.1 deaths per 100,000 population in 1998. Since then, the rate of suicide death has generally declined.

The rate of suicide death for males is three times higher than the rate for females. In 2008, the age-standardised rate of suicide death for males was 16.9 per 100,000 population, compared with 5.8 per 100,000 females. The male suicide death rate increased between 1985 and 1995, peaked at 23.9 deaths per 100,000 males in 1995 and has been declining since 1998. In comparison, the female rate has been relatively stable over the last 20 years.

Figure 10: Age-standardised suicide death rate by gender, 1986–2008

Source: Ministry of Health, 2010a
While the suicide death rate is higher for males, more females than males are hospitalised for intentional self-harm. In 2008, the female to male rate ratio for intentional self-harm in New Zealand was 1.8 female hospitalisations to every male hospitalisation per 100,000 population.

People aged 20–24 years had the highest rate of suicide death, at 20.0 suicides per 100,000 population. This was also the age group with the highest rate of suicide death for males (33.3 deaths per 100,000 male population). However, for females, the highest rate was in the 15–19 years age group (13.9 deaths per 100,000 female population). The suicide rate for youth (15–24 years) declined by 35.4 percent between 1995 (when it peaked at 28.7 deaths per 100,000 population) and 2008. The pattern was similar for 25–34 year olds. People aged 80 years and over also had high rates of suicide death, particularly males. However, these rates are based on small numbers and can be volatile from year to year.

Figure 11: Age-standardised suicide death rate by gender and age group, 2008

In 2008, the age-standardised rate of suicide death for Māori (13.3 deaths per 100,000 Māori population) was higher than that for non-Māori (10.6 deaths per 100,000 non-Māori population), but this difference is not statistically significant.

A comparison of the latest age-standardised rates of suicide death in 29 OECD countries between 2004 and 2008 shows that New Zealand’s 2008 suicide rate was towards the middle of the group. The suicide rate for females is in the upper third of the group. Finland had the highest male suicide death rate (27.4 per 100,000 in 2006), while Japan had the highest female rate (10.0 per 100,000 in 2006).

Compared with other OECD countries, New Zealand has a higher suicide rate for males aged 15–24 years than in any other country except Iceland and Finland. The New Zealand female youth suicide rate in 2008 was higher than that of any other OECD country, including Finland, Japan, Sweden and the Republic of Korea.
3 Health service delivery

3.1 Why is it important?

Those people affected by mental illness have needs for good clinical care and for a wide range of psycho-social assistance and support encompassing interpersonal relationships, income, housing, education, employment, transport and leisure opportunities (Mental Health Commission, 1998). There is evidence that mental illnesses are less severe, of shorter duration and less likely to recur when identified and treated early (Royal College of Psychiatrists, 2010; O'Connell, Boat & Warner, 2009). An effective and integrated mental health sector will prevent people in need from 'slipping through the net' and experiencing the adverse consequences that can follow, such as unplanned readmissions to hospital, homelessness, imprisonment or suicide.

Mental health and addiction service provision has changed significantly over the last three decades. Mental health and addiction strategies and policies now place a heavy emphasis on recovery.

Recovery is a person’s growing sense of self and the self-directed transition to a meaningful life, which may or may not include the abatement of psychiatric or addictive symptoms. It involves the need for responsibility, a broad range of services, resources and opportunities and social inclusion. Wherever possible, families are included in the recovery of their family member.

While the recovery approach to mental distress and/or addiction has widespread support throughout New Zealand and in many other countries, there are no agreed international definitions of recovery that lead directly to quantifiable indicators. Because of this, it has been proposed that measuring the recovery orientation of services is more practical than measuring the recovery of people. The literature points to a number of key principles of recovery-oriented service provision (Mancini, 2008; Pennsylvania Office of Mental Health and Substance Abuse Services, 2005):

- A broad range of treatment services are available.
- Service users directing their care towards their own recovery.
- Family actively participating in their family member’s care.
- Service user involvement and participation in services.
- Services collaborating with community.

There is currently a lack of good quality information to allow direct robust measurement of these principles of recovery. However, the indicators that have been selected for the health service delivery domain take account of these recovery-oriented service provision principles.

An effective mental health care system requires integration across primary, secondary and tertiary level services. It is acknowledged that there is currently a lack of good quality information around mental health care in primary care settings. In order to improve this report, this is something the Commission will advocate for in the future.
3.2 Access to services

3.2.1 Measure
The proportion of people who accessed mental health and addiction services in the last 12 months.

3.2.2 Relevance
People who are affected by serious mental distress and/or addiction have needs for good clinical care. There is growing evidence that mental illnesses are less severe, of shorter duration and less likely to recur when identified and treated early.

Low treatment rates for people with mental distress and/or addiction may be a function of several factors. These include unavailability of services, lack of awareness by the person that they have a problem or that effective treatments are available, negative experiences of previous service use and stigma associated with mental distress and/or addiction (Mental Health Standing Committee of the Australian Health Ministers’ Advisory Council, 2008).

3.2.3 Findings
In 2008/09, 2.7 percent of the New Zealand population accessed mental health and addiction services, an increase from 2.2 percent in 2002/03 (Figure 12).

Figure 12: Proportion of people accessing mental health and addiction services

Adults (aged 20–64 years) have higher rates of accessing mental health and addiction services than children and youth (0–19 years) and older people (65+ years) (Figure 13). In 2008/09, 2.9 percent of the adult population accessed mental health and addiction services, compared with 2.3 percent of children and youth and 2.2 percent of the older population. The proportion of people accessing mental health and addiction services has been increasing across all three age groups. The proportion of children and youth...
accessing mental health and addiction services has increased from 1.8 percent in 2002/03 to 2.3 percent in 2008/09.

**Figure 13: Proportion of people accessing mental health and addiction services by age group**

Māori have higher rates of accessing mental health and addiction services than non-Māori. This fits with findings that show that the prevalence of mental distress and addiction is higher for Māori than other ethnic groups. In 2008/09, 3.5 percent of the Māori population accessed mental health and addiction services, an increase from 2.5 percent in 2002/03.

Amongst the Māori population, adults have higher rates of accessing mental health and addiction services than children and youth, and older people. In 2008/09, 4.7 percent of Māori adults accessed mental health and addiction services, compared with 2.3 percent of Māori children and youth and 1.6 percent of Māori older people.

*Te Rau Hinengaro* (Oakley Browne et al., 2006) reported a significant unmet need for treatment for people with mental disorders (including addiction). Of all 12-month cases of mental disorder, 39 percent had a mental health visit to a health or non-health care provider in the past 12 months. People with mood disorders had the highest level of service use, with 55 percent making a mental health visit in the past 12 months, compared with 39 percent for anxiety disorders and 30 percent for substance use disorders.

### 3.3 Unmet need for help

#### 3.3.1 Measure

The proportion of people who wanted help to reduce their level of alcohol or drug use in the last 12 months but did not receive it, as measured by the New Zealand Alcohol and Drug Use Survey.
3.3.2 Relevance

People often need help to reduce their level of alcohol or drug use, and there are a variety of types of alcohol treatment available to reduce levels of use. These include specialised treatment programmes, brief interventions (such as GPs) and support groups. Some people may also seek help and support from friends and family members. For various reasons, some people are unable to get the help they need.

3.3.3 Findings

In 2007/08, 1.9 percent of the population aged 16–64 years had wanted help to reduce their alcohol or drug use in the last 12 months but had not received it, which equates to around 50,000 people.

Males (2.2 percent) were significantly more likely than females (1.1 percent) to have wanted help to reduce their level of alcohol or drug use in the last year but to not have received it.

Younger people (2.6 percent for 16–24 years) were significantly more likely than older people (0.9 percent for 45–54 years and 0.2 percent for 55–64 years) to have wanted help to reduce their alcohol or drug use in the last 12 months but to not have received it.

Figure 14: Wanted help to reduce level of alcohol or drug use in the last 12 months but had not received it by age group, 2007/08

Māori (4.2 percent) and Pacific people (4.8 percent) are more likely than European/Other (1.7 percent) and Asian (0.4 percent) to have wanted help to reduce their level of alcohol or drug use in the past year but not received it.
People living in the most deprived neighbourhoods were significantly more likely than people living in the least deprived neighbourhoods to have wanted help to reduce their level of alcohol use in the last year but to not have received it.

Table 6: Wanted help to reduce their level of alcohol or drug use in the last year but had not received it by NZDep2006, 2007/08

<table>
<thead>
<tr>
<th>Ethnic group</th>
<th>1–least deprived</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5–most deprived</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>0.8 (0.3–1.8)</td>
<td>1.3 (0.5–2.6)</td>
<td>1.4 (0.7–2.5)</td>
<td>2.2 (1.3–3.0)</td>
<td>4.1 (2.6–5.5)</td>
</tr>
</tbody>
</table>

Source: Ministry of Health, New Zealand Alcohol and Drug Use Survey

*Te Rau Hinengaro* (Oakley Browne et al., 2006) reports low rates of service contact for people aged 16 years and over with substance use disorders. Of all 12-month cases of substance use disorder, only 30 percent reported a mental health visit in the previous 12 months. People with drug abuse or drug dependence were more likely to have a mental health visit than people with alcohol abuse or dependence. Most people with lifetime substance use disorders eventually made contact if their disorder continued; however, the median duration of delay from onset until contact was 16 years for alcohol abuse, 7 years for alcohol dependence, 8 years for drug abuse and 3 years for drug dependence.

### 3.4 Seclusion

#### 3.4.1 Measure

The number of seclusion events and people secluded per 100,000 population.
3.4.2 Relevance

Seclusion should only be used when there is an imminent risk of danger to the individual or others and no other safe alternative is possible. It is a very restrictive intervention and can be psychologically damaging for some people. There is a national focus on the reduction of seclusion use (Te Pou, 2008; Mental Health Commission, 2004).

The use of seclusion reflects the use of more restrictive treatment approaches, and a reduction in the use of seclusion reflects the use of more appropriate approaches to treatment.

3.4.3 Findings

In 2009, 1,379 people were secluded, across 5,052 seclusion events. This equates to 117 seclusion events per 100,000 population and 32 people secluded per 100,000 population (Figure 16).

There has been little change in the rates of seclusion events or people secluded over the last 3 years. In 2007, there were 117.0 seclusion events per 100,000 population and 30.6 people secluded per 100,000 population. In 2008, there were 119.4 seclusion events per 100,000 population and 31.8 people secluded per 100,000 population.

Figure 16: Seclusion indicators for people in all mental health units by gender, 2009

Males were more likely than females to be secluded – 62 percent of secluded patients were male and 37 percent were female. In 2009, 40.7 males per 100,000 population were secluded, compared with 20.3 females per 100,000 population (Figure 16).

51 percent of secluded people had an unspecified gender.
Most people who were secluded were aged 20–49 years – 75 percent in 2009 (Figure 17). In 2009, 117 children and youth (0–19 years) were secluded, including 55 who were secluded in the specialist facilities for children and young people.

Figure 17: Number of people secluded in all mental health units by age group, 2009

Source: Ministry of Health

Māori were more likely to be secluded than Pacific people or those from other ethnic groups. In 2009, 76.2 Māori per 100,000 population were secluded, compared with 25.6 people from other ethnic groups per 100,000 population.

3.5 Input into treatment

3.5.1 Measure
The proportion of people who use mental health and addiction services who ‘agree’ or ‘strongly agree’ that their opinions and ideas are included in their treatment plan, as measured by the National Mental Health Consumer Satisfaction Survey.

3.5.2 Relevance
Empowerment and responsibility are key components of recovery (Mancini, 2008; Mental Health Commission, 1998). This can be facilitated through allowing service users to exercise choices and make decisions about their treatment and care.

3.5.3 Findings
In 2009/10, 79 percent of service users either ‘agreed’ (38 percent) or ‘strongly agreed’ (41 percent) that their opinions and ideas were included in their treatment plan with mental health and addiction services (Figure 17). In contrast, 8 percent of service users ‘disagreed’ (5 percent) or ‘strongly disagreed’ (4 percent).
Figure 17: Proportion of service users who agreed that their opinions and ideas are included in their treatment plan, 2009/10

Source: Ministry of Health, National Mental Health Consumer Satisfaction Survey

Over the last 4 years, there has been no change in the proportion of service users reporting that their opinions and ideas were included in their treatment plan with mental health and addiction services (Figure 18). In 2006/07 and 2007/08, 77 percent of service users ‘agreed’ or ‘strongly agreed’ that their opinions and ideas were included in their treatment plan, compared with 79 percent in 2008/09 and 2009/10.

Figure 18: Proportion of service users who agree that their opinions and ideas are included in their treatment plan, 2006/07–2009/10

Source: Ministry of Health, National Mental Health Consumer Satisfaction Survey
3.6 Family participation

3.6.1 Measure

The proportion of people who use mental health and addiction services who ‘agree’ or ‘strongly agree’ that staff provided their family with the education or supports they need to be helpful to them, as measured by the National Mental Health Consumer Satisfaction Survey.

3.6.2 Relevance

Families/whānau have a unique role in promoting wellbeing, providing care and fostering recovery for service users, as well as for themselves. Wherever possible, it is important that families, whether they are made up of relatives or drawn from a person’s broader circle of support, become partners in the care and treatment of their family member and are integrated into the decision-making (Mental Health Commission, 2009b).

3.6.3 Findings

In 2009/10, 64 percent of service users either ‘agreed’ (34 percent) or ‘strongly agreed’ (30 percent) that staff in mental health and addiction services provided their family with the education or supports they need to be helpful to them (Figure 19). In contrast, 16 percent of service users ‘disagreed’ (9 percent) or ‘strongly disagreed’ (7 percent).

Figure 19: Proportion of service users who agree that staff provided their family with the education or supports they need to be helpful to them, 2009/10

Over the last 4 years, there has been no change in the proportion of service users reporting that staff in mental health and addiction services provided their family with the education or supports they need to be helpful to them (Figure 20). In 2006/07, 63 percent of service users ‘agreed’ or ‘strongly agreed’ that staff provided their family with
the education or supports needed to be helpful to them, compared with 60 percent in 2007/08, 63 percent in 2008/09 and 64 percent in 2009/10.

**Figure 20: Proportion of service users who agree that staff provided their family with the education or supports they need to be helpful to them, 2006/07–2009/10**

Source: Ministry of Health, National Mental Health Consumer Satisfaction Survey
4 Social inclusion

4.1 Why is it important?

Social inclusion is linked with recovery. The recovery approach involves minimising the discrimination against people with mental distress and/or addiction that occurs within services and in the wider community and enabling people to fully participate in society (Mental Health Commission, 1998). Social exclusion impacts on people’s ability to enjoy and function in their lives and communities and their ability to get well and stay well (Mental Health Commission, 2009a).

The Social Inclusion Unit reported that adults with mental health problems are one of the most excluded groups in British society (Social Exclusion Unit, 2004). New Zealand research has shown that people with experience of mental illness report discrimination in all aspects of their lives, from employment and housing to discrimination from friends and family and the community (Mental Health Foundation, 2004). The effect of this discrimination is that people with mental health problems often feel excluded from many activities of daily living.

The concept of social inclusion means many things to many people. While there is no universally accepted definition of social inclusion, the key characteristics can be summarised as (Mental Health Commission, 2009a):

- people are able to exercise their rights
- people are able to participate in activities
- participation is by choice – including the right to exclude yourself from society
- resulting from society in which people reside and its social norms.

The Commission has previously used the following definition of social inclusion for people with mental health and addiction problems:

Social inclusion is the extent to which people are able to exercise their rights and participate, by choice, in the ordinary activities of citizens in the society in which they reside. (Mental Health Commission, 2009a)

The indicators used in this chapter are a synopsis of the information presented in Measuring Social Inclusion (Multi-agency Anti-discrimination Group, Forthcoming), a report that presents a comprehensive measurement of social inclusion for people with symptoms of mental distress.⁶

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⁶ For the purposes of this section, symptoms of mental distress are determined using the SF-12 questionnaire, which assesses general self-rated health, physical and psychological symptoms and limitations in everyday activity due to physical and mental health over the previous 4 weeks. For a full explanation of how mental distress is determined, refer to Appendix 1.
4.2 Isolation

4.2.1 Measure
The proportion of people aged 15 years and over who have felt isolated from others in the last 4 weeks, as measured in the New Zealand General Social Survey.

4.2.2 Relevance
Relationships with other people are a basic human need. Being part of a social network is good for our mental health, is a buffer against mental distress (Diener & Seligman, 2002) and promotes a sense of belonging (Morrow, 2001) and greater life satisfaction (Wagner, Frick & Jurgen, 2007). Self-assessed isolation is a subjective indicator of people’s satisfaction with the amount and quality of relationships they have.

4.2.3 Findings
People with symptoms of mental distress are more likely to have felt isolated from others in the last 4 weeks, with the likelihood increasing with the severity of the symptoms. In 2008, 25 percent of people with no symptoms of mental distress had felt isolated in the last 4 weeks, compared with 49 percent of people with mild symptoms, 67 percent with moderate symptoms and 74 percent with severe symptoms. These differences were all significant except between moderate and severe symptoms of mental distress.

In general, females are more likely than males to report feeling isolated in the last 4 weeks. However, for people with symptoms of mental distress, there is only a significant gender difference for people with mild symptoms (Figure 24).

Figure 24: Felt isolated from others in the last 4 weeks by symptoms of mental distress and gender, 2008

Source: Statistics New Zealand, New Zealand General Social Survey
Amongst the whole population, younger people reported feeling more isolated than middle-aged or older people. A similar pattern was shown for people with symptoms of mental distress. Amongst people with symptoms of mental distress, those aged 15–24 years were the most likely to report feeling isolated from others – 58 percent for those with mild symptoms, 83 percent for those with moderate symptoms and 91 percent for those with severe symptoms. Amongst people with no symptoms of mental distress, those aged 25–34 years (31 percent) were the most likely to report feeling isolated from others.

While in general, Māori and Pacific people are more likely than other ethnic groups to report feeling isolated, there is no significant difference between ethnic groups when symptoms of mental distress are accounted for.

Similarly, there is a general pattern for levels of feeling isolated from others to increase as neighbourhood deprivation increases. However, when symptoms of mental distress are accounted for, this pattern is significantly reduced (Figure 25). Amongst people with no symptoms of mental distress, there is no significant difference between people living in the least deprived neighbourhoods and those living in the most deprived neighbourhoods.

For people with mild symptoms of mental distress, those living in the most deprived neighbourhoods (64 percent) were significantly more likely than others to report feeling isolated from others, but there was no significant difference between the levels of people living in other neighbourhoods. Amongst people with moderate or severe symptoms of mental distress, there was no significant difference in reported levels of isolation from others between areas of deprivation.

Figure 25: Felt isolated from others in the last 4 weeks by symptoms of mental distress and NZDep2006 quintile, 2008

Source: Statistics New Zealand, New Zealand General Social Survey
4.3 Perceived discrimination

4.3.1 Measure

The proportion of people aged 15 years and over who feel that they have been treated unfairly or had something nasty done to them because of the group they belong to or seem to belong to in the past year, as measured in the New Zealand General Social Survey.

4.3.2 Relevance

A key right of citizenship is the right not to be discriminated against. Discrimination occurs when a person is treated differently (and unfavourably) from another person in the same or similar circumstances. Discrimination can be a barrier to social inclusion and can also have negative effects on mental health. This measure is a subjective measure of whether someone feels that they have been discriminated against, which does not always mean that there was a legal case of discrimination. However, the effects on an individual come through the perception rather than the reality.

4.3.3 Findings

People with symptoms of mental distress are more likely to feel that they have been discriminated against in the past year than people with no symptoms (Figure 26). In 2008, 7.6 percent of people with no symptoms of mental distress felt they had been discriminated against in the past year, compared with 14 percent for people with mild symptoms of mental distress, 20 percent for people with moderate symptoms and 27 percent for people with severe symptoms. All these differences were significant except for the difference between people with moderate and severe symptoms of mental distress.

Figure 26: Felt treated unfairly or had something nasty done to them because of the group they belong to in the past year by symptoms of mental distress, 2008

Source: Statistics New Zealand, New Zealand General Social Survey
Among those with moderate or severe symptoms of mental distress, the most common reasons given for being discriminated against were their nationality, race or ethnic group (37 percent) or their skin colour (36 percent), and 14 percent thought the discrimination was because of a disability or health issue.\(^7\) The most common situations in which discrimination occurred were in workplaces (41 percent) and public places (32 percent).

Younger people are more likely to report discrimination than older people across all levels of mental distress severity (Figure 27). People aged 15–24 years were the age group most likely to report discrimination – 11 percent for people with no symptoms of mental distress, 23 percent for people with mild symptoms and 30 percent for people with moderate and severe symptoms.

Figure 27: Felt treated unfairly or had something nasty done to them because of the group they belong to in the past year by symptoms of mental distress and age group, 2008

Among people with moderate or severe symptoms of mental distress, Māori (35 percent) were more likely than European/Other people (16 percent) to report feeling discriminated against in the past year. There is a similar pattern among people with no symptoms of mental distress (12 percent for Māori and 5.6 percent for European/Other). However, among people with mild symptoms of mental distress, there are no significant differences among ethnic groups in reporting feeling discriminated against.

The gap between people with no symptoms and those with moderate or severe symptoms of mental distress who reported feeling discriminated against in the past year was greater for people from the most deprived neighbourhoods, compared with people from the least deprived neighbourhoods. In 2008, 29 percent of people with moderate or severe symptoms of mental distress from the most deprived neighbourhoods reported feeling discriminated against in the past year, compared with 6.5 percent of people with no symptoms from the least deprived neighbourhoods.

\(^7\) This is not necessarily a mental health issue.
4.4 Job satisfaction

4.4.1 Measure
The proportion of people aged 15–64 years who are employed and have been satisfied with their job in the last 4 weeks, as measured in the New Zealand General Social Survey.

4.4.2 Relevance
Participation in employment is an important component of social inclusion. It provides people with income, which contributes to their economic standard of living, and is also important for the social contact and sense of self-worth or satisfaction it gives people. However, jobs with poor working conditions can erode health and wellbeing (Leach et al., 2010), and therefore, it is important satisfaction with the employment is considered.

This measure combines the objective measurement of people being employed and the subjective measurement of job satisfaction to provide an indicator of good working conditions.

4.4.3 Findings
People with symptoms of mental distress are less likely than those with no symptoms to be employed and have been satisfied with their job in the last 4 weeks (Figure 28). In 2008, 59 percent of people with no symptoms of mental distress were employed and had been satisfied with their job in the past 4 weeks. This compares with 46 percent for people with mild symptoms of mental distress, 33 percent for people with moderate symptoms and 25 percent for people with severe symptoms.

People with moderate or severe symptoms of mental distress are also more likely than those with no or mild symptoms to not be satisfied with their job.

Figure 28: Employment status by symptoms of mental distress, 2008

Source: Statistics New Zealand, New Zealand General Social Survey
In general, males are more likely than females to be employed and have been satisfied with their job in the past 4 weeks. However, there is no significant difference between males and females for people with symptoms of mental distress at any level of severity.

In general, older people are more likely than younger people to be employed and have been satisfied with their job in the last 4 weeks, and this pattern holds true for people with no or mild symptoms of mental distress. However, for people with moderate or severe symptoms of mental distress, there is no clear association. For this group of people, those aged 35–44 years (44 percent) are most likely to be employed and have been satisfied with their job in the last 4 weeks, while those aged 25–34 years (24 percent) are the least likely to be employed and have been satisfied with their job among people with moderate or severe symptoms of mental distress.

Among people with moderate and severe symptoms of mental distress, there are no significant differences in being employed and having been satisfied with their job in the last 4 weeks among ethnic groups. However, among people with no symptoms of mental distress, Māori (60 percent) and Pacific people (54 percent) were less likely than European/Other (71 percent) to be employed and have been satisfied with their job in the last 4 weeks (Figure 29).

Figure 29: Employed and have been satisfied with their job in the last 4 weeks by symptoms of mental distress and ethnic group, 2008

There is a clear association between job satisfaction and the level of deprivation in the neighbourhood that people live in across all levels of symptoms of mental distress. Across all levels of symptoms of mental distress, people living in the most deprived neighbourhoods had the lowest rates of being employed and satisfied with their job. In 2008, 59 percent of people with no symptoms of mental distress from the most deprived neighbourhoods were employed and satisfied with their job in the last 4 weeks, compared with 38 percent of people with mild symptoms of mental distress and 28 percent of people with moderate or severe symptoms.
4.5 Standard of living

4.5.1 Measure

The proportion of people aged 15 years and over who scored 17 or more on the Economic Standard of Living Index Short Form (ELSI\textsubscript{SF}), as measured in the New Zealand General Social Survey.

4.5.2 Relevance

The ELSI\textsubscript{SF} is a survey tool for measuring people’s economic standard of living, which refers to the material aspect of wellbeing that is reflected in a person’s consumption and personal possessions – their household durables, clothing, recreations, access to medical services and so on (Jensen, Spittal & Krishnan, 2005). An ELSI\textsubscript{SF} score that is less than 17 is an indication of some hardship.

4.5.3 Findings

People with symptoms of mental distress have lower levels of economic standard of living than people with no symptoms (Figure 30). In 2008, 87 percent of people with no symptoms of mental distress had a ‘fairly comfortable’ or higher economic standard of living, compared with 75 percent of people with mild symptoms of mental distress, 67 percent of people with moderate symptoms and 57 percent of people with severe symptoms.

Figure 30: Proportion of people with a fairly comfortable or higher economic standard of living by symptoms of mental distress and gender, 2008

Overall, males had a significantly higher average level of economic standard of living than females. However, once levels of symptoms of mental distress are taken into account, there are no significant differences between male and females.
Younger people are less likely to have a ‘fairly comfortable’ or higher standard of living than older people (Figure 31). In 2008, 46 percent of people aged 15–24 years with moderate or severe symptoms of mental distress had a ‘fairly comfortable’ or higher economic standard of living, compared with 87 percent of people aged 65 years and over with moderate and severe symptoms.

**Figure 31: Proportion of people with a fairly comfortable or higher economic standard of living by symptoms of mental distress and gender, 2008**

![Bar chart showing proportion of people with a fairly comfortable or higher economic standard of living by symptoms of mental distress and gender, 2008.](image)

Māori and Pacific people are less likely to have a ‘fairly comfortable’ economic standard of living than people from other ethnic groups. In 2008, 26 percent of Pacific people with moderate or severe symptoms of mental distress had a ‘fairly comfortable’ economic standard of living, compared with 42 percent of Māori with moderate or severe symptoms and 71 percent of European/Other with moderate and severe symptoms.

There is a clear association between economic standard of living and neighbourhood deprivation. This association is strengthened where people have symptoms of mental distress. In 2008, 44 percent of people with moderate or severe symptoms of mental distress living in the most deprived neighbourhoods had a ‘fairly comfortable’ economic standard of living, compared with 86 percent of people with moderate or severe symptoms living in the least deprived neighbourhoods.

In comparison, there is a much narrower gap for people with no symptoms of mental distress. Amongst this group, 74 percent of people living in the most deprived neighbourhoods had a ‘fairly comfortable’ economic standard of living and 91 percent of people living in the least deprived neighbourhoods.
4.6 Housing satisfaction

4.6.1 Measure
The proportion of people aged 15 years and over who are ‘satisfied’ or ‘very satisfied’ with the housing they are currently living in, as measured by the New Zealand General Social Survey.

4.6.2 Relevance
Housing is basic human need that is fundamental to social inclusion. However, housing problems – such as cool temperatures, damp and humidity – are strongly associated with health problems (Howden-Chapman et al., 2006). Overall housing satisfaction is a summary subjective measure of the quality of housing that people are currently living in.

4.6.3 Findings
People with symptoms of mental distress are less likely than people with no symptoms to be satisfied with the housing they are currently living in. In 2008, 89 percent of people with no symptoms of mental distress were satisfied with their current housing, compared with 82 percent for people with mild symptoms of mental distress, 71 percent of people with moderate symptoms and 63 percent of people with severe symptoms.

In general, there is no difference in the levels of satisfaction with housing between males and females. This is also the case across all levels of severity of symptoms of mental distress (Figure 32).

Figure 32: Satisfaction with the housing currently living in by symptoms of mental distress and gender, 2008

Across all age groups, people with moderate or severe symptoms of mental distress were less likely than people with no symptoms to report feeling satisfied with the housing they were currently living in. For people across all levels of severity of
symptoms of mental distress, older people were more likely to be satisfied with the housing they were currently living in. In 2008, 96 percent of people with no symptoms of mental distress reported feeling satisfied with the housing they currently lived in, compared with 95 percent of people with mild symptoms of mental distress and 80 percent of people with moderate or severe symptoms.

Overall, Māori and Pacific people were less likely than other ethnic groups to report feeling satisfied with the housing they currently lived in. In 2008, 84 percent of Māori with no symptoms of mental distress reported feeling satisfied with the housing they currently lived in, compared with 81 percent of Māori with mild symptoms of mental distress and 54 percent of Māori with moderate or severe symptoms. In 2008, 84 percent of Pacific people with no symptoms of mental distress reported feeling satisfied with the housing they currently lived in, compared with 74 percent of Pacific people with mild symptoms of mental distress and 59 percent of Pacific people with moderate or severe symptoms.

People with moderate or severe symptoms of mental distress were less likely than people with no symptoms to report feeling satisfied with the housing they currently lived in across all levels of neighbourhood deprivation. However, the gap between the two levels of symptoms gets greater with the increase in neighbourhood deprivation (Figure 33). In 2008, for people from the least deprived neighbourhoods, the gap between those with no symptoms and moderate and severe symptoms of mental distress was 11 percentage points. This compares with a gap of 27 percentage points for people from the most deprived neighbourhoods.

**Figure 33: Satisfaction with the housing currently living in by symptoms of mental distress and NZDep2006 quintile, 2008**

Source: Statistics New Zealand, New Zealand General Social Survey
5. **Next steps**

The purpose of producing this report was to use the information to assist planning and decision-making and advocate for improved mental health and addiction outcomes for the population and improved recovery and social inclusion outcomes for those who experience mental distress. Although this report helps to identify issues and trends, it does not provide solutions. Central government, DHBs, non-government organisations and the community can use this information to develop actions to improve mental health and addiction outcomes. The Commission will use the findings of the report to inform strategic planning and future work programmes that will contribute to improved mental health and addiction outcomes for the population of New Zealand.

This report now provides a stable basis from which to provide on-going monitoring of outcomes of the mental health and addiction sector in New Zealand. The Commission is going to undertake an evaluation of this report and use it to inform the compilation of a second edition in mid-2012.

In addition, this report highlights some areas where data is weaker than that found in other areas. The Commission is going to undertake some level of gap analysis in order to determine how data may be able to be improved in order to make future editions of this report stronger.
Appendix 1: Technical notes

Determining people with mental illness and/or addiction

This report relies on existing New Zealand surveys that include a tool that measures the mental health status of respondents. Surveys use a range of different approaches to determining people with mental distress and/or addiction:

- Self assessment questionnaires of mental health or addiction status (for example, SF-12, SF-36, K10, AUDIT). These questionnaires ask a range of questions related to mental health or addiction with the aim of identifying those people with a mental health or addiction concern.
- Self-reported diagnosis of mental distress or addiction. Some surveys ask whether respondents have ever been diagnosed with a mental disorder.
- Structured diagnostic interviews that correspond to classificatory systems of mental distress.
- Use of mental health and addiction services.

A structured diagnostic interview is considered the 'gold-standard' for measuring mental health within a population (Gill et al., 2007). While these are able to provide specific and differential psychiatric diagnoses, they are expensive and time-consuming and therefore not regularly updated. Self-assessment questionnaires that measure non-specific psychological wellbeing or distress address these limitations and have shown to be sensitive to changes in health over time (Amir, Lewin-Epstein, Becker & Buskila, 2002).

The indicators in the health service delivery domain determine people with mental distress and/or addiction through the use of specialist mental health and addiction services. The indicators in the social inclusion domain use self-assessment questionnaires to determine people with mental distress and/or addiction.

Short-form health questionnaire

The social inclusion domain of this report draws primarily from the New Zealand General Social Survey (NZGSS) and the New Zealand Health Survey (NZHS). Both of these surveys use the short-form health questionnaire to obtain information about respondents’ health. The GSS uses the SF-12 and the NZHS uses the SF-36.

The SF-12 and SF-36 are multi-purpose short-form surveys with 12 and 36 questions respectively. They are designed for use in the general population to assess general self-rated health, physical and psychological symptoms and limitations in everyday activity due to physical and mental health over the previous 4 weeks. The items related to mental health cover limitations to usual activities and emotional state.

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8 The General Social Survey is a multi-dimensional survey of social wellbeing and enables cross-sectoral and trend analysis of social outcomes.

9 The New Zealand Health Survey is repeated at regular intervals to monitor people’s health, measure access to health services and help develop health policies, programmes and services that better meet the needs of New Zealanders.
Responses to the questionnaires are summarised in two weighted\textsuperscript{10} summary scales – the physical component score (PCS) and the mental component score (MCS), which range from 0–100, where 0 score indicates the lowest level of health measured by the scales and 100 indicates the highest level of health. Research has revealed a strong association between high scores on the MCS and a current CIDI\textsuperscript{11} diagnosis of anxiety and mood disorders. There is a lesser but significant association between the MCS and other mental disorder categories (including substance use disorder) and with the presence of any current mental disorder (Gill et al., 2007; Sanderson & Andrews, 2002; Ware, Kosinski & Keller, 1996).

A comprehensive psychometric analysis of the validity and reliability of the SF-36\textsuperscript{12} in the New Zealand population has shown that, in the New Zealand population as a whole, the SF-36 performed as well or better than in other countries (Scott, Tobias, Sarfati & Haslett, 1999). However, the cross-cultural validity of the SF-36 may be questionable in the New Zealand population, particularly amongst Pacific people, and older Māori (Scott Sarfati, Tobias & Haslett, 2000).\textsuperscript{13}

Cut-off scores

The MCS score derived from the SF-12 and SF-36 has no definitive meaning in regard to a mental health diagnosis. Moreover, there exists no widely accepted screening cut-off score on the MCS-12 for probable diagnosis of any mental illness. There are research examples that have categorised the MCS-12 to extract more meaning, for example, Ware et al. (1996) used a nine-level categorisation to help interpret the MCS scores – 9 to 29, then seven five-level increments (30 to 34, 35 to 39 and so forth and then 65 to 74).

Sanderson and Andrews (2002) used a four-level categorisation of MCS scores by collapsing the nine-level categorisation used by Ware and colleagues as described above. These four levels are - no disability (represented by a score of 50 or higher), mild disability (scores between 40 and 49), moderate disability (scores ranging between 30 and 39) and severe disability (any score below 30). The validity of these four levels of disability were tested by comparing them to a range of disability-related variables such as the presence of a diagnosed mental health issue, none present and consultation with a mental health specialist.

Gill et al. (2007) investigated cut-off scores for the MCS by using ROC curves so as to graph the sensitivity and specificity of every possible cut-off score for depression, any anxiety disorder and any common mental disorder. A score of less than 45 was chosen as the best screening cut-off for depression and less than 50 for any anxiety disorder as well as any other common mental illness. A cut-off score of less than 36 was chosen to identify those with severe psychological symptomatology and/or impairment.

\textsuperscript{10} The SF-12 summary scores in the NZGSS have been standardised against the United States population as no New Zealand standardisations currently exist.

\textsuperscript{11} CIDI stands for composite international diagnostic interview and allows lay people to conduct an interview from which an assessment of mental health can be made.

\textsuperscript{12} Therefore, this is also highly likely to be the case with the SF-12.

\textsuperscript{13} At the time of writing this report, Statistics New Zealand were further researching the cross-cultural validity of both the SF-36 and the SF-12.
Given the level of agreement around these cut-off scores, indicators in the social inclusion domain adopt the four-level categorisation used by Sanderson and Andrews (2002) and detailed above. The mild, moderate and severe categories are designed to include those people with any mental disorder, which includes substance use disorder.

There are occasions in this report where the moderate and severe categories have been aggregated into one category for analysis. This was necessary because of the low sample numbers that occurred in the individual moderate and severe categories when the analysis was broken down by age group, ethnic group and NZDep2006. Aggregating these categories reduces the margin of error, but it can hide underlying differences.

Confidence intervals

Where possible, the results are presented with error bars showing the 95 percent confidence intervals to give an indication of the margin of error. The confidence interval has a 95 percent probability of including the ‘true’ value. The confidence interval is influenced by the sample size of the group. When the sample size is small, the confidence interval will be wide, and there is less certainty about the rate.

In terms of interpretation of the confidence intervals, if two error bars do not overlap, there is a statistically significant difference between the two groups. However, if the error bars overlap, this may not necessarily indicate a lack of a statistically significant difference between the measures. For example, a rule of thumb is that, if the overlap is around one half of one of the arms of the error bars, this will equate approximately to a significant difference where $p \approx 0.05$. If the tips of the error bars are aligned, then $p \approx 0.01$.

Ethnic group

Where possible, indicators in this report have been presented by ethnic group. Ethnicity is presented in the ‘total response standard output’. This report uses the following categorisation of ethnicity; Māori, Pacific, Asian and European/Other. The ‘Other’ ethnic group includes New Zealander, Middle Eastern, Latin American and African ethnic groups.

Neighbourhood deprivation

Where possible, indicators in this report have been presented by quintile of the 2006 version of the New Zealand Index of Deprivation (NZDep2006) as a proxy measure of socioeconomic status. NZDep2006 measures the level of deprivation for each neighbourhood (meshblock) according to a combination of the following 2006 Census variables: income, benefit receipt, access to car, household crowding, home ownership, employment status, educational qualifications, single-parent family and access to a telephone (White, Gunston, Salmond, Atkinson & Crampton, 2008). Quintile 1 represents the least deprived neighbourhoods in New Zealand, and quintile 5 represents the most deprived neighbourhoods.
References


