

# Ministry of Health contribution to issues being considered by the Welfare Working Group

## Background

- i. The Welfare Working Group (WWG) was established by Cabinet to undertake an expansive and fundamental review of New Zealand's welfare system. The WWG's primary task is to identify how to reduce long-term welfare dependency.
- ii. The WWG will explore options and make a range of recommendations as an independent body.
- iii. For further information, see: <http://ips.ac.nz/WelfareWorkingGroup/Index.html>.
- iv. On behalf of the WWG, the WWG secretariat asked the Ministry of Health (the Ministry) to produce a paper for the WWG on:
  - the best sources of information on trends in health;
  - what those sources say about aggregate trends and trends for specific groups and the burden of chronic disease; and
  - the implications from those sources for future trends in health and disability.
- v. This paper responds to secretariat's request. The paper includes a high-level analysis of the health status of people in receipt of a sickness benefit or invalid's benefit in comparison to the employed population. The paper also briefly discusses: access to primary health care services by high needs populations; the relationships between health, employment and unemployment; and the public health and disability support system's role in the provision of rehabilitation services.
- vi. The paper concludes with a summary section (pages 23 – 24).

## i. Introduction

1. At the request of the Welfare Working Group (WWG) secretariat, the Ministry of Health (the Ministry) has prepared this paper describing high-level trends in population health status — mortality, morbidity and disability — with a particular focus on what is known about trends in chronic conditions. Key sources of information are identified. The paper also includes a high-level analysis of the health status of people in receipt of a sickness benefit (SB) or invalid's benefit (IB) in comparison to the employed population. The paper also briefly discusses access to primary health care services by high needs populations and the public health and disability support system's role in the provision of rehabilitation services.<sup>1</sup> However, the paper is unable to comment specifically on SB or IB recipients' access to services.
2. The Ministry cautions against inferring relationships or generalisations from comparing population level trends in morbidity, ill-health and disability with trends in SB/IB receipt. Studies that specifically look at the health and impairments of SB/IB recipients provide more targeted information about the health and needs of this population.<sup>2</sup>
3. Health and ill-health are influenced by a broad range of determinants that are specific to individuals such as age, biological factors and individual lifestyle decisions, as well as by wider socioeconomic factors such as income, educational attainment and employment.<sup>3</sup> These determinants do not operate independently and there are complex interactions between individual risk factors and wider social and environmental influences in maintaining health or causing illness. These factors also drive health-related behaviours and health service use. Health interventions occur at both the individual and population level in order to promote and protect health and wellbeing as well as provide direct health care services. Evidence from New Zealand indicates that Māori, Pacific peoples and people in low socioeconomic groups are more likely to have poor health.<sup>4</sup>
4. Because the determinants of health are so diverse, improvements in the health status of individuals and populations are influenced not only by the health and disability support system but also by the wider activities of government, society and individuals.

## ii. Sources of information on trends in health

5. Information for describing and analysing health information is derived from a number of sources. The Ministry runs an integrated programme of population surveys, called the 'New Zealand Health Monitor'. These surveys collect information that is not available from other sources, and provide valuable information about a range of health issues.<sup>5</sup> The New Zealand Health Survey (NZHS) is the main survey and was carried out in 1992/93, 1996/97, 2002/03 and 2006/07. This

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<sup>1</sup> Throughout this paper, the term "high needs" refers to people living in a deprived area or people of Māori or Pacific ethnicity. These groups are defined as high-need because analyses of morbidity and mortality statistics show that they experience higher levels of illness (morbidity) and die younger than the rest of the population. A deprived area is one with a New Zealand Deprivation Index score of 9 or 10 (see Salmond, S., Crampton, P. and Atkinson, J. 2007. *NZDep2006 Index of Deprivation*. Wellington: Department of Public Health, University of Otago).

<sup>2</sup> Shaw, C.V., Blakely, T.A. and Tobias, M.I. Unpublished. Mortality among the working age population receiving incapacity benefits in New Zealand, 1981-2004. (The secretariat of the WWG has been provided with a draft copy of this paper). The Ministry of Social Development undertook targeted research into the health and labour market participation of benefit recipients in the mid-2000s, resulting in a series of articles in the *Social Policy Journal of New Zealand*, which is published by that Ministry; see, for example, McLeod, K. and Beynon, P. 2006. 'A profile of health a disability related benefit recipients in New Zealand' (*Social Policy Journal of New Zealand*, 29 (2006): 102-126) and Wilson, M. and McLeod, K. 2006. 'Understanding the growth in Invalid's Benefit receipt in New Zealand' (*Social Policy Journal of New Zealand*, 29 (2006): 127-145).

<sup>3</sup> See, for example, National Advisory Committee on Health and Disability [also known as the National Health Committee]. 1998. *The Social, Cultural and Economic Determinants of Health in New Zealand: Action to Improve Health*. Wellington: Ministry of Health. Available from: <http://www.nhc.health.govt.nz/moh.nsf/0/BC21C8CFF2D8D5DFCC2572AC0016BBC7>.

<sup>4</sup> Blakely T, Tobias M, Atkinson J, Yeh-L-C, Huang K. 2007. Tracking Disparity: Trends in ethnic and socioeconomic inequalities in mortality, 1981-2004. Wellington: Ministry of Health. Available from: <http://www.moh.govt.nz/moh.nsf/indexmh/tracking-disparity-inequalities-mortality-1981-2004?Open>. Numerous other reports provide evidence of the health disparities between Māori and non-Māori; *Tatau Kahukura: Māori Health Chartbook 2010* (Wellington: Ministry of Health, 2010) is the most recent example and is available from: <http://www.moh.govt.nz/moh.nsf/indexmh/tatau-kahukura-Māori-health-chart-book-2010>.

<sup>5</sup> For more information on the NZHS and other surveys, see: <http://www.moh.govt.nz/dataandstatistics>.

survey provides an overview of indicators of population-level health status, health behaviours and risk factors, health conditions, and health service access and use.

6. The 2006/07 NZHS was carried out from October 2006 to November 2007, collecting information on 4,921 children aged from birth to 14 years and 12,488 adults aged 15 years and over. The survey measured self-reported physical and mental health states (including diagnosed health conditions), modifiable risk and protective factors for health outcomes, and the use of health care services. Results were compared with earlier surveys where possible for the total population and for Māori by gender. Following the 2006/07 survey, *A Portrait of Health: Key Results of the 2006/07 New Zealand Health Survey* was published in 2008. *A Portrait of Health* included an appendix of summary tables; that appendix is attached to this paper as Appendix One.<sup>6</sup>
7. Due to differences in the methodology of the NZHS in different years, it is not possible to determine if there have been any trends for some indicators. However, for the trends that have been established, the trends only indicate changes in the age-standardised rate at which that indicator is present in the population, and do not give any indication of the effects on individual people. Furthermore, the Ministry is unable to comment on the specific impact of a particular condition on an individual. It is also important to keep in mind that demographic changes will influence the actual number of people in the population who are affected by a condition measured by an age-standardised indicator (ie, although the age-standardised prevalence rate of a particular condition may stay the same or decline, an increase in the overall/absolute size of the population may lead to more people being affected by that particular condition).
8. The Ministry has published research/analytical reports that include statistically robust data on the current incidence and prevalence of particular conditions and projections and forecasts of how the incidence and prevalence of those conditions may change in the future. For example, the Ministry has published *Cancer Projections: Incidence 2004-08 to 2014-18*,<sup>7</sup> *Diabetes Surveillance: Population-based estimates and projections for New Zealand, 2001-2011*,<sup>8</sup> other research has been published as journal articles (including on Alzheimer's disease, stroke and ischaemic heart disease).<sup>9</sup> Where New Zealand prevalence and incidence data is not available, such as for the study on Alzheimer's disease, estimates are based on international systematic reviews. While some of these conditions will be experienced by the "older" population (those aged over 65 years), it is important to keep in mind that conditions such as Alzheimer's disease and stroke do occur in the working age population.
9. In addition to survey data, the Ministry receives and administers data from different parts of the health and disability system on the utilisation and performance of health services (national collections). The National Minimum Data Set (NMDS) is the primary record of hospitalisations and hospital discharges (from both public and private sector hospitals).<sup>10</sup>
10. Statistics New Zealand undertakes the post-census Disability Survey, which is a key source of information on the prevalence and impacts of living with a disability in New Zealand.<sup>11</sup>

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<sup>6</sup> Appendix One of *A Portrait of Health* is available as a stand-alone document and is attached to this paper as Appendix one (but it should be read alongside the full *A Portrait of Health* report): [http://www.moh.govt.nz/moh.nsf/pagesmh/7601/\\$File/appendix1.pdf](http://www.moh.govt.nz/moh.nsf/pagesmh/7601/$File/appendix1.pdf).

<sup>7</sup> Ministry of Health. 2010. *Cancer Projections: Incidence 2004-08 to 2014-18*. Wellington: Ministry of Health. Available from: <http://www.moh.govt.nz/moh.nsf/indexmh/cancer-projections-incidence-2004-08-to-2014-18>.

<sup>8</sup> Ministry of Health. 2007. *Diabetes Surveillance: Population-based estimates and projections for New Zealand, 2001-2011*: Public Health Intelligence Occasional Bulletin No. 46. Wellington: Ministry of Health. Available from: <http://www.moh.govt.nz/moh.nsf/indexmh/diabetes-surveillance-population-estimates-projections-2001-2011>.

<sup>9</sup> Tobias et al (2008) 'Burden of Alzheimer's disease: population-based estimates and projections for New Zealand 2006-2031' (*Australian and New Zealand Journal of Psychiatry*, 2008; 42: 828-836); Tobias et al (2007) 'Stroke surveillance: population-based estimates and projections for New Zealand' (*Australian and New Zealand Journal of Public Health*, 2007; 31(6): 520-525); and Tobias et al (2006) 'How low can it go? Projecting ischaemic heart disease mortality in New Zealand to 2015' (*New Zealand Medical Journal*, 2006; 119(1232)).

<sup>10</sup> Appendix two lists the main data sources. For more information on the national collections, see: <http://www.moh.govt.nz/moh.nsf/indexmh/dataandstatistics-collections>.

<sup>11</sup> For more information on the New Zealand Disability Survey, see: [http://www.stats.govt.nz/browse\\_for\\_stats/health/disabilities.aspx](http://www.stats.govt.nz/browse_for_stats/health/disabilities.aspx). The survey was undertaken in 1996, 2001 and 2006. Planning is underway for a survey following the 2011 census.

11. The World Health Organization (WHO) publishes regular reports on international health, ill-health and disability. The WHO's *Global health risks: mortality and burden of disease attributable to selected major risks* provides an overview of indicators and trends in health and ill-health on a global scale, and compares indicators across different regions (Africa, Americas, Eastern Mediterranean, Europe, South-East Asia, and Western Pacific).<sup>12</sup> The Organisation for Economic Co-operation and Development (OECD) also produces *Health at a Glance* which contains up to date indicators of health status, risks and determinants as well as measures of the performance, financing and expenditure of health systems across 30 member states.<sup>13</sup>
12. Although there are similarities in the trends in other developed countries (eg, a rising burden of chronic conditions and co-morbidities), the different demographics and characteristics of other countries (including the social and environmental determinants of health and ill-health) make comparing trends across countries inherently difficult.
13. It is important to keep in mind that morbidity does not equate to impact or impairment. Morbidity refers to illness, which may or may not be associated with (temporary or permanent) limitations in physical and/or mental functioning (impairment). An important concept is the “compression of morbidity”, which means that, on average, people are spending more of their lives in good health. For example, more people are now living with a chronic condition (eg, diabetes) with little or no significant impairment on their ability to complete routine daily tasks, including employment, while their condition is managed by themselves with support from primary health care services. The burden of disease and injury is a measure of the impact of a health condition or disability (and is measured in terms of loss of health). It can reflect premature mortality (fatal burden), severity-adjusted morbidity or impairment (non-fatal burden), or both. Thus “burden” represents a need for health care.
14. Co-morbidities are very common. There are a number of cautions that need to be taken into account when looking at trends in morbidity and ill-health. For example, living with the relatively minor symptoms and complications of multiple conditions can result in significant level of impairment for some people and not others. This is a further reason why the Ministry is unable to comment on the specific impact of the condition(s) experienced by individuals.

### **iii. Trends in health expenditure and health status — mortality, morbidity, and disability**

15. This section briefly notes key points about Vote Health funding and describes trends in key indicators of population-level health status such as health and life expectancy and amenable mortality, and information on selected chronic health conditions. This is followed by a comparison, using data from the NZHS, of the health status of the SB/IB population in comparison to employed people.

#### **Government expenditure on health and disability support services in New Zealand**

16. In line with most other OECD countries, health spending in New Zealand has been growing faster than growth in Gross Domestic Product (GDP) in the past decade. This international trend reflects a combination of expansion of the scope of the health system as well as technology advances and rising labour costs. Vote Health has increased by an average 7.6 percent per annum nominal in the decade to 2010 (3.5 percent per annum on average in real per capita terms) while GDP growth averaged 5.4 percent nominal growth per annum during the same period (1.3 percent on average per annum in real per capita terms).<sup>14</sup>
17. When considering total public and private sector health spending and adjusting for cost of living differences, New Zealand was spending \$US2,510 per capita in 2007 compared with the OECD

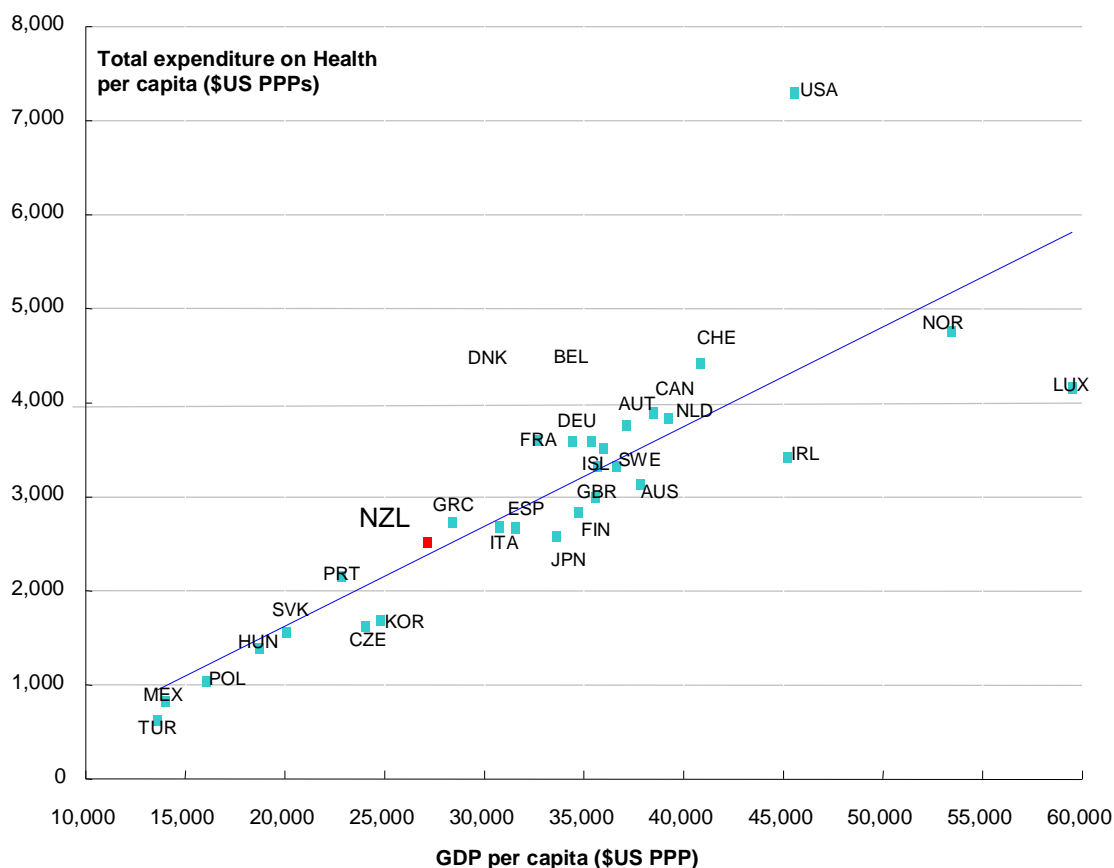
<sup>12</sup> World Health Organization. 2009. *Global health risks: mortality and burden of disease attributable to selected major risks*. Available from: [http://www.who.int/healthinfo/global\\_burden\\_disease/global\\_health\\_risks/en/index.html](http://www.who.int/healthinfo/global_burden_disease/global_health_risks/en/index.html)

<sup>13</sup> See [http://www.oecd.org/document/14/0,3343,en\\_2649\\_34631\\_16502667\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/14/0,3343,en_2649_34631_16502667_1_1_1_1,00.html).

<sup>14</sup> Vote Health is that component of Core Crown health spending administered by the Ministry of Health and excludes health services paid for by other Crown agencies – largely direct payments to providers for accident/injury treatment and rehabilitation by ACC; figures are for Operating Appropriations and exclude Capital.

average of \$US2,984 (with expenditure converted to \$US on the basis of purchasing power parity (PPP)). Although New Zealand was below the OECD average for per capita health expenditure in 2007, it should be noted that we are at about the level that would be expected given our per capita income as measured by GDP. On another measure of our health spend, New Zealand was, in 2007, spending 9.2 percent of GDP on health, slightly higher than the OECD average of 8.9 percent. Figure 1 shows that New Zealand's spending on health is in line with that of other OECD countries.

**Figure 1: Comparison of health spending and GDP per capita across the OECD 2007 adjusted for cost of living difference (\$US purchasing power parity (PPP))**

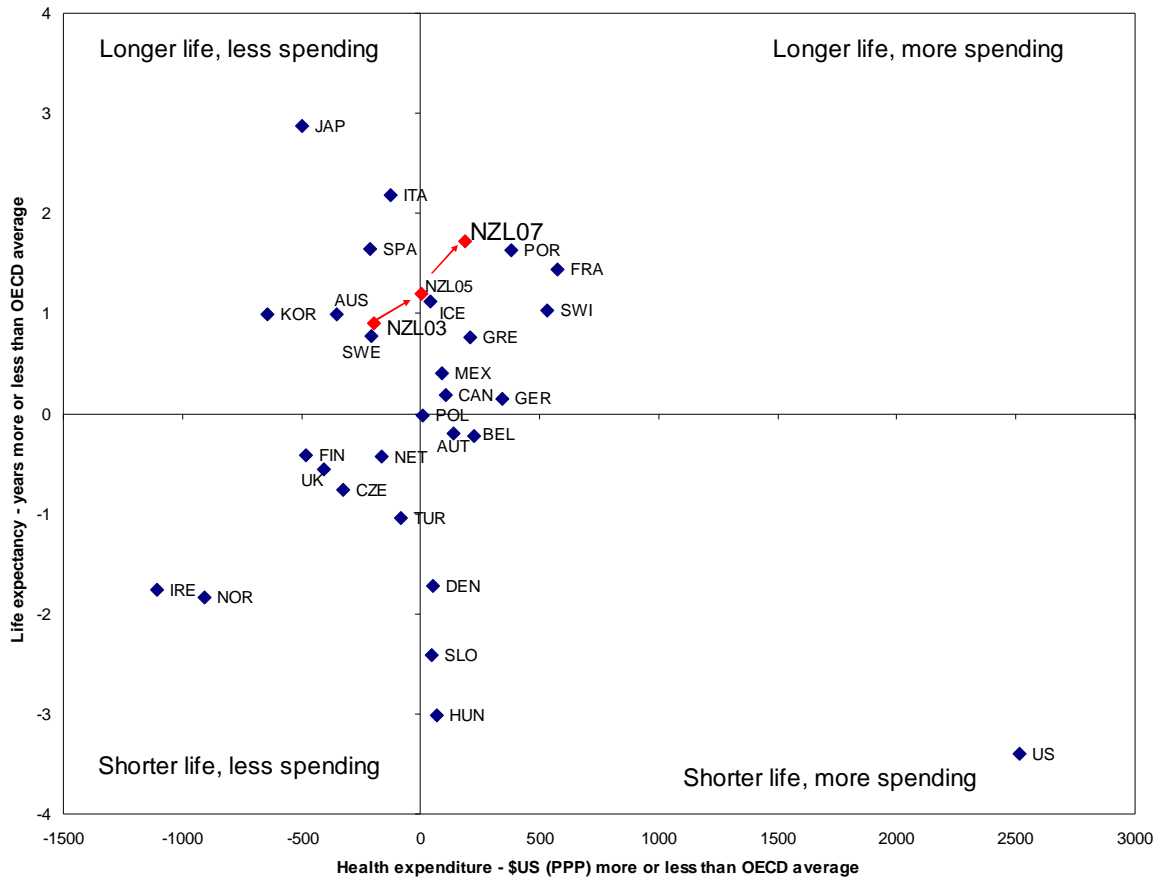


Source: OECD Health at a Glance 2009<sup>15</sup>

- Importantly, New Zealanders are living longer lives than would be predicted from our GDP when compared with other OECD countries. From 2003 to 2007, New Zealand (see Figure 2) moved up and to the right – so we are now achieving 1.7 more years of life expectancy than expected from our GDP, but are now spending slightly more (US\$189PPP per capita) on health than expected from our GDP.

<sup>15</sup> Note this definition of health spending used by the OECD includes all public and private spending but excludes capital spending. In New Zealand the private sector comprises 20 percent of total health care spending, 14 percent out-of-pocket payments, 5 percent private health insurance and 1 percent not-for-profits.

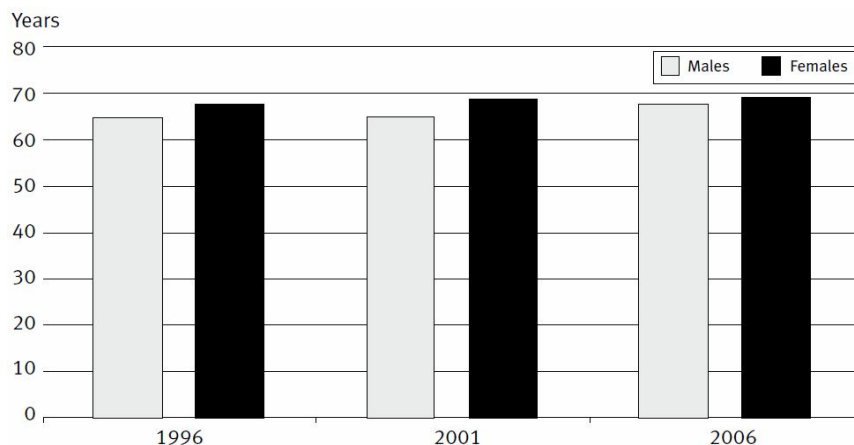
**Figure 2: Relationship between life expectancy and health spending per capita across the OECD**



### Health expectancy

19. Health expectancy is the number of years a person could expect to live in good health if current age-specific mortality and morbidity rates persist. Health expectancy has increased since 1996 and now stands at 67.4 years for males and 69.2 years for females. Health expectancy has increased faster for males than for females with males gaining 2.7 years and females 1.7 years between 1996 and 2006.

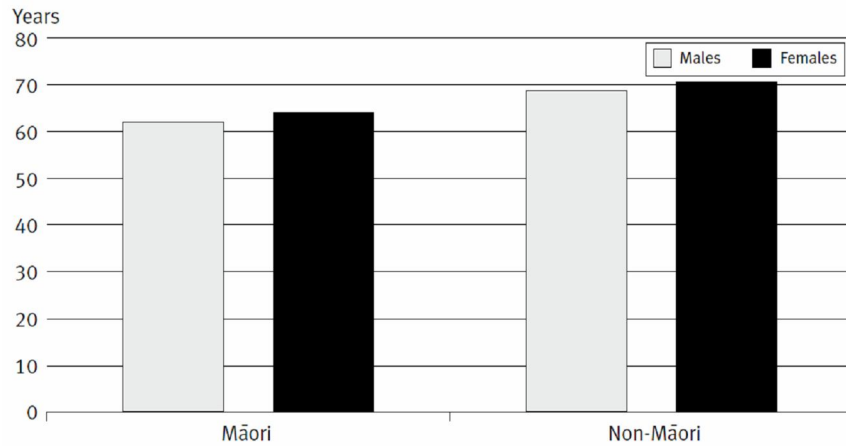
**Figure 3: Independent life expectancy at birth (years) by gender, 1996-2006**



Source: Statistics New Zealand mortality and population data; New Zealand Disability Survey 1996, 2001 and 2006  
 Note: Mortality data corrected by the Ministry of Health for ethnic undercount.

20. In 2006, the Māori–non–Māori difference in health expectancy was 6.8 and 6.2 years for males and females, respectively. The 1996 and 2001 Disability Surveys were insufficiently powered to provide robust health expectancy estimates for Māori for earlier periods. Importantly, Figure 4 shows that health (independent life) expectancy for Māori men is lower than 65 years, suggesting that Māori men are likely to enter ill-health while still part of the working age population.

**Figure 4: Independent life expectancy at birth (years) by gender and ethnicity, 2006**



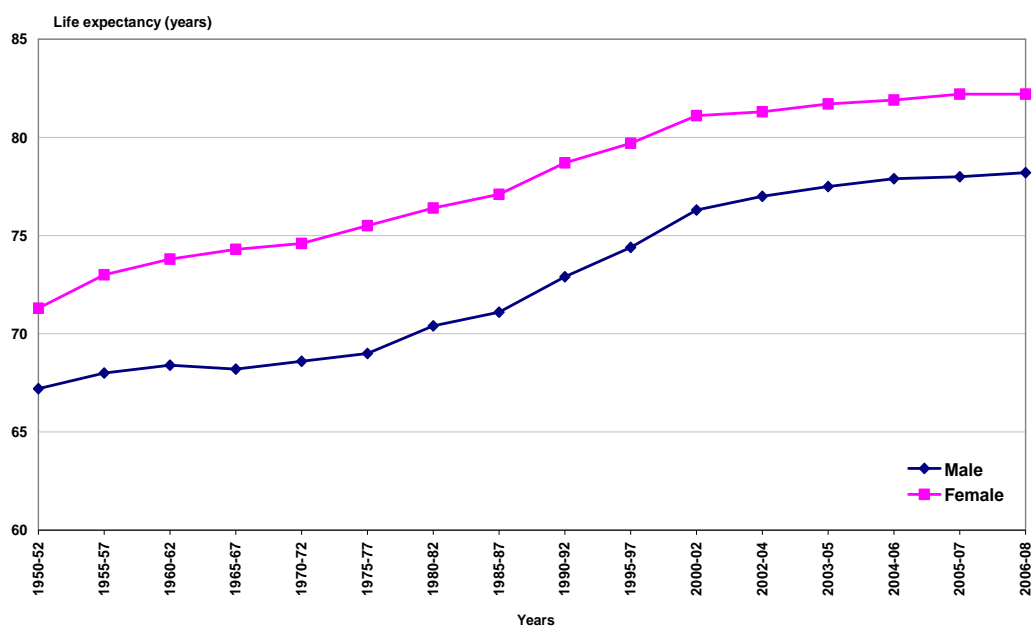
Source: Statistics New Zealand mortality and population data; New Zealand Disability Survey 2006

Note: Mortality data corrected by the Ministry of Health for ethnic undercount.

### Life expectancy

21. Life expectancy at birth is the total number of years a person born today could expect to live, if current age-specific mortality and morbidity rates persist. For both genders, life expectancy at birth has increased. For males, life expectancy at birth increased from 72.9 years in 1990-92 to 78.2 years in 2006-08 (a gain of 5.3 years). For females, life expectancy at birth increased from 78.7 to 82.2 years over the same time period (a smaller gain of 3.5 years). As a result, the gender gap narrowed by almost 2 years, decreasing from 5.8 years in 1990-92 to 4 years in 2006-08.

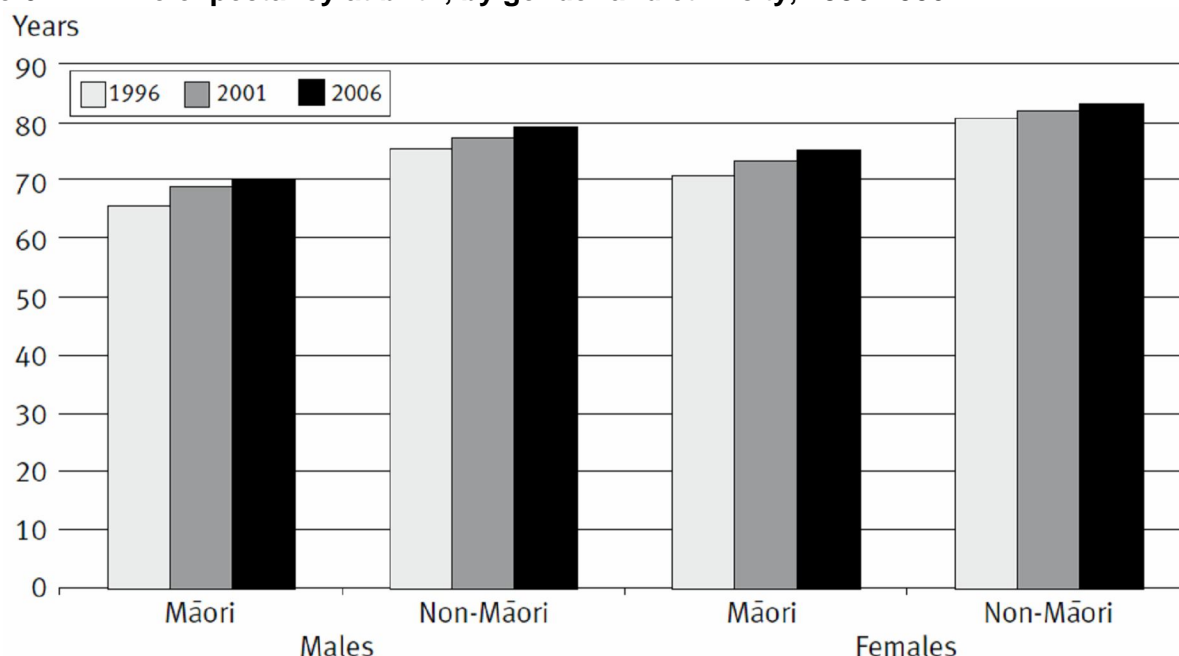
**Figure 5: Life expectancy at birth, by gender, 1950-52 – 2006-08**



Source: Statistics New Zealand 2010

22. For the Māori population, life expectancy at birth increased from 65.6 to 70.4 years for males (a gain of 4.8 years) and from 70.8 to 75.1 years for females (a gain of 4.3 years) between 1996 and 2006. The gap between Māori and non-Māori narrowed by approximately 1.2 years for males and 2.0 years for females over that decade.

**Figure 6: Life expectancy at birth, by gender and ethnicity, 1996-2006**



Source: Statistics New Zealand

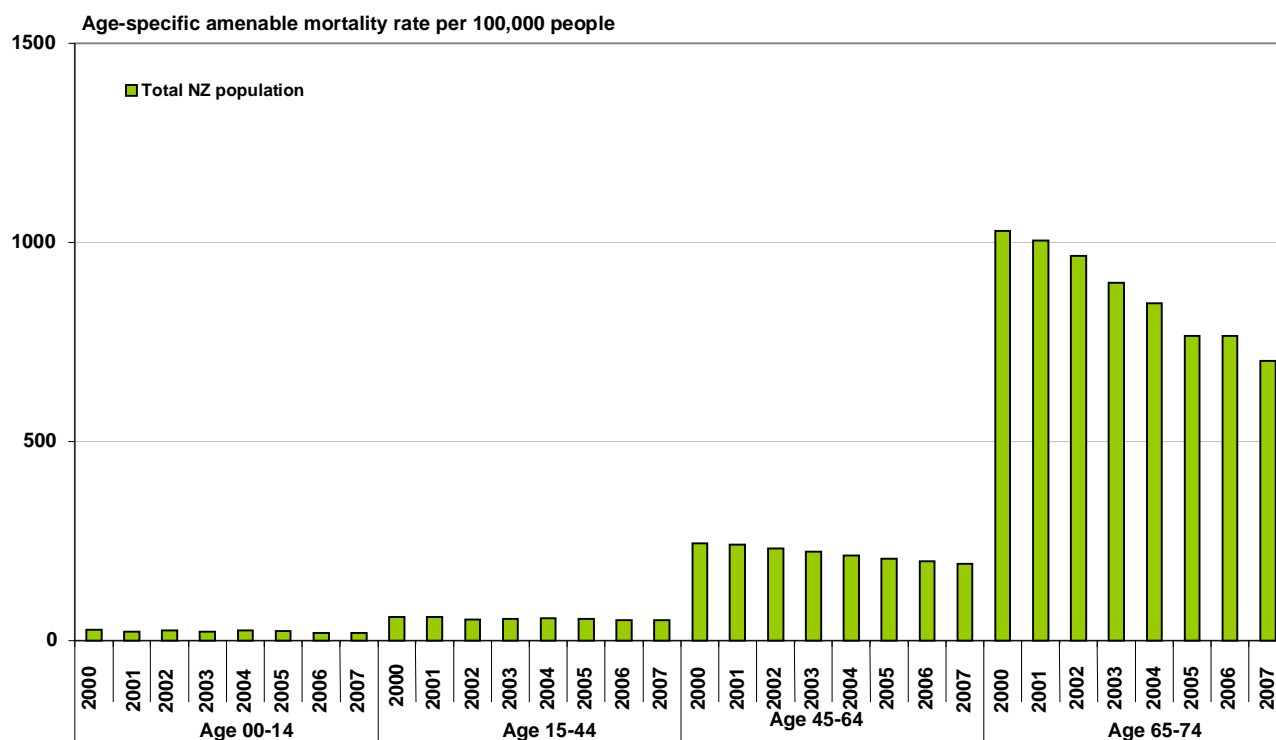
Note: Mortality data corrected by the Ministry of Health for ethnic undercount.

### Amenable mortality

23. Amenable mortality refers to deaths that might have been prevented or avoided if health services had been delivered more effectively or if patients had accessed services earlier, either in primary/community care or in hospital. It measures the rate of mortality attributable to conditions for which mortality would not generally be an expected outcome for people aged under 75 years given the evidence-based health interventions that are currently available to prevent and/or treat that condition. The range of conditions includes, but is not limited to, a number of chronic conditions such as diabetes and asthma.
24. Large gains have been achieved in improving amenable mortality in New Zealand between 2000 and 2007 for the 45-64 year-old and (especially) the 65-74 year-old populations as reflected in the downward trend over time (see Figure 7). It should be noted that amenable mortality is regarded as being more an indicator of health system effectiveness/performance than it is an indicator of health status. Further, although this trend indicates an improvement with regard to one undesirable health outcome (ie, death), it does not automatically follow that the trend also indicates a reduction in the level of impairment experienced by people who experience an amenable condition.
25. The Ministry has recently published *Saving Lives: Amenable Mortality in New Zealand, 1996–2006*, which provides further information.<sup>16</sup>

<sup>16</sup> Ministry of Health. 2010. *Saving Lives: Amenable Mortality in New Zealand, 1996–2006*. Wellington: Ministry of Health.

**Figure 7: Amenable mortality for people aged 0-74 years, age standardised rate per 100,000, 2000-2007**



Source: National Minimum Data Set, 2009

## Chronic conditions

26. This section describes trends in prevalence<sup>17</sup> at a population level for a number of chronic conditions: stroke, cancer, CVD, diabetes, Alzheimer's disease, mental health and addiction and disability. The absolute burden of long term conditions is rising, mainly reflecting increasing population size and population ageing.
27. Overall, the Ministry estimates that the burden (as opposed to the prevalence)<sup>18</sup> of chronic disease is probably stable while severity-adjusted disability prevalence is probably already declining. In the mid-term future our most likely scenario is for dynamic equilibrium – where health expectancy is projected to increase at a similar rate to life expectancy, so neither compression nor expansion of morbidity / disability occurs overall. Longer term, compression of mortality, morbidity and disability seems more likely. That is, over the long term, we can expect people to live a larger proportion of their lives in good health.
28. Much health expenditure, even for chronic diseases, is associated with incident (ie, new) rather than prevalent (ie, ongoing) cases – typically this is the case for cancer (induction therapy is much more intensive and expensive than maintenance therapy). Even though the prevalence of some chronic diseases is increasing, it is unlikely that any increase in health expenditure will be in direct proportion to the increase in chronic disease, for the following reasons.
29. First, in some cases (eg, diabetes), prevalence is increasing, due to an increasing incidence of the condition – ie, more people are developing the disease. However, progression of the disease from uncomplicated disease to complications is simultaneously slowing, in part due to early

<sup>17</sup> Prevalence refers to the percentage of a population that is affected with a particular disease at a given time and incidence refers to the extent or rate of occurrence, especially the number of new cases of a disease in a population over a period of time.

<sup>18</sup> The burden of disease and injury is a measure of the impact of a health condition or disability (and is measured in terms of loss of health). It can reflect premature mortality (fatal burden), severity-adjusted morbidity or impairment (non-fatal burden), or both. Thus "burden" represents a need for health care.

identification and better management of the conditions by individuals with support from primary care services.

30. Second, prevalence of a chronic condition may increase where incidence is decreasing more slowly than case fatality/mortality resulting in more people living with the condition. Stroke is a good example: fewer people are dying from strokes resulting in an increasing prevalence of stroke survivors (even though stroke incidence is slowly decreasing). In this scenario, the average age at onset of the disease, as well as the average age of those with the condition will be increasing. As a result, morbidity resulting from the condition will shift into the older age groups. Within these older age groups, health service utilisation rates and the heavy expenditure incurred in the last year of life is lower compared to other age groups ("compression of morbidity").
31. Third, prevalence may increase where incidence and case fatality is stable or decreasing in parallel, but mortality from other causes is decreasing, resulting in increasing survival time with the condition. That is, more people living longer with a particular chronic condition which was previously associated with premature mortality not due to that condition (eg, many mental health disorders).
32. The key point is that, even where prevalence of a chronic condition is increasing, this is often associated with a reduction in the severity distribution. For example, while diabetes prevalence is increasing, the prevalence of diabetes complications (coronary disease, stroke, renal failure, retinopathy, amputation) is stable or decreasing – mainly reflecting earlier diagnosis and better management in primary care (which is relatively inexpensive). Another example is stroke: long term disability associated with the average stroke is now much less than it was 10 years ago.
33. Future cohorts of older people are likely to be healthier for longer than the current generation, which could reduce the expected spending growth pressure from population ageing, perhaps by up to one third. Therefore increasing costs will not necessarily be in proportion to increasing prevalence of chronic conditions.

### Specific chronic conditions

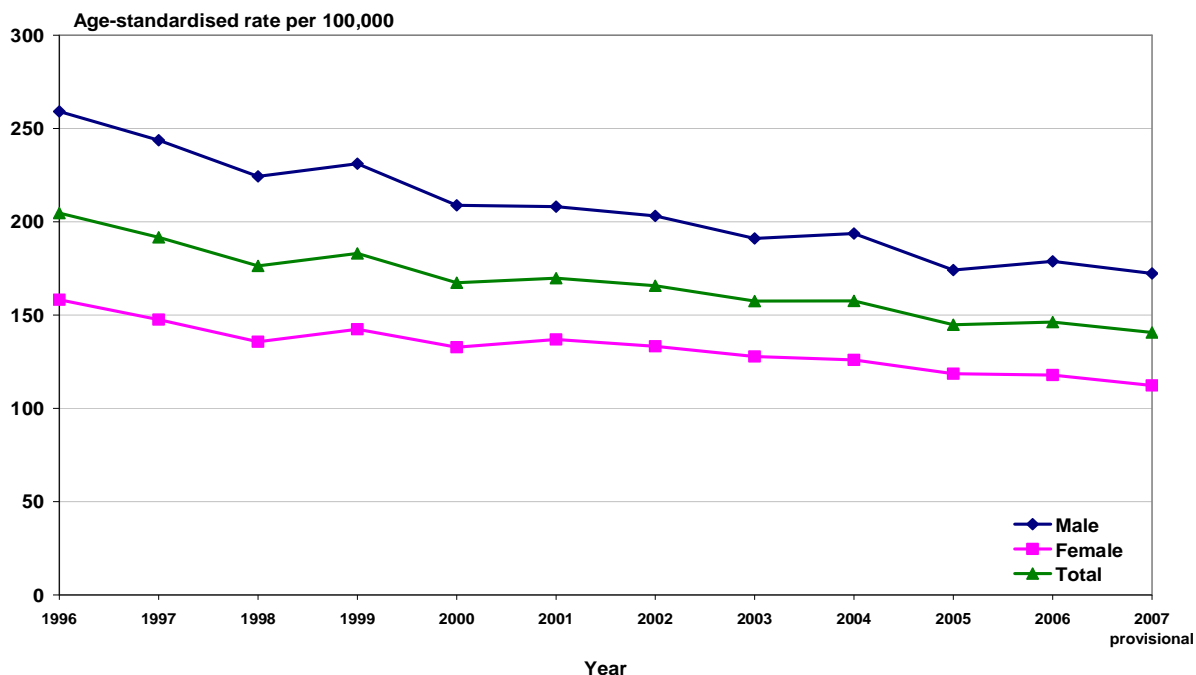
34. A 2007 study on stroke surveillance concluded that mortality from stroke is falling faster than stroke incidence and stroke survivors are projected to increase by approximately 20 percent over the next decade. Population growth and ageing will lead to a rising burden of stroke related disability over the next decade - 2001 to 2011.<sup>19</sup>
35. The overall risk of cancer is projected to stabilise over the coming decade (2006-2016) for males and decline for females (by about 11 percent). The burden of incident cancers will still increase as a result of demographic trends, ie the increasing size and older age structure of the New Zealand population. Cancer registrations are projected to increase by approximately 20 percent in next decade.<sup>20</sup>
36. Mortality rates from cardiovascular diseases (CVD) have been falling steadily for the past three decades and are predicted to continue to fall, albeit more slowly. There is an expected small projected decline in absolute mortality burden, but an actual increase among Māori.<sup>21</sup>
37. Figure 8a shows the decrease in CVD mortality that was achieved between 1996 and 2007. Figure 8b shows trends in CVD mortality by ethnicity between 1996 and 2007.

<sup>19</sup> Tobias M, Cheung J, Carter K, Anderson C, Feigin V. 2007. Stroke surveillance: population-based estimates and projections for New Zealand. *Australian and New Zealand Journal of Public Health* 31:6

<sup>20</sup> Ministry of Health. 2010. *Cancer projections: Incidence 2004-08 to 2014-18*. Wellington. Ministry of Health.

<sup>21</sup> Tobias M, Sexton K, Munn S, Sharpe N. 2006. How low can it go? Projecting ischaemic heart disease mortality in New Zealand to 2015. *The New Zealand Medical Journal*. 119:1232. Tobias M, Taylor R, Yeh Li-Chia, Huang K, Mann S, Sharpe, N. 2008. Did it fall or was it pushed? The contribution of trends in established risk factors to the decline in premature coronary heart disease mortality in New Zealand. *Australian and New Zealand Journal of Public Health*. 32:2

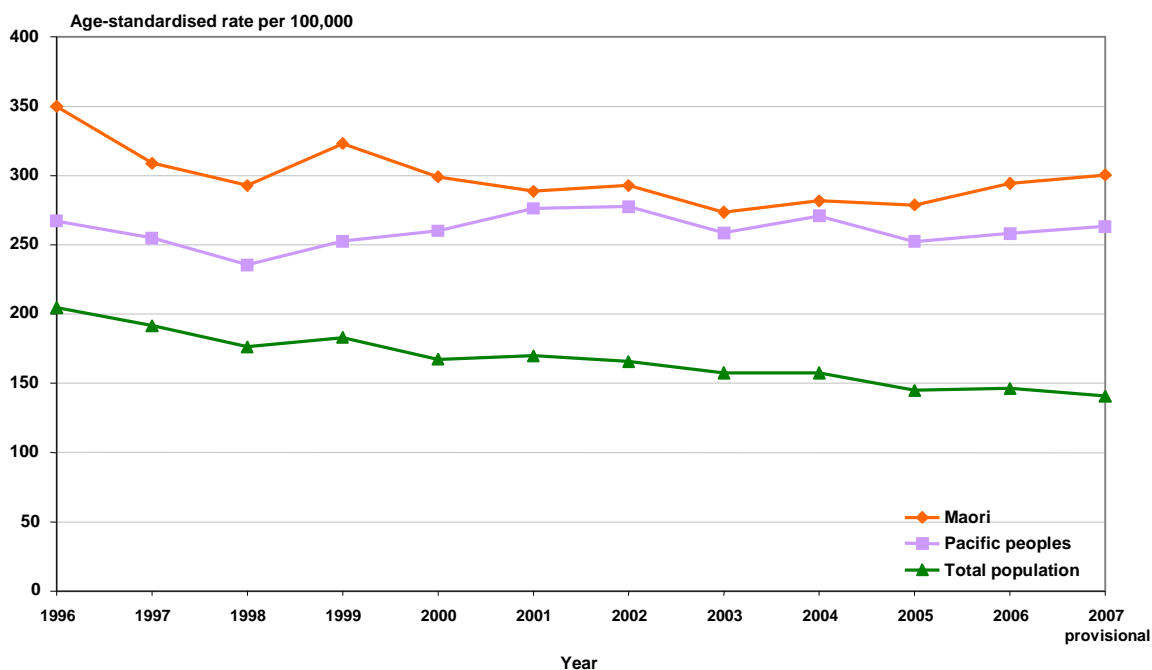
**Figure 8a: Cardiovascular disease mortality, all ages, age-standardised rate per 100, 000 by gender, 1996-2007**



Source: Analytical Services, Ministry of Health, 2010

Note: Rates per 100,000 are age standardised to WHO standard population.

**Figure 8b: Cardiovascular disease mortality, all ages, age-standardised rate per 100, 000 by ethnicity, 1996-2006**

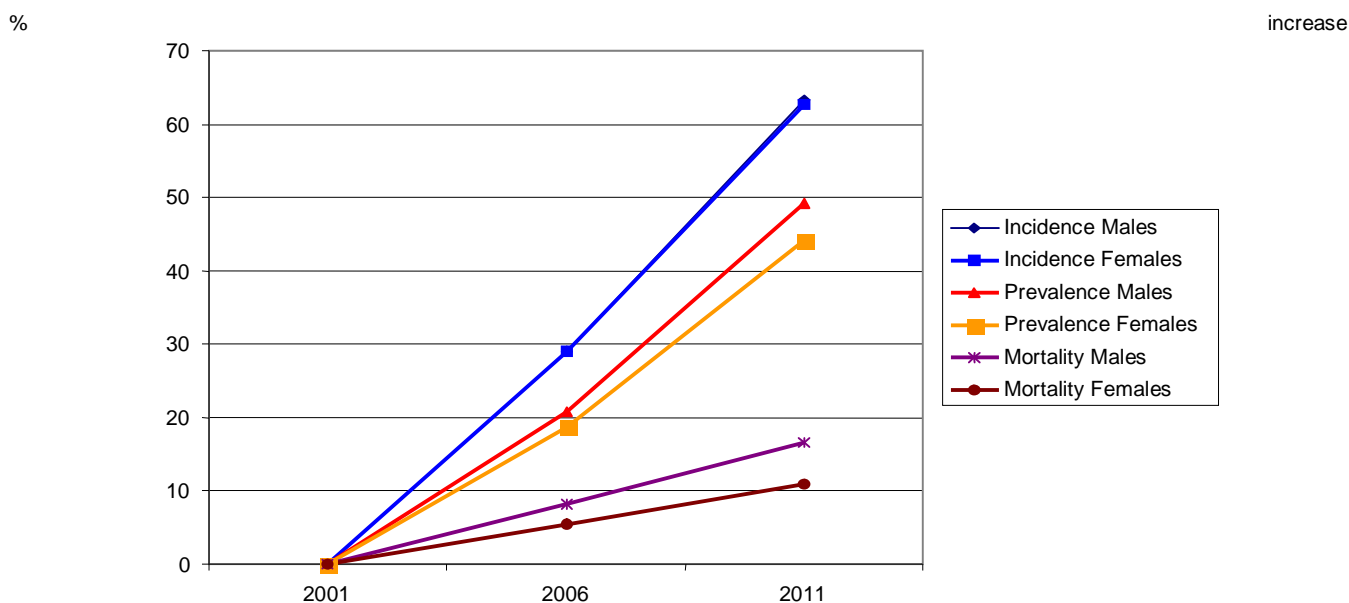


Source: Analytical Services, Ministry of Health, 2010

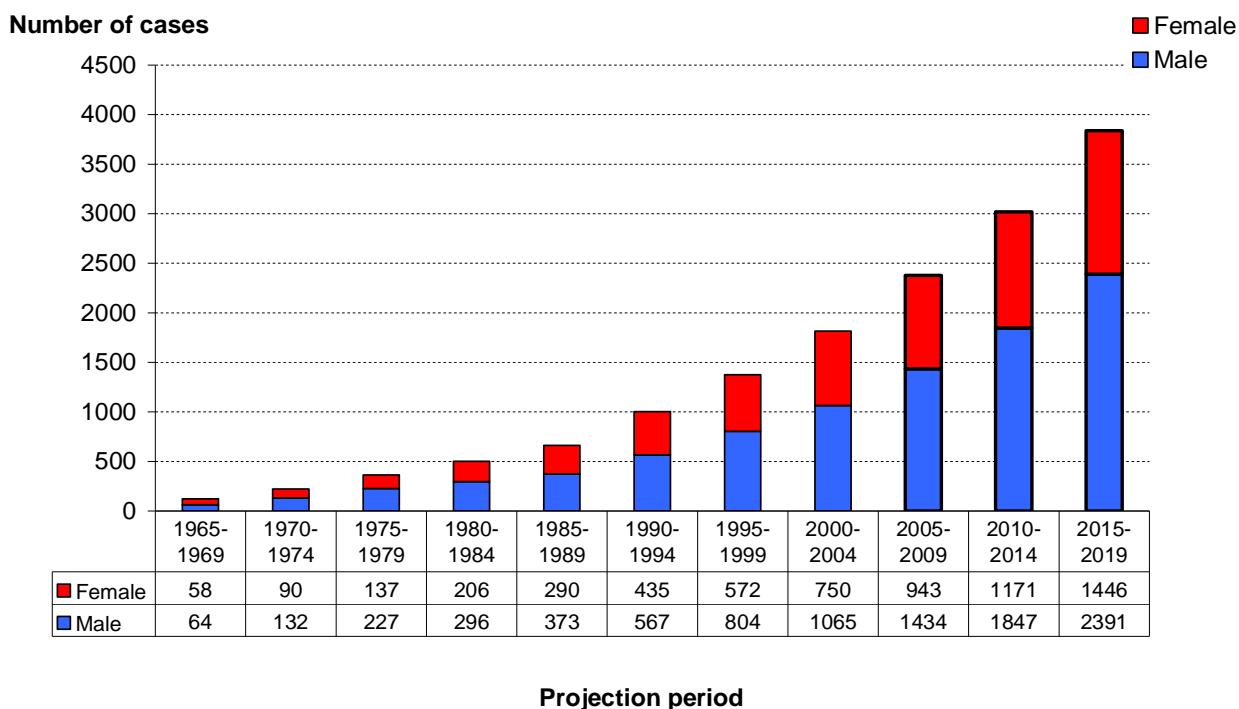
Note: Rates per 100,000 are age standardised to WHO standard population.

38. The prevalence of type 2 diabetes was forecast to increase by approximately 45 percent over the decade 2001 to 2011.<sup>22</sup> Two-thirds of this growth reflects non-modifiable demographic trends – including the increasing size and ageing of the population and one-third reflects the projected growth in obesity prevalence. The only source of prevalence data on diabetes is the NZHS, which can only provide estimates of diagnosed (known) diabetes based on self-reporting by those who are surveyed. The number of people needing renal replacement therapy is expected to increase by 50 percent or more in the next ten years, mainly related to the projected increase in diabetes prevalence.

**Figure 9: Projected increase in type 2 diabetes, 2001 – 2011 (percent)**



**Figure 10: Observed and projected number of new registrations for Chronic Kidney Disease**



<sup>22</sup> Ministry of Health. 2007. *Diabetes Surveillance: population-based estimates and projections for New Zealand, 2001-2011*: Public Health Intelligence Occasional Bulletin No.46. Wellington: Ministry of Health

39. Alzheimer's disease accounts for approximately 60-70 percent of the burden of dementia. A 2008 study on the burden of Alzheimer's disease projected prevalence to increase approximately 2.5 fold (to approx. 70,000 people) over the next 25 years (2006 to 2031) as a result of population growth and the structural ageing of the population.<sup>23</sup> No New Zealand data on the incidence and prevalence of Alzheimer's exists so estimates were based on international systematic reviews. It is often assumed that the structural aging of the population will bring significant increases in dementia; this may not be the case if effective interventions are in place (prevention and treatment). Although the prevalence of Alzheimer's disease will be concentrated in the over-65 population, increasing numbers of people aged under 65 will be affected by the disease in future years.
40. Population level trend data on the prevalence of mental health and addiction disorders is not available as New Zealand has undertaken only one major epidemiology study, *Te Rau Hinengaro*, which gives a point in time measure.<sup>24</sup> This study excluded people living in institutions and those with psychotic illness and dementia.
41. *Te Rau Hinengaro* found that mental disorders are common, with 46.6 percent of the population predicted to meet criteria for a disorder at some time in their lives with 39.5 percent having already done so. Almost 21 percent had experienced a disorder in the previous 12 months, with higher prevalence amongst younger people (16 to 24 years). Prevalence is also higher for people who are disadvantaged whether measured by educational qualification, equivalised household income or using the index of deprivation. Prevalence is also higher for Māori (29.5 percent) and Pacific (24.4 percent) people than the 'other' population (19.3 percent).
42. *Te Rau Hinengaro* also showed that comorbidity of mental disorders was common, with 37 percent (of the 21 percent who experienced a disorder in the preceding 12 months) meeting criteria for two or more disorders, and there was also strong comorbidity between mental and physical disorders. People with mental disorders have higher prevalences of several chronic physical conditions compared with people without mental disorders of the same age. Cardiovascular disease was the most disabling followed by diabetes. The combination of mental and physical disorders was more disabling than either alone.<sup>25</sup>
43. Mental disorders are associated with impairment in functioning. Three percent of the population reported days completely out of their usual role due to mental health problems in the past month, with at least 7.8 percent - 8.2 percent reporting partial role impairment due to mental health problems. Monitoring of primary health organisations' (PHO) provision of primary mental health services to people affected by common mental health disorders has indicated that, since 2005, there has been an upward trend in the monthly rate of new diagnoses of depression.

## Disability

44. The New Zealand Disability Survey (NZDS), undertaken by Statistics New Zealand in 1996, 2001 and 2006 provides data on the number of New Zealanders who self-report being affected by a disability (or multiple disabilities). In 2006, the data came from separate post-census surveys of households and residential care facilities.<sup>26</sup> The NZDS includes people who reported a disability (functional impairment) due to a health or mental health condition (rather than only a long term intellectual, physical or sensory disability). The 2006 data for self-reported disability across the 15-44 and 45-64 age-groups indicated lower levels of disability than in 2001. Despite using similar survey instruments, there was a significant decline in the overall rate of disability between 2001 and 2006. In the 2006 survey, 660,300 people reported a disability – 17 percent of the population, compared with 20 percent in the previous two surveys.

<sup>23</sup> Tobias M, Yeh Li-Chia, Johnson E. 2008. Burden of Alzheimer's disease: population-based estimates and projections for New Zealand, 2006-2031. *Australian and New Zealand Journal of Psychiatry*. 42:9

<sup>24</sup> Oakley Brown MA, Wells JE, Scott KM (eds). 2006. *Te Rau Hinengaro: The New Zealand Mental Health Survey*. Wellington: Ministry of Health.

<sup>25</sup> Scott KM. 2006. Disability. In MA Oakley Browne, JE Wells, KM Scott (eds). *Te Rau Hinengaro: The New Zealand Mental Health Survey*. Wellington: Ministry of Health.

<sup>26</sup> For information on the 2006 Disability Survey, see:

[http://www.stats.govt.nz/browse\\_for\\_stats/health/disabilities/disabilitysurvey2006\\_hotp06.aspx](http://www.stats.govt.nz/browse_for_stats/health/disabilities/disabilitysurvey2006_hotp06.aspx).

45. The apparent decline was more marked in the older age groups, and for those classified as having low support needs (except for adults aged 65 years and over). There was little or no decrease in the proportion of children with a disability or for adults living in residential care between the surveys.
46. Analysis of trends between 2006 and earlier disability surveys cannot be undertaken, as Statistics New Zealand (SNZ) cautions users of 2006 Disability Survey data about making strong inferences from apparent trends in disability prevalence between 1996/97, 2001 and 2006. SNZ reviewed the 2006 survey methodology and considered statistical and non-statistical factors, however no contributing factor could be found to explain the decline. SNZ suggests that some possible reasons for the decline could be an increase in proxy responses (8 percent of responses in 2006 compared to 2 percent in 2001) between the surveys or possible changes in people's perception of whether they are limited by a condition. However, SNZ advises that the analysis of data patterns within the 2006 survey should provide reasonable information.

**Figure 11: Percentage of people with a disability 1996, 2001 and 2006**

Age group (years)	0-14	15-44	45-64	65+	Total
1996	11%	12%	25%	52%	20%
2001	11%	13%	25%	54%	20%
2006	10%	9%	20%	45%	17%

Source: Statistics New Zealand, New Zealand Household Disability Surveys

47. Further analysis of data from the 2006 NZDS resulted in the publication, in January 2010, of *Disability and Māori in New Zealand in 2006*.<sup>27</sup> The Ministry is currently preparing a report on the health of people with intellectual disabilities, which is expected to be completed during 2010.
48. Approximately 10 percent of New Zealanders had a disability requiring assistance in 2006 (the most recent year for which data is available), a similar proportion to the 1996 and 2001 Disability Surveys. Disability requiring assistance is defined as experiencing an impairment that requires some kind of regular help from other people or technical aids.

**Figure 12: Prevalence of disability requiring assistance, by ethnicity and sex, 1996, 2001 and 2006**

	1996			2001			2006		
	Māori (%)	Non-Māori (%)	Total (%)	Māori (%)	Non-Māori (%)	Total (%)	Māori (%)	Non-Māori (%)	Total (%)
Males	13.1	9.3	9.9	13.5	9.9	10.7	10.2	9.6	9.7
Females	13.7	9.5	10.1	14.4	8.9	9.7	10.4	11.2	11.1

Sources: 1996/97 Disability Surveys; Household Disability Surveys 2001 and 2006; Disability Surveys of Residential Facilities 2001 and 2006.

49. The 2006 Disability Survey<sup>28</sup> reported that 15 percent of the adult population had low or medium support needs while three percent had high support needs.<sup>29</sup> Sixty-three percent of females and 54 percent of males with disability reported having multiple disabilities.

<sup>27</sup> Office for Disability Issues and Statistics New Zealand (2010). *Disability and Māori in New Zealand in 2006: Results from the New Zealand Disability Survey*. Wellington: Statistics New Zealand.

**Figure 13: Support levels for adults (15 years and over) with disability, 2006**

	Number of adults	Percentage of disabled adults	Percentage of total adults
Low support needs	209,500	37 percent	7 percent
Medium support needs	268,000	47 percent	9 percent
High support needs	92,700	16 percent	3 percent
Total with disability	570,300	100 percent	18 percent

Note: Figures have been rounded and discrepancies may occur between sums of component items and totals.

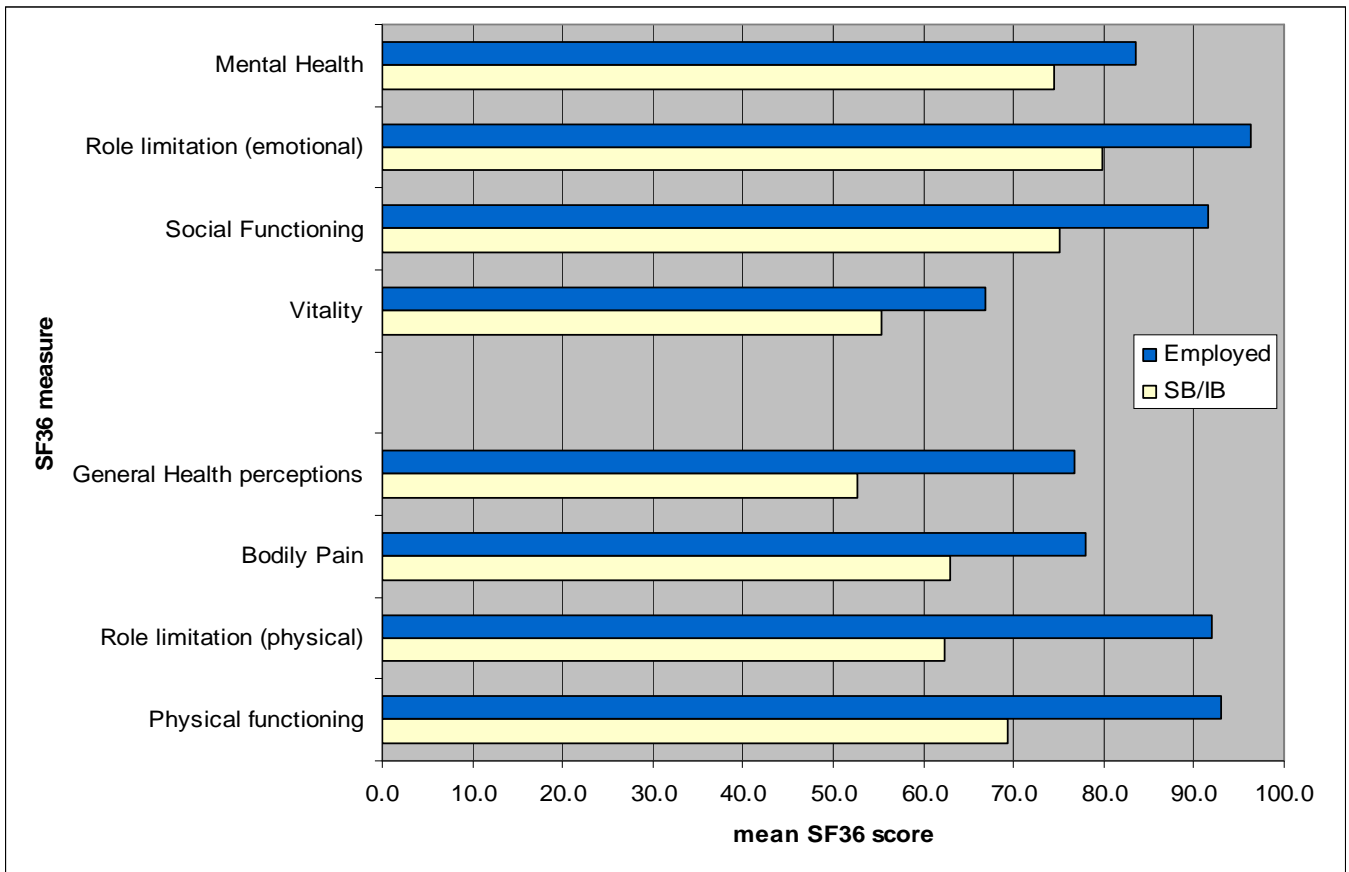
### **The health of people receiving a sickness or invalid's benefit**

50. An unpublished paper by the Ministry of Health and the University of Otago looked at the trends in mortality rates among the working age population of people receiving sickness or invalid's benefits between 1981 and 2004. This study found that mortality rates were at least three times higher in the SB/IB group at all points in time, for men and women. Mortality rates declined in all groups over this time period, although relative inequality between the SB/IB and non-SB/IB populations remained stable.
51. For the purposes of this report the Ministry undertook additional analyses of the trends in morbidity between the SB/IB population compared to the employed population (from 1996/97 to 2006/07), using the SF-36, a standardised health status instrument, which is included in the NZHS. A high SF-36 score indicates a favourable health state. This analysis does not comment on whether the population groups described are accessing health services.
52. The analyses showed that, in the most recent data (2006/07), SB/IB recipients had much worse physical and mental health than the employed population. This is shown in the graphs below. In particular, the mean physical functioning score for female SB/IB recipients was 64.3 compared to 89.7 for employed females. The mean physical functioning score for male SB/IB recipients 69.4 compared to 89.7 for employed males. In fact, the mean scores across all eight dimensions of the SF-36 health scale were significantly lower for SB/IB recipients compared to the employed. These differences remain significant even after adjusting for socio-economic position and demography (age and ethnicity).
53. Further, the analyses found that there is no evidence that the overall gap between the health status of SB/IB recipients and that of employed people narrowed significantly between 1996/97 and 2006/07, suggesting the SB/IB population was not any less or more "healthy" relative to the employed population. Although not shown in the graphs, the analyses also showed that the SB/IB population (males and females) are approximately twice as likely as people in the employed population to be current smokers, which is likely to have implications for future health status.
54. The graphs on the following page show the ratios of mean SF-36 scores for the two groups remained generally stable over time for both sexes. In particular, the ratios of mental health and physical functioning SF-36 scores (which are generally considered the most robustly measured indicators) are not significantly different across time, even after adjusting for age differences across time and between groups.

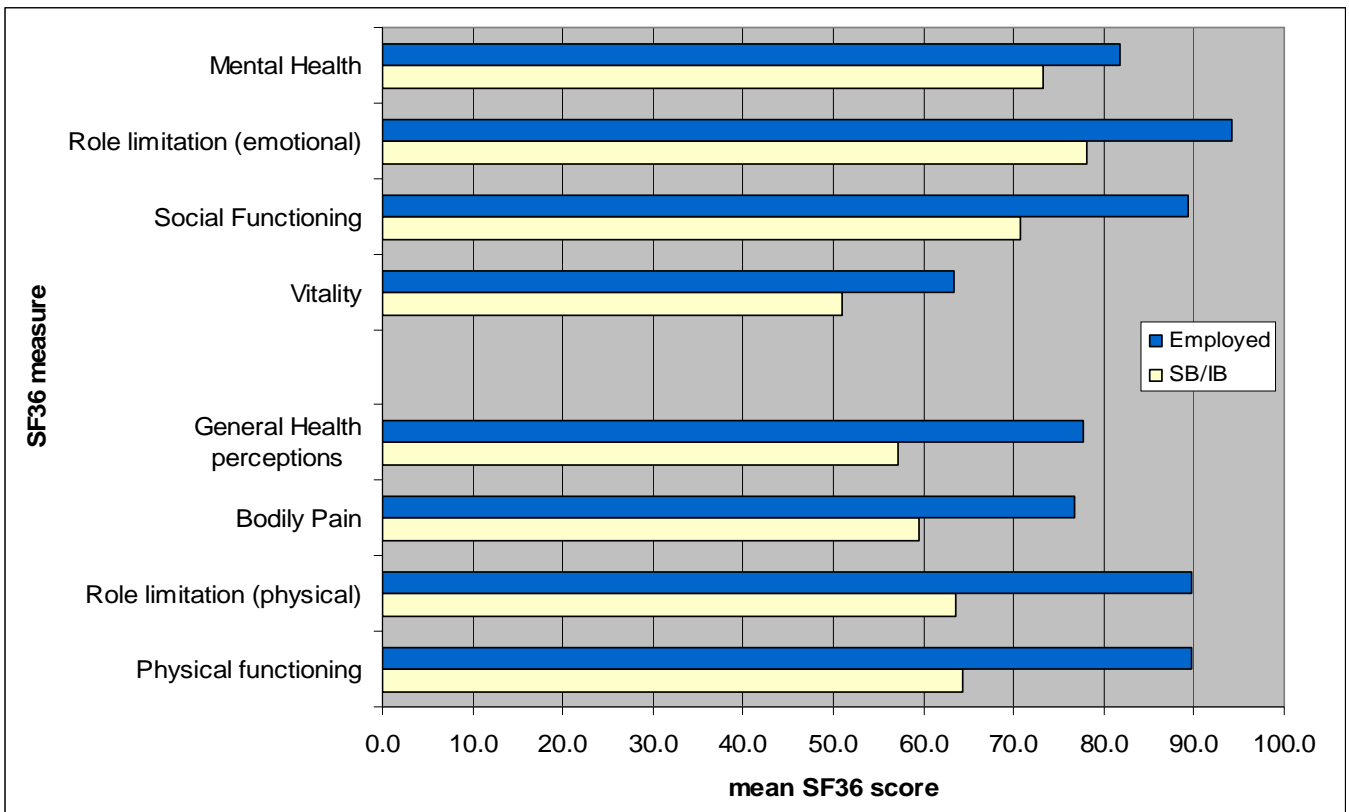
<sup>28</sup> [http://www.stats.govt.nz/browse\\_for\\_stats/health/disabilities/disabilitysurvey2006\\_hotp06.aspx](http://www.stats.govt.nz/browse_for_stats/health/disabilities/disabilitysurvey2006_hotp06.aspx)

<sup>29</sup> Support level is a measure of the level of support required. Those with medium support needs use, or have an unmet need for, some type of assistive device, aid or equipment. Those with 'high' support needs receive daily assistance with tasks such as bathing, preparing meals etc.

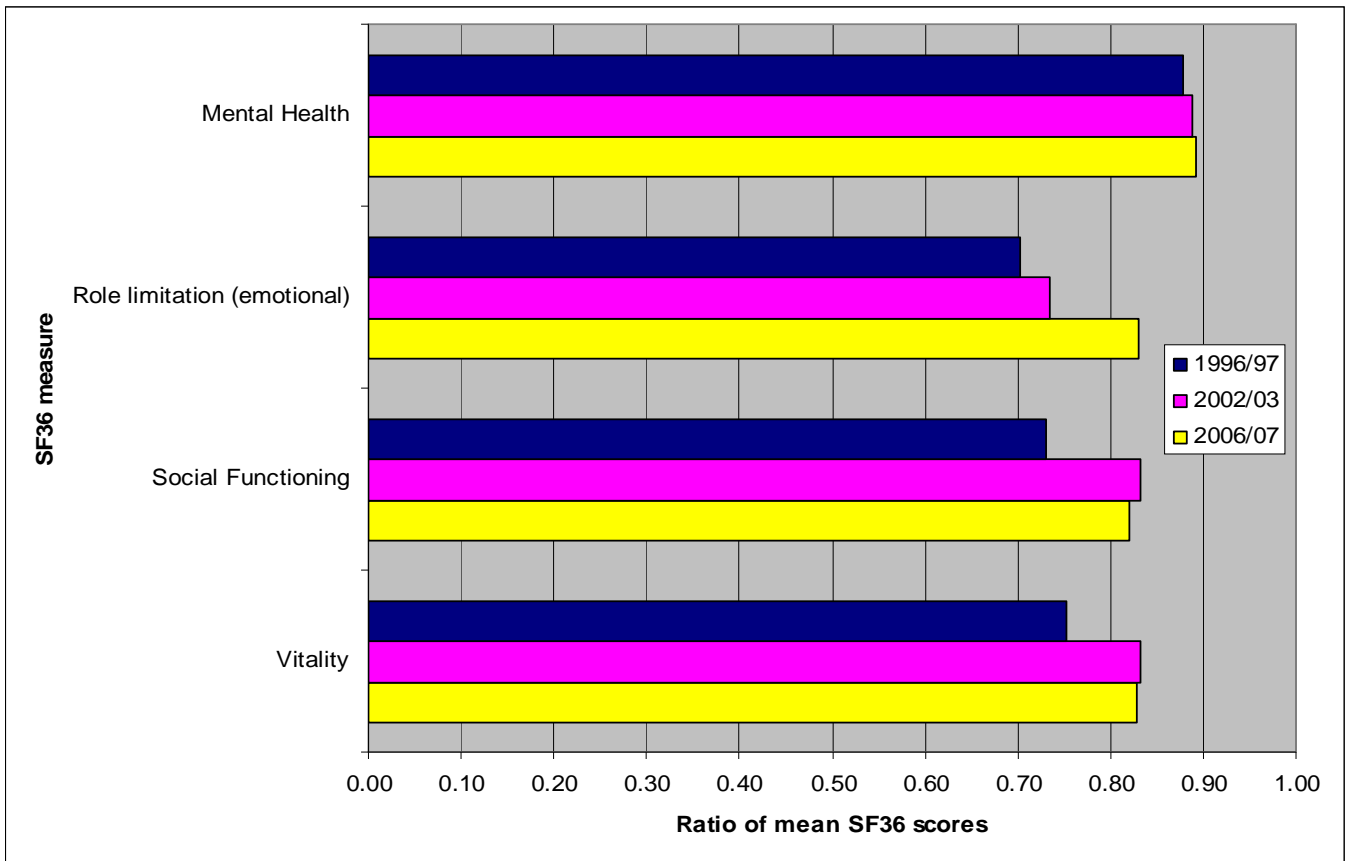
**Figure 14a: SF-36 mean scores: SB/IB compared to Employed – Males – 2006/07**



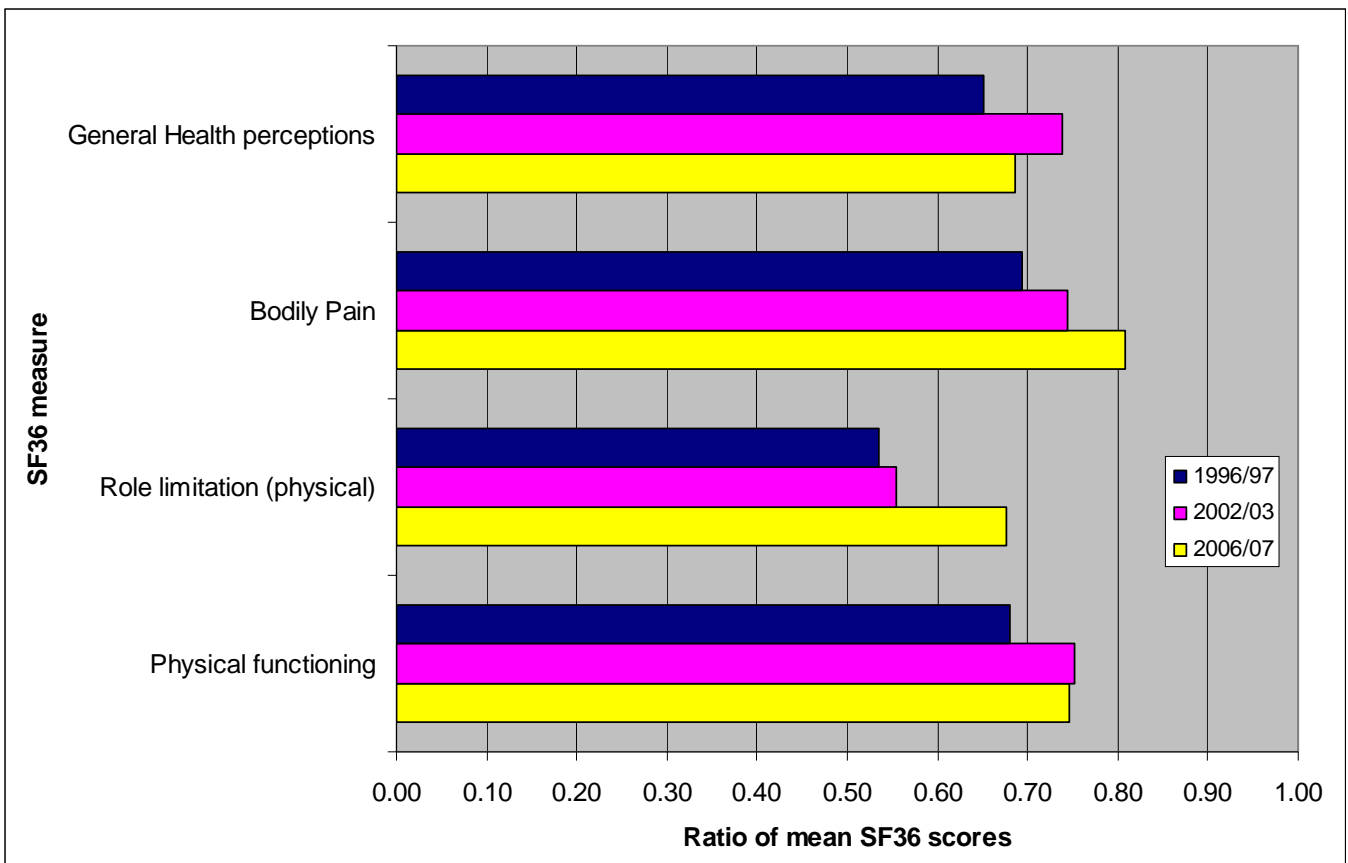
**Figure 14b: SF-36 mean scores: SB/IB compared to Employed – Females – 2006/07**



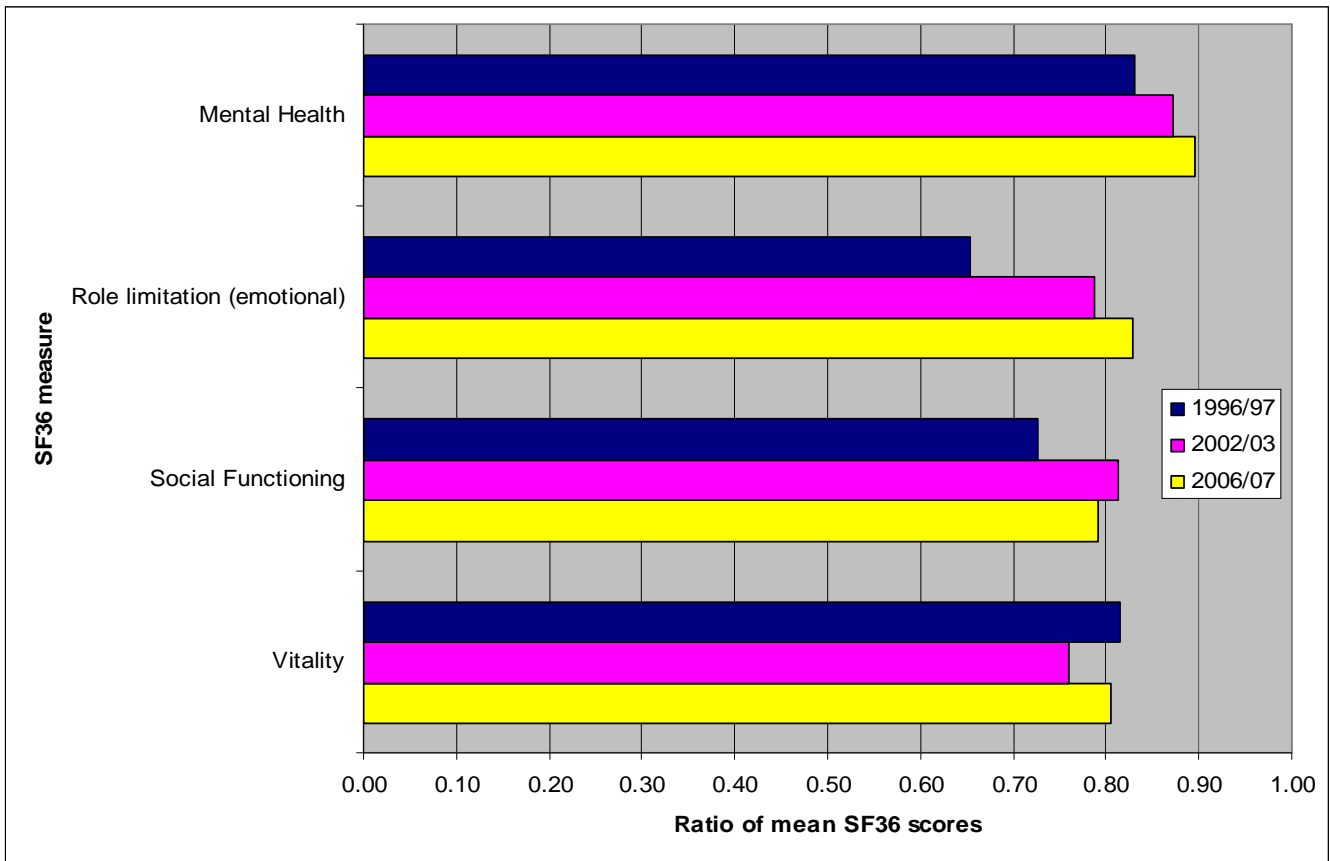
**Figure 15a: SF-36 - Ratio of mean scores: SB/IB compared to Employed – Males**



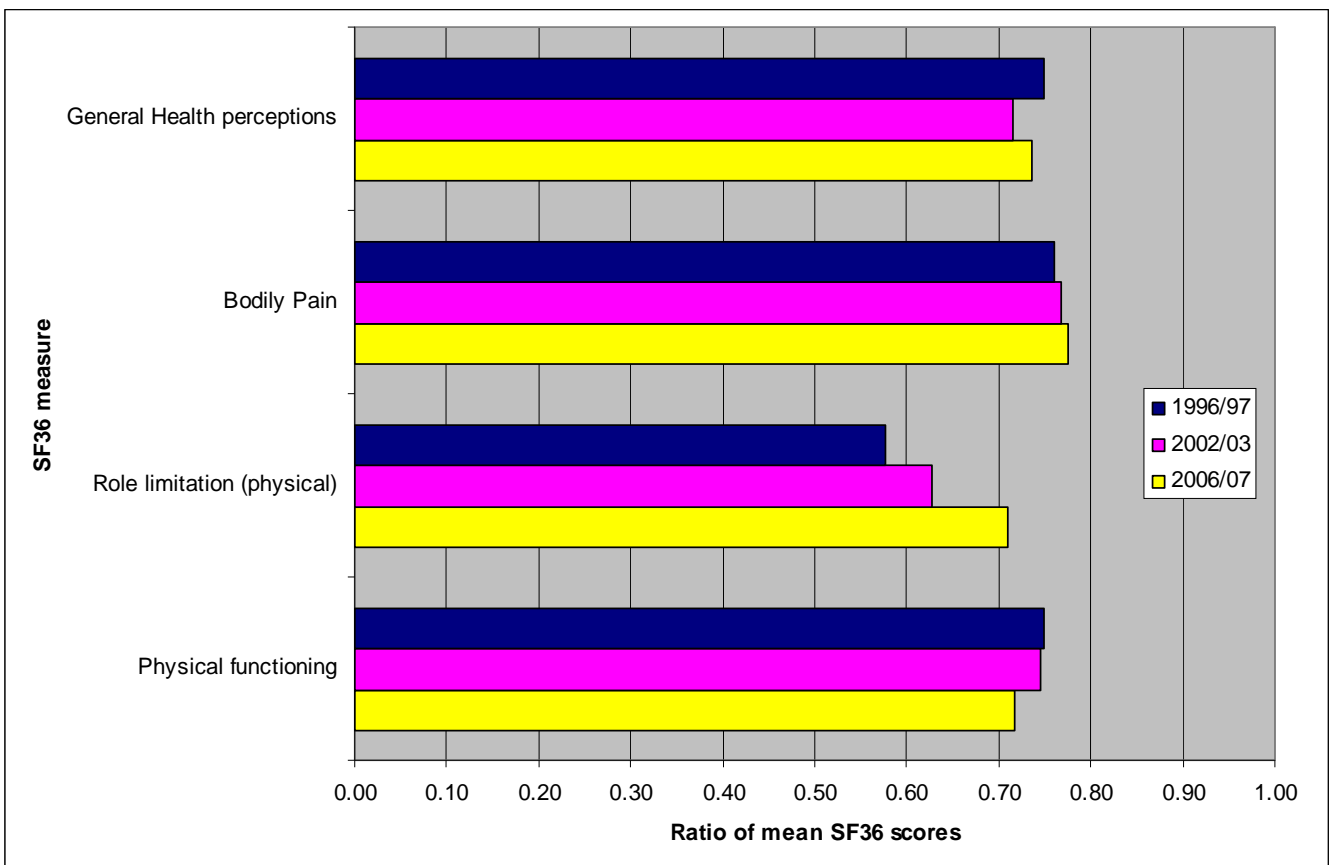
**Figure 15b: SF-36 - Ratio of mean scores: SB/IB compared to Employed – Males**



**Figure 16a: SF-36 - Ratio of mean scores: SB/IB compared to Employed – Females**

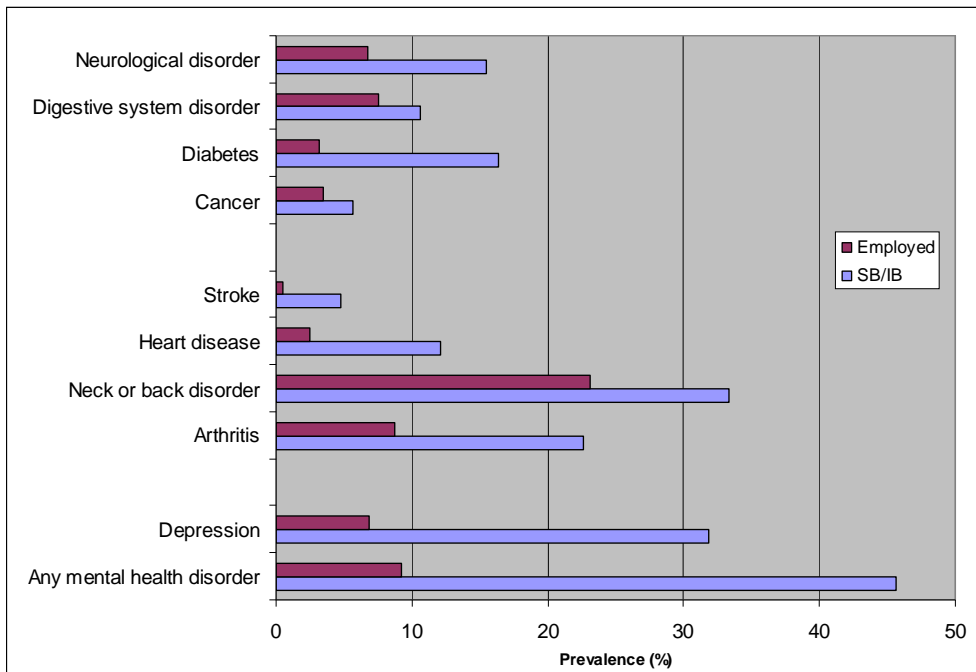


**Figure 16b: SF-36 - Ratio of mean scores: SB/IB compared to Employed – Females**

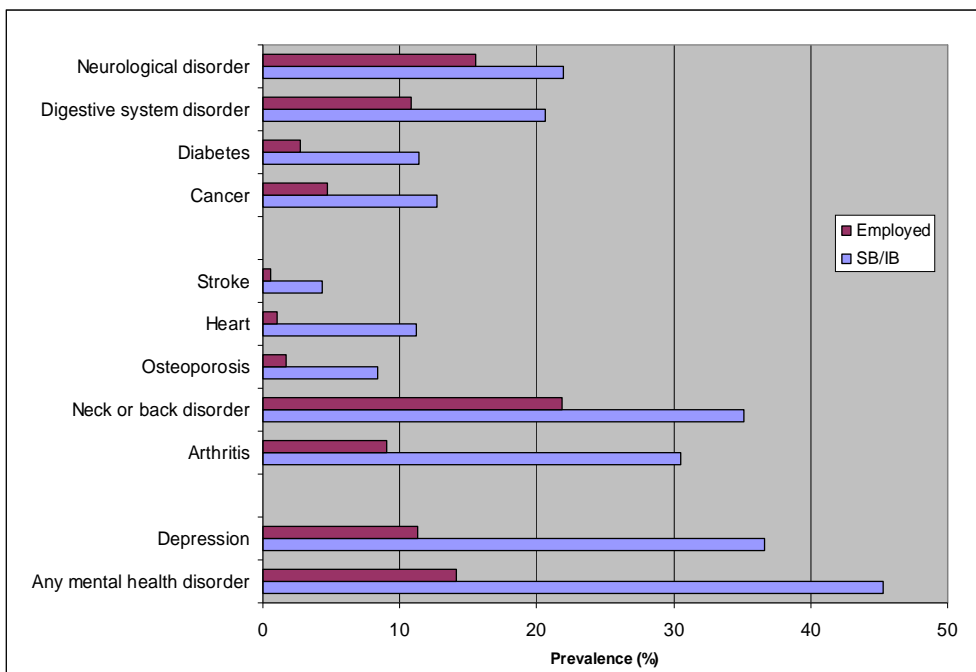


55. In terms of prevalence of long term health conditions, in 2006/07, people on SB/IB had consistently higher prevalence for a range of conditions when compared to the employed group. However, as noted earlier, the Ministry is unable to comment on the specific impact of the condition(s) experienced by individuals.

**Figure 17a: Long term health conditions – Males – 2006/07**



**Figure 17b: Long term health conditions – Females – 2006/07**



56. The interactions between employment, unemployment and mental health have been the subject of much research interest. For the purposes of this paper, the Ministry highlights two studies and one report. First, a meta-analysis published in 2009 concluded that "unemployment is not only correlated to distress but also causes it" because "losing a job is associated with negative changes of mental health and that finding reemployment after a period of unemployment is

associated with an improvement in mental health".<sup>30</sup> Further, the study found that "persons with impaired mental health are more likely to lose their jobs or to become unemployed after leaving school" and that "impaired mental health lowers the chances of finding a new job".

57. Second, a very recent publication on findings from the Christchurch Health and Development Study has clearly shown that experiencing psychiatric disorder between the ages of 18 and 25 significantly influenced socioeconomic outcomes at age 30.<sup>31</sup> The authors found that approximately half of the study participants experienced at least one episode of psychiatric disorder between the ages of 18 and 25 and, after adjusting for confounding factors (eg, family background), "psychiatric disorder during young adulthood was significantly associated with reduced workforce participation, lower income and lower living standards". Further, the authors found that "the rate of welfare dependence was more than four times higher among those with four or more episodes of psychiatric disorder compared with those with no psychiatric disorder". In short, experience of mental ill-health between the ages of 18 and 25 is directly associated with labour market disadvantage.
58. Third, in 2008, the Royal College of Psychiatrists produced *Mental Health and Work*<sup>32</sup>, which provided a detailed evidence-based account of the interactions between employment, unemployment and mental health, including the role of employment in the recovery and treatment of people who experience mental health problems (whether they be mild, moderate or severe). The publication recommended that: "People who are workless and who have mental health problems, including those with a severe and enduring mental illness, should be given support to find and retain a job when they believe they are ready for paid employment. If they are not ready for paid employment, they should be assessed and offered help for the problems that would prevent them from working."

### Access to health services

59. The above discussion and figures have established that the SB/IB population is significantly less healthy than the employed populations. In addition, the SB/IB population experiences co-morbidities (living with more than one condition) at a higher rate than the employed population and the impact of this can be cumulative: living with the relatively minor symptoms and complications of multiple conditions can result in a significant level of impairment for some individuals.
60. Given this generally higher level of need in the SB/IB population, access to health care (and primary health care in particular) is crucial for identifying, treating and managing the effects of ill-health. Therefore, higher utilisation of primary health care services (as measured by GP visits) by high-need groups is important. Comparatively low utilisation of primary health care by this population is likely to indicate unmet health needs.
61. Data from the mid-2000s suggested that a level of unmet need amongst high-needs populations was present in New Zealand. Two articles in the influential international *Health Policy* journal suggested that in 2004-05, affiliation with a PHO was quite high within high-needs populations,<sup>33</sup> but financial barriers inhibited some high-needs groups from accessing health care.<sup>34</sup>
62. As at the end of July 2010, over 4,193,000 people were enrolled with a PHO. Of this population, almost 1,235,000 people are classified as being "high-needs", and almost 770,000 people live in

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<sup>30</sup> KI Paul and K Moser. 2009. Unemployment impairs mental health: Meta-analyses. *Journal of Vocational Behaviour*. 74 (2009): 264-282.

<sup>31</sup> SJ Gibb, DM Fergusson and LJ Horwood. 2010. Burden of psychiatric disorder in young adulthood and life outcomes at age 30. *British Journal of Psychiatry*. 197 (2010): 122-127.

<sup>32</sup> P Lelliot and S Tulloch et al. 2008. *Mental Health and Work*. Commissioned by the cross government Health Work and Well-being Programme. London: The Royal College of Psychiatrists. Available from: <http://www.workingforhealth.gov.uk/documents/mental-health-and-work.pdf>.

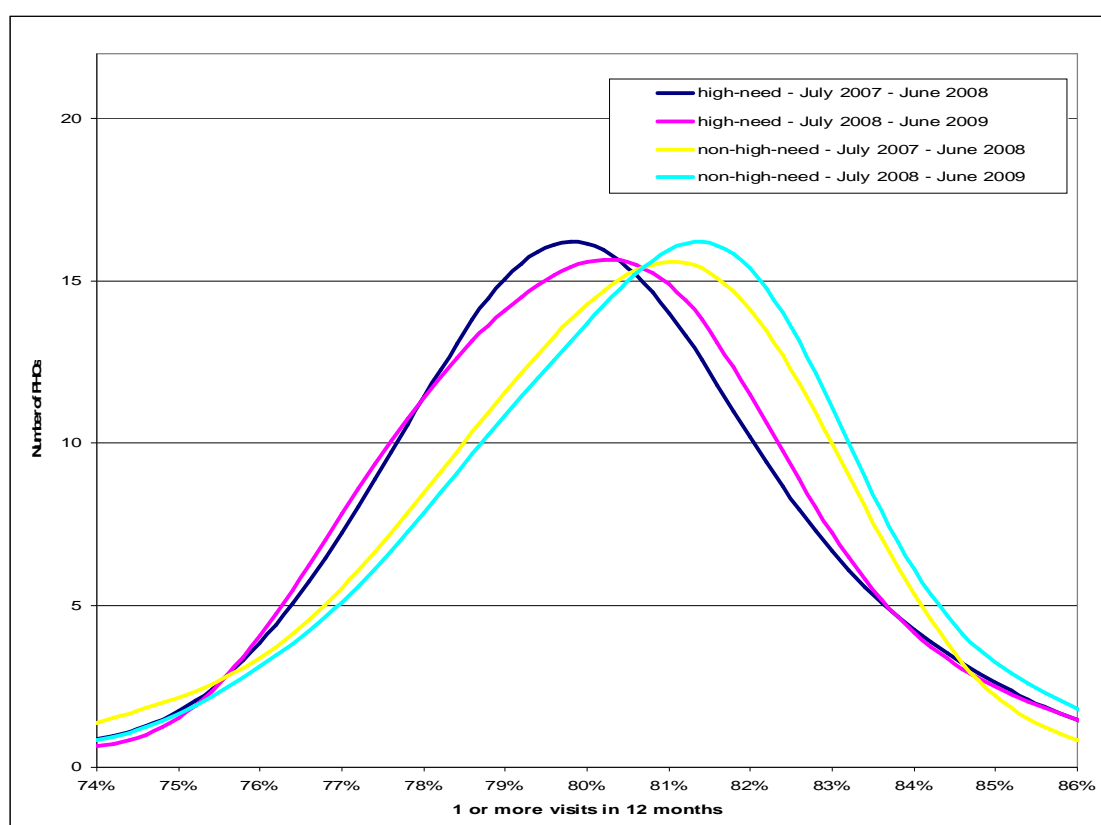
<sup>33</sup> S Jatrana and P Crampton. 2009. Affiliation with a primary care provider in New Zealand: Who is, who isn't". *Health Policy* 91 (2009):286-296.

<sup>34</sup> S Jatrana and P Crampton. 2009. Primary health care in New Zealand: Who has access? *Health Policy* 93 (2009): 1-10.

an area defined as being deprived (NZDep2006 quintile five).<sup>35</sup> A range of initiatives/programmes exist to facilitate access for high-needs and low income populations.

63. Care Plus targets people with high health needs to improve chronic care management, reduce inequalities, improve primary health care teamwork and reduce the cost of services for high-need primary health users. The Very Low Cost Access Payments programme enables some PHOs serving high-need communities to facilitate and improve access to primary health care in those communities.<sup>36</sup> Furthermore, access to pharmaceuticals has been improved: everyone who is eligible for publicly funded health and disability services should in most circumstances now pay only \$3 for subsidised medicines.<sup>37</sup>
64. Figure 18 shows the distribution of PHOs (based on the percentage of the PHO enrolment register) having one or more GP visits for high-need enrolees and non-high-need enrolees for the 2008/09 year. Based on the above, it could be expected that PHOs would provide a level of contact/service for high-need patients higher than that for non-high-need enrolees. That is, the distribution for high-need enrolees should sit to the right of the distribution for non-high-need enrolees. Despite the initiatives outlined above, Figure 18 shows that, as at 30 June 2009, more PHOs were serving non-high-need enrolees at the same or higher level than high-need enrolees. Less than one-third (25 out of 81) of PHOs were serving their high-need enrolees at the same or higher level than non-high-need enrolees.

**Figure 18: Distribution of PHOs by age-standardised percentage of enrolees contacting their GP in 12-months, for high-need and non-high-need enrolees, July 2007 - 30 June 2008 compared to July 2008 - 30 June 2009**



Source: Health and Disability Intelligence, Ministry of Health, 2010.

<sup>35</sup> This PHO enrolment data is available from: <http://www.moh.govt.nz/moh.nsf/indexmh/phcs-pho-enrolment>.

<sup>36</sup> Further information about Care Plus and Very Low Cost Access Payments can be found at:

<http://www.moh.govt.nz/moh.nsf/indexmh/phcs-funding>. Under the Very Low Cost Access Payments and "Zero fees for under sixes" programmes, the following payment structure applies for GP visits: \$0 for 0-6 year-olds; \$11.50 for 6-17 year olds; and \$17 for people aged over 18. This compares to usual GP fees of (from) \$30.

<sup>37</sup> See: <http://www.moh.govt.nz/moh.nsf/indexmh/phcs-funding-pharmaceutical>.

65. Overall, access by both high-needs and non-high-needs populations improved slightly from 2007/08 to 2008/09. However, because the non-high-needs curve is to the right of the high-needs curve, it indicates that although overall access is increasing, some PHOs are still providing a level of contact to high-need enrollees that is lower than that for non-high-need enrollees.
66. In short, movements to the right indicate an improvement in access to PHO services, but the high-needs curve still being to the left of the non-high-needs one indicates that (for some PHOs) a longstanding inequity of access remains.
67. Since the 2008 election, there has been a sustained and intense focus on ensuring that health services, particularly primary care services, provide *better, sooner, more convenient* services.<sup>38</sup> A specific focus is to improve the range and quality of services available to the public, provide those services closer to where people live, reduce pressure on hospitals and, ultimately, to improve people's health and independence. Given the disproportionate experience of ill-health within high-needs communities, the drive to improve primary care services is expected to improve the provision of services to those most in need.

#### **iv. The public health and disability support system and vocational rehabilitation**

68. The concept of rehabilitation refers to a spectrum of activities and services. Vocational rehabilitation is one component of this spectrum. Within Vote Health, long-term support services, including rehabilitation services, are funded both by the Ministry and by DHBs. In general, the Ministry funds disability support services (DSS) to support children and adults mainly aged under 65 with sensory, intellectual and/or physical disabilities to live as independently as practicable and to participate in their communities. While the Ministry mainly contracts with non-government organisations for DSS provision, most DSS with a rehabilitative focus (e.g. Assessment, Treatment and Rehabilitation services and most Child Development Services) are provided by DHBs.
69. In general, DHBs are responsible for funding (via direct provision or through contracts with non-government organisations) disability support services for 'older people' (people aged 65 and over and people between 50 and 65 assessed as having health and support needs due to long term conditions that are more common in older people) and for people severely affected by mental health and/or addiction disorders. DHBs are also responsible for funding rehabilitation for people who are recovering from a range of personal health conditions (such as acute exacerbations of cardiac or respiratory conditions) or injuries that are not the result of an accident (eg, post-operative rehabilitation following a spontaneous brain haemorrhage). ACC is responsible for funding the rehabilitation of people injured as the direct result of an accident who meet ACC's cover and entitlement criteria under the Injury Prevention, Rehabilitation and Compensation Act 2001.
70. In 2008, the Ministry and DHBs (combined) funded rehabilitative care services to the value of \$628.6 million. For this calculation, rehabilitative care is defined in accordance with the OECD System of Health Accounts:

An episode of rehabilitative care has the purpose of improving the functional level of the individual, where the limitations are either due to a recurrent event of illness or injury or are of a recurrent nature. Rehabilitative care is generally less intensive than curative care but more intensive than long-term care. It requires frequent and recurrent patient assessment and progresses in accordance with a treatment plan for a limited period.<sup>39</sup>

<sup>38</sup> See <http://www.moh.govt.nz/moh.nsf/indexmh/phcs-bsmc>. Also, see "Budget delivers over \$2 billion extra for health" at <http://www.beehive.govt.nz/release/budget+delivers+over+2+billion+extra+health>.

<sup>39</sup> See Appendix One of: Ministry of Health. 2010. *Health Expenditure Trends in New Zealand 1997-2007*. Wellington: Ministry of Health

71. Under this definition, rehabilitative care funded by the Ministry and DHBs includes activities provided in inpatient, outpatient and day-care settings as well as in people's own homes. For people with high or complex rehabilitation needs (eg, following a severe stroke) their rehabilitation programme may incorporate an element of reintegration into wider daily activities (such as educational/workplace reintegration). However, rehabilitation funded through Vote Health may not necessarily involve vocational rehabilitation: the focus is on improving function (eg, improving mobility and/or communication following a stroke). In addition, other aspects of services that are funded by the Ministry and/or by DHBs may involve expenditure on activities or items that support rehabilitative as well as vocational outcomes (eg, funding of services such as community-based residential care services and assistive devices such as glasses, hearing aids, prosthetics and wheelchairs).
72. In short, it is difficult to isolate the exact proportion of Ministry and DHB expenditure that is specifically dedicated to "vocational rehabilitation". Furthermore, there are ill-defined boundaries across government agencies with regard to the funding of vocational rehabilitation – in part because vocational rehabilitation has been traditionally seen as a responsibility of the Ministry of Social Development and also because of the increasingly recognised and proven contribution of vocational rehabilitation and labour market participation to improving health and independence outcomes for individuals.
73. However, there is greater level of clarity with regard to the specialist mental health and addiction services that DHBs fund for people who are severely affected by a mental health and/or addiction disorder. In 2008/09, approximately 2.6 percent of the total population accessed a specialist mental health and/or addiction service. In 2008/09, approximately \$19.5 million was expended on funding specialist mental health clinical and non-clinical FTEs to provide work and activity based rehabilitation. These activities include those specifically related to employment and for developing routine daily living skills such as cooking and self-care, which may assist with vocational rehabilitation. Total expenditure on mental health and addiction services by DHBs in 2008/09 was approximately \$1 billion.

**Figure 19: Clinical and non-clinical expenditure on work and activity based rehabilitation specialist mental health services**

Service description	2007/08			2008/09		
	NGO	DHB Provider Arm	Total	NGO	DHB Provider Arm	Total
Work Rehabilitation/ Employment and Educational Support Services (Clinical FTEs)	490,893		<b>490,893</b>	330,299		<b>330,299</b>
Work Rehabilitation/ Employment and Educational Support Services (Non-Clinical FTEs)	5,227,335	1,529,631	<b>6,756,966</b>	5,050,151	1,504,429	<b>6,554,580</b>
Activity-Based Rehabilitation Service/Day Activity and Living Skills (Clinical FTEs)	958,490	2,132,806	3,091,296	1,042,470	1,675,820	2,718,290
Activity-Based Rehabilitation Service/Day Activity and Living Skills (Non-Clinical FTEs)	7,791,555	1,118,243	8,909,798	8,231,220	1,644,345	9,875,565
	14,468,273	4,780,680	<b>19,248,953</b>	14,654,140	4,824,594	<b>19,478,734</b>

## v. Summary

74. As requested by the secretariat of the Welfare Working Group (WWG), this paper has provided a high level overview of trends in population health status — mortality, morbidity and disability —

with a particular focus on what is known about trends in chronic conditions. A wide range of data sources have been identified and considered in preparing this report, although much of the information has been drawn from New Zealand Health Survey data, which was last undertaken in 2006/07.

75. Although there have been clear improvements in the general health status of New Zealanders (as indicated by health and life expectancy), inequality between Māori and non-Māori exists. Inequality also exists between Māori and non-Māori with regard to incidence and prevalence of particular conditions. However, the effectiveness of the health system at meeting the health needs of the working age population has improved, as indicated by improvement in rates of amenable mortality in the 45-65 year-old population (with significant gains also realised for the 65-74 year-old population).
76. Although the prevalence of a range of chronic conditions is rising (due mainly to demographic changes), there are reasons to be optimistic that the impact on health outcomes may not be as severe in the future as it once may have been: the compression of morbidity means that people are likely to be healthier for longer than the current generation. That is, the better management of chronic conditions means that, despite an increase in prevalence, the progression from uncomplicated disease to complications that significantly affect health and functioning is being delayed further into “old age”. On the other hand, the prevalence of co-morbid (multiple) conditions is also increasing, and the Ministry is unable to dismiss the possibility that the cumulative impact of experiencing multiple conditions may result in significant functional impairment for some people.
77. A key focus of this paper has been the health of people in receipt of a sickness or invalid’s benefit (the SB/IB population). The paper has presented data and graphs to show that, between 1996/97 and 2006/07, the SB/IB population has been consistently (and significantly) less healthy than people who are employed. The SB/IB population has mortality rates three times higher than others and, when compared with the employed population, have much worse physical and mental health. Further, the inequality between these population groups did not narrow between 1996/97 and 2006/07, suggesting that the SB/IB population has not become any more or any less “healthy” relative to the employed population.
78. The paper has also identified and discussed research regarding the determinants of health (and ill-health). Factors generally beyond the influence of the health and disability support system (eg, income and socio-economic status) are strongly associated with poorer health status and outcomes. Recent New Zealand research has shown the negative impact of experiencing mental health disorders during young adulthood on health status and employment outcomes at age 30. In particular, that research showed that people who experience four or more episodes of poor mental health between the ages of 18 and 25 are four times more likely to be dependent on a benefit than those with no experience of poor mental health. The paper has also identified the growing evidence base regarding the deleterious impact on mental health of being unemployed.
79. The paper has also shown that, despite various initiatives to improve access to primary health care services by high needs populations, these populations may not be accessing primary care at a higher rate than other population groups.
80. Finally, the paper has briefly considered the role of the Ministry of Health and DHBs in the provision of rehabilitative services (including vocational rehabilitation). Rehabilitation is a broad concept. While it is clear that significant Vote Health resources are invested in rehabilitation, it is difficult to quickly discern what is specifically directed toward vocational rehabilitation.
81. In conclusion, the traditionally poor health of the SB/IB population raises a number of questions. We know little about: the health status of people on SB/IB prior to benefit receipt; if health status deteriorates during SB/IB receipt; if access to health and disability support services is the key mechanism for moving from SB/IB receipt to employment; or the proportion of that population for which such a movement is practicable. However, we do know that because the determinants of health are so diverse, improvements in the health status of individuals and populations are influenced not only by the health and disability support system but also by wider activities of government, society and individuals.