

# Psychological distress for adults (K10)

## Introduction

The Kessler 10-item scale (K10) is a set of questions used internationally to screen populations for non-specific psychological distress and serious mental illness (Kessler et al 2003).

Many studies have found that the higher the K10 score, the more likely a respondent has symptoms that meet the criteria for any mental disorder using the Diagnostic and Statistical Manual of Mental Disorders criteria (American Psychiatric Association 1994), especially anxiety and mood disorders (Furukawa et al 2003; 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 and Slade 2001).

### What were the survey questions?

In the 2006/07 New Zealand Health Survey, adult participants were asked to recall how often in the past four weeks they felt:

1. tired out for no good reason
2. nervous
3. so nervous that nothing could calm them down
4. hopeless
5. restless or fidgety
6. so restless they could not sit still
7. depressed
8. so depressed that nothing could cheer them up
9. worthless
10. that everything was an effort.

Responses are based on a five-point scale from 'None of the time' to 'All of the time', and scored from 0 to 4.

In keeping with other studies (M Oakley Browne, personal communication, 25 March 2008), participants were said to have the following likelihood of an anxiety or depressive disorder by categorising the K10 scores as follows:

- no or low probability (K10 score of 0–5)
- moderate probability (K10 score of 6–11)
- high probability (K10 score of 12–19)
- very high probability (K10 score of 20–40).

Chapter 3 of this report contains results on the prevalence of doctor-diagnosed mood and anxiety disorders for adults.

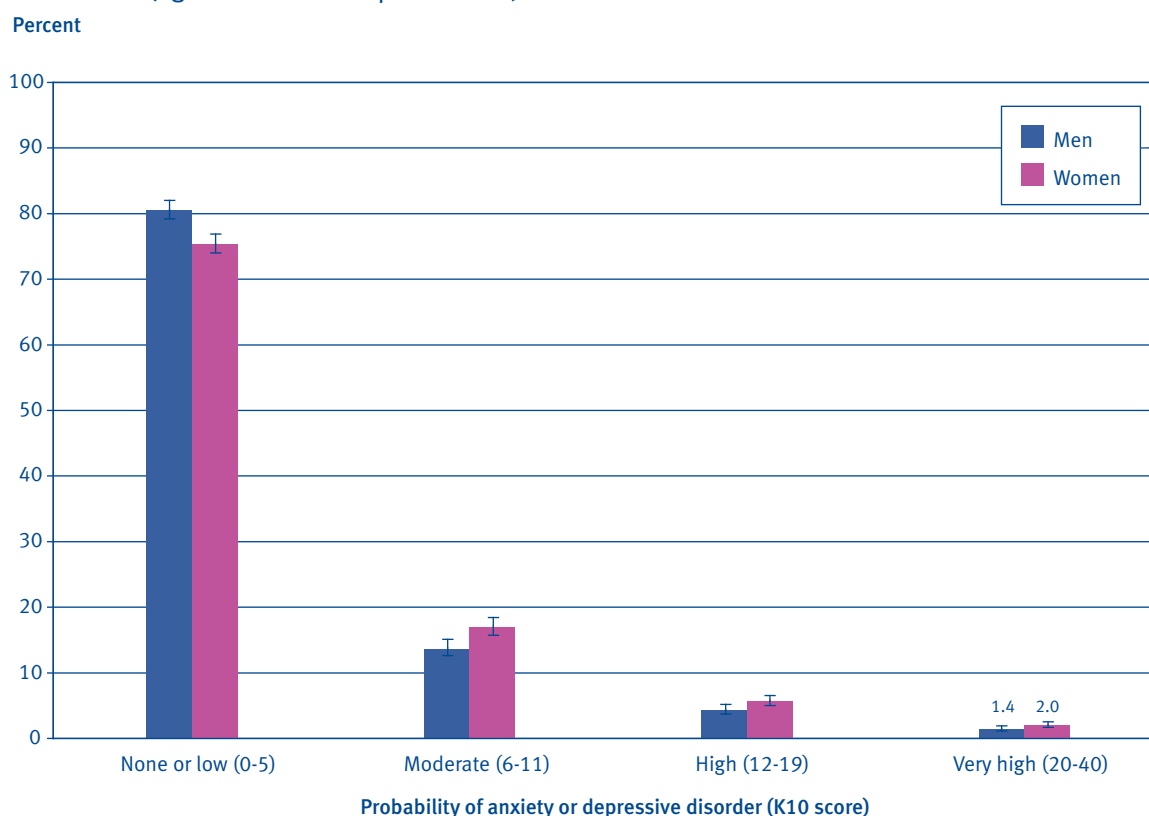
## Psychological distress for adults

Most adults were found to have no or very low psychological distress, and therefore to have no or a low probability of having an anxiety or depressive disorder (78.7% 77.8–79.7).

One in seven adults (14.7%, 14.0–15.5), or an estimated 459,400 people, had a moderate probability of an anxiety or depressive disorder, and one in 15 adults (6.6%, 6.0–7.1), or 204,600 adults, had a high or very high probability of an anxiety or depressive disorder.

Women had an increased prevalence of moderate, high and very high probability of an anxiety or depressive disorder compared to men, when adjusted for age (Figure 4.16).

Figure 4.16: Probability of anxiety or depressive disorder (K10 scores) for adults, by gender (age standardised prevalence)



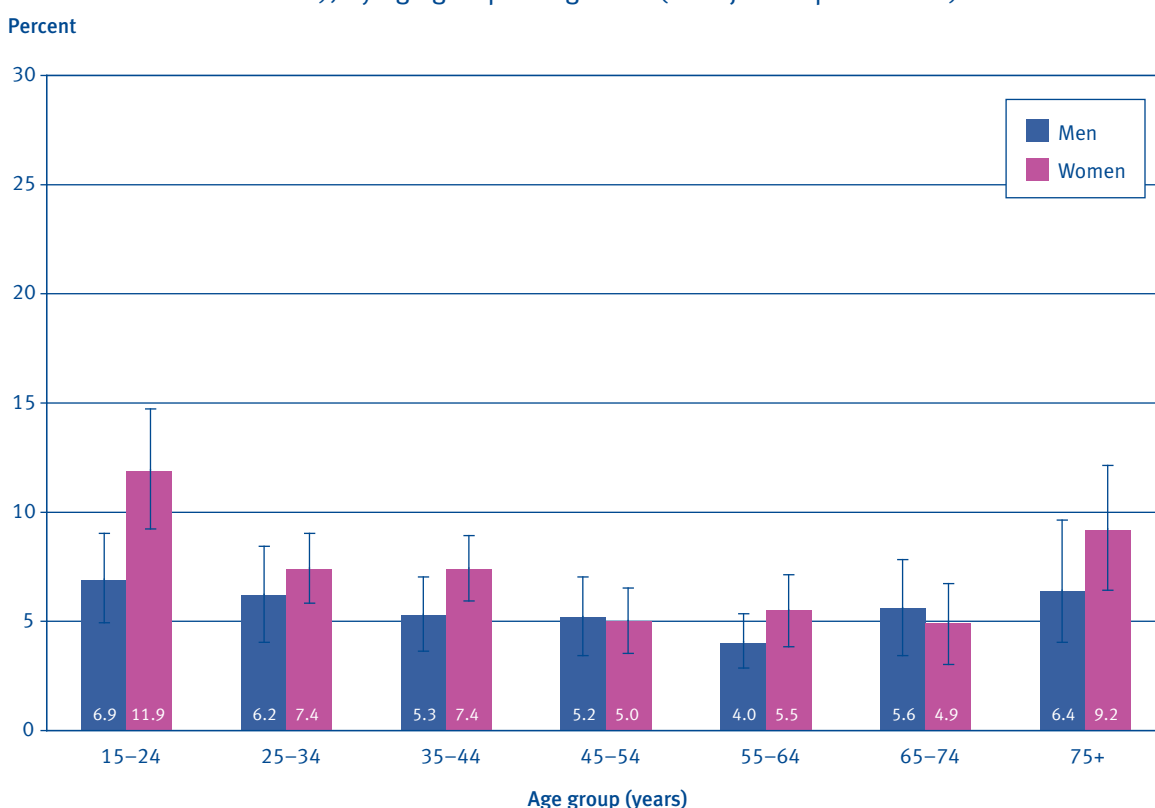
Source: 2006/07 New Zealand Health Survey

The following analyses combine the last two categories of high and very high probability of an anxiety or depressive disorder.

## Psychological distress, by age and gender

Psychological distress occurred in all age groups, but the prevalence of high or very high probability of an anxiety or depressive disorder was highest in women aged 15–24 years, with an increase in prevalence again when women were aged over 75 years. In men, the prevalence of high or very high probability of an anxiety or depressive disorder remained stable across the age groups with no significant differences by age (Figure 4.17).

Figure 4.17: High or very high probability of anxiety or depressive disorder for adults (K10 score of 12 or more), by age group and gender (unadjusted prevalence)



Source: 2006/07 New Zealand Health Survey

## Psychological distress, by ethnic group

Table 4.5 gives an indication of the burden of psychological distress in New Zealand's main ethnic population groups.

Table 4.5: High or very high probability of anxiety or depressive disorder for adults (K10 score of 12 or more), by ethnic group (unadjusted)

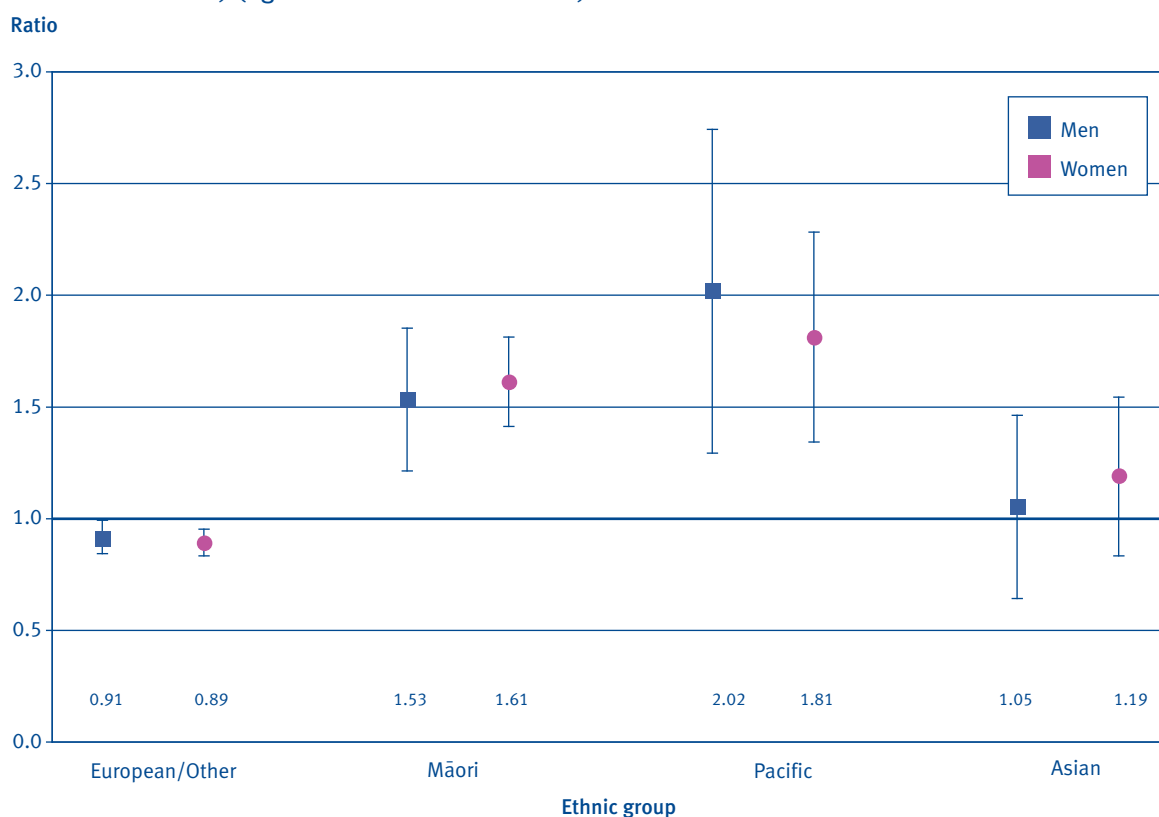
Ethnic group	Prevalence (95% CI)	Number of adults
European/ Other	5.9 (5.2–6.5)	149300
Māori	10.9 (9.6–12.3)	38800
Pacific	13.1 (10.5–15.7)	21500
Asian	7.4 (5.7–9.2)	20800

Source: 2006/07 New Zealand Health Survey

Note: Total response standard output for ethnic groups has been used.

Adjusted for age, Māori men and women and Pacific men and women had 1.5 to 2 times the prevalence of high or very high probability of an anxiety or depressive disorder compared to men and women in the total population (Figure 4.18). European men and women were slightly less likely than men and women in the total population to have a high or very high probability of an anxiety or depressive disorder.

Figure 4.18: High or very high probability of anxiety or depressive disorder (K10 score of 12 or more) (age standardised rate ratio)



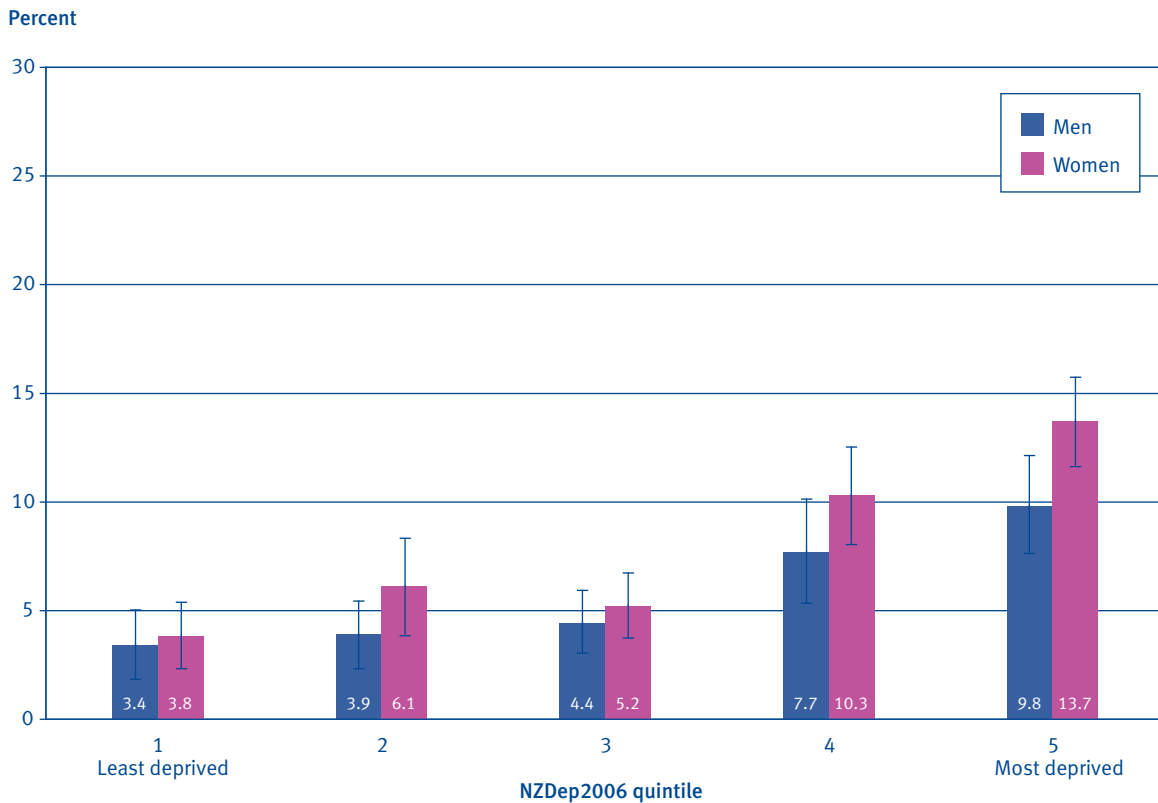
Source: 2006/07 New Zealand Health Survey

Notes: Age standardised to the WHO world population. Reference group, with a rate ratio of 1.0 (indicated by the bold line), is the total male or female population aged 15 years and over. Total response standard output for ethnic groups has been used.

## Psychological distress, by neighbourhood deprivation

Adjusted for age, women living in the most deprived areas (NZDep2006 quintile 5) were more than three times as likely to have a high or very high probability of an anxiety or depressive disorder compared to women living in the least deprived areas (NZDep2006 quintile 1) (Figure 4.19). Similarly, men living in NZDep2006 quintile 5 areas were more than twice as likely to have a high or very high probability of an anxiety or depressive disorder compared to men living in the least deprived neighbourhoods (NZDep2006 quintile 1) adjusted for age (Figure 4.19).

Figure 4.19: High or very high probability of anxiety or depressive disorder for adults (K10 score of 12 or more), by NZDep2006 quintile and gender (age standardised prevalence)



Source: 2006/07 New Zealand Health Survey

## Psychological distress, by DHB area

There was little variation by DHB area in the level of psychological distress for adults. Waitemata DHB area was the only area to show a difference with the national rate, with a smaller proportion of the population in this DHB area having a high or very high probability of an anxiety or depressive disorder (Table 4.6).

Table 4.6: High or very high probability of anxiety or depressive disorder for adults (K10 score of 12 or more), by DHB area (unadjusted)

DHB area	Prevalence (95% CI)	Number of adults
Northland / Tairāwhiti / Hawke's Bay / Lakes / Whanganui	6.9 (5.7–8.2)	26100
Waitemata	4.8 (3.4–6.2) –	18100
Auckland	6.9 (4.9–8.8)	22100
Counties Manukau	7.7 (5.8–9.6)	24800
Waikato	6.9 (5.4–8.3)	17700
Bay of Plenty / Taranaki / MidCentral	6.9 (5.4–8.4)	24200
Wairarapa / Hutt Valley / Capital and Coast	7.2 (5.0–9.4)	24900
Canterbury	5.7 (4.0–7.3)	21100
Nelson Marlborough / West Coast / South Canterbury / Otago / Southland	6.5 (4.8–8.2)	25600
<b>New Zealand total</b>	<b>6.6 (6.0–7.1)</b>	<b>204600</b>

Source: 2006/07 New Zealand Health Survey

Notes: Estimates indicated with a + are significantly higher than the national rate, and estimates indicated with a – are significantly lower than the national rate. Data are based on direct survey estimates and could be confounded by different population characteristics in each DHB. Due to small sample size, some DHB areas have been combined. Survey population is the estimated resident population living in permanent private dwellings at 31 June 2007.