Indicator 1.05 Psychological distress

Indicator definition

Description: Level of psychological distress as measured by the Kessler 10.

Numerator: People with very high, high, moderate or low levels of psychological stress (as measured by the Kessler 10 (K10) survey instrument (Andrews & Slade 2001)).

Denominator: Australian population.

Presentation: Age-standardised proportion, standardised to the June 2001 Australian population.

Psychological distress is a major risk factor for mental disorders. The likelihood of having a mental disorder, particularly depression or anxiety, increases with the level of psychological distress as measured by the K10 scale (Andrews & Slade 2001).

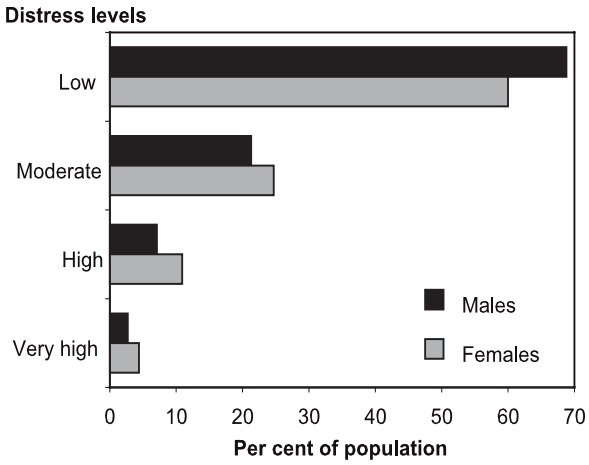
Mental health is designated a national health priority area for Australia and is the subject of a national strategy and action plan. Each year, almost one in five adults (18%) experiences a mental disorder. Depression is the fourth largest cause of years of life lost due to disability and premature death in Australia, and is among the top ten health problems managed by GPs (AIHW: Mathers et al. 1999; AIHW: Britt et al. 2001).

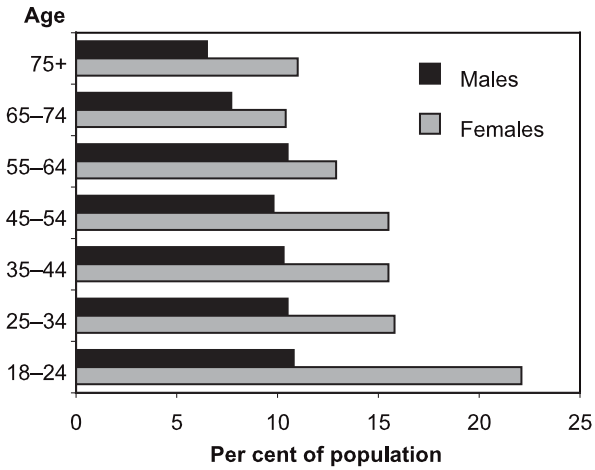
What the data show

- The ABS 2001 National Health Survey included a set of ten questions (K10) to measure psychological distress over the previous four-week period. These K10 questions cover the major domains of anxiety, depression and worry (such as nervousness, hopelessness, restlessness, depression, sadness and worthlessness) (ABS 2003c).
- K10 scores were grouped into four categories: low (indicating little or no psychological distress); moderate; high; and very high levels of psychological distress. Almost two-thirds (64.3%) of Australians aged 18 years and over were classified to low levels of psychological distress, 23.0% to moderate levels, 9.0% to high levels, and 3.6% to very high levels on the basis of their K10 score in the 2001 National Health Survey.
- A greater proportion of females (15.3%) than males (9.8%) reported a high or very high level of psychological distress in 2001. Of those who had very high levels of distress, 63% were females.
- The proportion reporting high or very high levels of psychological distress was highest among females aged 18–24 years (22.1%), and the rate declined with age thereafter. In males, the proportion was equally distributed at around 10% in all age groups up to 64 years, before declining in older age groups.
- The proportion of adults reporting a high or very high level of psychological distress in the 2001 National Health Survey (12.6%) was higher than in the 1997 Survey of Mental Health and Wellbeing (8.2%) (ABS 1998). The increase was greater in females (from 9.4% to 15.3%) than males (from 7.2% to 9.8%). Differences in survey methodologies between the 1997 and 2001 surveys may have influenced the apparent trend (ABS 2003c).
- An upward trend, although relatively smaller, in the reporting of high or very high levels of psychological distress was also observed in New South Wales health surveys,

which collected K10 data using consistent methods in 1997, 1998 and 2002 among those aged 16 years and over.

- The proportion of New South Wales residents reporting a high or very high level of psychological distress increased from 11.1 % in 1997 to 12.2% in 2002. The increase was observed in both males (from 9.2% to 10.5%) and females (from 12.9% to 14.0%) (NSW Department of Health).





Sources: ABS (2002e).

Notes

1. As measured by the K10 scale, from which a score of 10 to 50 is produced.
2. Age-standardised percentages.
3. Figure for men aged 75 and over is an estimate, has a relative standard error of between 25% and 50%, and should be used with caution.

Figure 1.05(a): Levels of psychological distress by sex, Australia, 2001

Figure 1.05(b): High or very high levels of psychological distress by age and sex, Australia, 2001

Indicator related to:

1.08 Mortality for National Health Priority Area diseases and conditions (suicide)	Also can be viewed as a determinant of health (Tier 2)

Indicator 1.06 Potentially avoidable deaths

Indicator definition

Description: Number of potentially avoidable deaths.

Numerator: Number of avoidable deaths (categorised as potentially avoidable within the present health system).

Denominator: People aged less than 75 years.

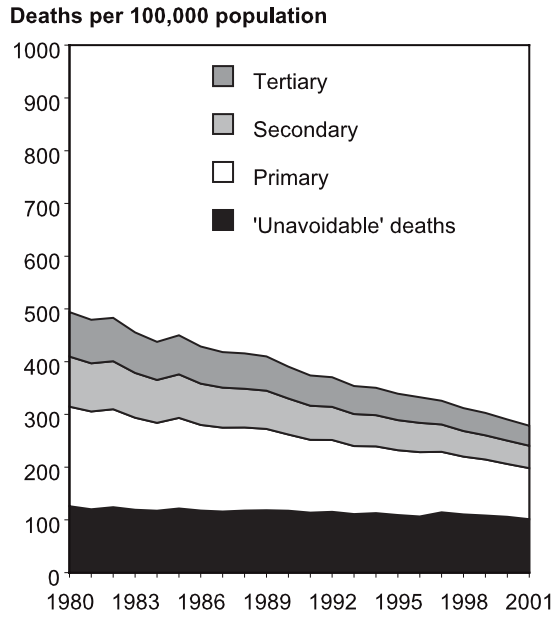
Presentation: Age-standardised rates per 100,000 population, standardised to the June 2001 Australian population.

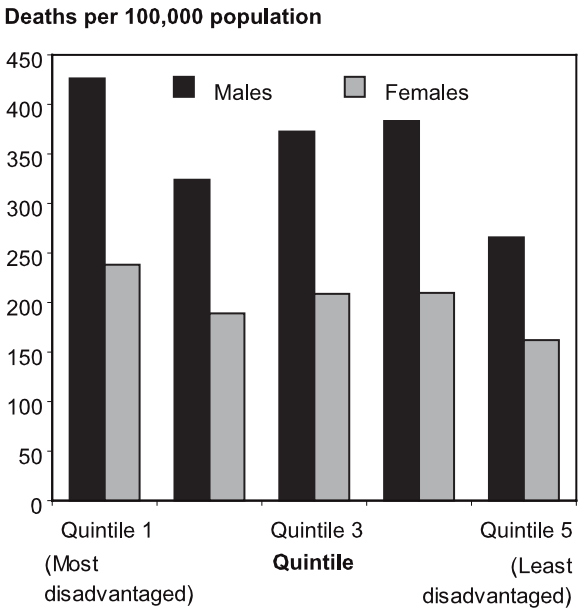
Rationale and evidence

Deaths classified as 'avoidable' are those that potentially could be avoided through the activities of the health and related sectors (Tobias and Jackson 2001; New Zealand Ministry of Health 1999). Potentially avoidable deaths can be assigned to primary (prevention), secondary (early intervention) and tertiary (medical treatment) levels of health intervention. This indicator provides a sense of where opportunities exist to reduce mortality across socioeconomic differentials through primary, secondary and tertiary interventions. This measure is similar but more comprehensive than those used to monitor potentially avoidable deaths in other countries (Tobias and Jackson 2001; Holland et al. 1994; Wood et al. 1999).

What the data show

- For the period 1980–2001, there was a marked decrease in potentially avoidable mortality for males and females.
- Between 1980 and 2001, the overall mortality rate decreased by 33.4% for males and 29.4% for females. This decrease in overall mortality rate included a decrease in mostly avoidable mortality of 54.6% for males and 48.0% for females, and a decrease in mostly unavoidable mortality of 21.7% for males and 17.0% for females.
- The higher rate of potentially avoidable mortality for males than females partly reflected higher rate of ischaemic heart disease in males, and also higher rate of deaths due to injury (mostly motor vehicle accidents and suicides).
- Between 1980 and 2001, primary, secondary and tertiary avoidable mortality decreased. The patterns in decrease were different for males and females. For males, the largest decrease was for tertiary avoidable mortality (58.7%) followed by secondary avoidable mortality (57.2%) and primary avoidable mortality (51.9%). For females, the largest decrease was for secondary avoidable mortality (53.7%), tertiary avoidable mortality (49.5%) and then primary avoidable mortality (43.3%). Potentially avoidable mortality varied significantly between the five socioeconomic groups measured using the socioeconomic index for areas (SEIFA) index of relative disadvantage. As the socioeconomic status of an area increased, the age-standardised rate of avoidable mortality decreased. Males in the most disadvantaged areas (quintile 1) had (on average) avoidable age-standardised death rates 60.5% higher than males in the least disadvantaged category (quintile 5). Females in quintile 1 had avoidable mortality rates 47.1% higher than females in quintile 5.





Source: AIHW (unpub.)

Notes

1. Rates are per 100,000 population and are age-standardised to the June 2001 Australian population.
2. Methods used derive from the following publications: New Zealand Ministry of Health (1999), NSW Department of Health (2002). Available at: http://www.health.nsw.gov.au/public-health/chorep/toc/pre_foreword.htm. Accessed April 2003.

Figure 1.06(a): Primary, secondary and tertiary potentially avoidable mortality and 'unavoidable' mortality rates, 1980–2001, Australia

Figure 1.06(b): Potentially avoidable mortality rates by SEIFA quintile 2001, Australia

Indicator related to:

1.01 Incidence of heart attacks

1.02 Incidence of cancer

1.07 Infant mortality

1.08 Mortality for NHPA diseases and conditions

2.05 Adult smoking

2.06 Risky alcohol consumption

2.07 Fruit and vegetable intake

2.08 Physical inactivity

2.09 Overweight and obesity

2.10 Low birthweight babies

3.03 Cervical screening

3.04 Breast cancer screening

3.05 Childhood immunisation

3.06 Influenza vaccination

Indicator 1.07 Infant mortality

Indicator definition

Description: Infant mortality rates.

Numerator: Number of deaths of infants younger than one year (deaths registered with Registries of Births, Deaths and Marriages).

Denominator: Number of live births (births registered with Registries of Births, Deaths and Marriages).

Presentation: Rates expressed as deaths per 1,000 live births.

Rationale and evidence

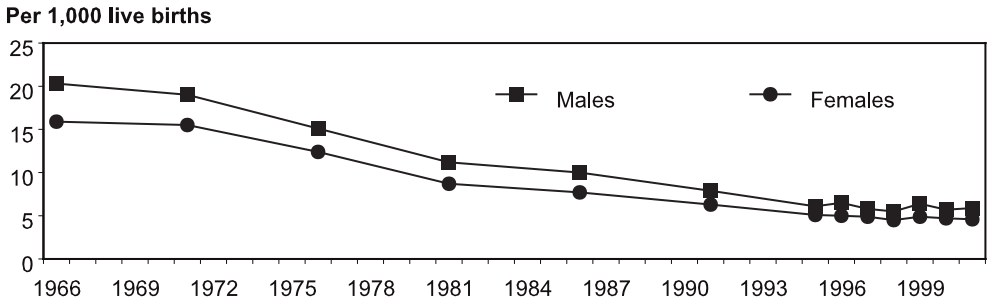
Infant mortality rates have been used as a measure of health system performance for many years, especially in developing countries. Infant mortality is an indicator of the quality of antenatal care, the effectiveness of obstetric services and the quality of infant care in the hospital and in the community. A high infant mortality rate is also associated with poor social conditions. The large reductions in infant mortality in the first half of the twentieth century were due to improvements in social and public health conditions and, later, the development of immunisation, the ensuing mass vaccination campaigns and the effective use of antibiotics. Recent reductions have been due to better treatment and the implementation of interventions such as the promotion of a prone sleeping position to prevent sudden infant death syndrome (SIDS).

What the data show

- Infant mortality decreased significantly during the last third of the century from 18.2 deaths per 1000 live births in 1966 to 5.3 in 2001. It has remained roughly constant over the period 1996 to 2001. In 2001, the infant mortality rate was 5.3 deaths per 1,000 live births (5.9 for males and 4.6 for females) (ABS 2002c; ABS 1994).
- Among 28 OECD countries, Australia had the sixteenth highest infant mortality rate in 2000. Australia was eleventh in 1980. Australia, at 5.2 deaths per 1,000 live births in 2000, had significantly worse infant mortality rates than countries such as Sweden (3.4) and Iceland (3.0), even though overall life expectancy is similar to these countries. Australia's infant mortality rate is relatively high, partly because the Aboriginal and Torres Strait Islander infant mortality rate is so high (OECD 2003a). If the Aboriginal and Torres Strait Islander infant mortality rate was at the same level as the rate for non-Indigenous Australians, Australia would have had the tenth lowest infant mortality rate in 2000, not the sixteenth lowest.
- Since the late 1960s, when Aboriginal and Torres Strait Islander infant mortality estimates were first recorded, Aboriginal and Torres Strait Islander infant mortality rates have been much higher than for the total Australian population, despite significant decreases over the period for Aboriginal and Torres Strait Islander infants (Taylor J 2003).
- In 1999–2001 the Aboriginal and Torres Strait Islander infant mortality rate for Western Australia (WA), South Australia (SA) and the Northern Territory (NT) (16.0 deaths per

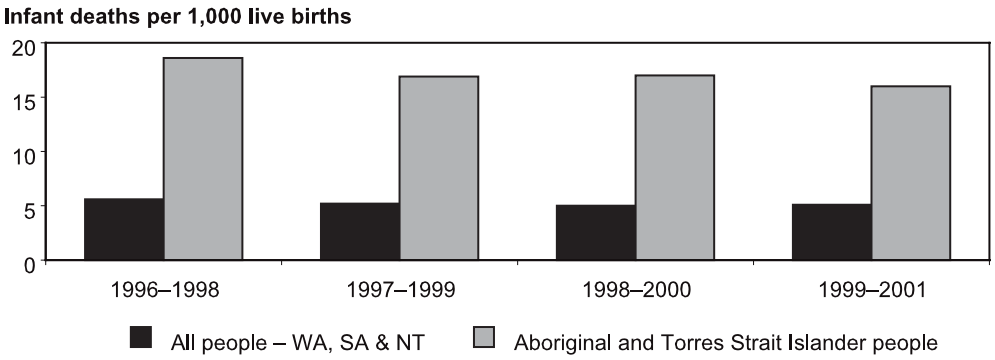
1000 live births) was three times the rate of all Australians (5.1). Over the period 1996–1998 to 1999–2001, Aboriginal and Torres Strait Islander infant mortality decreased by 14% from 18.6 deaths per 1,000 births to 16.0.

- Australian Aboriginal and Torres Strait Islander infant mortality rates are much higher than the corresponding Indigenous infant mortality rates of New Zealand, Canada and the United States (ABS 2001a).



Sources: ABS (2002c); ABS (1994).

Figure 1.07(a): Infant mortality rates, Australia, 1966–2001



Sources: AIHW National Mortality Database; ABS (2002b).

Notes

1. Only Western Australia, South Australia and the Northern Territory have been included in the graphs as it is only for these States and Territory that there are reasonably reliable data over the whole period. Queensland data is reliable from 1998 on (Queensland data in Appendix 2). Even for these States with reasonably reliable data, the trend over time in mortality rates must be interpreted cautiously, as identification of Aboriginal and Torres Strait Islander people is inconsistent and numbers are small. The infant mortality rate for the Aboriginal and Torres Strait Islander population for Queensland, Western Australia, South Australia and the Northern Territory in 1999–2001 was 14.2 deaths per 1,000 live births compared with the 16.0 deaths per 1,000 live births for WA, SA and the NT.
2. The graph excludes infants for whom Aboriginal and Torres Strait Islander status was unknown or missing (4 deaths in 1999, 8 deaths in 2000 and 15 deaths in 2001).
3. Deaths are by year of registration.

Figure 1.07(b): Infant mortality rates per 1,000 live births, by Aboriginal and Torres Strait Islander status, for Western Australia, South Australia and the Northern Territory, 1996–1998 to 1999–2001

Indicator related to:

1.06 Potentially avoidable deaths

2.10 Low birthweight babies

Indicator 1.08 Mortality for National Health Priority Area diseases and conditions

Indicator definition

Description: Death rates for National Health Priority Area (NHPA) diseases and conditions.

Numerator: Number of deaths due to NHPA diseases and conditions (codes provided in Appendix 3).

Denominator: Population of Australia.

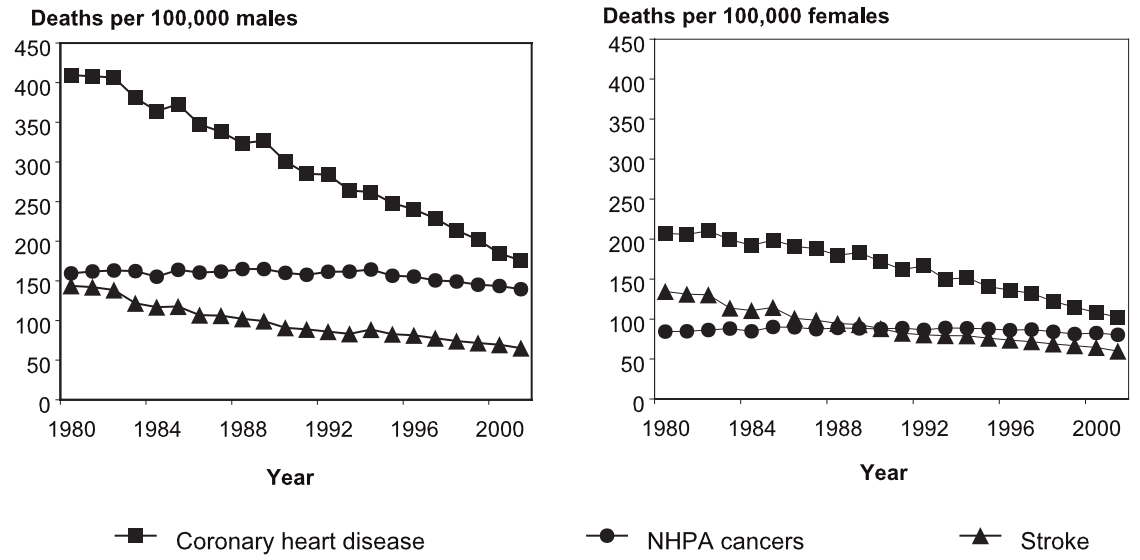
Presentation: Age-standardised death rates per 100,000 population, standardised to the June 2001 Australian population.

Rationale and evidence

Diseases and conditions selected for attention under the NHPA initiative are underlying causes of more than 54% of deaths in Australia. In addition, they contribute indirectly to deaths directly attributed to other causes. Tracking trends in NHPA death rates is important for understanding the long-term impact of the NHPA initiative.

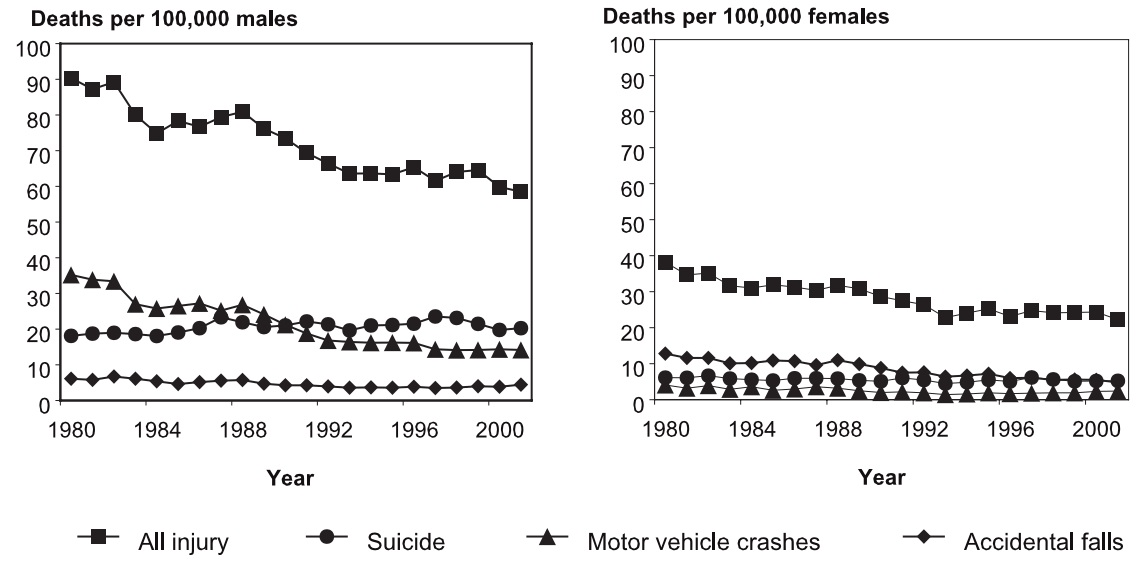
What the data show

- Death rates are a useful indicator of underlying trends in the health and wellbeing of a population. Deaths data offer the best available time-series to assess health performance and outcomes in Australia in the long term.
- NHPA diseases and conditions were responsible for more than 56% of male and 52% of female deaths in 2001. CHD and stroke were the leading underlying causes of death, followed by injuries and lung cancer. In addition, many of the NHPA diseases, such as diabetes, indirectly contribute to a large number of deaths otherwise attributed to non-NHPA causes.
- NHPA deaths show significant variation in age- and sex-related patterns. While injuries are a leading cause of death in younger age groups, CHD and stroke dominate the profile in older age groups. In all cases, death rates for males are higher than for females.
- A 43% reduction has occurred in death rates for the NHPA diseases and conditions from 1980 to 2001. CHD death rates fell by 54%, stroke death rates fell by 55%, breast cancer death rates fell by 14% and male lung cancer death rates fell by 33%. A large proportion of these reductions can be attributed to changes in risk factors, in particular to a reduction in tobacco smoking. (Female lung cancer death rates increased by 57% over the same period due to smoking increases among women during the 1970s. However, as female smoking decreased in the 1980s and 1990s, it is expected that female lung cancer rates will decline over the next 20 years.)
- No clear long-term trends have emerged in death rates for diabetes and asthma, although, in general, diabetes deaths have increased. The inconsistency in long-term trends may be due to variations in diagnostic criteria and/or to undetermined changes in underlying risk factors and disease management.



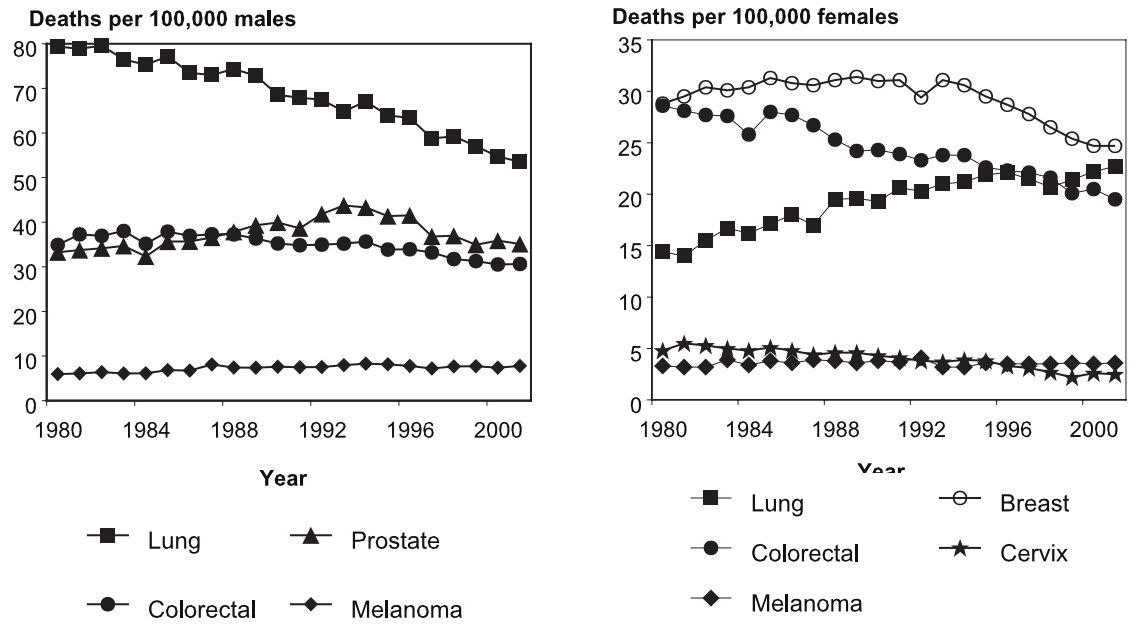
Source: AIHW National Mortality Database (This is a mirror of the ABS mortality database).

Figure 1.08(a): Death rates for selected NHPA diseases and conditions, Australia, 1980–2001



Source: AIHW National Mortality Database (This is a mirror of the ABS mortality database).

Figure 1.08(b): Death rates for selected NHPA diseases & conditions, injuries, Australia, 1980–2001



Source: AIHW National Mortality Database (This is a mirror of the ABS mortality database).

Figure 1.08(c): Death rates for NHPA cancers, Australia, 1980–2001