

Table 4.2: Selected congenital malformations, Australia, 1996

ICD-9 code	Congenital malformation	Number	Rate per 10,000 births
740	Anencephalus	42	1.6
741	Spina bifida	77	3.0
742.3	Hydrocephalus	84	3.3
745.1	Transposition of great vessels	94	3.7
745.4	Ventricular septal defect	480	18.7
749	Cleft lip and/or cleft palate	382	14.9
750.3	Tracheo-oesophageal fistula, oesophageal atresia and stenosis	64	2.5
751.2	Atresia and stenosis of large intestine, rectum and anus	82	3.2
752.6	Hypospadias	604	23.5
753.0	Renal agenesis and dysgenesis	106	4.1
754.3	Congenital dislocation of hip	469	18.2
756.6	Diaphragmatic hernia	76	3.0
758.0	Down syndrome	312	12.1

Source: AIHW NPSU: Hurst et al. 1999.

pregnant and for those with a close family history of neural tube defects, stressing the importance of commencing the supplementation before conception and continuing it for the first 3 months of pregnancy (NHMRC 1993).

4.2 Children and young people

The majority of children and young people in Australia are healthy. They have low rates of death, hospitalisation and reported illness compared with other age groups. However, some groups of young Australians do not share this good health, most notably Aboriginal and Torres Strait Islander peoples. Also, many young Australians have to face important health issues during this period of life including injury, mental health problems and asthma. In addition, factors such as diet, physical activity and drug use will affect the health of the young person not only in childhood, adolescence and young adulthood, but also later in life.

For the purposes of monitoring the health and wellbeing of this age group, recent national work in relation to child and youth health has defined children as those aged 0–14 years and young people as those aged 12–24 years. The overlap is intentional, reflecting the fact that the transition from childhood to adulthood is a gradual process, which does not occur at the same age for all individuals.

The overview of child and youth health given here is based on a comprehensive analysis using currently available data. However, it is important to note that there are gaps and deficiencies in the data which require attention.

Children

Most of this information has been drawn from the AIHW report *Australia's Children: Their Health and Wellbeing 1998* (AIHW: Moon et al. 1998), with some updates using more recent data.

Compared with children in many other parts of the world, Australian children are healthy. They have infant and child mortality rates (deaths in the first year of life and under five years respectively) well below average (UNICEF 1999:84). In 1996, the infant mortality rate in Australia was around the average for OECD countries, and lower than the rate found in the United States, New Zealand, the United Kingdom and Canada (OECD 1999). Australian children also compare well in dental health, having the lowest decay rates among OECD countries (AIHW: de Looper & Bhatia 1998).

One area in which Australian children have not compared so well internationally is in relation to vaccine-preventable diseases: Australian rates for cases of both measles and pertussis (whooping cough) (as measured by compulsory notifications) were among the highest for OECD countries in the mid-1990s. Using recent data, it has been shown that there are an average of nearly 5,000 disease notifications, nearly 1,000 hospitalisations and just over 5 deaths per year among Australian children for diseases that are preventable by vaccines. In addition, the childhood immunisation rates in Australia have tended to be lower than in many of the OECD countries (AIHW: de Looper & Bhatia 1998).

There are some indications of improvements in the proportion of children fully immunised for diphtheria, tetanus, pertussis, polio and *Haemophilus influenzae* type b (Hib) since 1997. The Australian Childhood Immunisation Register shows a rate of full immunisation of 86.5% in late 1999 (AIHW: de Looper & Bhatia 2000).

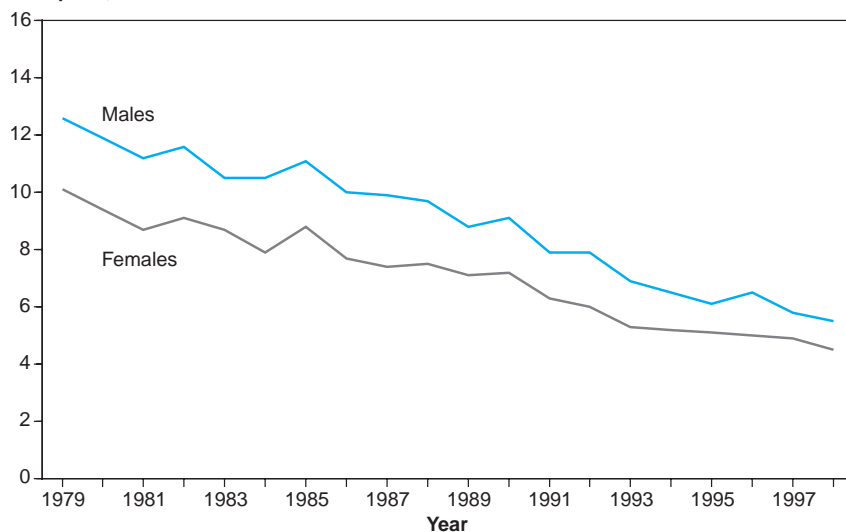
There have been substantial declines in childhood death rates in recent years. During the period 1979 to 1998, infant mortality rates more than halved for both males and females (Figure 4.4, page 186). The male infant mortality rate has remained 20–30% higher than the female rate over this period.

Although infant mortality rates include all deaths to children under the age of 1 year, the majority of these deaths occur at very young ages—in 1998, one-third of infant deaths occurred within the first day of life, more than half in the first week of life and around two-thirds of the deaths in the first 4 weeks of life (ABS 1999b:52).

The decrease in the infant mortality rate shown in Figure 4.4 has occurred fairly equally between the neonatal period (the first 4 weeks of life) and the post-neonatal period (4 weeks to 1 year). Between 1979 and 1998, neonatal mortality decreased by 55% and post-neonatal mortality decreased by 58%.

One reason for the decline in post-neonatal mortality has been the decline in deaths from sudden infant death syndrome (SIDS). In 1998, the SIDS rate for males was less than a quarter of the 1987 rate and less than a third of the 1979 rate. For females, the 1998 rate was about one-third the 1987 rate (Figure 4.5, page 186). The decline in SIDS accounts for 57% of the fall in the male post-neonatal mortality rate and 52% of the fall in the female post-neonatal mortality rate over the period 1979 to 1998. The role played by the national prevention campaign begun in the early 1990s has been stressed by many as a likely contributor to this decline.

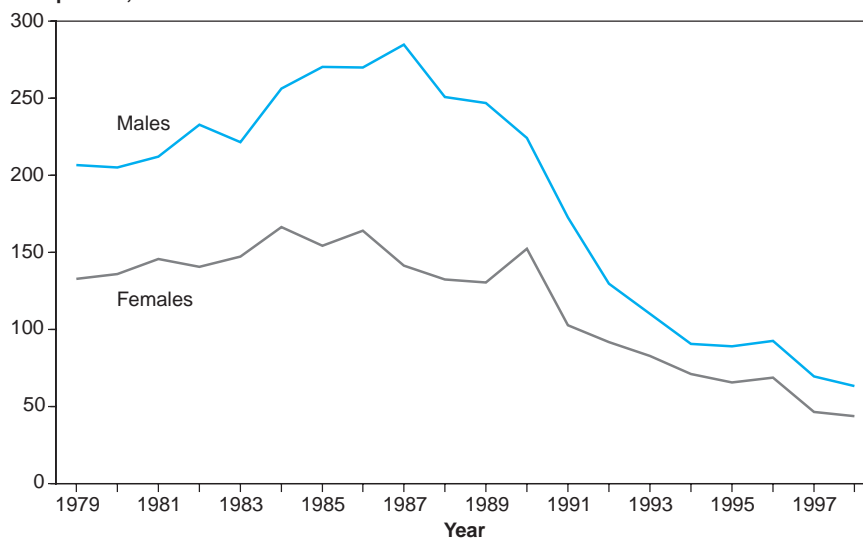
Rate per 1,000 live births



Source: ABS, *Deaths Australia* (ABS Cat. No. 3302.0 for 1998 and previous years).

Figure 4.4: Infant mortality rate, 1979 to 1998

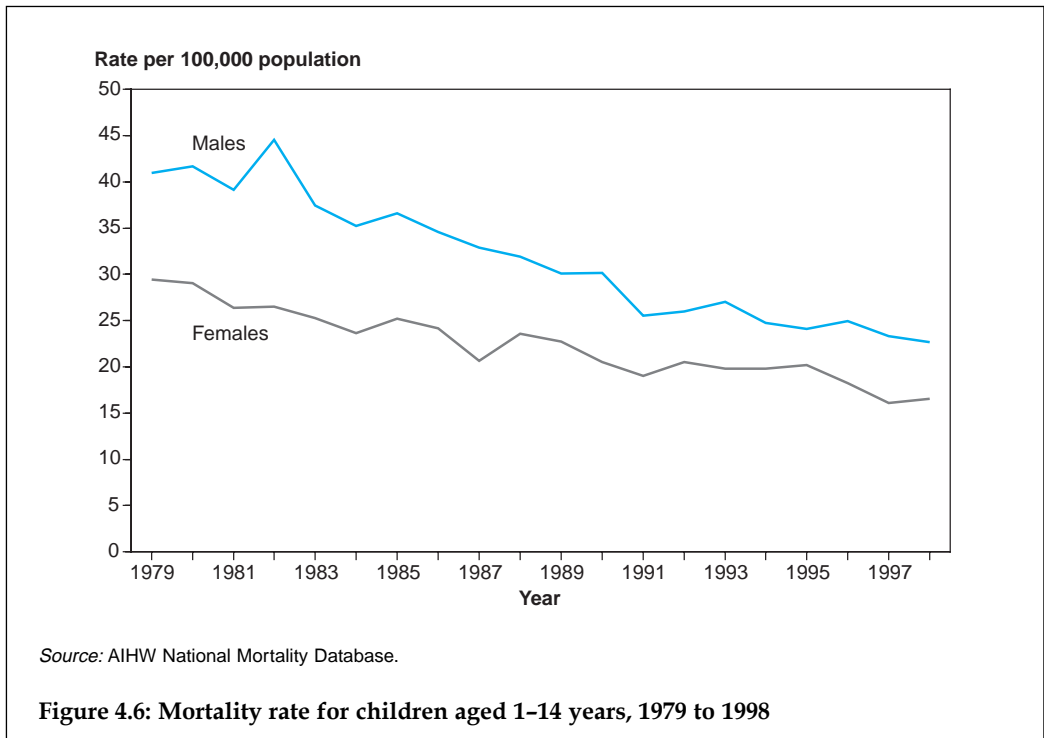
Rate per 100,000 live births



Source: AIHW National Mortality Database.

Figure 4.5: Mortality rate from SIDS for infants under 1 year, 1979 to 1998

There have also been large decreases in the mortality rates for children aged 1–14 years in the period 1979 to 1998, by 45% for males and 44% for females. However, the rate plateaued somewhat in the second half of the 1990s at around 25 deaths per 100,000 for males and 19 per 100,000 for females (Figure 4.6).



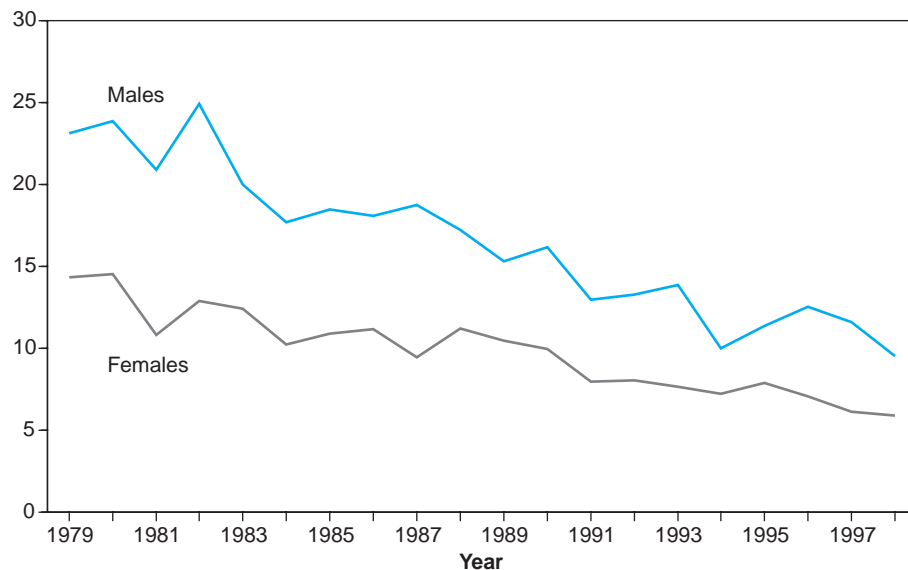
Injury remains the leading cause of death among Australian children aged 0–14 years. This is despite a large fall (59%) in childhood injury deaths for both males and females (Figure 4.7, page 188). The rate for boys remains 1.6 times higher than that for girls.

Drowning replaced motor vehicle accidents as the leading cause of childhood deaths from injury in 1997, and remained so in 1998 (AIHW Mortality Database). The main causes of injury deaths to children in 1998 were drowning (20% of injury deaths), motor vehicle accidents (17%) and pedestrian deaths (14%).

As well as being the leading cause of death in children, injury also accounts for a large proportion of the childhood hospitalisations—9% of hospitalisations of children in 1997–98. Injury (which includes poisoning) was the third most common reason children were hospitalised in that year, after respiratory conditions and conditions originating in the perinatal period. Within injury, accidental falls were the most common cause requiring hospitalisation.

Although injury causes the most deaths to children, asthma is the most common chronic condition. In 1995, 16% of children aged 0–14 years were reported to have asthma as a long-term condition. Asthma was also the most common reason for

Rate per 100,000 population



Source: AIHW National Mortality Database.

Figure 4.7: Injury mortality rates for children aged 0–14 years, 1979 to 1998

hospitalisation among children in 1997–98, with a hospitalisation rate of 8.6 per 1,000 for boys and 5.1 per 1,000 for girls. As discussed in chapter 2, asthma is also the leading contributor to the burden of disease among Australian children.

Determinants of health

As well as monitoring the health status of Australian children, it is also important to monitor determinants of health, some of which may not affect health status until later in life. In relation to children, information on determinants of health is less developed than health status measures. National information available in late 1998 is contained in *Australia's Children: Their Health and Wellbeing 1998*, including information on physical activity, weight, diet and sun protection measures. In 1995, around 86% of 0–3-year-olds had been breastfed, although the proportion that had been breastfed differed by socio-economic group, with higher proportions breastfed in the higher socioeconomic groups.

As well as these behavioural and biological determinants, the family and social environment is also a major determinant of children's health, both within childhood and later in life (Centre for Community Child Health 2000). Some of the risk factors for poor health outcomes, particularly in the preschool years, include difficult temperament, harsh parenting, abuse or neglect, parental mental illness or substance abuse, family conflict, low socioeconomic status, and poor links with the community.

Health differentials

Many of the health concerns discussed above affect particular groups of children more than others. Infant mortality among Indigenous babies was found to be 3–4 times higher than among non-Indigenous babies (see section 4.6). Similar mortality differentials exist for children aged 1–14 years (ABS & AIHW 1999:132). Children from lower socioeconomic backgrounds also have a health disadvantage, generally having more long-term conditions, lower rates of breastfeeding, and higher rates of some conditions including asthma.

Young people

Most of this information has been drawn from the AIHW report *Australia's Young People: Their Health and Wellbeing 1999* (AIHW: Moon et al. 1999).

There are divergent views about the health and wellbeing of those aged 12–24 years in Australia. One opinion is that young people have better health than their older counterparts; another is that this age group is particularly vulnerable to some of the ill-effects of modern society. The evidence suggests that the actual situation is somewhere between these two opinions.

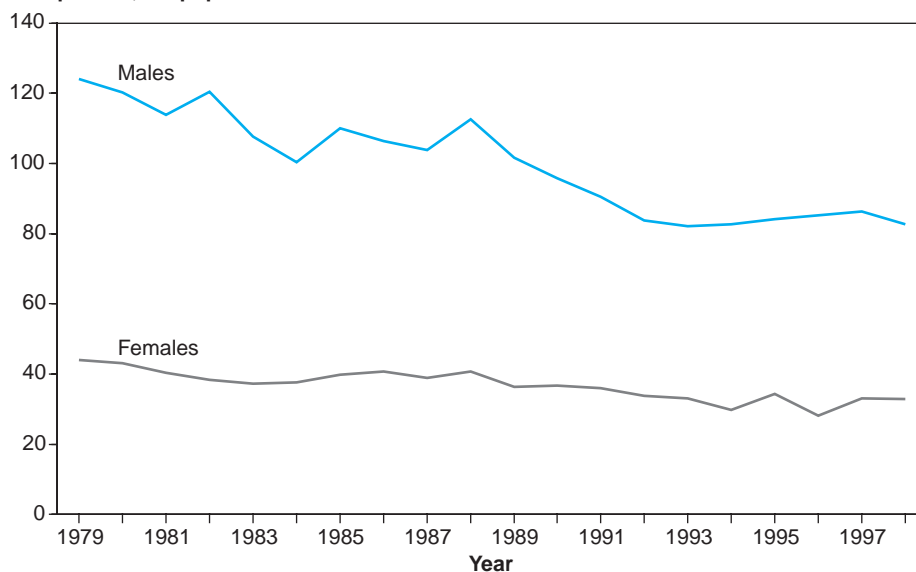
There is evidence that Australian young people are in good health. Two-thirds of young people aged 15–24 years rated their health as 'excellent' or 'very good'. Further, young people compare well in relation to other age groups. Mortality rates among people aged 15–24 years are lower than most other age groups, with the exception of children aged 1–14 years (ABS 1999b:40). Disability rates are also low in this age group: 8% of people aged 15–19 years and 9% of people aged 20–24 years self-reported as having a disability, the lowest of all age groups. In relation to weight, 67% of people aged 15–24 years were classified as being of 'acceptable weight' (compared with only 38% of those aged 25 years and over), 27% were overweight or obese and 6% were underweight.

There is also evidence that the health of young people is getting better. Notably, death rates for people aged 12–24 years have fallen over time (a 29% decline between 1979 and 1992), although there has been some levelling off in recent years (Figure 4.8, page 190). Part of the decline in death rates is due to a decline in motor vehicle accident deaths, which have fallen from 40 to 15 per 100,000 for males and 16 to 6 per 100,000 for females over the period 1979 to 1998.

There have also been reductions in both new HIV diagnoses among young people and teenage fertility rates. Among people aged 12–24 years, new HIV diagnoses in males fell from 11 per 100,000 in 1991 to 3 per 100,000 in 1998. The female rate remained consistently much lower at about 1 per 100,000. Teenage fertility rates fell from 55 births per 1,000 women in 1971 to 20 in 1997 (ABS 1977, 1998b).

Despite these improvements in youth health, there are some areas of concern. Mental health disorders (including drug dependence disorders) are the major burden of disease for this age group (AIHW: Mathers et al. 1999:71). Alcohol dependence and its harmful use, and motor vehicle accidents are the two leading specific causes of disease and injury burden in people aged 15–24 years. Of people aged 18–24 years, 27% were found to have a mental disorder in 1997 (ABS 1998c:19).

Rate per 100,000 population



Source: AIHW National Mortality Database.

Figure 4.8: Death rates for people aged 12–24 years, 1979 to 1998

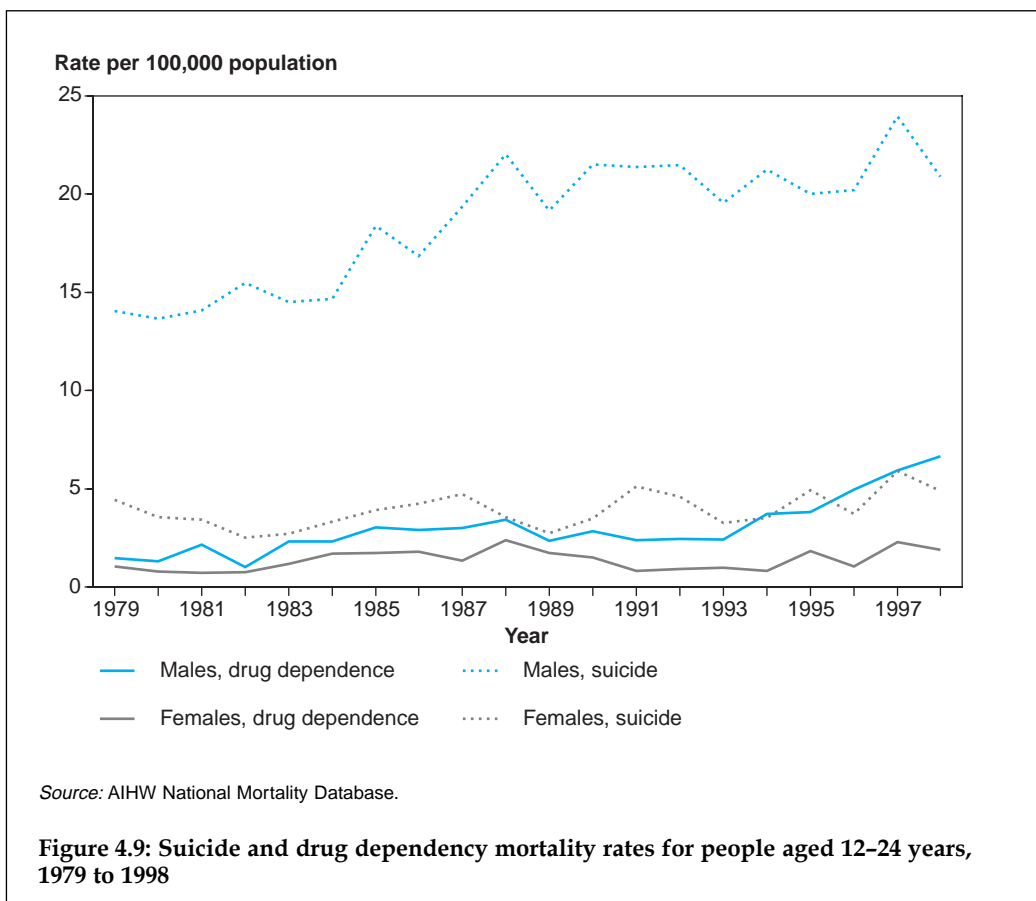
Injury is the leading cause of death for people aged 12–24 years, with two-thirds of all deaths attributed to some form of injury, including accidents and suicide.

Suicide has not followed the declines seen for most other causes of death in this age group. Over the period 1979 to 1998, the suicide rate rose by 40% (Figure 4.9). The male rate remains around 4 times higher than the female rate.

Drug dependence accounted for 7.4% of youth deaths in 1998, and has risen sharply in recent years (Figure 4.9). The death rate from drug dependence among young people in 1998 was almost 5 times the 1979 rate.

One in 5 males and 1 in 10 females in the age group 18–24 years were found to have 'substance use disorders' ('harmful use' or 'dependence' on drugs and/or alcohol). Alcohol dependence was more prevalent than drug dependence, with 12% of males having alcohol dependence compared with 9% dependent on marijuana/cannabis and/or opioids. Further, in 1998, 25% of young persons aged 14–19 years and 39% of those aged 20–24 years were regular or occasional smokers.

Chlamydia is the main sexually transmitted disease among young people: notifications for this infection increased from 105 to 292 per 100,000 over the period 1991 to 1998. Notifications for gonococcal infection also rose during the period, to 65 per 100,000, but notifications for syphilis decreased.



Determinants of health

There are some areas of concern in relation to determinants of health among young people. Social and economic disadvantages (e.g. poor education and unemployment) and issues such as lack of social ‘connectedness’ have been shown to have negative effects on health (Resnick et al. 1997). Of concern is that 40% of year 8 students in an Australian study did not feel they had anyone who knew them well (Glover et al. 1998). In 1995, 20% of unemployed youth assessed their health status as being fair or poor, compared with 9% of employed youth and 8% of students.

The proportions of young people who reported in 1995 exercising at a ‘vigorous’ or ‘moderate’ level for sport or recreation declined with age, for males from about 61% of those aged 15–17 years to about 44% of those aged 20–24 years, and for females from 41% of those aged 15–17 years to 31% of those aged 20–24 years. Similarly, the proportion of young people who reported that they ate cereals and the proportion eating fruit on the previous day decreased with age (ABS & DHAC 1999:38).

Health differentials

There are differences in health between young males and young females. Among young Australians, there are nearly 3 male deaths to every 1 female death (ABS 1999b:38). Across all ages, the difference in death rates between males and females is highest for the age group 20–24 years (ABS 1999b:29). Higher death rates for young males from accidents and suicide account for most of this difference. For some groups of males, the comparative situation is getting worse: the gap in death rates between the lowest and highest socioeconomic status groups widened between 1985–87 and 1995–97 for males but narrowed for females.

There are also some areas where females do worse than males; for example, rates of depressive disorders are three times higher for young females than for males. The female hospitalisation rate for parasuicide (self-harm not resulting in death) was greater at all ages, despite the higher suicide rate in males.

Among young people, some groups are comparatively worse off. Using data for the period 1995–97, death rates for young Aboriginal and Torres Strait Islander peoples were found to be 2.8 times higher for males and 2.0 times higher for females than their non-Indigenous counterparts (ABS & AIHW 1999:132). The 20% of males in the lowest socioeconomic group were 1.7 times more likely to die and 1.4 times more likely to be hospitalised than the 20% of males in the highest socioeconomic group; for females, these ratios were 1.4 and 1.2 respectively.

4.3 Men and women aged 25 and over

Aspects of the health of males and females are discussed throughout this report, in particular in reviewing the major disease areas (see chapter 2). Comparisons are made where appropriate. This section provides an overview of the health of adult males and females drawing on the results of the AIHW 1996 Australian Burden of Disease and Injury Study (AIHW: Mathers et al. 1999). Disease burden includes both premature mortality (years of life lost due to premature mortality: YLL) and the impact of disability (equivalent 'healthy' years of life lost due to disability: YLD). The sum of YLL and YLD equals the total disability-adjusted life years (DALYs), a measure of total burden. One DALY is the equivalent of one lost year of 'healthy' life (see section 2.2).

Men

The overall disease and injury burden for men aged 25 years and over is largely attributable to mortality, with 61.6% of the total burden (DALYs) due to YLL (Table 4.3). The burden due to YLL increases with increasing age, from 47.1% for younger men (ages 25–44) to 70.8% for older men (aged 65 and over). Although most deaths occur at ages 65 and over, the total burden of disease at ages 25–64 is slightly higher than that at ages 65 and over.

Men aged 25–44 years

The disease and injury burden for men aged 25–44 years is dominated by mental disorders (Figure 4.10), which make up 27.3% of the total burden for this age group. Mental disorder is dominated by substance abuse disorders (alcohol and illicit drugs)