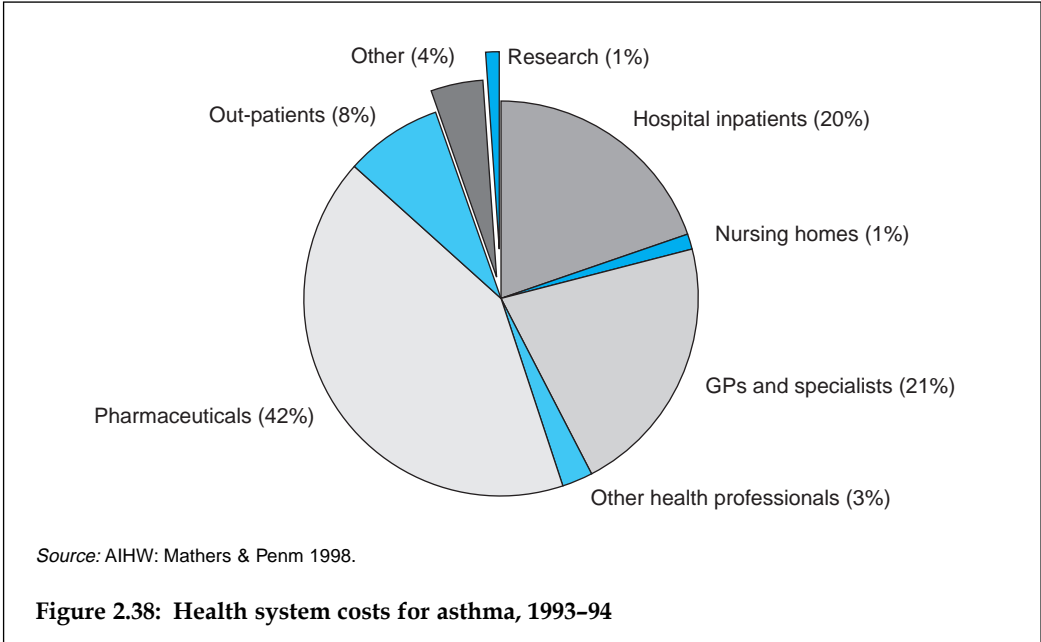


The majority of cases of asthma are diagnosed before the age of 15. These cases contribute 70% of the total asthma burden. The average duration of childhood/adolescent asthma is around 17 years and the average duration for asthma diagnosed in adulthood is around 30 years. As a result, the majority of asthma cases diagnosed in childhood will continue into adulthood. This means that at any point in time the majority of existing (prevalent) cases of asthma will be in adults, with around 67% of the disability burden associated with prevalent cases at ages 15 and over and 34% associated with prevalent cases at ages 25 and over.

Health system costs

The health system costs for asthma are estimated to be \$478 million in 1993–94, more than 19% of the total costs for all respiratory conditions in that period. These include costs that relate to prevention, diagnosis and treatment of asthma.

Pharmaceuticals constitute a large proportion of asthma-related costs (\$199 million, or 42% of the total costs). This is in contrast to the pattern of costs for other diseases, for which 45% of all costs are in the hospital sector (inpatients and outpatients), and only 13% of the costs are towards pharmaceuticals. Hospital sector expenditure accounts for only 28% of direct costs for asthma (Figure 2.38) (AIHW: Mathers & Penm 1998).



2.4 Other major chronic diseases and conditions

Although more than 80% of the years of life lost due to premature mortality (YLL) have been attributed to the six National Health Priority Areas (NHPAs), a large proportion of years of equivalent ‘healthy’ life lost to disability (YLD) result from a variety of other chronic diseases and conditions. Prominent among the non-NHPA chronic diseases and conditions described in this section are chronic obstructive pulmonary diseases

(COPD), musculoskeletal diseases and conditions, nervous system disorders, kidney problems and cirrhosis of the liver. This section outlines morbidity, disability and mortality associated with these diseases and conditions.

Chronic obstructive pulmonary disease

COPD, also referred to as chronic obstructive airways disease, is a term used to describe a combination of several different but related diseases. COPD is a progressive and irreversible disabling disorder characterised by diminished breathing capacity of the lungs. Several factors have been identified as contributors to COPD. Cigarette smoking is the most common risk factor; other risk factors include exposure to pollution (in the workplace or elsewhere) and/or infection.

Chronic bronchitis and emphysema are the two prominent COPD diseases. Unspecified bronchitis, extrinsic allergic alveolitis and primary pulmonary heart disease (excluding kyphoscoliotic heart disease) are also categorised as COPD.

It is estimated that there were almost 300,000 persons with COPD in 1996, with more than 20,000 new cases every year (AIHW: Mathers et al. 1999a). A large proportion of these cases were males.

Mortality. Although much less prevalent in the population than asthma, COPD is responsible for more deaths. In 1998, COPD was responsible for 5,352 deaths, the fourth most common cause of death among males (3,326 deaths) and sixth most common cause of death among females (2,026 deaths).

The male death rate for COPD decreased from a peak of 75 per 100,000 in 1982 to a low of 38 per 100,000 in 1998. In contrast, the female death rate increased slightly from 11 per 100,000 in 1979 to 17 per 100,000 in 1998 (Figure 2.39, page 96).

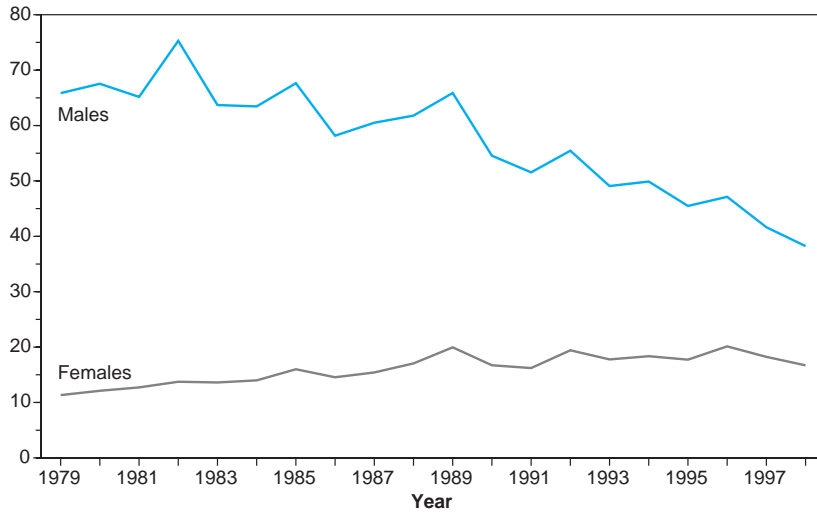
Reductions in male mortality from COPD are considered to follow the decline in smoking rates and, to a lesser extent, better management of the disease. The increase in the female death rate could be the delayed effect of an increase in the proportion of female smokers, from the late 1970s to mid-1980s.

Hospitalisation. In 1997–98, there were almost 40,000 hospital separations with the principal diagnosis of COPD, with an average length of stay of 5.3 days. Hospitalisations for COPD occur principally among the elderly.

Hospital separation rates for COPD were higher for males than for females. Male hospital separations rates increased sharply from 140 per 100,000 in the age group 50–54 years to a peak of 4,300 per 100,000 in the age group 85 years and over. The increase in female rates with age was not as pronounced, rising from 170 per 100,000 in the age group 50–54 years to a peak of 1,450 per 100,000 in those aged 80–84 years (Figure 2.40).

Disability. COPD is a major cause of disability. It occurs more commonly among older individuals who often have multiple chronic conditions that contribute to overall disability. A prospective study of COPD suggests that disability in persons suffering from COPD progresses gradually. However, within 7 to 8 years of initial diagnosis, most persons with COPD are no longer capable of productive work (Goldring et al. 1993).

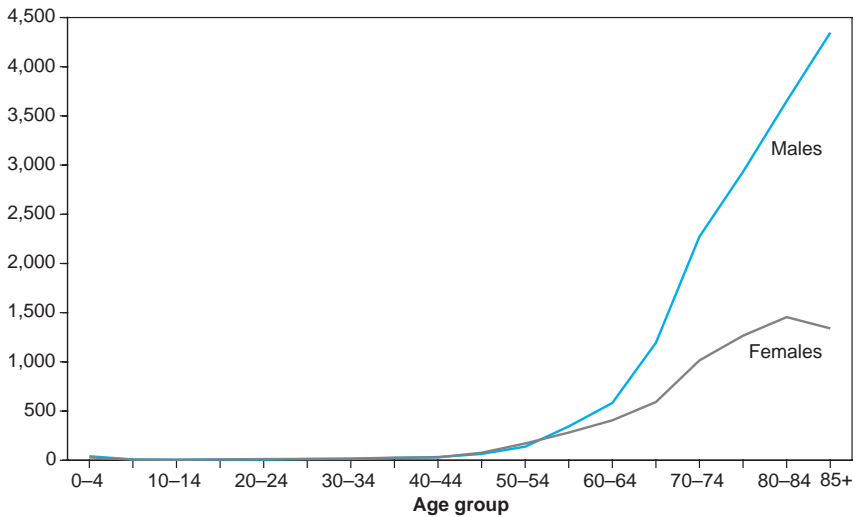
Deaths per 100,000 population



Source: AIHW National Mortality Database.

Figure 2.39: Trends in death rates for chronic obstructive pulmonary disease, 1979 to 1998

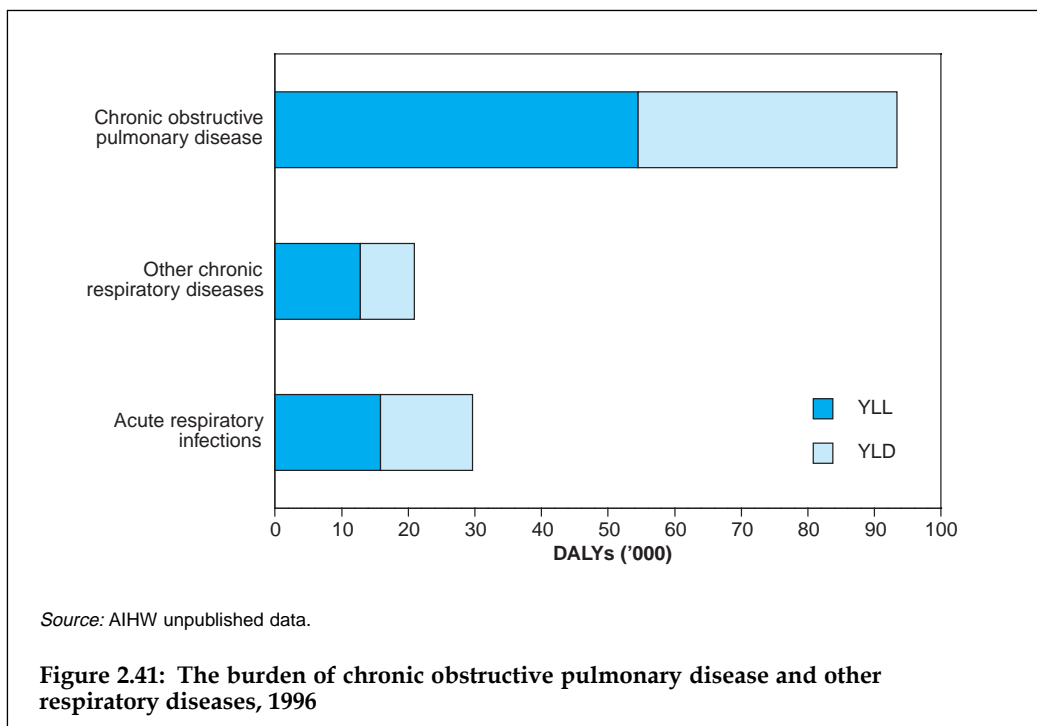
Separations per 100,000 population



Source: AIHW National Hospital Morbidity Database.

Figure 2.40: Age-specific hospital separations with COPD as the principal diagnosis, 1997-98

Burden of disease. The burden of COPD includes both premature mortality and significant disability. In 1996, COPD was the largest contributor to the burden of disease associated with all respiratory diseases and conditions (including asthma), three times the burden of acute respiratory infections and more than four times the burden of other chronic respiratory diseases (Figure 2.41).



The burden of COPD was greater among males than females. In 1996, it was the fourth leading cause of disease burden among males, accounting for 4.2% of their total disease burden, and the sixth leading cause for females, 3.2% of their total disease burden (AIHW: Mathers et al. 1999a:66).

The burden due to COPD increases with age, to peak in the age groups 55–74 years for males and 75 years and over for females. Among those aged 65 years and over, COPD ranks as the fourth leading cause of burden for both males and females, accounting for 5.8% and 4.0% respectively of the total burden (AIHW: Mathers et al. 1999a:73).

Arthritis and other musculoskeletal disorders

Arthritis and other diseases of the musculoskeletal system and connective tissue are a diverse group of diseases and conditions that includes problems, conditions and disorders such as chronic back pain, gout, osteoporosis, osteoarthritis, rheumatoid arthritis and juvenile arthritis. They are responsible for considerable illness, morbidity and disability, compromising the quality of life, but have relatively low mortality when compared with other disease groups. The impact of these diseases and conditions is described below.

The scale of the problem

Incidence and prevalence. In 1995, almost 5 million Australians (26% of the total population) self-reported one or more musculoskeletal diseases or conditions (ABS 1997b:21). A majority of these respondents, 17% of the total population, reported their problem or condition as being long term (one that had lasted or was expected to last for 6 months or more). Arthritis and back problems (disorders of the intervertebral disc and unspecified back problems) were reported most commonly, by 15% and 6% of the total population respectively (ABS 1997b:20,21).

Hospital separations and visits to GPs are other useful indicators of the extent of illness caused by these diseases and conditions (Table 2.15). In 1997–98, hospital separations for diseases of the musculoskeletal system and connective tissue represented 5.6% of all hospitalisations, with an average length of stay of 4.1 days. There were slightly more separations among males (52%) than females (48%). Musculoskeletal diseases and conditions also accounted for 11.7% of problems managed by GPs in 1998–99, with back complaints and osteoarthritis being the most common (AIHW GPSCU: Britt et al. 1999:41).

Estimates of the incidence and prevalence of various musculoskeletal diseases and conditions, based on a range of data sources, have been recently generated (AIHW: Mathers et al. 1999a). Back pain is the most common of these diseases and conditions, with a prevalence rate of 51 per 1,000 population, followed by osteoarthritis with a rate of 34 per 1,000 population (Table 2.15).

Disability. Musculoskeletal diseases and conditions are responsible for much disability in the population. In 1998, about 1.2 million Australians were reported to have a disability due to arthritis and other musculoskeletal disorders (AIHW 1999a:219). This represents about one-third (34.4%) of people with a disability.

Of those reporting arthritis or other musculoskeletal disorders as their disabling condition, more than 90% had restrictions in one or more of their core activities of self-care, mobility and communication, and/or restrictions in schooling or employment. People who were unable to perform core activities, or who always needed assistance, together with those who sometimes needed assistance, represented 29% of people reporting a musculoskeletal disability (ABS 1999b:23). Old age, accident and injury were described as the major causes of disability attributed to arthritis and other musculoskeletal disorders, each accounting for 27% of the reported cases. Working conditions, work and overwork were reported as responsible in 21% of the cases of musculoskeletal disability (ABS 1999b:24).

Mortality. Compared with other major disease groups, deaths attributed to arthritis and other diseases of the musculoskeletal system as the underlying cause are relatively uncommon. In 1998, death rates for diseases of the musculoskeletal system and connective tissue were 2.3 per 100,000 males and 3.7 per 100,000 females.

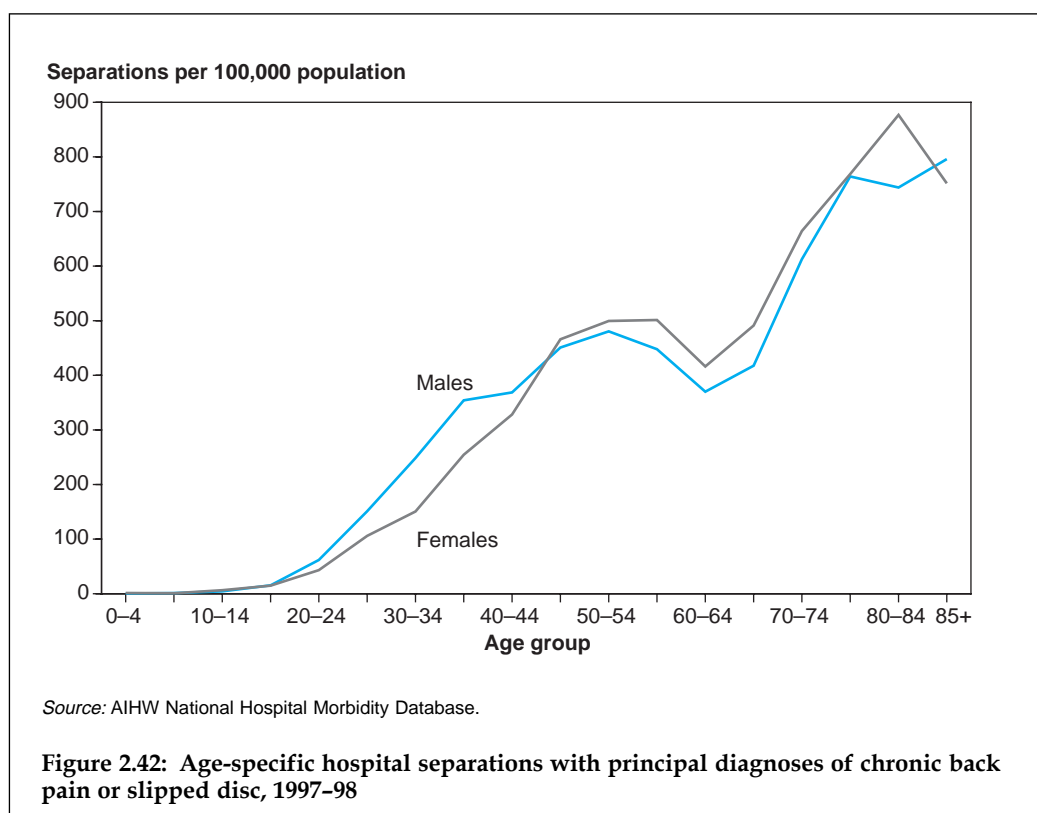
Disease burden. In 1996, musculoskeletal diseases and conditions represented 4.7% of the total disease burden among females and 2.6% of the total burden among males (AIHW: Mathers et al. 1999a:69). Years of 'healthy' life lost due to disability represented 94% of the total burden among males and 91% among females.

Health system costs. Musculoskeletal disorders and conditions accounted for about \$3 billion in health system costs in 1993–94, the third highest in the list of disease groups that are responsible for most health system expenditure. Back problems were a major component, accounting for 23% of the total expenditure on musculoskeletal disorders (Table 2.15). Osteoarthritis accounted for 21% of the costs, rheumatoid arthritis for 4% and osteoporosis for 2% (AIHW: Mathers & Penm 1999b:19).

Table 2.15: Selected musculoskeletal diseases and conditions: estimated incidence (1996), prevalence (1996), hospitalisations (1997–98) and health system costs (1993–94)

Disease or condition	Incidence per 1,000	Prevalence per 1,000	Hospitalisations	Total costs (\$'000)
Back pain	337.4	50.6	44,402	700
Osteoporosis	0.8	8.5	17,130	60
Osteoarthritis	2.3	34.1	51,306	624
Rheumatoid arthritis	0.2	3.0	5,683	129
All musculoskeletal diseases and conditions	480.5	131.1	312,383	3,002

Sources: AIHW National Morbidity Database; AIHW: Mathers et al. 1999a; AIHW: Mathers & Penm 1999b.



Back pain

Back pain encompasses both chronic back pain and slipped disc. It can be caused by the displacement of an intervertebral disc, bone growth, and ligament and/or muscle strain. Most back problems and complaints are transitory and short term, but in some cases they can become chronic.

In 1996, the prevalence rate for back pain was 51 per 1,000 persons (Table 2.15, page 99), higher in males (57 per 1,000) than females (45 per 1,000). The incidence rate for back pain has been estimated as 354 per 1,000 males and 321 per 1,000 females (AIHW: Mathers et al. 1999a:209).

Back complaints were the most frequent musculoskeletal disease or condition managed by GPs (AIHW GPSCU: Britt et al. 1999:41). Overall, back complaints were the seventh most frequent problem managed by GPs in 1998–99, accounting for 1.8% of the total problems managed.

Considerable hospitalisation occurs for back pain. In 1997–98, there were about 44,000 hospital separations with back pain as the principal diagnosis (Table 2.15). The rates were slightly higher for females (245 per 100,000) than males (240 per 100,000), although the separation rates were higher among males in the age groups between 20–24 years and 40–44 years (Figure 2.42, page 99).

Osteoporosis

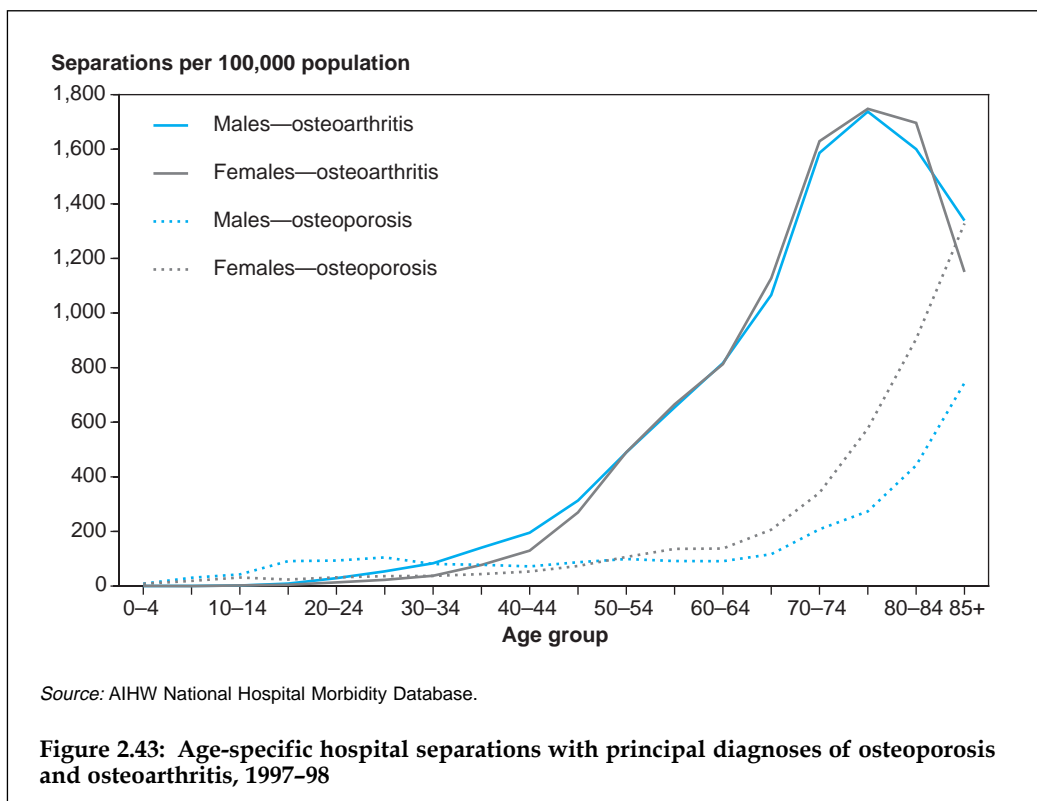
Osteoporosis is a condition in which reduction in bone mass over time increases risk of fractures, back pain and a curving of the spine. The occurrence of the condition increases with age and is common among older people.

Females are more susceptible to osteoporosis because of the reduction in bone density that begins around the age of 40 and accelerates in the years after menopause. For example, it is estimated that the proportion of females with osteoporosis increases from 15% among those aged 60 to 64 years to 71% among those over 80 years of age (AIHW: Mathers et al. 1999a:74,209). The prevalence of osteoporosis among females (13.7 per 1,000) was more than four times that among males (3.2 per 1,000) in 1996.

A similar picture emerges for hospital separations. In 1997–98, hospital separation rates for osteoporosis were 109 per 100,000 females and 89 per 100,000 males. The separation rates increase with age, most rapidly from age 60–64 years to peak in the age group 85 years and over (Figure 2.43).

Osteoarthritis

Osteoarthritis is a degenerative joint disease affecting primarily the hands, spine and weight-bearing joints such as hips, knees and ankles. The disease begins in cartilage overlying the ends of joint bones, and is caused and accelerated by mechanical forces, disrupting the normal function of the joint. Pain is initially experienced in the joints during and after activity, but as degeneration progresses it may occur with only minimal movement or even during rest. Obesity, overuse of a joint during recreational or work-related activities, meniscus tears and other forms of arthritis are associated with the development of osteoarthritis, as are genetic factors.



Osteoarthritis is the second most prevalent musculoskeletal disease, after back pain, with a rate of 34 per 1,000 persons in 1996 (Table 2.15, page 99). It is more prevalent among females (42 per 1,000) than males (27 per 1,000) (AIHW: Mathers et al. 1999a:209). It was the tenth most frequently managed problem in general practice, representing 1.5% of all problems managed in 1998-99 (AIHW GPSCU: Britt et al. 1999:41).

Hospitalisation for osteoarthritis is mostly concentrated in the older age groups (Figure 2.43). In 1997-98, the hospital separation rate for females (311 per 100,000) was slightly higher than the rate for males (283 per 100,000).

Osteoarthritis ranked as the tenth leading cause of total disease burden, ranking higher among females (9th) than males (15th) (AIHW: Mathers et al. 1999a:66). It accounted for 63% of the total burden of musculoskeletal diseases and conditions in 1996. The burden of osteoarthritis is almost entirely (99%) composed of years of equivalent 'healthy' life lost due to disability.

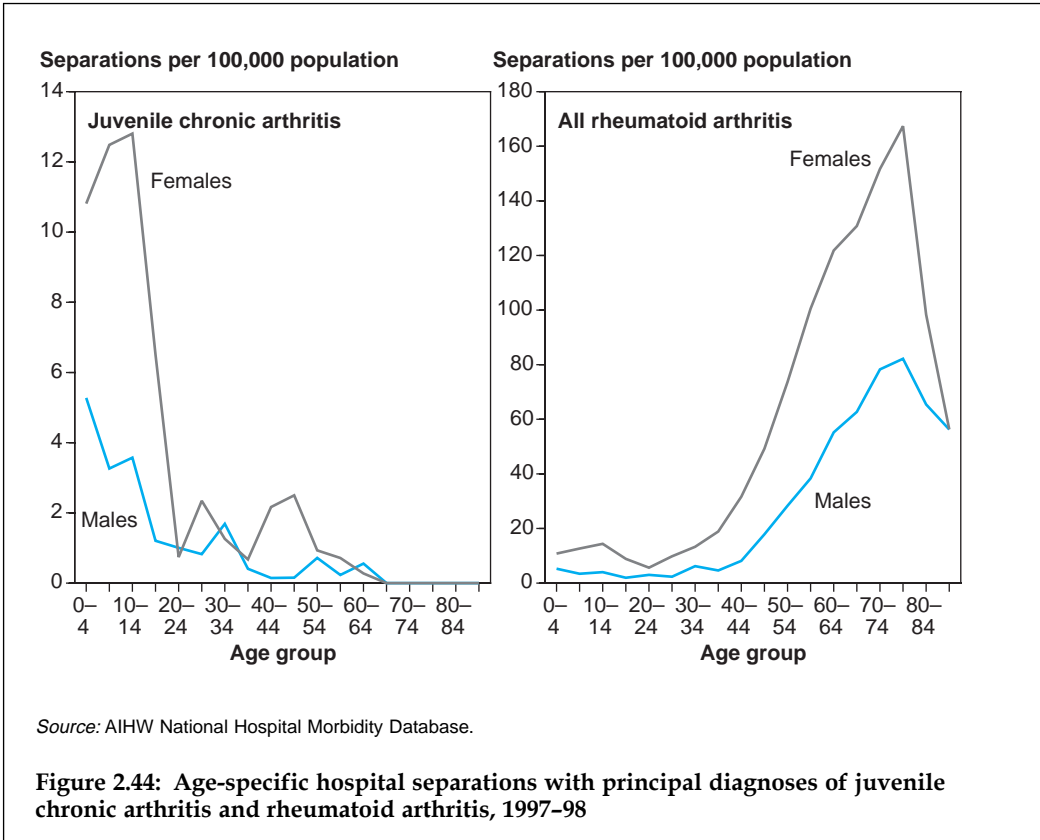
Rheumatoid arthritis

Rheumatoid arthritis (which includes juvenile rheumatoid arthritis) is the most disabling form of arthritis as it involves more than one joint and can ultimately lead to joint destruction. The disease commences as an inflammation of the joint lining or synovium that progresses to other parts of the joint and leads to destruction of the bone.

It is most common in joints of the fingers, toes, wrists, knees, elbows and ankle. However, rheumatoid arthritis can also cause inflammation in the heart, blood vessels and other body tissues.

Rheumatoid arthritis is more common among females. The prevalence rate in 1996 was 4.1 per 1,000 females compared with 1.9 per 1,000 males (AIHW: Mathers et al. 1999a:209). The hospital separation rate among females (42.8 per 100,000) was 2.5 times the rate among males (17.4 per 100,000). There was a similar difference in hospital separation rates for juvenile rheumatoid arthritis, 3.7 per 100,000 females compared with 1.4 per 100,000 males.

Hospital separation rates for rheumatoid arthritis increased rapidly from the age group 40-44, reaching a peak in the age group 75-79 years. The juvenile form of the disease was concentrated in the younger age groups, particularly among those aged 0-14 years (Figure 2.44).



Gout

Gout is a form of arthritis in which joint inflammation is caused by a deposit of sodium urate crystals in the synovium. It occurs mostly in toes, ankles, knees, elbows, wrists and hands, and more frequently in older males.

Gout is a major cause of hospitalisation, particularly among males. In 1997–98, hospital separation rates for gout were 24 per 100,000 males and 8 per 100,000 females.

Hospital separation rates for gout increase markedly with age. For males, it increased from 8 per 100,000 in the age group 30–34 years to 53 per 100,000 in the age group 65–69 years, then increased sharply to 310 per 100,000 in the age group 85 years and over. For females, the hospital separation rate was comparatively lower in all age groups, nonetheless increasing from 11 per 100,000 in the age group 65–69 years to 140 per 100,000 in the age group 85 years and over in 1997–98.

Nervous system disorders

Nervous system disorders account for 9% of the total disease burden in Australia, mostly in the form of disability. They are also responsible for significant lost productivity and healthcare costs. Several of these disorders, such as dementia (including Alzheimer’s disease) and Parkinson’s disease, are highly age-associated and are important causes of death and disability among older persons. Epilepsy and multiple sclerosis are other important nervous system disorders that contribute significantly to the burden of disease.

Table 2.16: Selected nervous system disorders: estimated incidence (1996), prevalence (1996), mortality (1996), hospitalisations (1997–98) and health system costs (1993–94)

Nervous system disorder	Incidence per 100,000	Prevalence per 100,000	Mortality per 100,000	Hospitalisations	Total costs (\$'000)
Dementia ^(a)	130	680	21	9,281	113,829
Epilepsy	30	340	1	17,255	157,419
Parkinson's disease	40	200	4	3,132	148,715
Multiple sclerosis	2	39	1	2,995	21,589

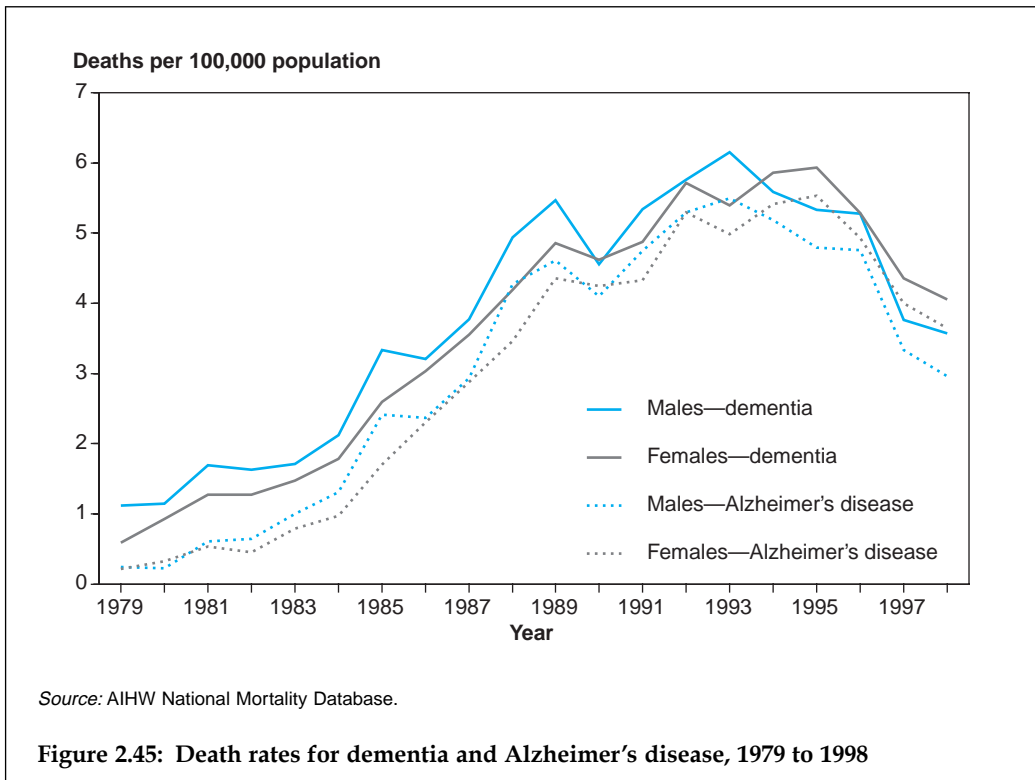
(a) ICD-9 codes 290, 330–331 used for incidence, prevalence, mortality, and hospitalisations; ICD-9 codes 331.0 and 331.2 used for costs.

Sources: AIHW National Morbidity Database; AIHW: Mathers et al. 1999a:208,214.

Dementia

Dementia is the sixth leading cause of disease burden in Australia, accounting for 3.5% of the total burden. The main symptoms are progressive loss of memory and other cognitive functions, with both incidence and prevalence rising sharply after age 50. Alzheimer’s disease is the principal type of dementia, accounting for approximately 50% to 60% of known cases of dementia in persons over 50 years of age.

In Australia, death rates for dementia rose steadily up to 1995 due probably to increased awareness of the disease (Figure 2.45, page 104). This pattern is largely influenced by trends in death rates for Alzheimer’s disease. A large number of deaths due to Alzheimer’s disease have been coded to pneumonia since 1997, creating a break in the time series. This largely explains the apparent fall in the death rate for dementia and related deaths in recent years (Figure 2.45).



Epilepsy

Epilepsy, a condition characterised by recurrent (two or more), unprovoked seizures, affects over 62,000 Australians, with estimated prevalence rates in 1996 of 360 per 100,000 males and 320 per 100,000 females. Relatively few deaths (1 per 100,000) are attributable to epilepsy, but there were 17,255 hospitalisations in 1997–98 alone (Table 2.16). The health system costs for epilepsy are considerable, over \$157 million in 1993–94.

Age-specific incidence follows a U-shaped pattern, with higher rates in the youngest and oldest age groups. Several risk factors that lead to the development of epilepsy have been identified, and these are known to vary with age. In addition to family history, the major risk factors for epilepsy are: anoxia (oxygen starvation); congenital malformations and structural brain abnormalities among the newborn; cerebral palsy, mental retardation and central nervous system infections such as bacterial meningitis and viral encephalitis among children; and moderate to severe brain injury among young adults. Cerebrovascular disease (stroke) and Alzheimer's disease are the major risk factors for epilepsy among the elderly.

Parkinson's disease

Parkinson's disease is a progressive, incurable neurological disease that affects an estimated 36,000 persons (AIHW: Mathers et al. 1999a). It mainly afflicts people over the age of 50, with only 10% of the cases occurring at an earlier age.

The disease affects the brain (basal ganglia), leading to a progressive loss of motor skills involving sequential movements, and impacts on cognition, behaviour and mood. It is marked by increasing rigidity of the limbs, trunk and face, and by regular tremors, particularly when the body is at rest. At advanced stages, swallowing and speech become affected and the patient eventually is confined to a wheelchair or bed. Without effective treatment and support, people with Parkinson's disease become increasingly dependent on institutional care.

Prevalence is higher among females (260 per 100,000 in 1996) than males (130 per 100,000), although death rates are higher among males (4 per 100,000 compared with 2 per 100,000 females). Health system costs were \$149 million in 1993–94 (Table 2.16, page 103), predominantly for nursing home care.

Multiple sclerosis

Multiple sclerosis (MS) affects mainly adults between the ages of 20 and 50 years, with average age of onset in the early 30s. The disease affects the myelin sheaths of the nerves and often involves progressive impairment of vision, speech, muscle coordination and bladder dysfunction.

The estimated prevalence rate for MS in Australia in 1996 was 39 per 100,000, with prevalence among females more than twice that among males (AIHW: Mathers et al. 1999a). Recorded death rates in 1998 were 0.6 per 100,000 females and 0.3 per 100,000 males, but most persons with MS die from other causes. Hospital separations for MS have recently increased by nearly 50%, from 2,018 in 1993–94 to 2,995 in 1997–98. Nearly three-quarters of hospital separations for MS are among females. Health system costs for MS as a primary cause were about \$22 million in 1993–94 (Table 2.16).

As in several other countries, in Australia the prevalence of multiple sclerosis is positively correlated with latitude, with Tasmania having about seven times the prevalence rate of tropical Queensland. Because of this geographical variation, several studies have focused on the potential role of infective agents in multiple sclerosis (McLeod et al. 1994).

End-stage renal (kidney) disease

A variety of diseases and malfunctions affect the kidneys, including primary renal disease (nephritis and nephrosis) and conditions such as cancer, hypertension, diabetes, congenital malformations, infectious diseases and some injuries. The most serious consequence of these diseases is end-stage renal failure, a condition that is fatal within a few weeks if untreated.

The Australian and New Zealand Dialysis and Transplant Registry (ANZDATA) monitors the incidence and prevalence of end-stage renal disease, and outcomes of dialysis and transplantation, in Australia. According to ANZDATA, incidence of renal failure in Australia is about 8 per 100,000 persons, with more males (59%) than females (41%) reported to develop renal failure (Disney et al. 1999:1,13).

The most common cause of end-stage renal disease is glomerulonephritis, an illness that includes a variety of conditions affecting the glomerular portion of the nephron and inhibiting the ultrafiltration of blood (Table 2.17, page 106). In 1998, glomerulonephritis represented 32% of new cases of end-stage renal disease notified to the Registry. Long-

term complications associated with diabetes also cause nephropathy, the second most common cause of end-stage renal disease. Another major cause, analgesic nephropathy, is attributed to the long-term use of various analgesic compounds and related agents, and is potentially preventable and partially reversible. Hypertension is also a major cause of renal failure.

The proportion of new cases of renal failure resulting from diabetic nephropathy increased from 16% in 1993 to 22% in 1998 (Table 2.17). Renal failure attributed to hypertension also increased over that period, from 9% to 12% of new cases. On the other hand, analgesic nephropathy dropped to 6% of all cases in 1998, by almost half of the proportion in 1993. This decline may be attributed to restrictions placed on the use of certain analgesics (NHMRC 1992:2).

Table 2.17: Causes of renal failure, 1993 and 1998

Cause	1993		1998	
	Number	Per cent	Number	Per cent
Glomerulonephritis	380	33	507	32
Diabetic nephropathy	181	16	350	22
Analgesic nephropathy	124	11	97	6
Hypertension	105	9	191	12
Other	370	32	444	28
Total	1,160	100	1,589	100

Note: The data reported here have been supplied by the Australia and New Zealand Dialysis and Transplant Registry (ANZDATA). The interpretation and reporting of these data are the responsibility of the authors and in no way should be seen as an official policy or interpretation of the Australia and New Zealand Dialysis and Transplant Registry.

Source: Disney et al. 1998b, 1999.

Dialysis and kidney transplantation

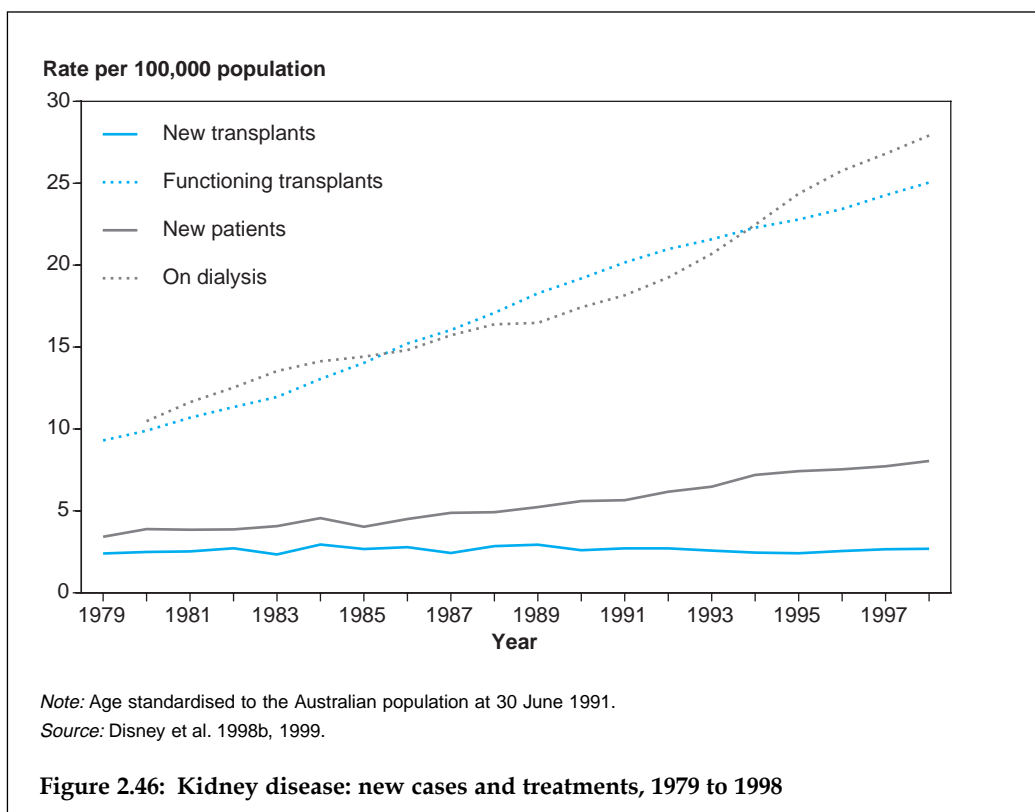
There are two major treatment options to sustain life for people with renal failure—dialysis and transplantation. Dialysis is a method of removing waste products from the blood when the kidneys are unable to function effectively. Transplantation involves the surgical replacement of a patient's kidney with one from a donor. Over the last three decades, these treatments have been increasingly refined.

The number of people on dialysis and those with functioning transplants is increasing (Figure 2.46), but for very different reasons. The increase in the number of people on dialysis is mainly due to older patients being accepted on the program. In 1998, 38% of new patients were aged 65 years and over compared with 7% in 1979 (Disney et al. 1999). Stagnancy in the availability of new donor or cadaver kidneys during the 1990s has also contributed to the increase in dialysis patients (Disney et al. 1999).

The increase in the number of people with functional transplants is due mainly to a marked improvement in the survival of kidney transplants. Of people who had a cadaveric kidney transplant in 1983, 58% had a functioning transplant 5 years later, increasing to 73% of those who had a transplant in 1993 (Disney et al. 1998b, 1999). Consequently, the rate for functioning kidney transplants has increased, from 9 per

100,000 in 1979 to 25 per 100,000 in 1998 (Figure 2.46). There were 517 kidney transplant operations in 1998, 85% of which were for primary recipients (first kidney transplant), meeting less than one-third of the waiting list (Disney et al. 1999).

Dialysis procedures are the most common reason for admission to public hospitals (378,466 separations in 1997–98) and the fifth most common in private hospitals (44,640 separations in 1997–98) (AIHW 1999b). People requiring haemodialysis are likely to use it at least twice a week, with about 100 separations from a hospital in any one year. However, due to the large number of people receiving dialysis at home or in a satellite centre, hospital separations represent only about 30% of all dialysis procedures occurring in Australia (Disney et al. 1998b:84). As at 31 December 1998, there were 5,523 Australians dependent on dialysis.



Deaths

In 1998, there were 789 male and 903 female deaths for which nephritis, nephrotic syndrome or nephrosis were recorded as the underlying cause, with age-standardised death rates of 9.3 and 6.5 per 100,000 respectively (ABS 1999d:23). An additional 9,370 deaths (5,162 males, 4,208 females) listed nephritis, nephrotic syndrome and nephrosis as a contributing cause of death (ABS 1999d:46). There has been little change in the underlying cause of death rate over the past 20 years. Improvements in treatment technology are likely to have offset any increase in incidence.

Kidney disease among Aboriginal and Torres Strait Islander peoples

Indigenous people constitute an increasing and disproportionately large proportion of new patients commencing renal treatment, increasing from 5% in 1990 to 8% in 1998 (Disney et al. 1999:13). In contrast, the proportion of persons with functioning transplants remained the same (Disney et al. 1998b, 1999).

Diabetes is the major cause of kidney disease among Aboriginal and Torres Strait Islander peoples. In 1998, diabetic nephropathy contributed 42% of the Indigenous dialysis group, compared with 22% among the total dialysis group (Disney et al. 1999).

In 1994–98, there were 90 Indigenous deaths (42 males and 48 females) attributed to renal failure in Western Australia, South Australia and the Northern Territory alone (identification of Indigenous peoples in death records in other jurisdictions is not of sufficient quality to allow for reporting). Indigenous deaths from renal failure also occur at relatively younger ages than non-Indigenous deaths (ABS 1999e).

Cirrhosis and other chronic liver diseases

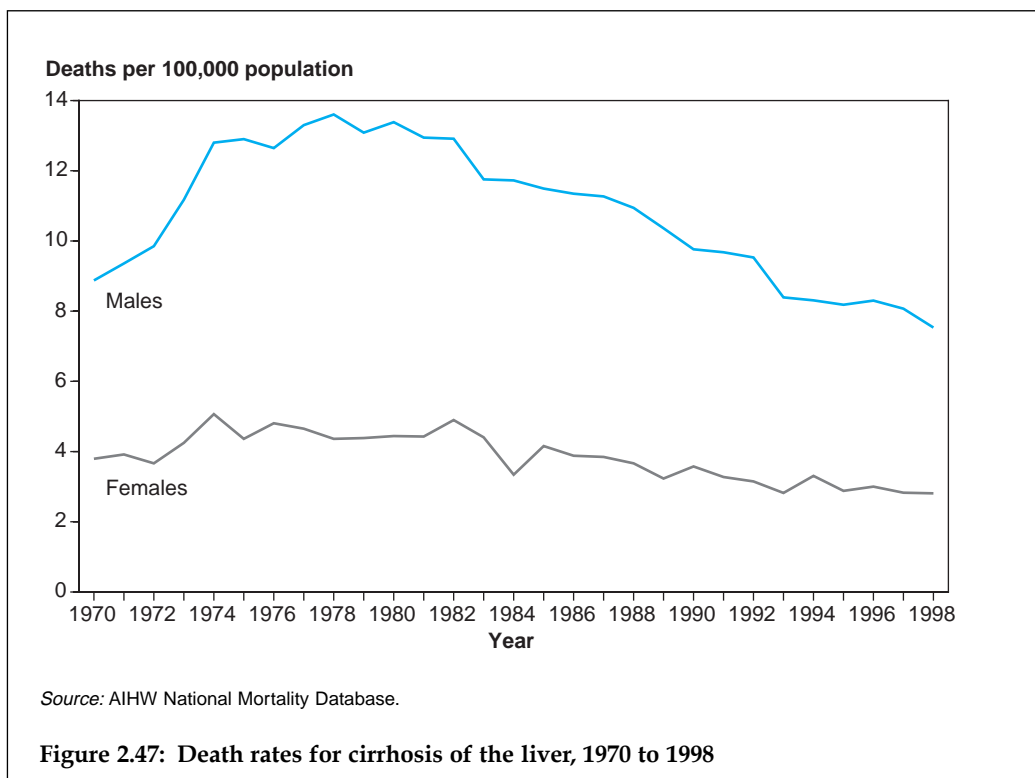
Cirrhosis results from damage to the liver, where the liver cells are destroyed and replaced by scarred tissue. As the disease develops, the liver shrinks since there are progressively fewer healthy cells.

There are four main categories of liver disease, namely alcoholic fatty liver, hepatitis, cirrhosis, and other or unspecified forms of liver disease. Some of these forms are preventable or reversible. Almost all heavy drinkers have alcoholic fatty liver, but it is partly reversible with abstinence from alcohol. Generally benign, alcoholic fatty liver may cause death through liver failure or the formation of lung or brain blood clots. Hepatitis is inflammation of the liver, which can cause widespread liver cell loss. Chronic active hepatitis can progress to cirrhosis and liver cancer. Cirrhosis contributes significantly to the burden of disease in Australia, both in terms of premature mortality and health system costs.

Determining the incidence and prevalence of cirrhosis and other chronic liver diseases is difficult because most cases show no signs or symptoms until late. In 1996, it was estimated that there were more than 1,000 new cases of cirrhosis and chronic liver disease in Australia. The prevalence was estimated at about 70 per 100,000 males and 50 per 100,000 females (AIHW: Mathers et al. 1999a:208). Cases are concentrated among those aged 35 years and over.

In 1998, cirrhosis of the liver was the underlying cause of 1,018 deaths (725 males and 293 females) and the contributing or associated cause for another 876 deaths. The death rate among males was higher than among females in all age groups, in particular between the ages of 55 and 79 years. The disease was also the major reason for 9,836 hospitalisations in 1997–98. Again, the age-standardised hospitalisation rate for males (71 per 100,000) was higher than that for females (42 per 100,000). In 1997–98, the average length of hospital stay for a person with a principal diagnosis of cirrhosis was 9 days.

The death rate for cirrhosis and other chronic diseases of the liver is declining. After rising consistently for several decades, the rate peaked in the late 1970s (Figure 2.47). Since then, the age-standardised death rates have declined from 13 per 100,000 males and 4.5 per 100,000 females in 1979 to 8 and 3 per 100,000, respectively, in 1998.



2.5 Communicable diseases

Communicable or infectious diseases are illnesses due to specific infectious agents or their toxic products. Bacteria cause diseases such as pertussis (whooping cough) and tuberculosis; viruses cause diseases such as measles, influenza and Ross River virus infection; fungi are responsible for conditions such as tinea; protozoan parasites cause diseases including malaria; and bacterial toxins are responsible for conditions such as some forms of food poisoning. Infestations of larger parasites such as head lice are also regarded as communicable diseases.

This section provides an overview of communicable diseases in Australia, including notifications and deaths, and discusses the associated burden of disease, hospitalisation and health system costs. Information on communicable diseases in general, including pneumonia, influenza and meningitis, is presented first, followed by notifiable diseases such as blood-borne diseases, gastrointestinal diseases, sexually transmitted diseases, vector-borne diseases, tuberculosis and vaccine-preventable diseases.

Information on the occurrence of communicable diseases in this section is derived mainly from disease notifications, hospital separations and deaths data. Self-reports from the National Health Surveys, data on visits to general practitioners, data from the Australian Paediatric Surveillance Unit, laboratory investigations and special surveys are other sources of information useful for the surveillance of communicable diseases in Australia.