

Key points

- There were 314 deaths attributed to asthma as the underlying cause in 2003. This represented 0.3% of all deaths in that year. In 2003, there was continuation of a declining trend in rates of death attributed to asthma since the most recent peak in 1989.
- Deaths due to asthma occur in all age groups. The risk of dying from asthma increases with age. However, although 62% of all deaths due to asthma occur in people aged 65 years and over, this is a smaller proportion than the proportion of all deaths that occur in this older age group (80%).
- The death rate due to asthma in Australia is moderately high, by international standards.
- People aged 35 to 64 years who live in outer regional and remote areas are more likely to die from asthma than people in cities and large towns.
- People living in more socioeconomically disadvantaged areas have a higher risk of dying from asthma than people who live in more advantaged areas.
- Older people with asthma have an increased risk of dying from asthma during winter.

Introduction

Death due to asthma is uncommon. The 314 deaths for which the underlying cause was asthma in 2003 represented only 0.3% of all deaths in that year. There is evidence that effective management of asthma can reduce the risk of death due to this disease (Suissa et al. 2000). Monitoring trends and differentials in rates of death due to asthma assists in the evaluation of existing measures to control the impact of asthma and, on occasions, has highlighted the need for investigation and management of rising death rates attributable to the disease (Beasley et al. 1990).

Interpreting trends and differences in rates of asthma mortality is complicated by a variable overlap with other diseases, particularly chronic obstructive pulmonary disease (COPD) (Guite & Burney 1996; Smythe et al. 1996). This is particularly a problem in older people in whom the attribution of death to asthma is less reliable than it is in younger people (Jones et al. 1999; Sears et al. 1986; Smythe et al. 1996). For the purposes of examining trends and differentials in asthma mortality, it is safest to limit comparisons to the 5 to 34 years age group, in whom the diagnosis of asthma as a cause of death is most reliable (Sears et al. 1986). However, as most deaths due to asthma occur in the elderly, it is also important to monitor older age groups.

Data specifying the underlying cause of death from the National Mortality Database held at the Australian Institute of Health and Welfare have been used to prepare this chapter. For a description of this dataset, refer to Appendix 1, Section A1.10.

4.1 Deaths due to asthma

Asthma as an underlying or associated cause of death

Asthma was the underlying cause of 314 deaths during 2003 (Table 4.1). The underlying cause is the disease considered to be most directly responsible for the death (AIHW 2004). However, there were an additional 934 deaths in which asthma was an associated cause of death, that is, asthma was listed on the death certificate but was not identified as the underlying cause of death.

There were only 45 deaths among persons aged 5 to 34 years in which asthma was regarded as an underlying or associated cause of death. In the majority of these instances (31), asthma was regarded as the underlying cause of death.

In the remainder of this chapter, analyses are limited to deaths in which asthma was listed as the underlying cause of death.

Table 4.1
Deaths where asthma was the underlying or an associated cause, Australia, 2003

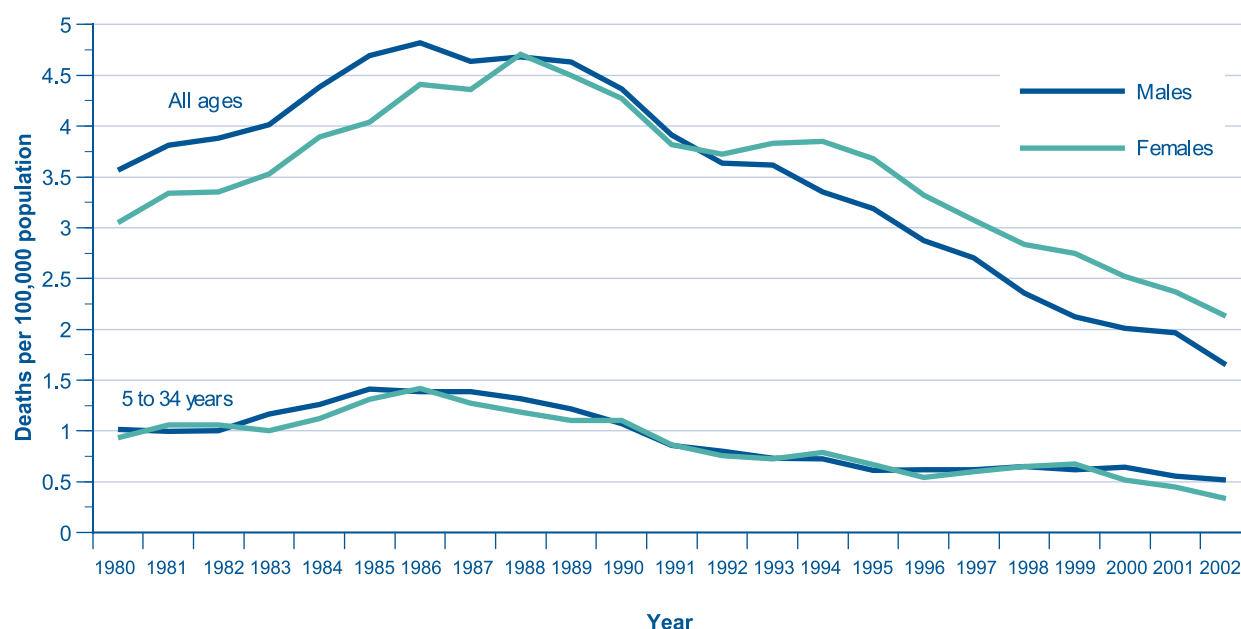
| | Males | | Females | | Persons | |
|--|---------------------|--------------------------------|---------------------|--------------------------------|---------------------|--------------------------------|
| | Underlying cause | Underlying or associated cause | Underlying cause | Underlying or associated cause | Underlying cause | Underlying or associated cause |
| All persons | | | | | | |
| Number of deaths | 108 | 451 | 206 | 797 | 314 | 1,248 |
| Deaths per 100,000 population (95% CI) | 1.09 (0.91–1.33) | 4.57 (4.16–5.01) | 2.06 (1.79–2.37) | 7.97 (7.43–8.55) | 1.58 (1.41–1.77) | 6.28 (5.94–6.64) |
| Age 5 to 34 years | | | | | | |
| Number of deaths | 19 | 26 | 12 | 19 | 31 | 45 |
| Deaths per 100,000 population (95% CI) | 0.45 (0.28–0.72) | 0.62 (0.41–0.92) | 0.29 (0.16–0.53) | 0.46 (0.29–0.74) | 0.37 (0.26–0.51) | 0.54 (0.40–0.73) |

Source: AIHW National Mortality Database.

Time trends in asthma deaths

There was a rise in deaths attributed to asthma during the early to mid-1980s, reaching a peak in 1989 with 736 deaths (4.4 per 100,000 population, 95% CI: 4.1–4.7), with a subsequent steady decline to 314 deaths (1.6 per 100,000 population, 95% CI: 1.4 to 1.8) in 2003 (Figure 4.1). This trend is confirmed, although less marked, among deaths that occurred in 5 to 34 year olds, in whom the attribution to asthma is more certain. In this latter group, the peak occurred slightly earlier, in 1986, with 117 deaths (1.5 per 100,000 population, 95% CI: 1.2–1.8). In 2003 there were 31 deaths due to asthma in people aged 5 to 34 years (0.37 per 100,000 population, 95% CI: 0.26–0.51). After 1992, mortality rates were higher in females than males in the population as a whole. However, this gender difference was not observed in the 5 to 34 year old subgroup. See also Appendix 2, Table A2.11.

Figure 4.1
Deaths due to asthma per 100,000 population, three year moving average, by sex, all ages and people aged 5 to 34 years, Australia, 1980–2002



Note: Age standardised to the Australian population as at 30 June 2001. Asthma classified according to ICD-9 code 493 and ICD-10 codes J45 & J46. Deaths coded to ICD-9 (1979–1997) were converted to ICD-10 using conversion factors See Appendix 1, Section A1.10 for details.

Sources: AIHW National Mortality Database; Australian Bureau of Statistics.