

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

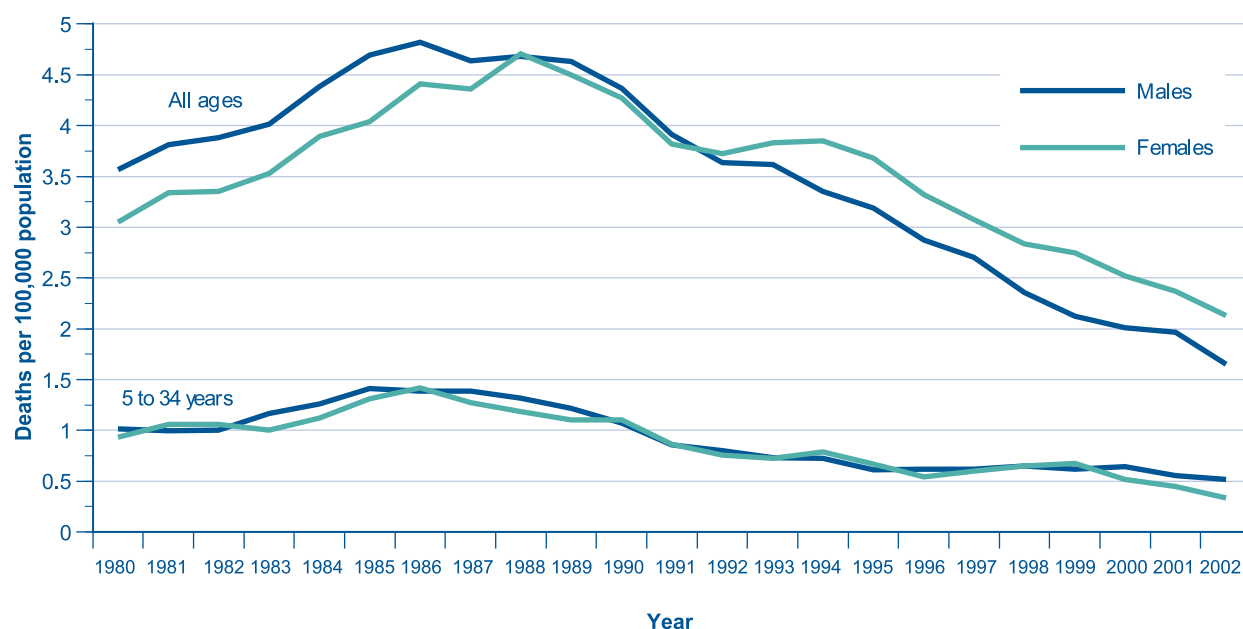
	Males		Females		Persons	
	Underlying cause	Underlying or associated cause	Underlying cause	Underlying or associated cause	Underlying cause	Underlying or associated cause
All persons						
Number of deaths	108	451	206	797	314	1,248
Deaths per 100,000 population (95% CI)	1.09 (0.91–1.33)	4.57 (4.16–5.01)	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.

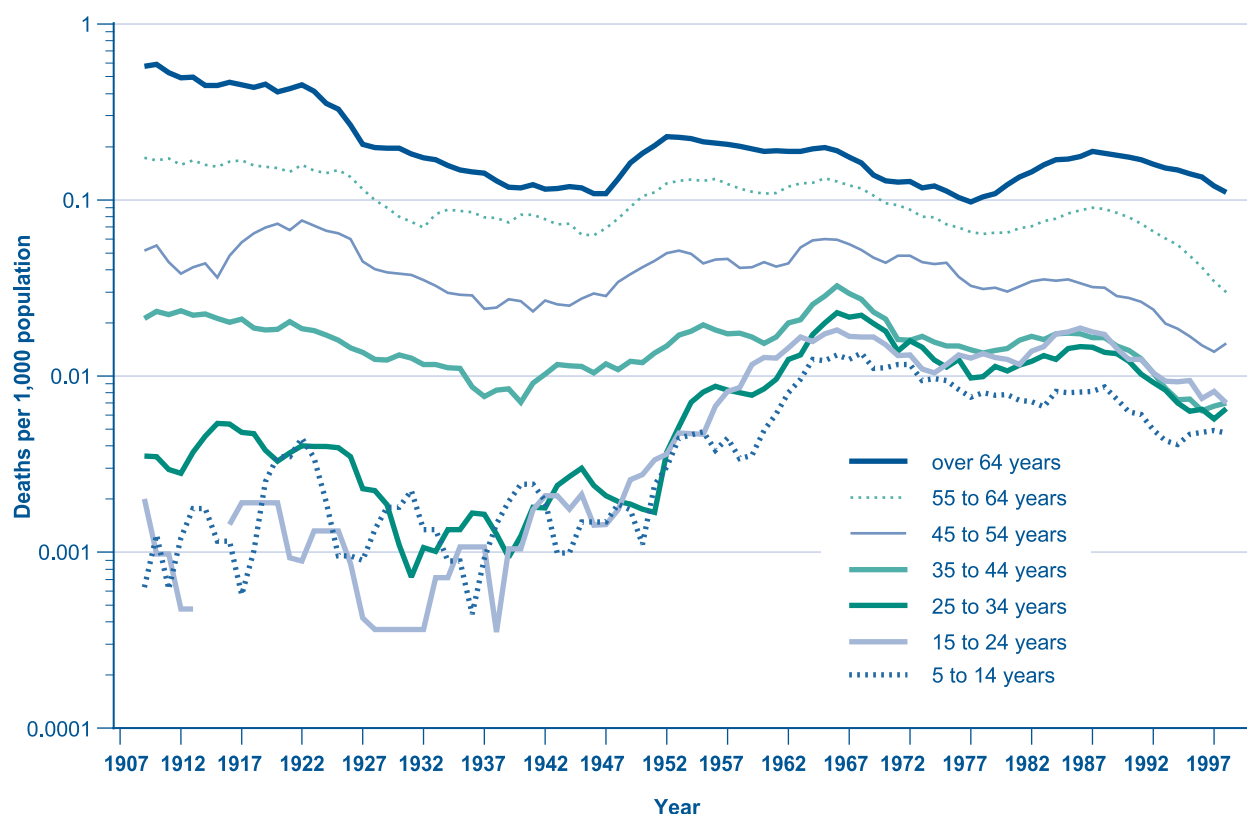
Sources: AIHW National Mortality Database; Australian Bureau of Statistics.

We cannot definitely attribute this reduction in death rates due to asthma to any specific cause. It is unlikely that the observed changes in death rates are explained solely by changes in diagnostic fashion, coding misclassification or other artefactual changes (see Appendix 1, Section A1.10). A fall in the prevalence of asthma, either due to reduced incidence or increased remissions, would be expected to cause a reduction in death rates. However, evidence about recent trends in the prevalence of asthma, while limited (see Chapter 3), provides little to support the view that this has declined substantially, particularly in adults. Hence, it is unlikely that the reduction in deaths due to asthma is caused by a reduction in the number of people who have asthma.

It seems most likely that at least part, if not all, of the reduction in deaths due to asthma is attributable to a reduction in the risk of dying among people who have asthma. Nationwide programs to improve asthma management, including the introduction of management guidelines, may have contributed to this successful outcome. However, other changes in treatment practices or environmental changes affecting the severity of asthma and the severity of exacerbations of asthma may also have played a role.

These relatively recent trends may be viewed in the context of long-term trends (Dobbin et al. 2004; Taylor et al. 1997). In the population as a whole there was an overall decline, over the 20th century, in the death rate attributed to asthma. Figure 4.2 and Figure 4.3 provide an overview of trends in recorded death rates for males and females by age for most of the 20th century. Asthma death rates for the 5 to 34 year age group were low in the early 20th century, and showed substantial fluctuations over time, most notably a marked increase from the mid-1940s to the mid-1960s, reaching a peak in approximately 1966. This was followed by a decreasing trend to a low in the late 1970s, then a more recent increase was recorded between 1979 and the late 1980s among those aged over 15 years, which then declined until the present.

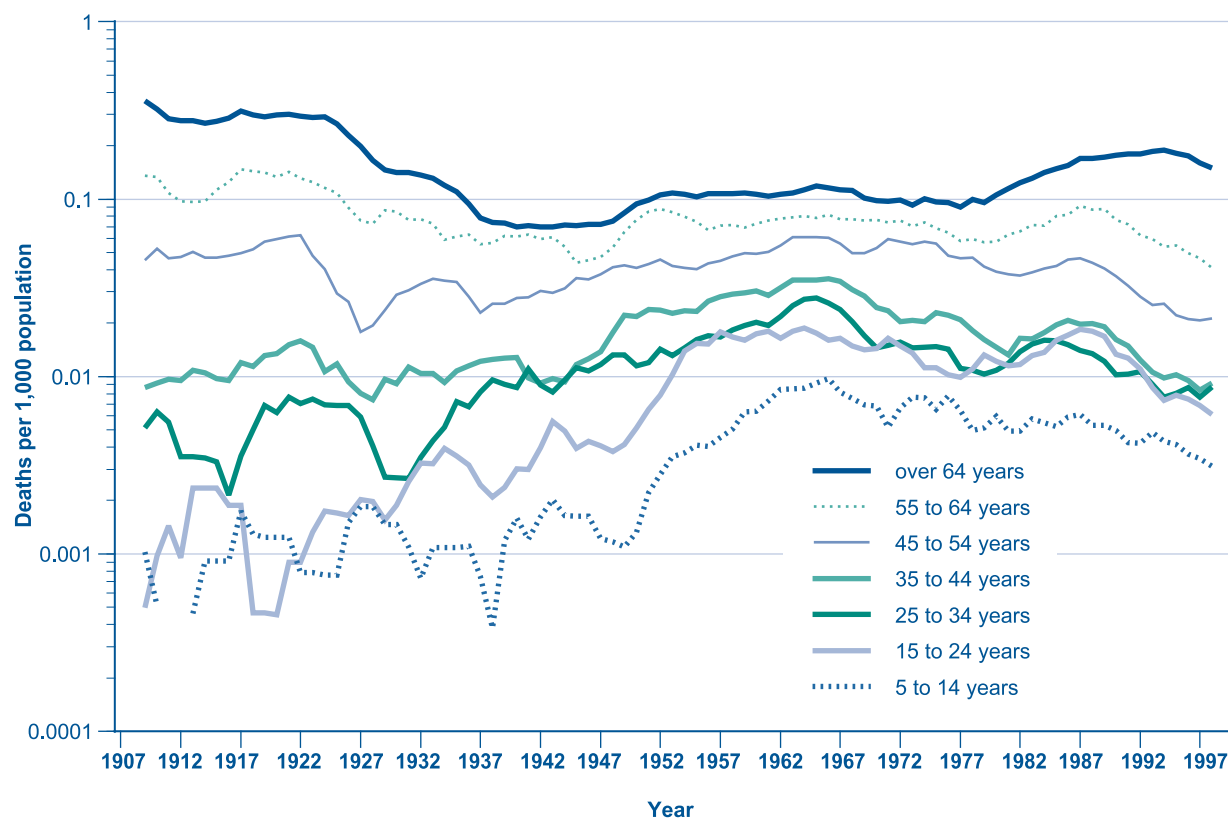
Figure 4.2
Deaths due to asthma per 1,000 population, five year moving average, by year of death and age group, males aged 5 years and over, Australia, 1909–1998



Note: y axis is on a logarithmic scale.

Source: Adapted from Dobbin et al. 2004. Reproduced with permission.

Figure 4.3
Deaths due to asthma per 1,000 population, five year moving average, by year of death and age group, females aged 5 years and over, Australia, 1909–1998



Note: y axis is on a logarithmic scale.

Source: Adapted from Dobbin et al. 2004. Reproduced with permission.