

## 10 Fire/burns

Fire/burns are an unintentional cause of injury death (WHO 1977, WHO 1996). WHO classifies the cause of fire/burns deaths by the location or circumstance in which the fire/burn occurred. These locations/circumstances include fires in *private dwellings and other buildings*, fires *not in buildings and burns*.

Fire/burns death data from 1986 to 2002 were used to describe the demographic profile of fire/burns deaths in NSW. Death data during 1998–2002 were used for the majority of the analyses, but trend analyses used death data from 1986 to 2002.

Fire/burns were the eighth leading cause of injury death from 1998 to 2002 and accounted for approximately 1.4% of all injury deaths (see Table 2). During these years, 180 people died from fire/burns, at an overall rate of 0.6/100,000 population and 57% were male. Approximately 44 people died each year from 1986 to 2002 as the result of fire/burns.

Figure 18 shows the yearly trend in death rates for fire/burns from 1986 to 2002. There was a statistically significant decline in the overall fire/burns death rate between 1986 and 2002.

**Figure 18. Yearly trend in death rates for fire/burns: NSW, 1986–2002**

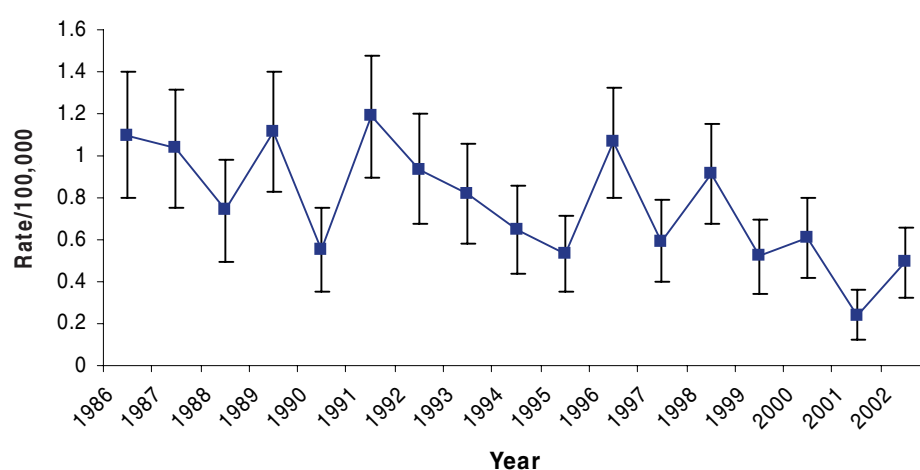


Figure 19 shows the age-specific death rates for fire/burns between 1998 and 2002. People aged 70+ years had the highest rates of death due to fire/burns, accounting for 44% of all fire/burns deaths between 1998 and 2002.

The pattern of age-specific death rates for fire/burns in Figure 19 is similar to the pattern of age-specific death rates for fire/burns from 1995 to 1999 (Schmertmann and Williamson, 2002) with one exception. The fire/burns death rate for children less than five years was higher than many other age groups during 1995 to 1999.

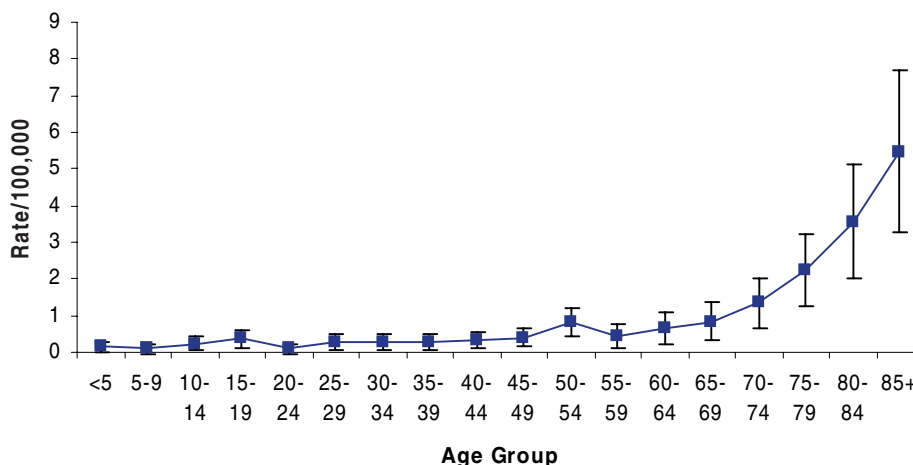
**Figure 19. Age-specific death rates for fire/burns: NSW, 1998–2002**

Table 17 shows the number of fire/burn deaths and death rates by type for all persons, males and females, during 1998–2002. The majority of fire/burn deaths occurred in *private dwellings and other buildings* and accounted for 61% of all fire/burn deaths. Males accounted for 54% of all fire/burn deaths in *private dwellings and other buildings*.

Fires in *private dwellings and other buildings* were responsible for the majority of male fire/burn deaths and accounted for 57% of all male fire/burn deaths. The rate for male fire/burn deaths exceeded the corresponding rate for females for each type in Table 17. Male death rates were also more than twice the corresponding female death rates for fire/burns of *other and unspecified types*. There were no significant differences between male and female fire/burn death rates for any of the fire/burns types.

Fires in *private dwellings and other buildings* were also responsible for the majority of female fire/burn deaths during 1998–2002 and accounted for 65% of all female fire/burn deaths.

**Table 17. Number of fire/burns deaths and death rates/100,000\* by type: NSW, 1998–2002**

Type	All persons		Males		Females		Ratio <sup>‡</sup>
	N	Rate <sup>†</sup>	N	Rate <sup>†</sup> (CI) <sup>††</sup>	N	Rate <sup>†</sup> (CI)	
Private dwellings and other buildings	109	0.34	59	0.40 (0.29–0.50)	50	0.29 (0.21–0.37)	1.36
Other and unspecified	40	0.12	27	0.18 (0.11–0.25)	15**	0.08 (0.04–0.12)	2.25
Burns	23	0.07	11	0.09 (0.04–0.15)	12	0.06 (0.03–0.10)	1.49
Not in buildings	8	0.02	6	0.04 (0.01–0.07)			–
All fire/burns	180	0.55	103	0.71 (0.57–0.85)	77	0.44 (0.34–0.53)	1.64

\* Death rates have been age-adjusted using the 2001 Australian census population. † Rate/100,000. ‡ Mortality ratio for male/female. \*\*includes not in building for females. †† 95% confidence interval.

Table 18 shows fire/ burns deaths by age group and type of fire/ burn in NSW for 1998–2002. Fires in *private dwellings and other buildings* were the leading cause of fire/ burns deaths across all age groups from children under age one year to people aged 65+ years. People aged 65+ years also had the majority of burn-related deaths compared to all other age groups. These results are similar to data from 1995 to 1999 for fire/ burns deaths (Schmertmann and Williamson, 2002).

## SUMMARY

Fire/ burn was a leading cause of injury death for people in NSW, accounting for approximately 44 deaths each year from 1986 to 2002. Analysis of the trend for fire/ burn death rates showed a statistically significant decline over the period from 1986 to 2002.

Compared to data on fire/ burn deaths from 1995 to 1999 (Schmertmann and Williamson, 2002), the pattern of age-specific rates for 1998–2002 was similar for most age groups. People aged 70+ years had the highest rates of death due to fire/ burns.

Fires in *private dwellings and other buildings* and *other and unspecified types* caused the majority of fire/ burn deaths during 1998–2002 in NSW. Fires in *private dwellings and other buildings* were the leading cause of fire/ burns deaths across all age groups from children under age one year to people aged 65+ years. People aged 65+ years also experienced the majority of burn-related deaths.

Males accounted for nearly 57% of all fire/ burn deaths in NSW during 1998–2002. They accounted for 54% of all fire/ burn deaths due to *private dwellings and other buildings*. There were no significant differences between male and female fire/ burn death rates for any of the fire/ burns types.

While the fire/ burn death rate has declined significantly since 1986, deaths caused by fire/ burn events, particularly in private dwellings and other buildings, are still a serious public health problem for people of all ages in NSW. In order to address this public health problem, the circumstances, location and type of private residences and other buildings where these deaths are occurring in NSW should be investigated, and the presence of a functioning smoke alarm reported.

Table 18. Fire/burns deaths\* by age group and type†: NSW, 1998-2002

Rank	Age group										Total
	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	
1		Private dwelling and other building #	Private dwelling and other building #	Private dwelling and other building #	Private dwelling and other building 8	Private dwelling and other building 10	Private dwelling and other building 14	Private dwelling and other building 15	Private dwelling and other building 10	Private dwelling and other building 43	109
2				Other and Unspecified #	Other and Unspecified #	Other and Unspecified #	Not in building #	Other and Unspecified 7	Other and Unspecified #	Other and Unspecified 25	40
3					Not in building #			Not in building #	Burns #	Burns 20	Burns
4								Burns #	Not in building #	Not in building #	23
											8

\* Numbers represent the number of cases. † See Appendix 4 for fire/burn type codes. # Cell size less than five cases