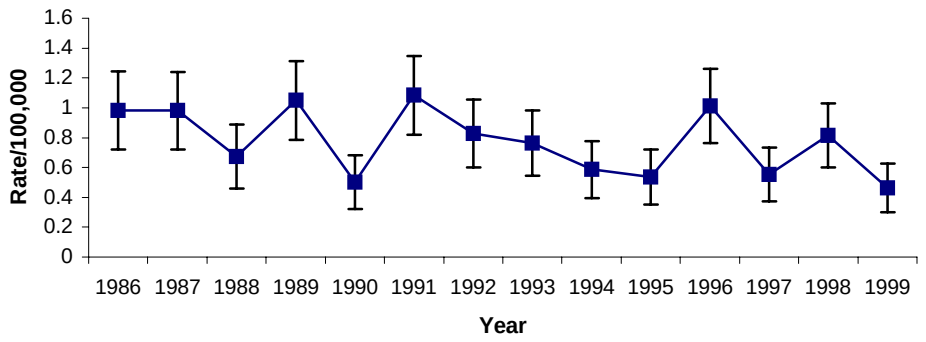
11.0 FIRE/BURNS

11.1 Deaths due to Fire/Burns:

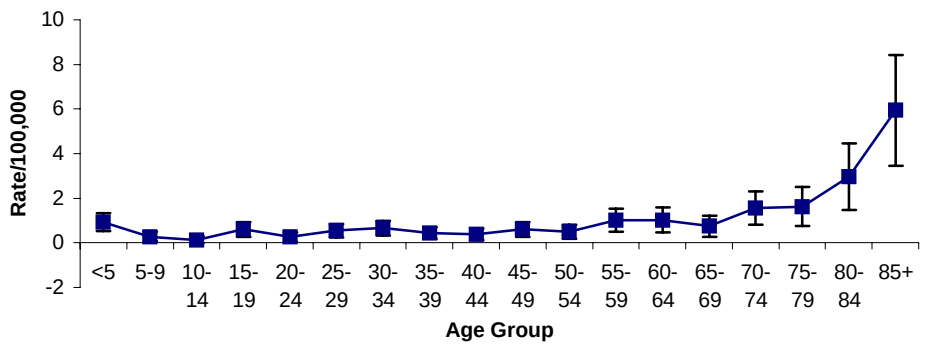
The fire/burns death rate fluctuated considerably between 1986 and 1999, but showed a statistically significant decrease from 1991 to 1999 (Figure 45). Between 1995 and 1999, 223 people died from fires/burns, at a rate of 0.7 people /100,000 and 64 percent were male (Table 4).

Figure 45. Yearly Trend in Death Rates for Fire/Burns: NSW, 1986-1999



Of the 223 fire/burns deaths in NSW between 1995 and 1999, nine percent of these cases were under five years and ten percent were 85 years of age and older. Figure 46 illustrates

Figure 46. Age-Specific Death Rates for Fire/Burns: NSW, 1995-1999

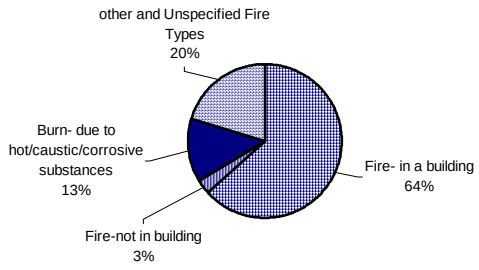


the age –specific death rates for fire/burns.

People aged 70 years and older were at greatest risk of dying as a result of a injury caused by a fire or hot object between 1995 and 1999. The rates for all other age groups were very similar. Young children under five years of age had higher rates than older children between five and fifteen years old.

The following chart (Figure 47) shows the percentage of deaths for various types of fire/burns.

Figure 47. Fire/Burns Deaths by Type: NSW, 1995-1999



Fires in buildings (64 %) caused the majority of fires/burns deaths. Burns from substances or objects caused an additional 13 percent of the deaths. Approximately 20 percent involved substances that were either unspecified or classified as other types. Further analysis of this category showed that nearly seven percent of all fire/burns cases were classified as an unspecified type and that ignition of clothing accounted for the largest proportion of other fire/burn types.

Table 31. Number of Fire/Burns Deaths and Death Rates/100,000* by Type: NSW, 1995-1999

Injury Mechanism	Total Number	Rate /100,000	Number of Males	Male Rate /100,000	Number of Females	Female Rate /100,000
Fire- in a building	141	0.4	87	0.6	54	0.3
Other and Unspecified Types	45	0.1	35	0.2	10	0.0
Burns from Substances	30	0.1	14	0.1	16	0.1
Fire-not in building	7	0.0	6	0.0	1	0.0

*Death rates have been age-adjusted using the 1991 Australian census population

Table 31 shows the number of fire/burns deaths and death rates by the type of fire/burn for all persons, males and females from 1995 to 1999. There was little difference in the types of fire/burns deaths between males and females. Males accounted for 61 percent of fire/burn deaths occurring as a result of fires in buildings. Females accounted for 53 percent of all fire/burn deaths occurring as a result of a burn from a substance.

Table 32 shows fire/burns deaths by age group and type of fire/burn in NSW for 1995-1999. Fires in buildings were the leading cause of fire/burns deaths across all age groups from under age one year to age 65 years and older. Over 65 year olds also had a relatively high number burn-related deaths compared to all other age groups.

Table 32. Fire/Burns Deaths by Age Group and Type: NSW, 1995-1999

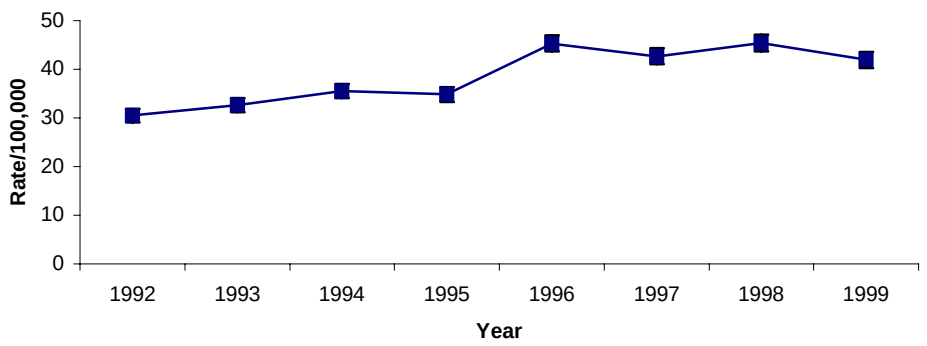
	<1	**1-4**	**5-9**	**10-14**	**15-24**	**25-34**	**35-44**	**45-54**	**55-64**	**65+**	**Total**
1	Fire- in a building # 	Fire- in a building 19 	Fire- in a building 6 	Fire- in a building # 	Fire- in a building 17 	Fire- in a building 26 	Fire- in a building 12 	Fire- in a building 12 	Fire- in a building 17 	Fire- in a building 29 	Fire- in a building 141
2				Other and Unspecified # 	Other and Unspecified # 	Other and Unspecified # 	Other and Unspecified # 	Other and Unspecified 8 	Other and Unspecified 6 	Burn 23 	Other and Unspecified 45
3						Burn # 	Fire-not in building # 	Fire-not in building # 	Burn # 	Other and Unspecified 22 	Burn 30
4							Burn # 	Burn # 	Fire-not in building # 	Fire-not in building # 	Fire-not in building 7

Cell size less than five cases

11.2 Hospitalisations due to Fire/Burns

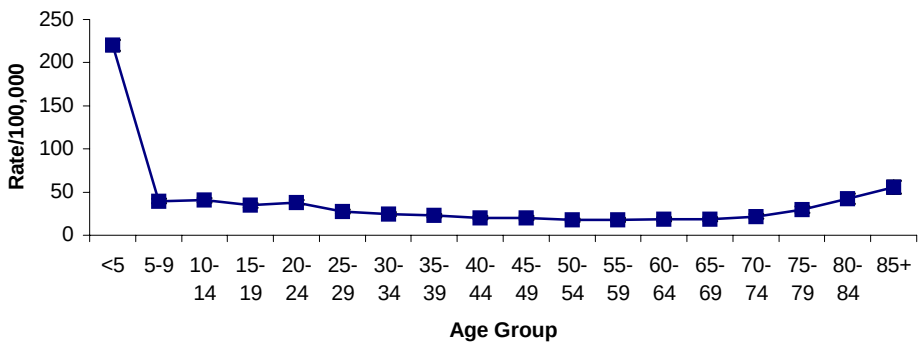
The fire/burns hospitalisation rate fluctuated between 1995 and 1999, but showed a statistically significant increase overall from 1992 to 1999 (Figure 48). Between 1995 and 1999, 12,838 people died from fires/burns, at a rate of 42 people /100,000 and 63 percent were male (Table 6).

Figure 48. Yearly Trend in Hospitalisation Rates for Fire/Burns: NSW, 1992-1999



Of the 12,838 fire/burns hospitalisations in NSW between 1995 and 1999, children under five years of age accounted for38 percent of the fire/burns hospitalisation cases. Figure 49

Figure 49. Age-Specific Hospitalisation Rates for Fire/Burns: NSW, 1995-1999

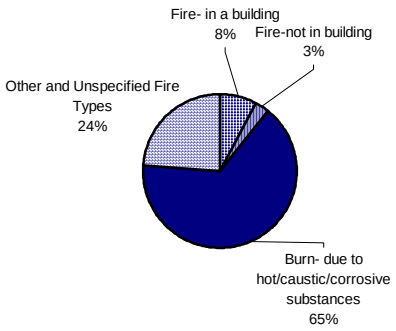


illustrates the age –specific hospitalisation rates for fire/burns.

Children under five years of age were at greatest risk of being hospitalised as a result of a injury caused by a fire/burn between 1995 and 1999. Males were almost twice as likely as females to be hospitalised as the result of fire/burns injury.

The following chart shows the percentage of hospitalisations for various types of fire/burns (see Figure 50).

Figure 50. Fire/Burns Hospitalisations by Type: NSW, 1995-1999



Burns from substances or objects caused the greater majority of fire/burns hospitalisations from 1995 to 1999 while fires in a building resulted in a comparatively small percentage of hospitalisations. Approximately 24 percent involved substances that were either unspecified or classified as other types. Further analysis showed that unspecified fire/burns types accounted for almost five percent of all fire/burns hospitalisations.

Table 33. Number of Fire/Burns Hospitalisations and Hospitalisation Rates/100,000* by Type: NSW, 1995-1999

Injury Mechanism	Total Number	Rate /100,000	Number of Males	Male Rate /100,000	Number of Females	Female Rate /100,000
Burns from substances	8,383	27.5	4,928	32.2	3,455	22.6
Other and Unspecified Types	3,081	10.1	2,237	14.7	844	5.4
Fire- in a building	994	3.2	613	4.0	381	2.4
Fire-not in building	380	1.2	296	1.9	84	0.5

*Hospitalisation rates have been age-adjusted using the 1991 Australian census population

Table 33 shows the number of fire/burns hospitalisations and hospitalisation rates by the type of fire/burn for all persons, males and females from 1995 to 1999. Males accounted for 59 percent of fire/burn hospitalisations occurring as a result of burn from a substance or object and for 62 percent occurring as a result of fires in buildings.

Table 34 shows fire/burns hospitalisations by age group and type of fire/burn in NSW for 1995-1999. Burns were the leading cause of fire/burns hospitalisations across all age groups from under age one year to age 65 years and older, except for children aged 10-14 years who were hospitalised most often after a fire/burn of an other or unspecified type. A very clear majority of hospitalisations for burns were in the 1 to 4 years age group.

Table 34. Fire/Burns Hospitalisations by Age Group and Type: NSW, 1995-1999

	<1	**1-4**	**5-9**	**10-14**	**15-24**	**25-34**	**35-44**	**45-54**	**55-64**	**65+**	**Total**
1	Burns 808	Burns 3,558	Burns 524	Other and Unspecified 493	Burns 700	Burns 601	Burns 527	Burns 405	Burns 284	Burns 668	Burns 8,383
2	Fire- in a building 43	Other and Unspecified 240	Other and Unspecified 261	Burns 308	Other and Unspecified 660	Other and Unspecified 441	Other and Unspecified 326	Other and Unspecified 231	Other and Unspecified 143	Other and Unspecified 262	Other and Unspecified 3,081
3	Other and Unspecified 24	Fire- in a building 116	Fire- in a building 59	Fire- in a building 42	Fire- in a building 150	Fire- in a building 150	Fire- in a building 137	Fire- in a building 77	Fire- in a building 68	Fire- in a building 152	Fire- in a building 994
4		Fire-not in building 18	Fire-not in building 26	Fire-not in building 38	Fire-not in building 100	Fire-not in building 61	Fire-not in building 48	Fire-not in building 45	Fire-not in building 9	Fire-not in building 31	Fire-not in building 380

Cell size less than five cases

11.3 Summary

The results showed an overall downward trend for fire/burn-related deaths, but an overall tendency to increasing hospitalisation rates for this type of injury. Death and hospitalisation rates differed quite considerably across age groups for fire/burns injury. Elderly people had higher death rates, but under five year olds had higher hospitalisation rates for fire/burns reflecting differences in injury severity and possibly differences in the likelihood of escape or rescue from a fire/burn.

There was also a very different distribution for the types of locations in which the fire/burn incident occurred. These differences probably also reflect different severity of injury resulting from the various types of fire/burns. For example, deaths occurred mainly due to fires in buildings, whereas only a very small percentage of cases were hospitalised for this type of incident. Burns due to hot/caustic/corrosive substances accounted for the majority of hospitalisations, but only a small percentage of deaths. For both deaths and hospitalisations, around one in five cases were classified as other and unspecified type of fire/burns.

Males accounted for a larger proportion of all types of fires/burns than females for both deaths and hospitalisations, except for deaths due to substance burns. Although the number of deaths was small overall, substance burns were roughly equivalent for males and females. There were hardly any differences across age groups in the types of fire/burns for deaths or hospitalisations.