

10. Poisoning

This section describes hospitalisations due to unintentional poisoning. WHO classifies the cause of poisoning hospitalisations by the substance that caused the poisoning (WHO, 1977; WHO, 1992). These substances include *narcotics and hallucinogens, other pharmaceuticals, antidepressants, gases and vapours, alcohol and other and unspecified substances*. A poisoning event can also be intentional. A self-inflicted poisoning is classified as self-harm, and a poisoning inflicted on one person by another is classified as interpersonal violence. Hospitalisations due to intentional poisoning are covered in other sections of this report (see Section 7 on self-harm and Section 9 on interpersonal violence).

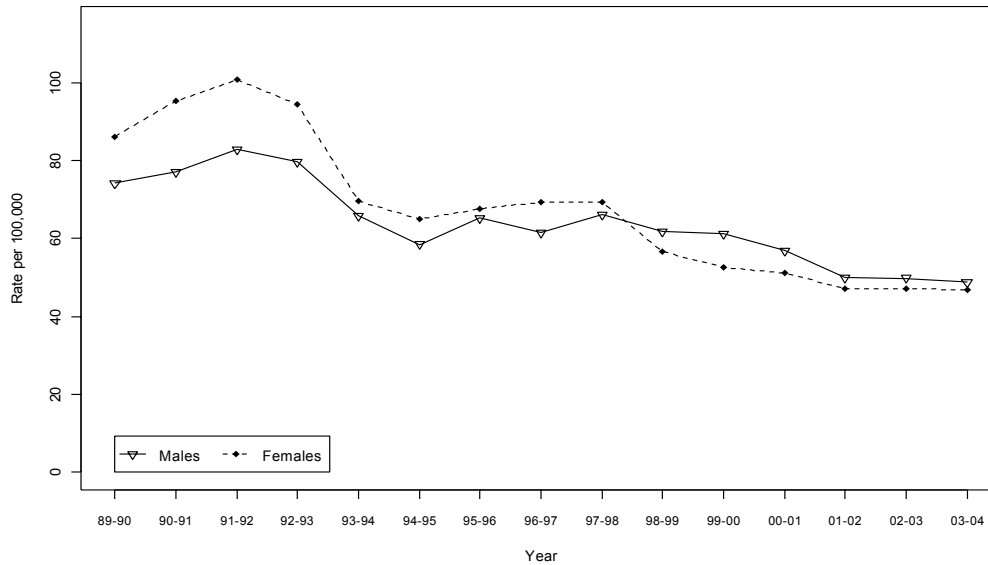
In NSW, poisoning was the third leading cause of death in NSW during 1998–2002, with 1,118 deaths, giving a mortality rate of 3.4 per 100,000 population (Schmertmann et al, 2004). The lifetime cost of fatal and non-fatal poisoning in NSW has been estimated at \$245 million—\$13.2 million in direct costs and \$232 million in mortality and morbidity costs (Potter-Forbes & Aisbett, 2003).

Poisoning-related hospitalisation data from 1989–1990 to 2003–2004 were used to describe the profile of poisoning-related hospitalisations of NSW residents. Hospitalisation data from 1999–2000 to 2003–2004 were used in the majority of the analyses, except for the trend analyses, which used data from 1989–1990 to 2003–2004.

Poisoning was the seventh leading cause of injury hospitalisation for the period 1999–2000 to 2003–2004, and accounted for 3.3% of all injury-related hospitalisations. During these years, there were 16,828 hospitalisations due to poisoning, at a rate of 51.2 per 100,000 population (Table 3). There were approximately 3,365 hospitalisations per year due to poisoning during 1999–2000 to 2003–2004.

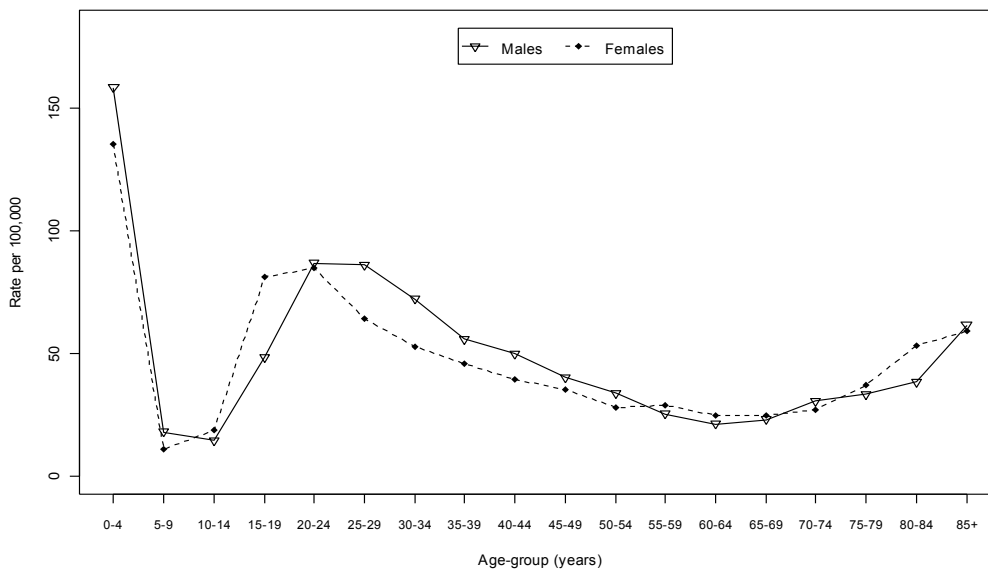
The age-adjusted hospitalisation rate for poisoning for both females and males decreased from 101.0 and 82.9 per 100,000 population respectively in 1991–92 to 46.7 and 48.8 per 100,000 population respectively in 2003–2004 (Figure 15). The hospitalisation rate for both males and females decreased significantly during 1989–1990 to 2003–2004. For males, the rate decreased by 3.0% per year (95% confidence interval for the decrease: 2.4% to 3.6%) and for females the rate decreased by 5.2% per year (95% confidence interval for the decrease: 4.6% to 5.7%).

Figure 15. Hospitalisation rate for injury due to poisoning by sex, NSW 1989–1990 to 2003–2004



Young children aged 0-4 years had the highest rate of poisoning-related hospitalisation at 147.3 per 100,000 population during 1999–2000 to 2003–2004. Individuals aged 20–24 years had the second highest rate of hospitalisation (86.0 per 100,000 population) during this same time period (Figure 16).

Figure 16. Age-specific hospitalisation rate for poisoning by sex, NSW, 1999–2000 to 2003–2004



The hospitalisation rate was slightly higher in males (53.3 per 100,000 population) than for females (49.0 per 100,000 population), with males accounting for 52% of poisoning-related hospitalisations during 1999–2000 to 2003–2004 (Table 16).

Other pharmaceuticals (31.3%) and *anti-depressants, barbiturates and tranquilizers* (30.0%) were the two substances that accounted for almost two-thirds of the poisoning-related hospitalisations during 1999–2000 to 2003–2004.

Table 16. Injury hospitalisations by poisoning substance, NSW, number, rate and CI, 1999–2000 to 2003–2004

Substance	All Persons			Male			Female		
	N	Rate ¹	95%CI ²	N	Rate ¹	95%CI ²	N	Rate ¹	95%CI ²
Other pharmaceuticals ³	5,266	16.0	(15.6,16.4)	2,355	14.4	(13.8,15.0)	2,911	17.5	(16.9,18.2)
Antidepressants, barbiturates and tranquilizers	5,048	15.4	(15.0,15.8)	2,366	14.4	(13.8,15.0)	2,683	16.3	(15.7,17.0)
Narcotics and hallucinogens	2,137	6.5	(6.2,6.8)	1,340	8.2	(7.8,8.7)	797	4.8	(4.5,5.2)
Alcohol	598	1.8	(1.7,2.0)	321	2.0	(1.7,2.2)	277	1.7	(1.5,1.9)
Gases and Vapours	387	1.2	(1.1,1.3)	287	1.7	(1.5,2.0)	100	0.6	(0.5,0.7)
Other and unspecified	3,392	10.3	(10.0,10.6)	2,072	12.6	(12.1,13.2)	1,320	7.9	(7.5,8.4)
All ⁴	16,828	51.2	(50.4,51.9)	8,739	53.3	(52.2,54.5)	8,088	49.0	(47.9,50.0)

1 Age-adjusted rate per 100,000 population.

2 95% confidence interval.

3 Includes non-opioid analgesics, antipyretics, antirheumatics, and drugs acting on the autonomic nervous system.

4 The number of NSW residents hospitalised interstate during 2003–2004 was imputed and as a result the sum of submechanisms may not equal the total.

Table 17 shows the number of poisoning-related hospitalisations by age group for the period 1999–2000 to 2003–2004. *Other pharmaceuticals*, which include non-opioid analgesics, antipyretics, antirheumatics, and drugs acting on the autonomic nervous system, were the most common cause of poisoning-related hospitalisations for children aged 14 years or less and for individuals aged 65 years or older. *Anti-depressants, barbiturates and tranquilizers* were the most frequent cause of poisoning-related hospitalisation for individuals aged 15–64 years.

SUMMARY

Poisoning was the seventh leading cause of injury-related hospitalisation involving NSW residents between 1999–2000 and 2003–2004, accounting for 3.3% of all injury-related hospitalisations. The yearly hospitalisation rate for poisoning was estimated to have decreased in males by 3.0% per year and by 5.2% per year for females during 1989–1990 to 2003–2004.

In 2003–2004, there were 3,185 hospitalisations of NSW residents following a poisoning, giving a hospitalisation rate of 47.8 per 100,000 population. Nearly one-fifth of those hospitalised following a poisoning (18.9%) were aged four years or less and just over one-third (36.8%) were aged 15–34 years.

Other pharmaceuticals, and *anti-depressants, barbiturates and tranquilizers* were the types of substances that most commonly led to a poisoning-related hospitalisation. Females were more likely to be hospitalised following a poisoning associated with *other pharmaceuticals* or *anti-depressants, barbiturates and tranquilizers* than males, while males were more likely to be hospitalised following a poisoning associated with *other and unspecified substances* and *narcotics and hallucinogens*.

Table 17. Number of hospitalisations for poisoning¹ by age group and cause, NSW, 1999–2000 to 2003–2004

Rank	Age group										Total
	0–4	5–9	10–14	15–24	25–34	35–44	45–54	55–64	65+		
1	Other pharmaceuticals ² 1,789	Other pharmaceuticals ² 126	Other pharmaceuticals ² 138	Anti-depressants 1,112	Anti-depressants 1,181	Anti-depressants 876	Anti-depressants 540	Anti-depressants 244	Other pharmaceuticals ² 673	Other pharmaceuticals ² 5,266	
2	Anti-depressants 634	Anti-depressants 75	Anti-depressants 93	Other pharmaceuticals ² 911	Narcotics and hallucinogens 695	Other pharmaceuticals ² 470	Other pharmaceuticals ² 321	Other pharmaceuticals ² 191	Anti-depressants 293	Anti-depressants 5,048	
3	Narcotics and hallucinogens 103	Gases and vapours 8	Alcohol 45	Narcotics and hallucinogens 525	Other pharmaceuticals ² 647	Narcotics and hallucinogens 409	Narcotics and hallucinogens 165	Narcotics and hallucinogens 79	Narcotics and hallucinogens 138	Narcotics and hallucinogens 2,137	
4	Alcohol 27	Alcohol 6	Narcotics and hallucinogens 17	Alcohol 220	Gases and vapours 90	Alcohol 100	Alcohol 62	Gases and vapours 31	Gases and vapours 22	Alcohol 598	
5	Gases and vapours 25	Narcotics and hallucinogens 5	Gases and vapours 13	Gases and vapours 50	Alcohol 89	Gases and vapours 89	Gases and vapours 59	Alcohol 26	Alcohol 22	Gases and vapours 387	
	Other 612	Other 113	Other 69	Other 509	Other 643	Other 460	Other 385	Other 238	Other 361	Other 3,392	

¹ # Cell sizes represent fewer than five hospitalisations or data have been removed to prevent identification of cell sizes less than five.

² Includes non-opioid analgesics, antipyretics, antirheumatics, and drugs acting on the autonomic nervous system.