

16. Near-drowning

This section describes hospitalisations due to unintentional near-drowning WHO classifies the cause of a near-drowning hospitalisation by the location in which the near-drowning event occurred (WHO, 1977; WHO, 1992). The locations of near-drowning include a *bathtub*, *swimming pool*, *natural water*, *boat-related* or *other location*. Near-drowning may also be intentional, but a self-inflicted near-drowning event that results in hospitalisation is classified as an attempt at self-harm and is included in Section 7.

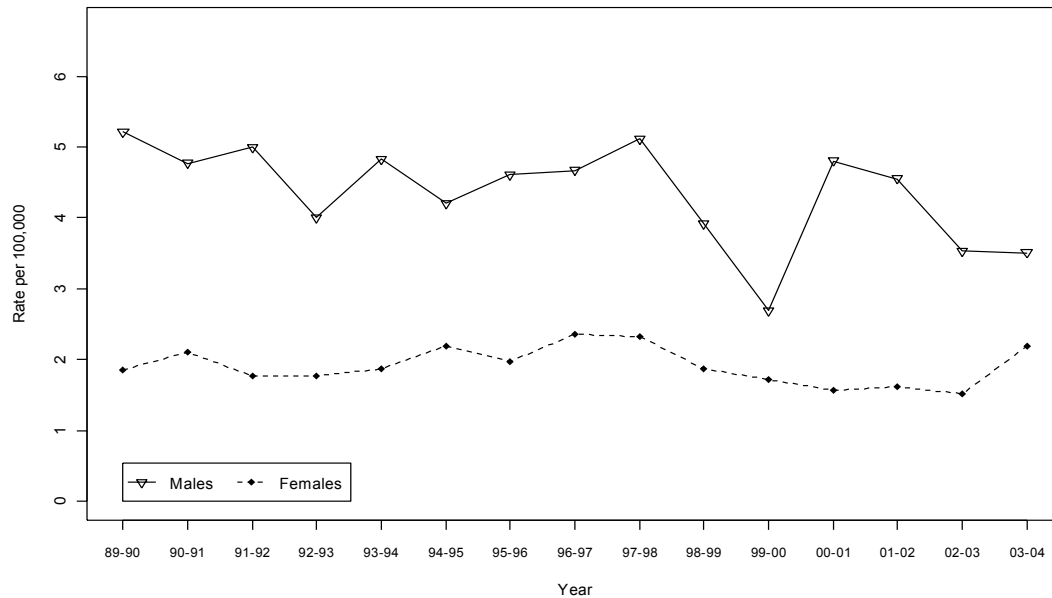
In NSW, drowning was the sixth leading cause of death in NSW during 1998–2002, with 468 deaths, giving a mortality rate of 1.4 per 100,000 population (Schmertmann et al, 2004). The lifetime cost of drowning and near-drowning in NSW has been estimated at \$71.8 million—\$682,336 in direct costs and \$71.1 million in mortality and morbidity costs (Potter-Forbes & Aisbett, 2003).

Near-drowning data from 1989–1990 to 2003–2004 were used to describe the profile of near-drowning hospitalisation involving NSW residents. Hospitalisation data from 1999–2000 to 2003–2004 were used for the majority of analyses, except for the trend analyses, which used data from 1989–1990 to 2003–2004.

Near-drowning was the thirteenth leading cause of injury hospitalisation during 1999–2000 to 2003–2004, and accounted for approximately 0.2% of all injury-related hospitalisations. During this period, there were 914 people hospitalised for near-drowning at a rate of 2.8 per 100,000 population (Table 3). Approximately 183 people were hospitalised each year as the result of near-drowning during 1999–2000 to 2003–2004. Around 70% of near-drowning hospitalisations were of males.

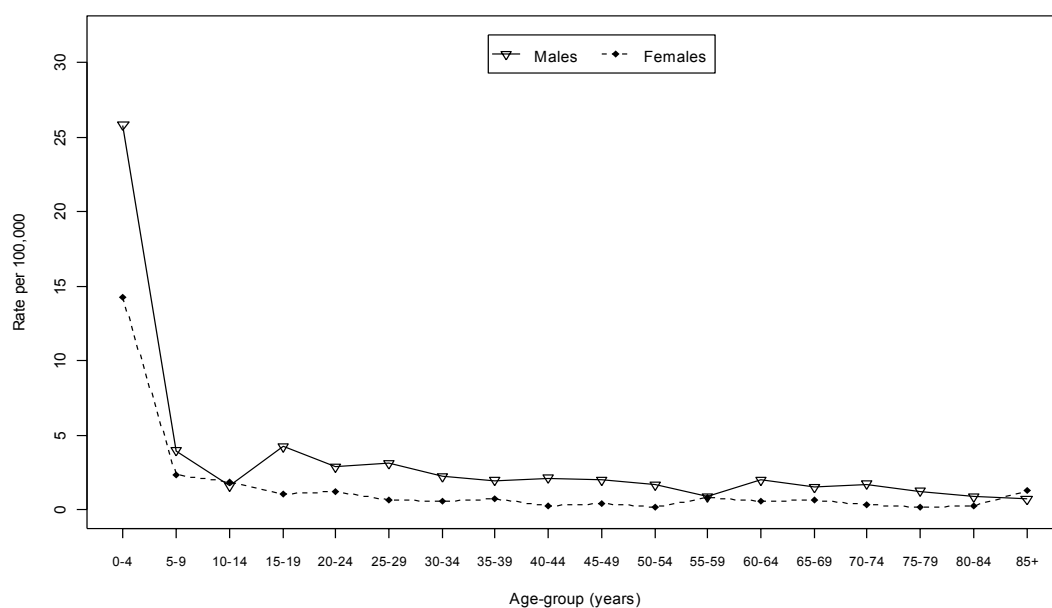
Males had a hospitalisation rate for near-drowning during 1989–1990 to 2003–2004 at least two-and-a-half times the rate for females. Between 1998–1999 and 1999–2000 there was a noticeable decrease in the near-drowning hospitalisation rate for males (Figure 27). The hospitalisation rate was estimated to have decreased significantly by 2.4% per year during 1989–1990 to 2003–2004 (95% confidence interval for the decrease: 1.2% to 3.5%).

Figure 27. Hospitalisation rate for injury due to near-drowning by sex, NSW 1989–1990 to 2003–2004



Children aged 0-4 years had the highest age-specific hospitalisation rate as a result of a near-drowning event during 1999–2000 to 2003–2004, with males aged 0-4 years (25.8 per 100,000 population) having a hospitalisation rate nearly twice that of females of the same age group (14.2 per 100,000 population) (Figure 28).

Figure 28. Age-specific hospitalisation rate for near-drowning by sex, NSW, 1999–2000 to 2003–2004



Swimming pools and *natural water* were the two locations that led to a near-drowning hospitalisation most frequently, and accounted for 38.1% and 29.3% of all near-drowning hospitalisations, respectively. Hospitalisation rates were higher for males than females for all locations except for near-drowning in *bathtubs* (Table 28).

Table 28. Injury hospitalisations by near-drowning location, NSW, number, rate and CI, 1999–2000 to 2003–2004

Location	All Persons			Male			Female		
	N	Rate ¹	95%CI ²	N	Rate ¹	95%CI ²	N	Rate ¹	95%CI ²
Pools	348	1.1	(1.0,1.2)	223	1.3	(1.2,1.5)	126	0.8	(0.7,0.9)
Natural water	268	0.8	(0.7,0.9)	206	1.3	(1.1,1.4)	61	0.4	(0.3,0.5)
Bathtub	68	0.2	(0.2,0.3)	35	0.2	(0.1,0.3)	33	0.2	(0.1,0.3)
Boat-related	62	0.2	(0.1,0.2)	47	0.3	(0.2,0.4)	15	0.1	(0.0,0.1)
Other	168	0.5	(0.4,0.6)	124	0.7	(0.6,0.9)	43	0.3	(0.2,0.4)
All ³	914	2.8	(2.6,3.0)	636	3.8	(3.5,4.1)	278	1.7	(1.5,1.9)

¹ Age-adjusted rate per 100,000 population.

² 95% confidence interval.

³ 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 29 shows near-drowning hospitalisations by age group and location for NSW residents during 1999–2000 to 2003–2004. *Bathtubs* were the location of the majority of near-drowning in children aged less than 1 year. *Swimming pools* were the location where most near-drowning that led to hospitalisation occurred in children aged 1–4 and 5–9 years. For people aged 10 years and older, *natural water* was the most common location where near-drowning occurred that led to hospitalisation.

SUMMARY

Near-drowning was the thirteenth leading cause of injury-related hospitalisation involving NSW residents between 1999–2000 and 2003–2004, accounting for 0.2% of all injury-related hospitalisations. The yearly hospitalisation rate for near-drowning was estimated to decrease for both males and females by 2.7% per year during 1989–1990 to 2003–2004.

In 2003–2004, there were 188 hospitalisations of NSW residents following a near-drowning event, giving a hospitalisation rate of 2.8 per 100,000 population. Just less than one-half (43.9%) of those hospitalised following a near-drowning event were aged 4 years or less.

Swimming pools and *natural water* were the most common locations of a near-drowning event that led to a hospitalisation. Males had higher rates of hospitalisation due to near-drowning in all locations than females, except *bathtubs*.

Table 29. Number of hospitalisations for near-drowning¹ 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	Pool 252	Pool 44	Natural water 16	Natural water 63	Natural water 42	Natural water 42	Natural water 24	Natural water 15	Natural water 17	Pool 348	
2	Natural water 32	Natural water 14	Pool 16	Pool 9	Boat related 19	Pool 7	Boat related 9	Boat related 10	Boat related 8	Natural water 268	
3	Bath tub 59	Bath tub #	Bath tub #	Boat related 8	Pool 6	Boat related #	Pool #	Pool #	Pool 7	Bath tub 68	
4	Boat related #			Bath tub #				Bath tub #	Bath tub #	Boat related 62	
	Other 89	Other 11	Other #	Other 23	Other 12	Other 9	Other 10	Other #	Other #	Other 168	

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