

## 6. Struck by or struck against injuries

This section describes hospitalisations due to unintentional struck by or struck against-related injuries. Struck by/struck against injuries are sustained as a result of contact made between one person and another person(s) or object(s) (WHO, 1977; WHO, 1992). For example, struck by injuries can refer to the type of unintentional contact that may occur between players while they are participating in a sporting activity. There are two main events that cause contact to occur and these are *struck by/struck against a person or object* and *caught between two objects* (WHO, 1977; WHO, 1992).

Struck by/struck against injury-related hospitalisations can also be intentional. A struck by/struck against injury inflicted on one person by another that results in an admission to hospital is classified as an interpersonal violence injury (WHO, 1977; WHO, 1992). Hospitalisations due to intentional struck by/struck against events are described in Section 9 of this report on interpersonal violence.

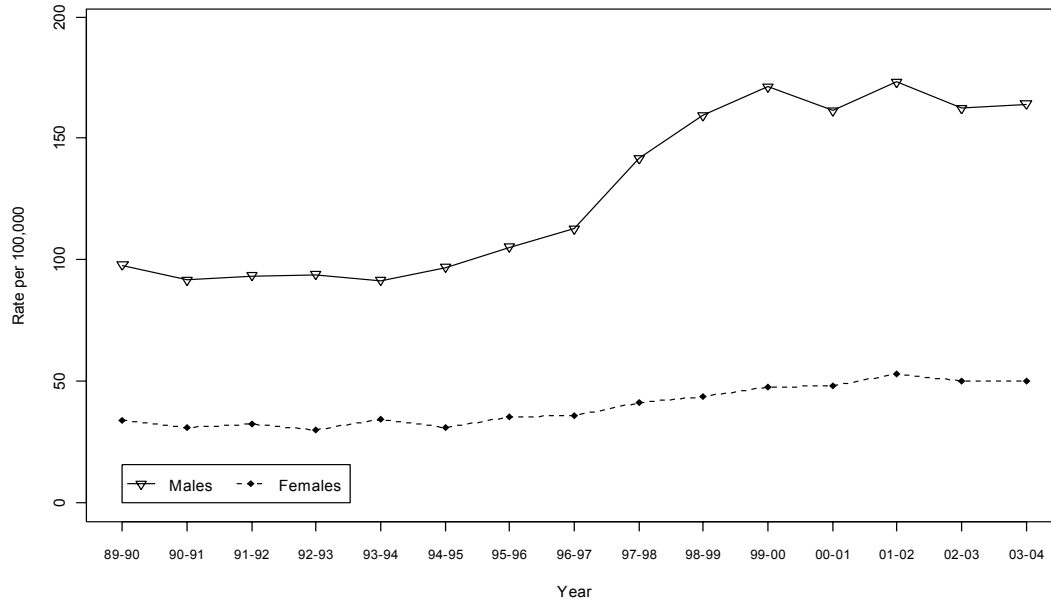
In NSW, struck by/struck against incidents were the tenth leading cause of death in NSW during 1998–2002, with 111 deaths, giving a mortality rate of 0.3 per 100,000 population (Schmertmann et al, 2004).

Struck by/struck against hospitalisation data were used to describe the profile of struck by/struck against injuries to NSW residents. Hospitalisation data during 1999–2000 to 2003–2004 were used for the majority of the analyses, except for the trend analyses, which used data from 1989–1990 to 2003–2004.

Struck by/struck against injuries were the third leading cause of injury hospitalisation in the period 1999–2000 to 2003–2004, and accounted for 7.1% of all injury-related hospitalisations (Table 3). During this period, there were 35,642 hospitalisations for struck by/struck against injuries, at a rate of 108.8 per 100,000 population. There were approximately 7,128 hospitalisations per year due to struck by/struck against injuries during 1999–2000 to 2003–2004.

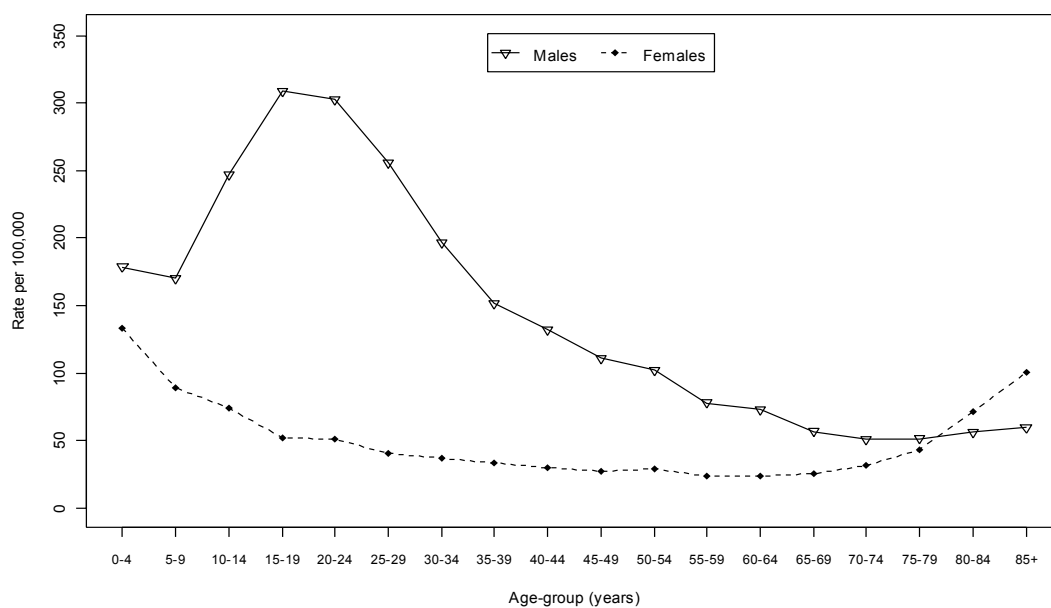
Males had an age-adjusted hospitalisation rate for struck by/struck against injuries at least three times the rate for females during 1989–1990 to 2003–2004. For males the rate of hospitalisations for struck by/struck against injuries remained fairly constant from 1989–1990 to 1996–97 then rose from 1997–1998 to 1999–2000 (Figure 7). Overall, the hospitalisation rate was estimated to have increased significantly by 4.2% per year during 1989–1990 to 2003–2004 (95% confidence interval for the increase: 3.5% to 5.0%).

**Figure 7. Hospitalisation rate for injury due to struck by/struck against injuries by sex, NSW 1989–1990 to 2003–2004**



For males, the 15–24 year age group had the highest rates of age-specific hospitalisation for struck by/struck against injuries during the period 1999–2000 to 2003–2004. In comparison, the highest hospitalisation rate for struck by/struck against injuries for females during the same timeframe was for children aged 0–4 years (Figure 8).

**Figure 8. Age-specific hospitalisation rate for struck by/struck against injuries by sex, NSW, 1999–2000 to 2003–2004**



*Struck by/struck against a person or object* accounted for at least three-quarters of the struck by/struck against hospitalisations for both males (80.3%) and females (75.4%). Overall, the hospitalisation for struck-by/against injuries was 234% higher for males than for females (Table 8).

**Table 8. Injury hospitalisations by struck by/struck against injury cause, NSW, number, rate and CI, 1999–2000 to 2003–2004**

Cause	All Persons			Male			Female		
	N	Rate <sup>1</sup>	95%CI <sup>2</sup>	N	Rate <sup>1</sup>	95%CI <sup>2</sup>	N	Rate <sup>1</sup>	95%CI <sup>2</sup>
Struck by/against a person or object	28,226	86.2	(85.2,87.2)	22,005	133.7	(132.0,135.5)	6,221	37.4	(36.5,38.3)
Caught between two objects	7,416	22.6	(22.1,23.1)	5,389	32.7	(31.8,33.6)	2,027	12.4	(11.8,12.9)
All <sup>3</sup>	35,642	108.8	(107.7,109.9)	27,394	166.4	(164.5,168.4)	8,248	49.8	(48.7,50.9)

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 9 shows the number of hospitalisations due to struck by/struck against injuries by age group for the period 1999–2000 to 2003–2004. *Struck by/against a person or object* was the most common type of struck by/struck against hospitalised injury for all age groups. The number of struck by/struck against injuries was highest for males aged 15–24 years and for females aged 1 to 4 years.

## SUMMARY

Struck by/struck against injuries were the third leading cause of injury-related hospitalisation involving NSW residents between 1999–2000 and 2003–2004, accounting for 7.1% of all injury-related hospitalisations. The yearly hospitalisation rate for struck by/struck against injuries was estimated to have increased significantly by 4.2% per year during 1989–1990 to 2003–2004.

In 2003–2004, there were 7,154 hospitalisations of NSW residents following struck by/struck against injuries, giving a hospitalisation rate of 107.7 per 100,000 population. Around one-half (50.9%) of those hospitalised following a struck by/struck against injury were aged 10–34 years.

*Struck by/struck against a person or object* accounted for around 80% of the struck by/struck against hospitalisations. Males were more likely than females to be hospitalised for a struck by/struck against injury. In particular, males were almost four times more likely to be hospitalised after being *struck by/struck against a person or object* than females. The overall hospitalisation rate was about 234% higher for males than for females.

**Table 9. Number of hospitalisations for struck by/struck against injuries 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	Struck by/against person or object 2,092	Struck by/against person or object 2,199	Struck by/against person or object 3,260	Struck by/against person or object 7,122	Struck by/against person or object 5,268	Struck by/against person or object 3,342	Struck by/against person or object 2,146	Struck by/against person or object 1,075	Struck by/against person or object 1,721	Struck by/against person or object 28,226	
2	Caught between 2 objects 1,299	Caught between 2 objects 753	Caught between 2 objects 428	Caught between 2 objects 909	Caught between 2 objects 1,144	Caught between 2 objects 1,017	Caught between 2 objects 858	Caught between 2 objects 534	Caught between 2 objects 474	Caught between 2 objects 7,416	