

2 Overview of injury deaths in NSW

In 2002, injury and poisonings were the fourth leading cause of death in NSW (see Table 1), as well as the leading cause of death among people aged one to four years and 10–44 years. During the years 1986–2002, approximately 2500 people died each year in NSW as the result of an injury.

Figure 1 shows the trend for all injury deaths rates between 1986 and 2002. Overall, there was a statistically significant declining trend in injury death rates from 1986 to 2002. Male injury deaths rates were significantly higher than those for females in every year. Between 1998 and 2002, 12,605 people died as the result of an injury, at an overall rate of 38.7/100,000 population.

Figure 1. Comparison of male and female annual death rates for all injuries: NSW, 1986–2002

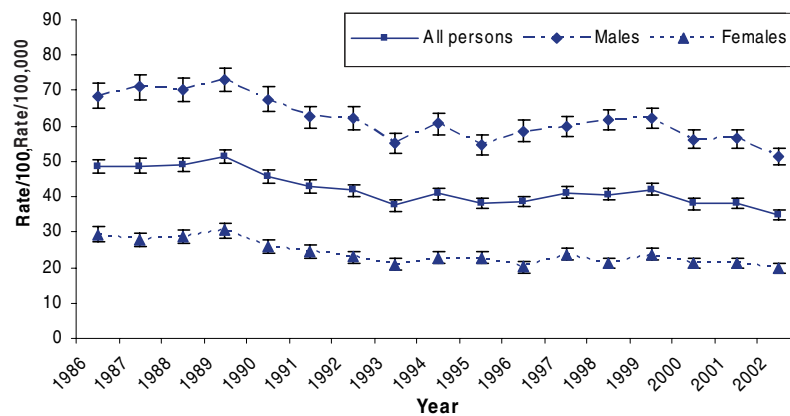


Figure 2 shows the age-specific death rates for all injuries between 1998 and 2002. Death rates were highest in people aged over 70 years and this group accounted for just over 27% of all injury deaths. Collectively, people aged 20–44 years accounted for almost 41% of all injury deaths from 1998–2002.

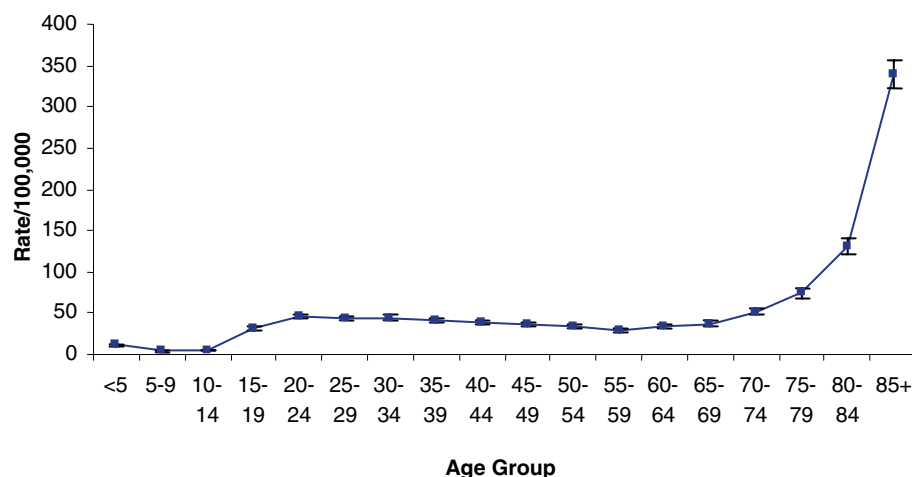
Table 2 shows the number of deaths and death rates by injury mechanism for all persons, males and females, during 1998–2002. The mechanisms presented in this table account for 86% of all injury death causes. Table 2 also shows that 70% of all injury deaths between 1998 and 2002 were in males. Male death rates were significantly higher than female death rates for all injury mechanisms except complications of care. Males were at least three times more likely than females to die from the following injury causes (in descending order):

Table I. Top 10 leading causes of death* by age group: NSW, 2002

Rank	Age group										Total
	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	
1	Perinatal conditions 195	Injury and poisoning 24	Cancer 16	Injury and poisoning 16	Injury and poisoning 264	Injury and poisoning 381	Injury and poisoning 354	Cancer 889	Cancer 1921	Diseases of circulatory system 15466	Diseases of circulatory system 17222
2	Congenital abnormalities 75	Congenital abnormalities 9	Injury and poisoning 13	Nervous system diseases 10	Cancer 38	Cancer 74	Cancer 288	Diseases of circulatory system 468	Diseases of circulatory system 1031	Cancer 9166	Cancer 12414
3	Ill-defined conditions 51	Cancer 9	Congenital abnormalities #	Cancer 7	Nervous system diseases 25	Diseases of circulatory system 49	Diseases of circulatory system 180	Injury and poisoning 302	Respiratory diseases 226	Respiratory diseases 3519	Respiratory diseases 3882
4	Nervous system diseases 10	Ill-defined conditions 7	Infectious diseases #	Respiratory diseases #	Congenital abnormalities 14	Nervous system diseases 28	Digestive diseases 58	Digestive diseases 143	Digestive diseases 176	Nervous system diseases 1340	Injury and poisoning 2357
5	Cancer 6	Diseases of circulatory system 5	Nervous system diseases #	Congenital abnormalities #	Endocrine Systems 13	Mental disorders 26	Infectious diseases 47	Respiratory diseases 77	Injury and poisoning 174	Digestive diseases 1105	Nervous system diseases 1611
6	Injury and poisoning 6	Respiratory diseases 5	Endocrine systems #	Diseases of circulatory system #	Diseases of circulatory system 10	Congenital abnormalities 19	Nervous system diseases 29	Nervous system diseases 69	Endocrine systems 119	Endocrine systems 1071	Digestive diseases 1497
7	Endocrine systems #	Infectious diseases 5	Ill-defined conditions #	Endocrine systems #	Mental disorders 8	Respiratory diseases 18	Mental disorders 27	Infectious diseases 62	Nervous system diseases 92	Genitourinary disease 978	Endocrine systems 1313
8	Diseases of circulatory system #	Nervous system diseases #	Diseases of circulatory system #	Infectious diseases #	Respiratory diseases 7	Endocrine systems 10	Endocrine systems 26	Endocrine systems 60	Infectious diseases 59	Mental disorders 883	Genitourinary disease 1028
9	Respiratory diseases #	Endocrine systems #	Respiratory diseases #	Blood diseases #	Infectious diseases 7	Digestive diseases 9	Respiratory diseases 21	Mental disorders 24	Mental disorders 49	Injury and poisoning 823	Mental disorders 1017
10	Digestive diseases #	Perinatal conditions #	Blood diseases #	Musculoskeletal diseases #	Ill-defined conditions #	Infectious diseases 7	Congenital abnormalities 14	Ill-defined conditions 21	Genitourinary disease 25	Infectious diseases 503	Infectious diseases 697

* Number represents number of deaths. Cause of death was classified according to ICD-10 chapter headings for diseases and external causes of injuries and poisonings (see Appendix 1)

Cell size less than five cases

Figure 2. Age-specific death rates for all injuries: NSW, 1998–2002**Table 2. Number of deaths and age-adjusted death rates/100,000* by injury mechanism: NSW, 1998–2002**

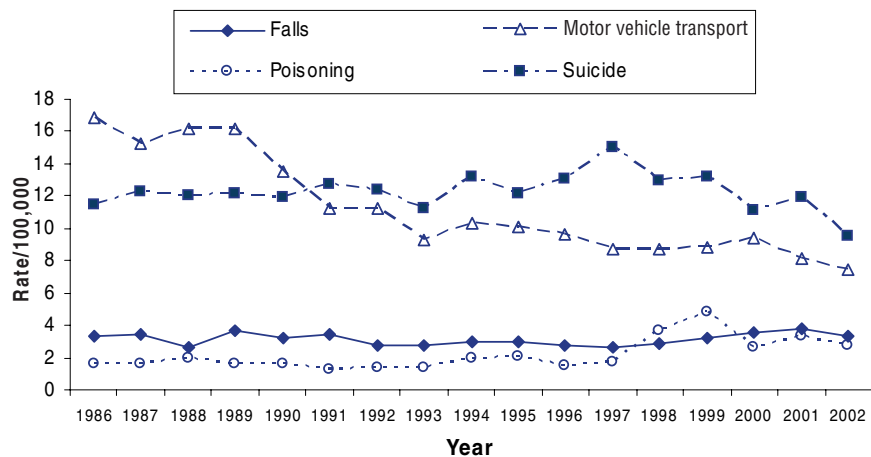
Injury mechanism	All persons		Males		Females		Ratio‡
	N	Rate†	N	Rate†(CI) ††	N	Rate† (CI)	
Suicide	3822	11.71	3051	19.12 (18.44–19.80)	771	4.67 (4.34–5.00)	4.09
Motor vehicle transport	2765	8.49	1983	12.48 (11.93–13.04)	782	4.68 (4.35–5.01)	2.67
Poisoning	1118	3.41	821	5.04 (4.70–5.39)	297	1.80 (1.59–2.00)	2.80
Fall	1093	3.37	642	4.75 (4.38–5.13)	451	2.29 (2.08–2.50)	2.08
Interpersonal violence	513	1.57	360	2.21 (1.98–2.44)	153	0.94 (0.79–1.08)	2.36
Drowning	468	1.44	366	2.28 (2.04–2.51)	102	0.62 (0.50–0.74)	3.68
Suffocation	331	1.02	213	1.48 (1.27–1.68)	118	0.65 (0.53–0.77)	2.27
Fire/burn	180	0.55	103	0.71 (0.57–0.85)	77	0.44 (0.34–0.53)	1.64
Complications of care	174	0.53	85	0.62 (0.48–0.75)	89	0.47 (0.37–0.57)	1.31
Struck by/struck against	111	0.34	99	0.62 (0.50–0.74)	12	0.07 (0.03–0.11)	8.69
Rail transport	83	0.26	70	0.43 (0.33–0.53)	13	0.08 (0.04–0.12)	5.55
Natural/environmental factors	67	0.20	44	0.30 (0.21–0.39)	23	0.13 (0.07–0.18)	2.36
Air transport	66	0.20	54	0.33 (0.24–0.42)	12	0.07 (0.03–0.11)	4.54
Machinery	40	0.12	40	0.25 (0.17–0.32)			
Firearm	35	0.11	32	0.20 (0.13–0.27)			
All Injury**	12605	38.76	8798	57.57 (56.35–58.79)	3807	21.35 (20.67–22.03)	2.70

* Death rates have been age-adjusted using the 2001 Australian census population. † Rate/100,000. ‡ Mortality ratio for male/female. ** includes all other injury mechanisms as well as the 15 mechanisms listed. †† 95% confidence interval.

- struck by or against another object or person (unintentional)
- rail transport
- air transport
- suicide
- drowning.

Figure 3 compares the trends in death rates between 1986 and 2002 for the top four injury mechanisms listed in Table 2 (i.e., suicide, motor vehicle transport, poisoning, falls). These four injury mechanisms accounted for 70% of all injury deaths.

Figure 3. Yearly trend in death rates by selected injury mechanisms: NSW, 1986–2002



In 1991, suicide overtook motor vehicles as the leading cause of injury death. There was a steadily increasing trend until 1997 and then the suicide rate decreased. The incidence of motor vehicle transport deaths has steadily decreased since 1989, although the rate of decline has slowed in recent years. Of the other injury mechanisms shown in Figure 3, the death rate for falls has remained relatively stable, while poisoning death rates increased between 1997 and 1999 and decreased between 1999 and 2002.

SUMMARY

Injury was the fourth leading cause of death for all ages in 2002, accounting for 2357 deaths. It was also a leading cause of death for many age groups, particularly amongst people aged 1–44 years. Analysis of injury death rate trends showed a statistically significant decline from 1986 to 2002 in NSW. Four injury mechanisms accounted for almost 70% of all injury deaths—suicide, motor vehicle transport, poisoning and falls.

Compared with data on all injury deaths from 1995 to 1999 (Schmertmann and Williamson, 2002), the age-specific pattern of injury has not changed. People aged 70+ years had the highest death rates due

to all injuries in NSW during 1998 to 2002. People aged 20–44 years had the second highest rates for all injury deaths.

Males accounted for 70% of all injury deaths between 1998 and 2002 in NSW. Male rates were also significantly higher for all injury mechanisms except complications of care. Males and females had relatively equal risk for fire/burns and complications of care. These results are similar to those reported for males and females from 1995 to 1999 in NSW (Schmertmann and Williamson, 2002). This suggests that factors independent of sex influence the causation of fire/burns and complications of care.

Similarities between the 1995–1999 and 1998–2002 periods for age- and sex-specific injury deaths were found for all injury causes. This demonstrates a stable association between the cause of injury death and age over these years. As people get older, their risk for some types of injury increases whereas their risk for other types of injury decreases.

For example, children under age five years are most at risk of drowning, poisoning or being injured as a result of a fall. As children age, they become more physically active and often participate in sports and other activities with an increased risk of being injured as the result of a fall. Teenagers and young adults are most at risk of suicide and motor vehicle transport injuries. Adults who work are at risk of occupational injuries. Finally, older adults are at risk of injury caused by falls.

These examples serve to illustrate how people's life experiences can influence their level of injury risk from different causes as they age.

The following chapters present trend and age- and sex-specific data for the top 15 causes of injury death. Age-specific data is then presented to compare the top six injury mechanisms for selected age groups.