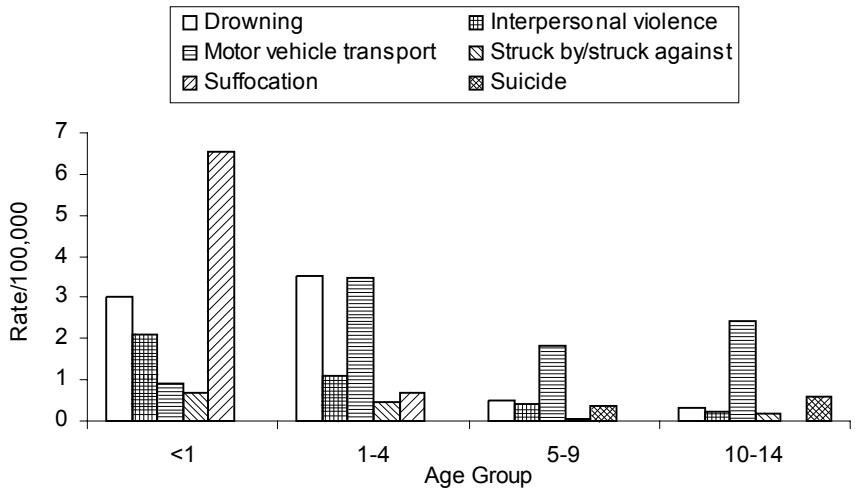
18 Injury mechanism comparison within age groups

The following sections compare death rates for various age groups by each injury mechanism. The age groups are broken down into five age-brackets: under age 15 years, 15–34 years, 35–54 years, 55–74 years and 75+ years.

18.1 Death rates in under-15-year-olds

Figure 34 shows the age-specific death rates for the six most common injury mechanisms in children under age 15 years. Suffocation was the leading cause of injury death in children under age one year in NSW for 1998–2002, followed by drowning. Drowning was the leading cause of injury death for children aged one to four years, followed very closely by motor vehicle transport. For children aged five to 14 years, motor vehicle transport was the leading cause of injury death. Age-specific rates for other causes of injury death in children aged five to 14 years were much lower compared to the age-specific death rate for motor vehicle transport.

Figure 34. Comparison of age-specific death rates in under-15-year-olds by injury mechanism: NSW, 1998–2002

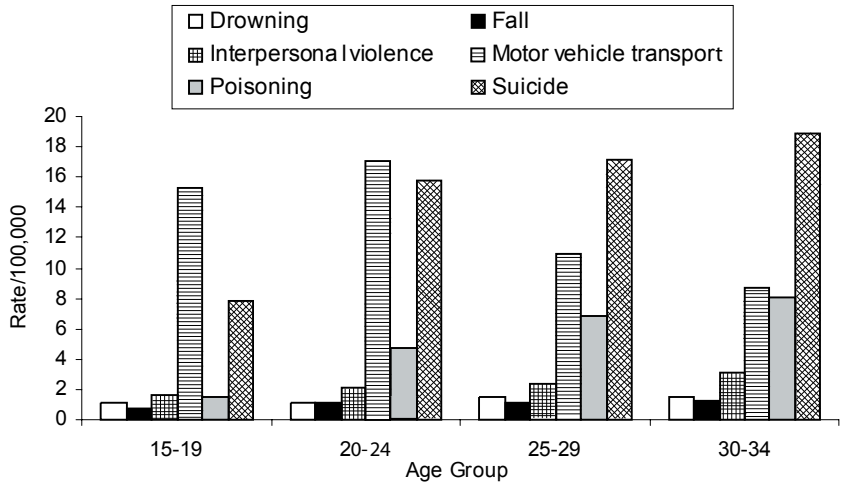


18.2 Death rates in 15–34-year-olds

Figure 35 shows the age-specific death rates for the six most common injury mechanisms for people aged 15–34 years. Motor vehicle transport was the leading cause of death in people aged 15–24 yeas in NSW during 1998–2002, followed by suicide. For people aged 25–34, suicide was the leading cause of

injury death, followed by motor vehicle transport. Poisoning was the third leading cause of injury death for people aged 15–34. For interpersonal violence, poisoning and suicide, death rates increased as age increased.

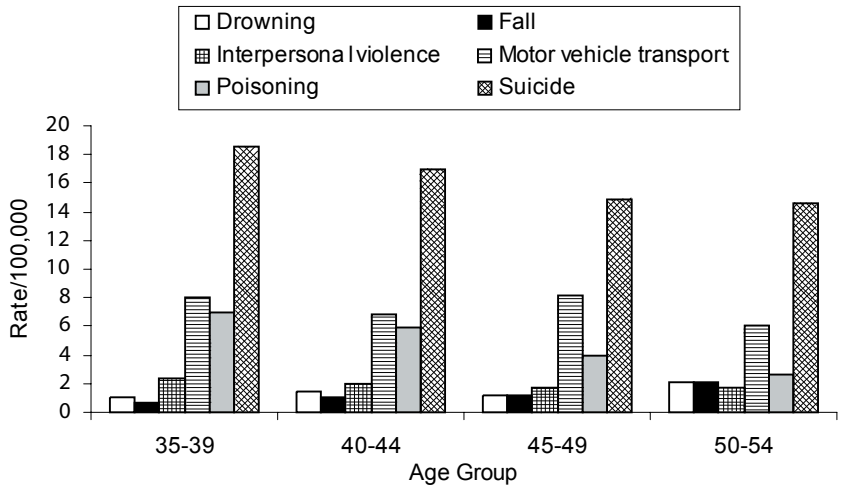
Figure 35. Comparison of death rates in 15–34-year-olds by injury mechanism: NSW, 1998–2002



18.3 Death rates in 35–54-year-olds

Figure 36 shows the age-specific death rates for the six most common injury mechanisms for people aged 35–54 years. Suicide was the leading cause of injury death in people aged 35–54 years in NSW for 1998–2002. Motor vehicle transport was the second leading cause of injury death for people aged 35–54, but the age-specific rates were much smaller compared to the rates for suicide. Poisoning was the third leading cause of injury death for people aged 35–54, but showed decreasing death rates with increasing age.

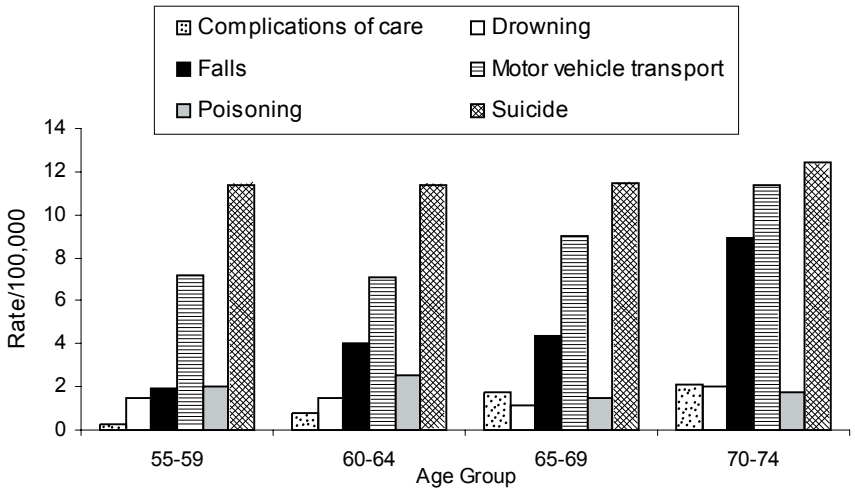
Figure 36. Comparison of death rates in 35–54-year-olds by injury mechanism: NSW, 1998–2002



18.4 Death rates in 55–74-year-olds

Figure 37 shows the age-specific death rates for the six most common injury mechanisms for people aged 55–74 years. Suicide was the leading cause of injury death in people aged 55–74 in NSW during 1998–2002, but the age-specific rates were roughly equal among the individual age groups. Motor vehicle transport and poisoning were the second and third leading causes of injury death respectively, for people aged 55–74 years. Both of these injury mechanisms showed increasing death rates with increasing age.

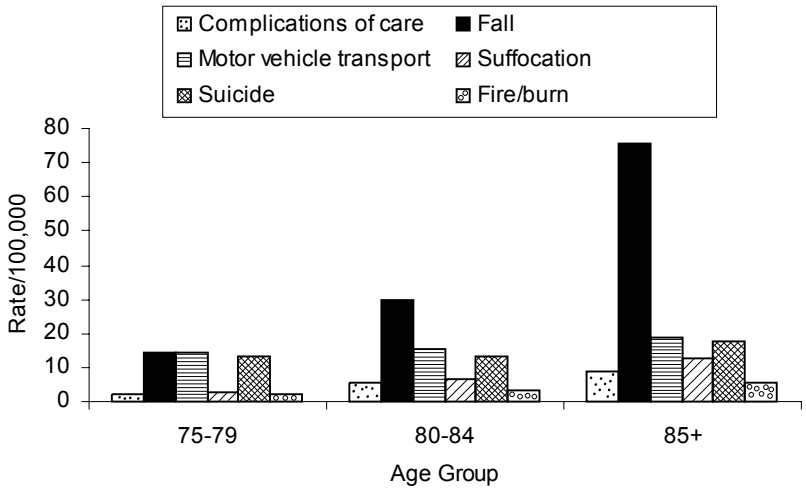
Figure 37. Comparison of death rates in 55–74-year-olds by injury mechanism: NSW, 1998–2002



18.5 Death rates in people aged at least 75 years

Figure 38 shows the age-specific death rates for the six most common injury mechanism by age-specific death rates for people aged 75+ years. People aged 75–79 had very similar rates for the leading causes of injury death in NSW during 1998–2002. These causes were falls, motor vehicle transport and suicide. For people aged 80+ years, falls were the leading cause of injury death. Age-specific death rates for people aged 80+ years due to motor vehicle transport and suicide were also very similar as the second leading cause of death.

Figure 38. Comparison of death rates for 75+-year-olds by injury mechanism: NSW, 1998–2002



18.6 Top 10 leading causes of injury deaths by age group

Table 33 shows the leading causes of injury death by age groups in NSW for 1998–2002. Suffocation was the leading cause of injury death in children under age one year and drowning was the leading cause of injury death for children aged one to four years. For people aged five to 24 years, motor vehicle transport was the leading cause of death. Suicide was the leading cause of death for people aged 25 to 64 years and falls were the leading cause for people aged 65+ years.

18.7 Summary

A comparison of injury death rates across age groups demonstrates that an age group's risk for a particular injury mechanism changes as the group ages. The leading cause of injury death varied across the life span:

- In children under age one year, suffocation was the leading cause of injury death.
- In children aged one to four years, drowning was the leading cause of injury death, followed very closely by motor vehicle transport.
- In people aged five to 24 years, motor vehicle transport was the leading cause of injury death.
- In people aged 25–74 years, the leading cause of injury death was suicide.
- In people aged 75–79 years, two injury mechanisms (motor vehicle transport and falls) were the leading causes of injury death.
- In people aged 80+ years, falls were the leading cause of injury death.

The differences in the causes of injury death across age groups are similar to data previously reported for the period 1995 to 1999 (Schmertmann and Williamson, 2001), although a direct comparison was not possible for most age groups due to the use of different age groups in the this report. The consistency of the leading causes of injury death for age groups across the two time periods suggests a stable association between the cause of injury death and age groups at risk.

Two mechanisms accounted for the leading causes of injury death in most age groups (i.e., suicide and motor vehicle transport). In the case of motor vehicle transport deaths, two subcategories of motor vehicle transport accounted for the leading causes of death in people aged five to 24 years. Children aged five to nine years died most often as pedestrians in a traffic situation whereas people aged 10–24 years of age died most often as occupants of motor vehicles in traffic situations. A subgroup of people aged 10–24 years of age would have been drivers and not just occupants of the motor vehicle, but this specific information was not available for this report. Motor vehicle transport was also the second leading cause of death in children aged one to four years. Children in this category died most often as motor vehicle occupants.

In the case of suicide deaths, two sub-mechanisms accounted for the leading cause of death in people aged 25–74 years. Suicide cases aged 24–44 and 65+ years died most often as the result of hanging, strangulation or suffocation. Suicide cases aged 45–64 years died most often as a result of poisoning.

As age is obviously a contributing factor in injury deaths, it would seem to play a larger role in injury deaths for children than for adults. As children continue to age and become adults, factors other than their physical development will play the largest roles in the occurrence of injuries causing death. For adults, these factors are behavioural and/or environmental in nature (e.g. risk-taking behaviour).

The factors influencing the occurrence of injury resulting in death may be developmental, behavioural or environmental in nature depending on the age of the person involved. It would be appropriate for these factors to be investigated as appropriate for the age group and injury mechanism being studied in order to identify targeted avenues for injury prevention and policy initiatives.

Table 33. Top 10 leading causes of death* by age group and injury mechanism: NSW, 1998–2002†

	Age group										
	<1	1–4	5–9	10–14	15–24	25–34	35–44	45–54	55–64	65+	Total
1	Suffocation 28	Drowning 62	Motor vehicle transport 41	Motor vehicle transport 54	Motor vehicle transport 703	Suicide 876	Suicide 886	Suicide 639	Suicide 344	Fall 778	Suicide 3822
2	Drowning 13	Motor vehicle transport 61	Drowning 11	Suicide 13	Suicide 515	Motor vehicle transport 476	Motor vehicle transport 370	Motor vehicle transport 308	Motor vehicle transport 216	Suicide 548	Motor vehicle transport 2765
3	Interpersonal violence 9	Interpersonal violence 19	Interpersonal violence 9	Drowning 7	Poisoning 136	Poisoning 361	Poisoning 323	Poisoning 143	Fall 87	Motor vehicle transport 532	Poisoning 1118
4	Motor vehicle transport #	Suffocation 12	Suffocation 8	Interpersonal violence 5	Interpersonal violence 82	Interpersonal violence 131	Interpersonal violence 109	Interpersonal violence 75	Poisoning 68	Suffocation 143	Fall 1093
5	Struck by/ against #	Struck by/ against 8	Fall #	Fire/burn 5	Drowning 47	Drowning 71	Drowning 63	Fall 73	Drowning 46	Complications of care 134	Interpersonal violence 513
6	Poisoning #	Fall 6	Fire/burn #	Struck by/ against #	Fall 39	Fall 58	Fall 45	Drowning 71	Interpersonal violence 38	Fire/burn 89	Drowning 468
7	Complications of care #	Fire/burn #	Natural/ environmental factors #	Poisoning #	Rail transport 25	Suffocation 34	Suffocation 34	Suffocation 35	Suffocation 20	Poisoning 78	Suffocation 331
8		Poisoning #	Struck by/ against #	Fall #	Suffocation 17	Rail transport 22	Struck by/ against 16	Struck by/ against 26	Fire/burn 16	Drowning 77	Fire/burn 180
9		Rail transport #	Poisoning #	Water transport #	Struck by/ against 12	Fire/burn 14	Fire/burn 15	Fire/burn 26	Complications of care 16	Interpersonal violence 36	Complications of care 174
10		Natural/ environmental factors #	Rail transport #	Air transport #	Fire/burn 10	Struck by/ against 11	Air transport 14	Machinery 13	Air transport 12	Natural/ environmental factors 35	Struck by/ against 111

** Numbers represent the number of cases. † Injury mechanisms were classified according to recommended Ecode groupings for ICD-9 and ICD-10 from the Centers for Disease Control, USA. See Appendix 3. # Cell size less than five cases*