

15 Air transport

Incidents in air transport are an unintentional cause of injury death (WHO 1977, WHO 1996). WHO classifies the cause of natural/environmental factors deaths by the type of aircraft used. The aircraft types include *powered* (with a motor) and *non-powered* (e.g. glider). No additional information regarding the role of the occupants (i.e., pilot, passenger), the size of the aircraft or the circumstances of the air transport death is available.

Air transport death data from 1986 to 2002 were used to describe the demographic profile of air transport deaths in NSW. Death data during 1998–2002 were used for the majority of the analyses, but trend analyses used death data from 1986 to 2002.

Air transport was the thirteenth leading cause of injury death from 1998–2002 and accounted for less than 1% of all injury deaths (see Table 2). During these years, 66 people died from air transport-related events, at an overall rate of 0.2 people/100,000 and approximately 82% were male. Approximately 18 people died each year from 1986 to 2002 as the result of air transport.

Figure 28 shows the yearly trend in death rates for air transport from 1986 to 2002. The air transport death rate showed a statistically significant decline between 1986 and 2002, the rates have been particularly lower since 1999.

Figure 28. Yearly trend in death rates for air transport: NSW, 1986–2002

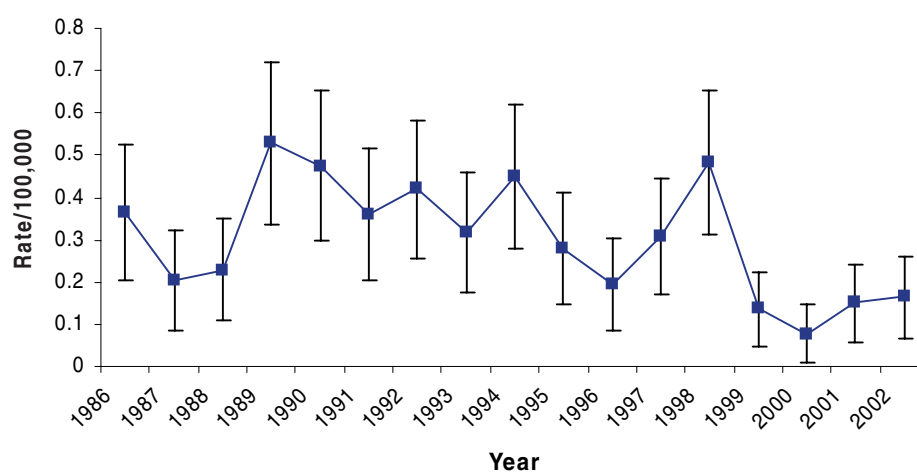


Figure 29 shows the age-specific death rates for air transport between 1998 and 2002. People aged 60–69 years had the highest rates of death due to air transport. Deaths of people aged 60–69 years accounted for 25% of all air transport deaths between 1998 and 2002.

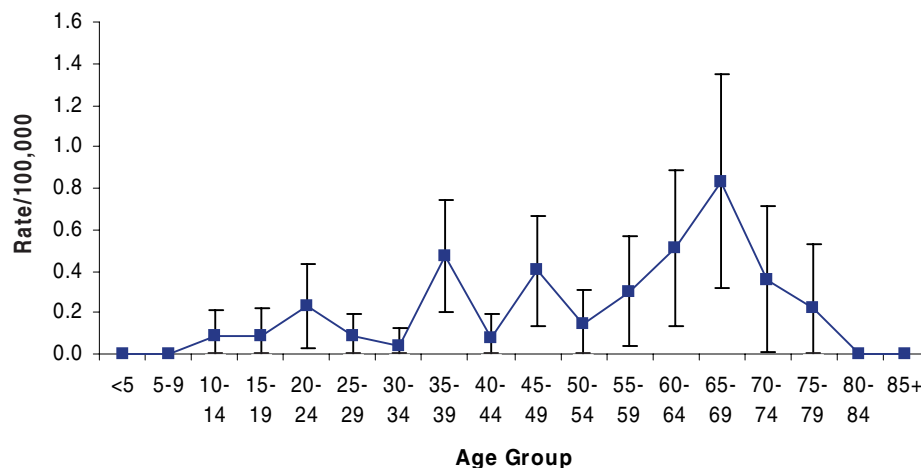
Figure 29. Age-specific death rates for air transport: NSW, 1998–2002

Table 27 shows the number of air transport deaths and death rates by the type of aircraft involved for all persons, males and females, during 1998–2002. *Other and unspecified aircraft types* and *powered aircraft* caused all air transport deaths and accounted for 60% and 40% of all air transport deaths respectively. Males accounted for 85% of all air transport deaths due to *other and unspecified aircraft types* and 78% of all air transport deaths due to *powered aircraft*.

Other and unspecified aircraft types were responsible for the majority of male air transport deaths and accounted for 61% of all male air transport deaths. The male air transport death rate was more than three times the corresponding rates for females in all categories. *Other and unspecified aircraft types* and *powered aircraft* types were equally responsible for female air transport deaths during 1998–2002.

Table 28 shows air transport deaths by age group and type of aircraft involved in NSW for 1998–2002. *Other and unspecified aircraft types* was the leading cause of air transport deaths in people aged 35–44 years and people aged 55+ years. For people aged 25–34 years and people aged 45–54 years, *powered aircraft* was the leading cause of air transport death.

Table 27. Number of air transport deaths and death rates/100,000* by type of aircraft: NSW, 1998–2002

Type of aircraft	All persons		Males		Females		Ratio [‡]
	N	Rate [†]	N	Rate [†] (CI) ^{††}	N	Rate [†] (CI)	
Other and unspecified	39	0.12	33**	0.20 (0.13–0.27)	6**	0.04 (0.01–0.07)	5.53
Powered	27	0.08	21	0.13 (0.07–0.18)	6	0.04 (0.01–0.07)	3.53
All air transport	66	0.20	54	0.33 (0.24–0.42)	12	0.07 (0.03–0.11)	4.54

* Death rates have been age-adjusted using the 2001 Australian census population. † Rate/100,000. ‡ Mortality ratio for male/female. **includes non-powered aircraft for males and females. †† 95% confidence interval.

SUMMARY

Air transport accounted for approximately 18 deaths each year from 1986 to 2002. Analysis of the trend for air transport death rates showed no statistically significant change between 1986 and 2002, though rates have been generally lower since 1999. Lower air transport death rates may be due to the change in coding structures between ICD-9 and ICD-10. People aged 60–69 years had the highest rates of death due to air transport in NSW during 1998–2002. No comparison can be made with previous results for age-specific death rates as data for air transport were not examined from 1995 to 1999 by Schmertmann and Williamson (2002).

Other and unspecified aircraft types and *powered aircraft* led to air transport deaths most often in NSW during 1998–2002. *Other and unspecified aircraft types* was the leading cause of air transport deaths in people aged 35–44 years and people aged 55+ years. For people aged 25–34 years and people aged 45–54 years, *powered aircraft* was the leading cause of air transport death.

Males accounted for 82% of all air transport deaths in NSW during 1998–2002. They accounted for 85% of all air transport deaths due to *other and unspecified aircraft types* and 78% of all air transport deaths due to *powered aircraft*.

Although only a small number of deaths are caused each year by air transport, males account for the majority of deaths. Powered aircraft accounted for nearly half of all air transport deaths, but details of the nature of the aircraft itself (i.e., size) and the purpose of the flight is unknown (i.e., recreation, business) from this data. These unknown variables indicate the need for more information regarding the circumstances of air transport deaths.

Future attention should be given to improving the data collection and coding systems so that the number of air transport deaths coded as *other and unspecified* is greatly reduced. Until these changes can be made, an alternate data source (e.g. coronial data, Australian Transport Safety Bureau data) should be used to investigate the nature of these air transport-related deaths.

Table 28. Air transport deaths* by age group and aircraft type †: NSW, 1998-2002

Rank	Age group								Total
	<10	10-14	15-24	25-34	35-44	45-54	55-64	65+	
1		Other and unspecified #	Other and unspecified #	Powered #	Other and unspecified 6	Powered 7	Other and unspecified 8	Other and unspecified 10	Other and unspecified 34
2		Powered #	Other and unspecified #	Powered 5	Powered 5	Other and unspecified #	Powered #	Powered 6	Powered 27
3		Non-powered #	Non-powered #	Non-powered #	Non-powered #	Non-powered #	Non-powered #	Non-powered #	Non-powered 5

* Numbers represent the number of cases. † See Appendix 4 for air transport aircraft type codes. # Cell size less than five cases