



No. 161

Firearm-Related Deaths in Australia 1998

Jenny Mouzos

In Australia in 1998 there were 328 firearm-related deaths; 71.6 per cent were suicides and 17.4 per cent were homicides. Males aged 65 and over have the highest firearms mortality rate. The Northern Territory, Tasmania, South Australia and Queensland had above average firearm-related death rates (per 100 000 population) and the Australian Capital Territory and Western Australia had the lowest rates. While suicides are more likely to be committed with a "hunting rifle", homicides are more likely to be committed with a handgun.

This paper provides a statistical overview of deaths whose underlying cause was reported as being firearm-related in Australia for the year 1998. It is the first in a series of reports that will be produced on an annual basis examining firearm-related deaths in Australia and in each of Australia's states and territories. These reports will primarily be based on analyses of the Australian Bureau of Statistics (ABS) External Causes of Death data supplied to the ABS by the State and Territory Registrars of Births, Deaths and Marriages. This report includes statistics on firearms deaths as a whole, as well as statistics on suicides, homicides, fatal accidents, deaths as a result of legal intervention, and also deaths where the injury was undetermined as to whether it was accidentally or purposely inflicted.

Adam Graycar
Director

Number and Death Rates

In 1998, a total of 127 202 deaths were registered in Australia (ABS 1999a). Of these deaths, only 328 (0.26%) were firearm-related. Of total deaths from external causes ($n = 7180$), which includes accidents of all types, and all suicides and homicides, firearm deaths accounted for 4.6 per cent.

Suicides accounted for the majority (71.6%) of firearms deaths in 1998, followed by homicides (17.4%), deaths resulting from accidental discharge of firearms (6.4%), and deaths that were classified as undetermined by the coroner, as it was unclear whether the injury was purposely or accidentally inflicted (2.4%).¹ A further 2.1 per cent of firearm-related deaths resulted from legal intervention (deaths as a result of law enforcement officers performing their legal duties [ABS 1997]) (see Table 1).

In terms of rates, the firearm death rate in 1998 was 1.75 per 100 000 Australian residents (see Table 1). This represents a noticeable decrease in comparison to 1997, where the firearm deaths rate was recorded as being 2.36 (Mouzos 1999). In other words, in 1998 Australia recorded 110 fewer firearm-related deaths than in 1997 and 195 fewer firearm deaths than in 1996.

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Table 1: Australia: Firearm-Related Deaths 1998* : Number, Percentage and Rate Per 100 000 Population

Cause of death	Number	Percentage	Rate per 100 000 population
Accident	21	6.4	0.11
Suicide	235	71.6	1.25
Homicide	57	17.4	0.30
Legal intervention	7	2.1	0.04
Undetermined	8	2.4	0.04
Total	328	100.0	1.75

*For a historical overview of firearm-related deaths, see Mukherjee and Carcach (1996) and Mouzos (1999, 2000).
Source: Adapted from ABS *Causes of Death 1998* unit record files.

Jurisdictional Comparisons

Analysis of the “place of usual residence of the deceased” indicates that in comparison to other Australian jurisdictions, New South Wales recorded the highest number (n = 91) of firearm-related deaths in 1998 (see Table 2). Queensland recorded the second highest (n = 76), followed by Victoria, South Australia, Western Australia and the Northern Territory. The Australian Capital Territory recorded only one firearm-related death in 1998, which was a suicide (see Table 2).

In contrast, when firearm death rates are examined rather than numbers, some jurisdictions recorded higher firearm-death rates than Australia as a whole. For example, the Northern

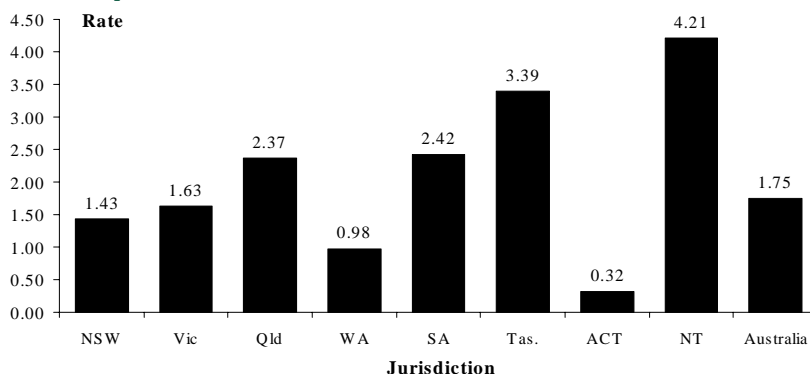
Territory (rate of 4.21) and Tasmania (rate of 3.39) stand out as the two areas with the highest rates (see Figure 1). This finding is consistent with previous research examining firearms deaths from 1980 to 1995 in Australia (ABS 1997). Queensland (rate of 2.37) and South Australia (rate of 2.42) also recorded death rates above the total rate for Australia.

Although New South Wales had the highest number of firearms deaths in 1998, in terms of rates, New South Wales recorded the third lowest firearms-death rate (see Figure 1).

Type of Firearm Used

Based on information recorded on each death certificate, deaths

Figure 1: Australian States and Territories, Firearm-Related Deaths, Rate Per 100 000 Population, 1998



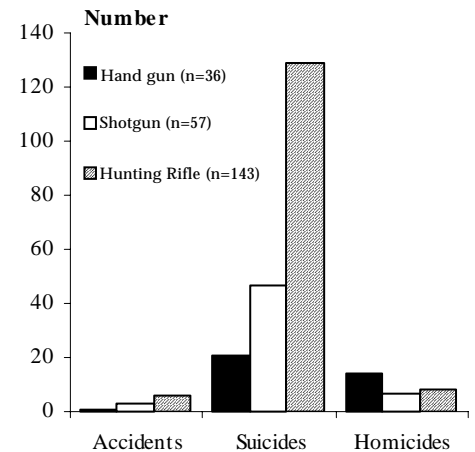
Source: Adapted from ABS *Causes of Death 1998* unit record files.

Table 2: Australian States and Territories: Firearm-Related Deaths, 1998

Cause of Death	NSW	Vic.	Qld	WA	SA	Tas.	ACT	NT	Total
Accident	2	4	8	2	0	4	0	1	21
Suicide	61	52	61	13	29	12	1	6	235
Homicide	24	14	11	2	6	0	0	0	57
Legal Intervention	4	3	0	0	0	0	0	0	7
Undetermined	0	3	2	1	1	0	0	1	8
Total	91	76	82	18	36	16	1	8	328

Source: Adapted from ABS *Causes of Death 1998* unit record files.

Figure 2: Australia: Type of Firearm-Related Death*, By Type of Firearm Involved, 1998



*Excludes legal intervention and undetermined cases (n=5).
Source: Adapted from ABS *Causes of Death 1998* unit record files.

are classified according to the following types of firearms: hand gun, shotgun, hunting rifle, military firearm, and other firearm. The other firearm category (“unknown”) includes those firearms where the information given on the death certificates was not adequate to determine the specific type of firearm (ABS 1997).

Of all homicides, suicides and accidental firearm-related deaths registered in 1998, in 24.6 per cent of these cases (n = 77, excluding legal intervention and undetermined deaths), the type of firearm involved was not specified on the death certificate. Based therefore only on available information as to the type of firearm used (n = 236), the majority of firearm deaths were committed with a hunting rifle (60.6%), followed by a shotgun (24.2%), and a hand gun (15.3%) (see Figure 2). There were no registered deaths committed with a military style firearm.

However, when the type of firearm-related death is examined, it appears that a hand gun was the most common type of firearm used to commit firearm-related homicide in 1998. This finding corresponds with recent research on the types of firearms most commonly used to commit homicide in Australia (see Mouzos 2000).

Gender Variation

Research has consistently indicated that males are more likely to die as a result of firearm injury than females (ABS 1997; New South Wales Bureau of Crime Statistics and Research 1990). This was also the case during the year 1998 (see Figure 3).

Nine out of ten firearm deaths involved males (see Table 3). Of all male firearm deaths, suicides accounted for the largest proportion (74.1%). The largest proportion of female firearm-deaths was caused by suicide (50.0%), although there were only 34 firearm-related deaths that involved females.

Table 3: Australia: Firearm-Related Deaths: Number and Rates Per 100 000 Relevant Population, By Gender, 1998

Cause of death	Males		Females	
	No.	Rate	No.	Rate
Accident	19	0.20	2	0.02
Suicide	218	2.34	17	0.18
Homicide	43	0.46	14	0.15
Legal Intervention	7	0.08	0	0.00
Undetermined	7	0.08	1	0.01
Total	294	3.15	34	0.36

Source: Adapted from ABS *Causes of Death 1998* unit record files.

Table 4: Australia: Type of Firearm-Related Death, By Age Group, 1998

Firearm-related deaths	0-14	15-24	25-34	35-44	45-54	55-64	65+	Total
Accidents	2	3	4	4	2	3	3	21
Suicides	2	38	43	39	30	26	57	235
Homicides	1	12	16	14	9	2	3	57
Undetermined	0	0	2	2	2	1	1	8
Legal Intervention	0	2	4	1	0	0	0	7
Total	5	55	69	60	43	32	64	328

Source: Adapted from ABS *Causes of Death 1998* unit record files.

Figure 3: Australia: Monthly Firearm-Related Deaths, By Gender, 1998

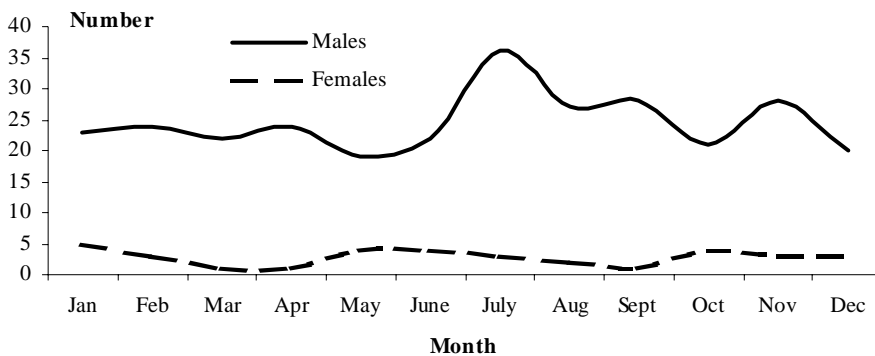


Figure 4: Australia: Firearm-Related Deaths, Rate Per 100 000 Population, By Gender and Age Group, 1998

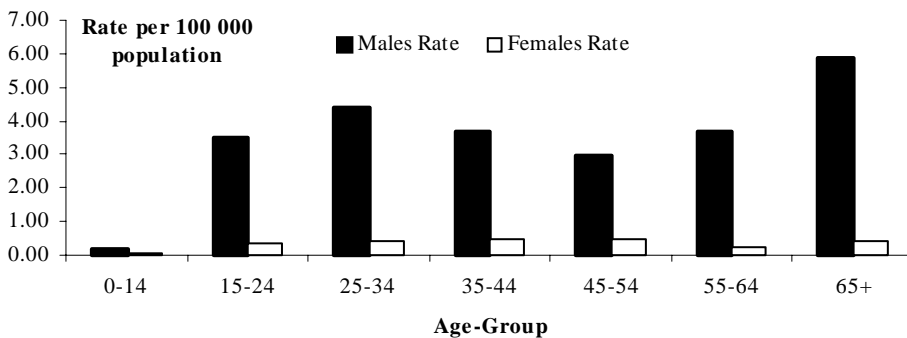
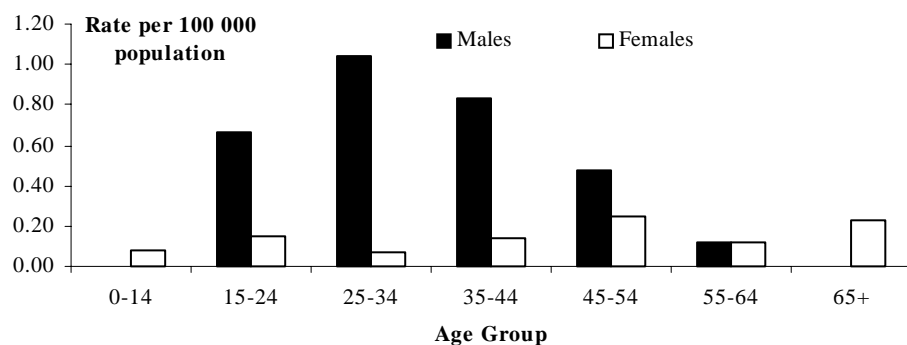


Figure 5: Australia: Firearm-Related Homicide, Rate Per 100 000 Population, By Gender and Age Group, 1998



Source (figures 3, 4 and 5): Adapted from ABS *Causes of Death 1998* unit record files.

In 1998, the firearm-death rate for males was 3.15 per 100 000 relevant population, and for females the rate was 0.36 per 100 000 relevant population (see Table 3).

Age Variation

Firearm-related mortality varies greatly with age. During 1998, there were very few firearm-related deaths of children under the age of 15 years. In comparison, the largest number of firearm-related deaths were recorded for persons aged between 25-34 years, followed by people aged 65+ (see Table 4).

However, when age and gender specific rates (number of firearm deaths per 100 000 in each age group and for each gender) are calculated for Australia for the year 1998, it appears that for males the highest rate of firearm-mortality was for the 65 and over age group. Males aged between 25-34 years had the second highest firearm mortality rate (see Table 5 and Figure 4).

For females, the firearm-mortality rate was highest between the ages of 35-54 (see Table 5 and Figure 4). Overall, persons aged 65 years and over had the highest firearm-death rate for the year 1998.

Table 5: Australia: Firearm-Related Deaths, Number and Rate Per 100 000 Population, By Gender and Age Group, 1998

Age group (years)	Males		Females		Persons	
	No.	Rate	No.	Rate	No.	Rate
0-14	4	0.20	1	0.08	5	0.15
15-24	48	3.51	7	0.36	55	1.66
25-34	63	4.37	6	0.42	69	2.39
35-44	53	3.67	7	0.48	60	2.07
45-54	37	2.97	6	0.49	43	1.74
55-64	30	3.68	2	0.25	32	1.98
65+	59	5.90	5	0.39	64	2.80
All Ages	294	3.15	34	0.36	328	1.75

Source: Adapted from ABS *Causes of Death 1998* unit record files.

Previous research indicates that the type of firearm death varies with age (ABS 1997).

As previously stated, firearm-related homicide accounted for just under one in every five firearm-related deaths recorded in 1998. The highest risk age group for firearm-homicide victimisation both for males and all persons was 25-34 years. For females, the highest risk age group for firearm-homicide victimisation was 45-54 years.

In comparison, persons aged 65 and over had the highest firearm-suicide rate in 1998. For males aged 65 years and over, the firearm-suicide rate in 1998 was 5.5 per 100 000 (see Figure 6). The second highest firearm-suicide rate was for males aged between 55-64 (rate of 3.2), followed by males aged between 25-34 years (rate of 2.6).

Most research on suicide has focused predominantly on youth suicide. Although youth suicide

overall is quite high in comparison to other age groups, there is another age group that experiences a high suicide rate, and that group is the elderly. The number of suicides among older age groups is likely to rise, given that these groups constitute the fastest-growing segment of the population. For example, in 1998, 12 per cent of the Australian population was aged 65 years and over. The ABS has predicted that the average age of the Australian population will increase rapidly over the next few decades—from 34 years in 1997 to 41 years in 2021 and 45 years in 2051 (ABS 1996).

Research indicates that over the past few decades, suicide rates among the middle aged and the elderly have decreased markedly (National Advisory Council on Suicide Prevention 1999). Moreover, the elderly are generally more likely to use more lethal means, such as firearms, than younger persons. This is borne out by the findings of the present research where persons aged 65 years and over, and especially elderly males, had the highest firearm-suicide rate in 1998, compared to all other age groups (see Figure 6).

It has been argued that with persons living longer, the problems which beset the elderly, such as chronic illness, institutional care and isolation and which may have contributed to high rates of suicide in the past, have shifted into even older age categories (Hassan 1995). There may also be a decreasing stigma attached to suicide particularly among the chronically ill.

Further examination of firearm-related suicide amongst elderly males in 1998 reveals that of those who committed suicide, males aged 85 years and over had the highest firearm-suicide rate; a rate of 7.2 per 100 000 relevant population (see Figure 7). “The significance of higher suicide rates among the very old is that most of them obviously had a strong will to live in order to reach their age. But the economic,

Figure 6: Australia: Firearm-Related Suicide, Rate Per 100 000 Population, By Gender and Age Group, 1998

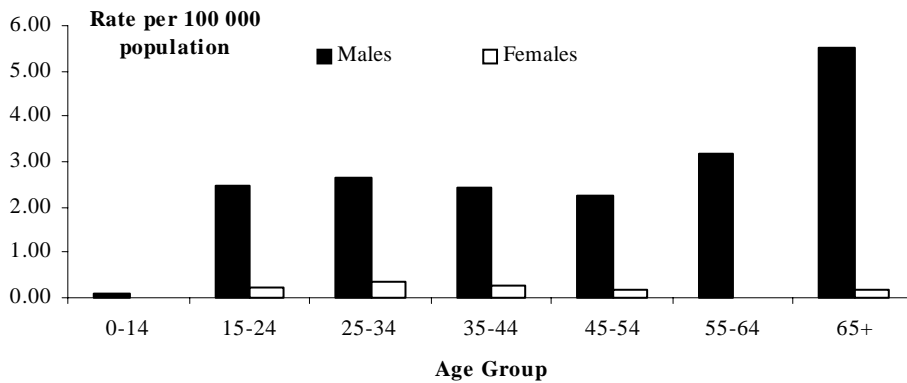
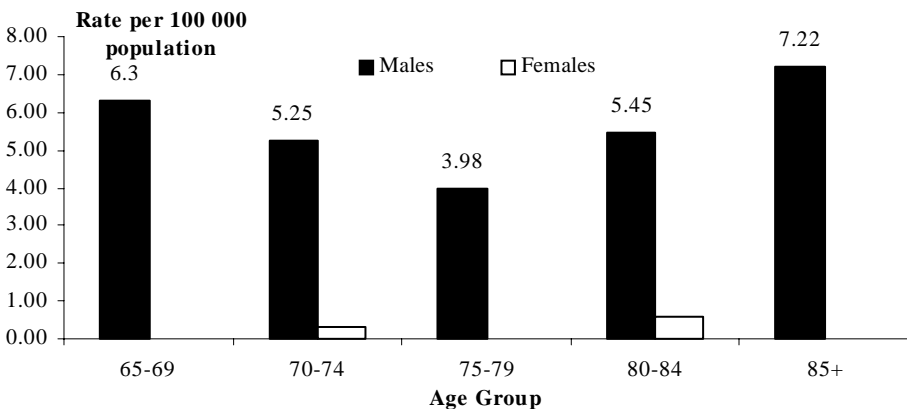


Figure 7: Australia: Firearm-Related Suicide, Rate Per 100 000 Population, By Gender and Age Group Over 65, 1998



Source (figures 6 and 7): Adapted from ABS *Causes of Death 1998* unit record files.

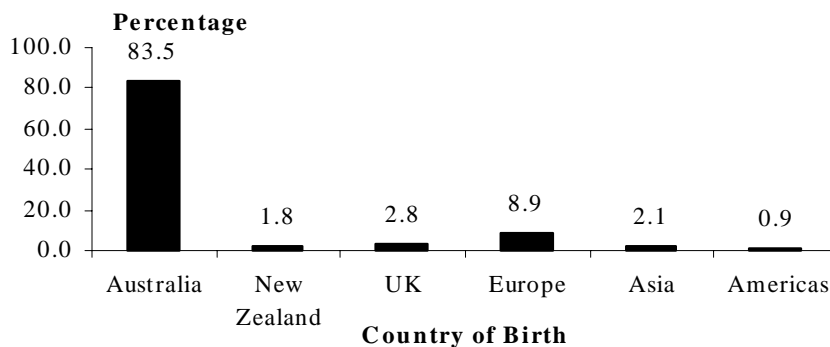
Table 6: Australia: Firearm-Related Deaths, Number and Rate Per 100 000 Population By Gender and Marital Status, 1998

Marital status	Males		Females		Persons	
	No.	Rate	No.	Rate	No.	%
Never married*	128	2.81	14	0.35	142	43.29
Married	117	2.83	11	0.27	128	39.02
Widowed	15	8.53	2	0.27	17	5.18
Divorced	25	5.44	4	0.73	29	8.84
Unknown	9		3		12	3.66
Total	294		34		328	100.00

* The *Marriages and Divorces 1998* (ABS 1999b) includes in the category “never married” defacto persons as well. As a result, persons who were in a defacto relationship are included in the “never married” category.

Source: Adapted from ABS *Causes of Death 1998* unit record files.

Figure 8: Firearm-Related Deaths 1998: Distribution of Deaths by Country of Birth



social, psychological, and health problems of old age become unbearable” (Hassan 1995, p. 66). Recent research suggests that suicide among the elderly is less impulsive—“suicide is often a planned and rational act” (Hassan 1995, p. 67)—methods tend to be violent, and there is less opportunity for rescue.

Marital and Employment Status

In 1998, just over two out of five firearm-related deaths involved persons who were never married (see Table 6). In terms of rates, widowed males had the highest

rate of firearm mortality, followed by divorced males. The highest firearm mortality rate in 1998 for females was for those who were divorced.

The majority of persons who died in 1998 as a result of firearms injury were recorded as being employed at the time of their death (70.4%) (see Table 7). It is interesting to note that only three persons were recorded as unemployed at the time of their death. Also, about 11.5 per cent of persons who died of firearms injury in 1998 were in retirement at the time of their death.

Table 7: Australia: Firearm-Related Deaths, Employment Status, 1998

Employment status	Males	Females	Persons
Employed	215	16	231
Unemployed	3	0	3
Retired	36	2	38
Other*	14	13	27
Unknown	26	3	29
Total	294	34	328

* Includes home duties, students and one child.

Source: Adapted from ABS *Causes of Death 1998* unit record files.

Country of Birth

In 1998, firearm mortality most commonly occurred among persons born in Australia. About 9 per cent of persons who died as a result of firearms injury were born in Europe or the Middle East. Very few persons born in the Americas were recorded as having died of firearms injury (0.9%) (see Figure 8). These findings compare with the general population distribution by country of birth.

Conclusion

The year 1998 recorded a 25 per cent decrease in firearm-related deaths in Australia, in comparison to the year 1997. When compared to the year 1996, Australia recorded a 37.3 per cent decrease in firearm-related mortality. Such changes in recent years will be monitored, with the present report being the first in a series of annual publications aimed at providing a statistical overview of the characteristics of firearm-related deaths in Australia.

Notes

¹ Coronial legislation, while it differs from jurisdiction to jurisdiction, in general requires that for all deaths where someone dies or is suspected to have died violently or from unusual, suspicious circumstances, or from an unknown cause, the State or Territory Coroner inquire into that death.

Rates used in this report were calculated per 100 000 of the mid-year population of 1998, unless otherwise stated (ABS 1999c).

Summary of Findings —Firearms Deaths 1998

- 328 registered firearms deaths in 1998.
- Nine out of ten firearms deaths involved males.
- Males aged 65 years and over the highest firearm mortality rate, primarily due to suicide.
- Suicides accounted for the majority of firearms deaths (72%).
- Northern Territory and Tasmania recorded the highest firearms mortality rate.
- The majority of firearms deaths were committed with a hunting rifle.
- For firearm-homicide, a handgun was the most common weapon used.
- Widowed males experienced one of the highest mortality rates.
- Employed persons were more likely to die as a result of firearms injury than unemployed persons.
- Most persons who died as a result of firearms injury were born in Australia.

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