

**DEATHS FROM EXTERNAL  
CAUSES**

AUSTRALIA

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- For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070.

# NOTES

## ABOUT THIS PUBLICATION

The data used in this publication are made available to the Australian Bureau of Statistics (ABS) from the data from the Registrar of Births, Deaths and Marriages in each state and territory. The ABS compiles the data and codes causes of death to the International Statistical Classification of Diseases and Related Health Problems, Tenth Revision (ICD-10). The ICD-10 prescribes that when a death is attributed to an External cause, the event leading to the death should be assigned a code from Chapter XX, External causes of morbidity and mortality (V01-Y98) as well as a code to indicate the nature of the resulting condition. Most often, the condition is classifiable to Chapter XIX of ICD-10, Injury, poisoning and certain other consequences of External causes (S00-T98).

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## ABBREVIATIONS

ABS Australian Bureau of Statistics  
ACT Australian Capital Territory  
AIHW Australian Institute of Health and Welfare  
Aust. Australia  
DHFS Department of Health and Family Services  
ICD-10 International Classification of Diseases 10th Revision  
NHPA National Health Priority Area  
NSW New South Wales  
NT Northern Territory  
Qld Queensland  
SA South Australia  
SMR standardised mortality ratio  
Tas. Tasmania  
Vic. Victoria  
WA Western Australia

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# INTRODUCTION

## INTRODUCTION

This publication presents an overview of deaths from External causes in Australia. Deaths are presented on a year of registration basis. It is part of a series of publications on mortality produced by the Australian Bureau of Statistics. Deaths from External causes (commonly called deaths from accidents and injury) are caused by environmental events and circumstances that lead to injury, poisoning and other adverse effects (International Statistical Classification of Diseases, tenth revision). The most common External causes of death are Intentional self-harm, Transport accidents, Accidental poisoning, Falls, and Accidental drowning.

For most parts of this publication, five years of deaths data have been used for analysis (deaths registered from 1998 to 2002) rather than data for a single registration year. This has enabled more detailed analysis than would be possible using data from the latest available registration year alone.

From 1998 to 2002 External causes of death were the leading cause of death of those aged under 55 years. Injury Prevention and Control (including fatal and non fatal injury) has been identified as one of seven National Health Priority Areas (NHPA). The NHPAs were defined by the Commonwealth and state and territory governments as chronic diseases with potential for health gains, and those that pose a significant burden of disease. The NHPA initiative involves focusing public attention and health policy to developing strategies to improve health outcomes in these areas (Australian Institute of Health and Welfare (AIHW) & Department of Health and Family Services (DHFS), 1997).

The National Public Health Partnership Group in its National Injury Prevention Plan 2001–2003 identified males, children, young males, those aged 65 years and older (with particular reference to falls), those in rural and remote areas, Indigenous Australians, and those who are socioeconomically disadvantaged as particular population groups at risk of injury (National Public Health Partnership Group, 2001). Injury mortality of these groups (with the exception of those who are socioeconomically disadvantaged) is examined in detail in this publication. Socioeconomic status and mortality has been researched by Mathers (1994), who provides a detailed examination of mortality and socioeconomic status. Australian research conducted by Jolly, Moller and Volkmer (1993), Glover, Harris and Tennant (1999) and Page, Morrell and Taylor (2002) provides further information about socioeconomic status and External causes of death.

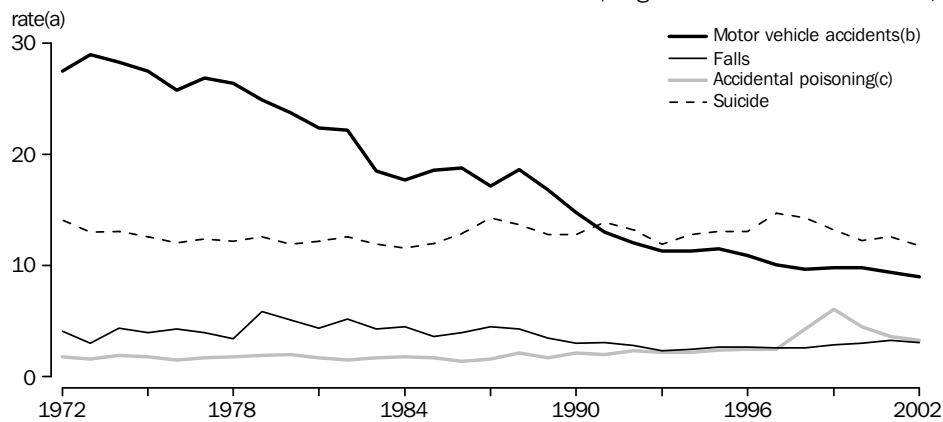
As well as the immense personal cost, the incidence of injury creates significant financial burden. The direct medical costs of injury in 1994 alone were calculated as \$2,607 million (AIHW & DHFS, 1998). While the burden of injury is great, significant opportunities exist to prevent deaths from injury compared to other causes of death. In order for prevention policy to be well informed, statistics about injury deaths which are accurate and detailed must be provided. This report supplements those produced by other organisations involved in injury research, such as AIHW, the National Injury Surveillance Unit (an AIHW collaborative centre) at Flinders University, The Accident Research Centre at Monash University and The Injury Research Centre at the University of Western Australia.

## TRENDS OVER THE LAST 30 YEARS (1972–2002)

### DEATHS FROM EXTERNAL CAUSES, THE LAST 30 YEARS

Deaths from External causes have decreased markedly over the last 30 years in Australia. The age standardised death rates from selected leading External causes of death from 1972 to 2002 are displayed below. Before 1991, the leading cause of deaths from External causes was Motor vehicle accidents. After 1991, the death rate from Motor vehicle accidents became lower than the death rate from Intentional self-harm (suicide), which remained relatively constant, except for an increase during 1997 and 1998. Rates of death from Accidental poisoning have gradually risen over the last 30 years, with a marked increase between 1998 and 2000. Death rates from Falls have remained relatively constant over the past 30 years, though the last five years have seen a slight increase.

**1** TRENDS IN EXTERNAL CAUSES OF DEATH, Age Standardised Rates(a)—1972–2002



(a) Age Standardised Rate, deaths per 100,000 persons.

(b) Includes V02-V04, V07-V09, V12-V14, V19-V79, V803-V806, V810-V811, V820, V821, V83-V88, V890, V892, V899.

(c) Includes Accidental poisoning X40-X49, Event of undetermined intent Y10-Y19 and Drugs, medicaments and biological substances causing adverse effects in therapeutic use Y40-Y59.

Source: Australian Institute of Health and Welfare 2003, *Australian long term trends in mortality workbooks*. Canberra: AIHW.

## OVERVIEW — THE LAST 5 YEARS (1998–2002)

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### UNDERLYING CAUSE OF DEATH

The leading External causes of death in Australia over the five-year period of 1998–2002 are displayed below. Intentional self-harm (suicide) caused the highest number of deaths (12,312) of all the External causes. Transport accidents were the next highest External cause of death (9,923). Of all Transport accidents causing death, those injuring car occupants caused the highest number of deaths.<sup>1</sup> Accidental exposure to other and unspecified factors<sup>2</sup> caused 4,527 deaths over 1998–2002. The number of deaths caused by Accidental exposure to other and unspecified factors was largely comprised of persons aged 65 years and over. Accidental poisoning by and exposure to noxious substances was the underlying cause of 3,779 deaths.

### ASSOCIATED CAUSES OF DEATH

There were 40,370 deaths registered in the years 1998 to 2002 which had an External cause as the underlying cause of death. A further 26,118 had External causes listed as an associated cause of death (External causes contributed to the death, but not as the underlying cause).

Complications of medical and surgical care were largely recorded not as the underlying cause of death, but as an associated cause. The majority of these deaths (10,692 out of 14,316) were of those aged 65 years and over. Accidental exposure to other and unspecified factors was also a prevalent associated cause of death for those aged 65 years and over. Other accidental threats to breathing (includes Accidental suffocation, strangulation and hanging as well as other causes, see Explanatory Notes) was an associated cause in 3,430 deaths (all ages).

There were 2,454 deaths for which Accidental poisoning and exposure to noxious substances was recorded as an associated cause. These deaths largely had an underlying cause in the category of Mental and behavioural disorders due to psychoactive substance use (F10-F19). These deaths were largely comprised of persons in the 20–44 year age group.

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1 It should be noted that while this report contains information on transport deaths, it does not contain information about the level of use of transport vehicles. Therefore, conclusions about which transport vehicles cause more deaths relative to level of use cannot be drawn from this publication.

2 Accidental exposure to other and unspecified factors is often used to classify the cause of death where there is a Fracture, but the cause is uncertain (for example, it would appear there had been a Fall, but this could not be confirmed). This category may be used when the coroner has found that the death was from External causes, but no further decision has been made.

# OVERVIEW — THE LAST 5 YEARS (1998–2002) *continued*

## 2 EXTERNAL CAUSES OF DEATH, All Persons—number and rate(a)—1998–2002

	UNDERLYING CAUSE OF DEATH						ASSOCIATED
							CAUSE
	Males	Females	Persons	Males	Females	Persons	OF DEATH
	no.	no.	no.	rate	rate	rate	Persons
<b>All Causes of Death</b>	<b>336 837</b>	<b>309 009</b>	<b>645 846</b>	<b>708.7</b>	<b>640.6</b>	<b>674.4</b>	<b>512 232</b>
<b>External causes of morbidity and mortality(b)</b>	<b>27 849</b>	<b>12 521</b>	<b>40 370</b>	<b>58.6</b>	<b>26.0</b>	<b>42.2</b>	<b>26 118</b>
Transport accidents	7 233	2 690	9 923	15.2	5.6	10.4	108
Pedestrian injured in transport accident	1 229	531	1 760	2.6	1.1	1.8	3
Motorcycle rider injured in transport accident	1 025	69	1 094	2.2	0.1	1.1	—
Car occupant injured in transport accident	3 459	1 753	5 212	7.3	3.6	5.4	25
Falls	1 575	1 238	2 813	3.3	2.6	2.9	752
Exposure to inanimate mechanical forces	585	71	656	1.2	0.1	0.7	30
Accidental drowning and submersion	959	290	1 249	2.0	0.6	1.3	90
Other accidental threats to breathing(c)	729	363	1 092	1.5	0.8	1.1	3 430
Exposure to smoke, fire and flames	301	176	477	0.6	0.4	0.5	45
Accidental poisoning by and exposure to noxious substances(d)	2 657	1 122	3 779	5.6	2.3	3.9	2 454
Accidental exposure to other and unspecified factors	1 793	2 734	4 527	3.8	5.7	4.7	6 905
Intentional self-harm	9 764	2 548	12 312	20.5	5.3	12.9	9
Assault	983	528	1 511	2.1	1.1	1.6	17
Complications of medical and surgical care	286	329	615	0.6	0.7	0.6	14 316
Sequelae of external causes of morbidity and mortality(e)	323	157	480	0.7	0.3	0.5	608

— nil or rounded to zero (including null cells)

(a) Crude Rate, deaths per 100,000 persons.

(b) Accidents and Injury.

(c) Includes Accidental suffocation, strangulation and hanging as well as other causes (see Explanatory Notes).

(d) Includes X40-X49.

(e) For this category, the External cause occurred one year or more before the death.

## SEX DIFFERENCES

### UNDERLYING CAUSE OF DEATH

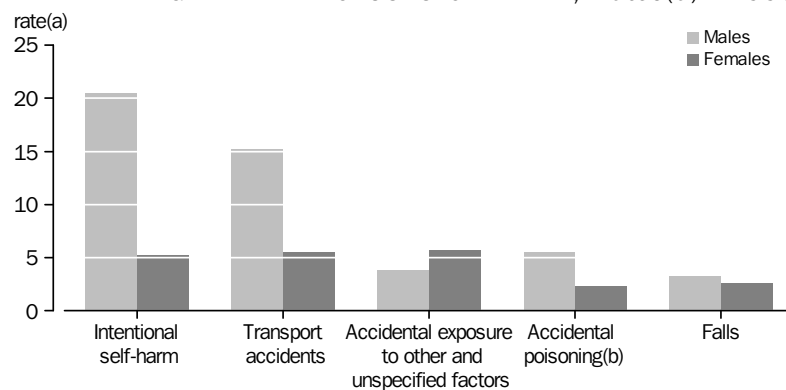
Over 1998–2002, males were much more likely than females to die from external causes. Death rates for suicide were nearly four times higher for males than females. While males were much more likely than females to die from suicide, hospital separation data indicate that females were more likely to make a non fatal attempt at suicide (Helps, Cripps & Harrison, 2002). Males who died from suicide were more likely to use Hanging (including strangulation and suffocation), whereas females who died from suicide were more likely to use Self poisoning.

Transport accident deaths were also much higher for males (7,233 males and 2,690 females died as a result of Transport accidents in 1998–2002). The difference in Transport accident deaths between the sexes may be partly due to differences in attitudes towards driving behaviour, as found in some research. Turner and McClure's (2003) Australian survey of attitudes to driving behaviour found that young males scored highest in driver aggression, thrill seeking and general risk acceptance. Additionally, recent Australian research has found that males were almost twice as likely as females to have been booked or cautioned for speeding (Mitchell-Taverner, Zipparo, & Goldsworthy, 2003). Another possible reason for this sex discrepancy is that males are likely to spend more time driving per week than females (Evans & Batini, 2000).

Deaths from other Accidental threats to breathing, Accidental poisoning by and exposure to noxious substances, Assault and Sequelae of external causes of morbidity and mortality were also higher for males. For example, from 1998 to 2002, 2,657 males died from Accidental poisoning by and exposure to noxious substances compared to 1,122 females.

Accidental drowning and submersion deaths included over three times more males than females. This may be partly due to a sex difference in risk taking behaviour such as drinking alcohol before taking part in water recreation activities. Previous research has found that a higher percentage of males who drowned had consumed alcohol before the accident occurred compared to females (Plueckhahn, 1984). Alcohol has been estimated to be involved in as many as 50% of drowning cases (Faddy, 2001).

**3** LEADING EXTERNAL CAUSES OF DEATH, Rates(a)—1998–2002



(a) Crude Rate, deaths per 100,000 persons.

(b) Accidental poisoning by and exposure to noxious substances.

## CHILDREN (0–14 YEARS)

### UNDERLYING CAUSE OF DEATH

Over the five-year period from 1998–2002, there were 1,501 deaths registered of 0–14-year-old children where the underlying cause of death was an External cause. The numbers and rates of deaths from External causes of those aged 0–14 years for 1998–2002 are displayed in table 4.

Transport accidents were the most common External cause of death of those aged 0–14 years. Deaths of pedestrians were particularly high for those aged 0–14 years, and nearly equal to the number of deaths of car occupants. The rate of pedestrian deaths was higher for males. The New South Wales (NSW) Child Death Review Team (2002) found that a significant number of pedestrian accidents causing death of a toddler occurred when the toddler was playing in the vicinity of vehicles without the driver or supervising adult being aware of their location.

Accidental drowning was another significant cause of death in this age group, accounting for 3.1% of all deaths of those aged 0–14 years and 20% of deaths from External causes of those aged 0–14 years. Falls accounted for a relatively small number of accidental deaths (32) of those aged 0–14 years. Accidental poisoning by and exposure to noxious substances caused 27 deaths of children aged 0–14 during 1998–2002.

In the age group of 0–14 years, a large number of deaths had Other accidental threats to breathing as the underlying cause of death (160). This category includes a variety of causes of death such as Accidental suffocation, strangulation, hanging; Inhalation of gastric contents and Inhalation and ingestion of food and other objects causing obstruction to the respiratory tract (this category excludes deaths from Asthma (J45)). Again there was a large discrepancy between the sexes: for those aged 0–14 years the rate of male deaths caused by Other accidental threats to breathing was significantly higher than the rate of female deaths from this cause (1.0 and 0.6 respectively).

A large number of deaths of those aged 0–14 years was caused by Assault (130). Assault was the fourth highest External cause of death of children aged 0–14 years. Age specific death rates with Assault as the underlying cause were much higher for those aged 0–4 years than those aged 5–9 years and 10–14 years (see Detailed tables, page 32). Intentional self-harm (suicide) caused 50 deaths of those aged 0–14 years between 1998 and 2002. These were predominantly in the 10–14 year age group.

### ASSOCIATED CAUSE OF DEATH

Further to the 1,501 deaths which had External causes recorded as the underlying cause of death, there were 323 deaths which had External causes recorded as an associated cause of death (the External cause was mentioned on the death certificate as a contributing cause, but not the underlying cause). Most of these (214) had Complications of medical and surgical care recorded as an associated cause of death. There were also a large number of deaths (101) with an associated cause of Other accidental threats to breathing.



## CHILDREN (0–14 YEARS) *continued*

### 4 EXTERNAL CAUSES OF DEATH, Children (0–14 years)—number and rate(a)—1998–2002

	UNDERLYING CAUSE OF DEATH						ASSOCIATED
							CAUSE OF
	Males	Females	Persons	Males	Females	Persons	DEATH
	no.	no.	no.	rate	rate	rate	Persons
							no.
<b>All Causes of Death</b>	<b>5 601</b>	<b>4 167</b>	<b>9 768</b>	<b>55.1</b>	<b>43.1</b>	<b>49.3</b>	<b>7 230</b>
<b>External causes of morbidity and mortality(b)</b>	<b>946</b>	<b>555</b>	<b>1 501</b>	<b>9.3</b>	<b>5.7</b>	<b>7.6</b>	<b>323</b>
Transport accidents	359	231	590	3.5	2.4	3.0	—
Pedestrian injured in transport accident	135	84	219	1.3	0.9	1.1	—
Motorcycle rider injured in transport accident	25	3	28	0.2	—	0.1	—
Car occupant injured in transport accident	114	113	227	1.1	1.2	1.1	—
Falls	17	15	32	0.2	0.2	0.2	2
Exposure to inanimate mechanical forces	46	14	60	0.5	0.1	0.3	3
Accidental drowning and submersion	207	96	303	2.0	1.0	1.5	4
Other accidental threats to breathing(c)	104	56	160	1.0	0.6	0.8	101
Exposure to smoke, fire and flames	31	26	57	0.3	0.3	0.3	—
Accidental poisoning by and exposure to noxious substances(d)	14	13	27	0.1	0.1	0.1	5
Accidental exposure to other and unspecified factors	20	18	38	0.2	0.2	0.2	17
Intentional self-harm	33	17	50	0.3	0.2	0.3	—
Assault	77	53	130	0.8	0.5	0.7	1
Complications of medical and surgical care	1	2	3	—	—	—	214
Sequelae of external causes of morbidity and mortality(e)	3	1	4	—	—	—	5

— nil or rounded to zero (including null cells)

(a) Crude rate, deaths per 100,000 persons.

(b) Accidents and Injury.

(c) Includes Accidental suffocation, strangulation and hanging as well as other causes (see Explanatory Notes).

(d) Includes X40-X49.

(e) For this category, the External cause occurred one year or more before the death.

#### ACCIDENTAL DROWNING

Accidental drowning is a major cause of death of children. Those aged 0–4 years comprised 80% of drownings in the age group of 0–14 years. Of those aged 0–14 years who died from drowning in 1998–2002, 68% were males and 32% were females. When examining individual ages, it is evident that more males drowned than females at nearly every age. In some cases more than twice the number of males drowned than females (for example of the 40 children aged 3 years who drowned during 1998–2002, 32 were males and 8 were females).

Drowning deaths of those aged 0–14 years most commonly occurred in a swimming pool (35%), natural water (including lake, open sea, river and stream) (24%) and bathtubs (15%). Other specified drowning and submersion accounted for 13% of drowning deaths. These drownings may have occurred in a backyard pond, bucket, or any object able to hold water.

A higher proportion of male child drowning deaths followed a fall, and a higher proportion of female child drowning deaths occurred while the child was already in the water. The table below contains the locations of drowning deaths of those aged 0–14 years in 1998–2002.

## CHILDREN (0-14 YEARS) *continued*

ACCIDENTAL DROWNING  
*continued*

### 5 LOCATION OF DROWNING DEATHS, Children (0-14 years)—1998-2002

	MALES		FEMALES		PERSONS	
	<i>no.</i>	<i>%</i>	<i>no.</i>	<i>%</i>	<i>no.</i>	<i>%</i>
<b>Accidental drowning and submersion (W65-W74)</b>	<b>207</b>	<b>100</b>	<b>96</b>	<b>100</b>	<b>303</b>	<b>100</b>
Drowning and submersion while in bathtub	26	13	17	18	43	14
Drowning and submersion following fall into bathtub	3	1	—	—	3	1
Drowning and submersion while in swimmingpool	24	12	11	12	35	12
Drowning and submersion following fall into swimmingpool	53	26	17	18	70	23
Drowning and submersion while in natural water	21	10	14	15	35	12
Drowning and submersion following fall into natural water	27	13	9	9	36	12
Other specified drowning and submersion	27	13	12	13	39	13
Unspecified drowning and submersion	26	13	16	17	42	14

— nil or rounded to zero (including null cells)

## YOUNG ADULTS (15–24 YEARS)

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### UNDERLYING CAUSE OF DEATH

Deaths from External causes were a major cause of death of those aged 15–24 years. Over 1998–2002, deaths from External causes constituted 70% of all deaths of those aged 15–24 years. Of all deaths of females aged 15–24 years, 59% were from External causes, whereas 75% of all deaths of males aged 15–24 years were from External causes. As seen in the table below, Intentional self-harm (suicide) and Transport accidents comprised the majority of deaths from External causes for this age group.

Suicide was a significant cause of death for those aged 15–24 years, accounting for 22% of all deaths in this age group. Males were much more likely to commit suicide, with 81% of the suicides of those aged 15–24 years being males.

For those aged 15–24 years, Accidental poisoning by and exposure to noxious substances also caused a large number of deaths. There were 457 male deaths and 161 female deaths with an underlying cause of Accidental poisoning by and exposure to noxious substances. Drowning was also higher for males, with 125 male drowning deaths compared to 22 female drowning deaths of those aged 15–24 years. Falls accounted for 94 deaths in this age group, 77 of which were of males.

Assault was a notable cause of death of those aged 15–24 years, accounting for 3.0% of all deaths. Again, males were over represented in this category.

### TRANSPORT ACCIDENTS

Transport accidents accounted for 31% of all deaths of those aged 15–24 years. Accidents causing death where a car occupant was injured were particularly high. Deaths of motorcycle riders were also higher in this age group. Of those aged 15–24 years, more motorcycle riders died than pedestrians. As with other age groups, many more males than females aged 15–24 years were killed in Transport accidents. This may be explained by the tendency of males to engage in risk taking behaviours (Turner & McClure, 2003). Hewitt (cited by National Health and Medical Research Council, 1996) has found that male risk taking behaviour is at the greatest frequency among 20–24-year-olds, followed by 25–34-year-olds, and then 16–19-year-olds. This may suggest part of the reason for the high numbers of Transport accident deaths among those aged 15–24 years.

### ASSOCIATED CAUSE OF DEATH

There were 5,889 deaths of 15–24-year-olds where the underlying cause of death was an External cause. A further 570 deaths had External causes recorded as an associated cause of death (External cause was mentioned on the death certificate as a contributing cause, but not the underlying cause). For most of these (410) Accidental poisoning by and exposure to noxious substances was listed as an associated cause. The majority of these cases had a Mental and behavioural disorder due to substance use (F10-F19) listed as the underlying cause. Other accidental threats to breathing was a significant associated cause of death, with an additional 114 deaths recorded as an associated cause, whereas only 93 were recorded as underlying cause.

## YOUNG ADULTS (15–24 YEARS) *continued*

### 6 EXTERNAL CAUSES OF DEATH, Young Adults (15–24 years)—number and rate(a)—1998–2002

	UNDERLYING CAUSE OF DEATH						ASSOCIATED
							CAUSE OF
	Males	Females	Persons	Males	Females	Persons	DEATH
	no.	no.	no.	rate	rate	rate	Persons
<b>All Causes of Death</b>	<b>6 145</b>	<b>2 212</b>	<b>8 357</b>	<b>92.2</b>	<b>34.4</b>	<b>63.8</b>	<b>7 520</b>
<b>External causes of morbidity and mortality(b)</b>	<b>4 581</b>	<b>1 308</b>	<b>5 889</b>	<b>68.7</b>	<b>20.4</b>	<b>45.0</b>	<b>570</b>
Transport accidents	1 983	591	2 574	29.8	9.2	19.7	3
Pedestrian injured in transport accident	252	54	306	3.8	0.8	2.3	—
Motorcycle rider injured in transport accident	292	26	318	4.4	0.4	2.4	—
Car occupant injured in transport accident	1 192	431	1 623	17.9	6.7	12.4	—
Falls	77	17	94	1.2	0.3	0.7	—
Exposure to inanimate mechanical forces	72	7	79	1.1	0.1	0.6	2
Accidental drowning and submersion	125	22	147	1.9	0.3	1.1	17
Other accidental threats to breathing(c)	78	15	93	1.2	0.2	0.7	114
Exposure to smoke, fire and flames	27	8	35	0.4	0.1	0.3	2
Accidental poisoning by and exposure to noxious substances(d)	457	161	618	6.9	2.5	4.7	410
Accidental exposure to other and unspecified factors	30	10	40	0.5	0.2	0.3	13
Intentional self-harm	1 473	347	1 820	22.1	5.4	13.9	—
Assault	155	98	253	2.3	1.5	1.9	3
Complications of medical and surgical care	2	3	5	—	—	—	133
Sequelae of external causes of morbidity and mortality(e)	12	4	16	0.2	0.1	0.1	8

— nil or rounded to zero (including null cells)

(a) Crude rate, deaths per 100,000 persons.

(b) Accidents and injury.

(c) Includes Accidental suffocation, strangulation and hanging as well as other causes (see Explanatory Notes).

(d) Includes X40-X49.

(e) For this category, the External cause occurred one year or more before the death.

## ADULTS (25–64 YEARS)

**UNDERLYING CAUSE OF DEATH** Deaths from External causes accounted for 18% of all deaths of those aged 25–64 years. The rate of death from Intentional self-harm (suicide) was very high for this age group at 18 per 100,000 persons. As with other age groups, males aged 25–64 years were much more likely to die from suicide than females of the same age with rates of 28 and 7 respectively.

Accidental poisoning by and exposure to noxious substances was the underlying cause of death in 2892 deaths of those aged 25–64 years, with over double the number of males than females who died of this cause.

**ASSOCIATED CAUSE OF DEATH** Over the 5-year-period from 1998–2002 there were 21,589 deaths registered for 25–64-year-old persons where the underlying cause of death was an External cause. A further 5,836 deaths had External causes recorded as an associated cause of death (the External cause was mentioned on the death certificate as a contributing cause, but not the underlying cause of death). Most of these had Complications of medical and surgical care (3,276) and Accidental poisoning by and exposure to noxious substances (1,788) as an associated cause of death.

### 7 EXTERNAL CAUSES OF DEATH, Adults (25–64 years)—number and rate(a)—1998–2002

	UNDERLYING CAUSE OF DEATH						ASSOCIATED CAUSE OF DEATH
	Males	Females	Persons	Males	Females	Persons	Persons
	no.	no.	no.	rate	rate	rate	no.
<b>All Causes of Death</b>	<b>77 933</b>	<b>43 787</b>	<b>121 720</b>	<b>306.1</b>	<b>171.8</b>	<b>238.9</b>	<b>87 847</b>
<b>External causes of morbidity and mortality(b)</b>	<b>16 572</b>	<b>5 017</b>	<b>21 589</b>	<b>65.1</b>	<b>19.7</b>	<b>42.4</b>	<b>5 836</b>
Transport accidents	3 911	1 235	5 146	15.4	4.8	10.1	36
Pedestrian injured in transport accident	565	188	753	2.2	0.7	1.5	—
Motorcycle rider injured in transport accident	683	39	722	2.7	0.2	1.4	—
Car occupant injured in transport accident	1 694	844	2 538	6.7	3.3	5.0	7
Falls	575	151	726	2.3	0.6	1.4	93
Exposure to inanimate mechanical forces	403	31	434	1.6	0.1	0.9	10
Accidental drowning and submersion	509	126	635	2.0	0.5	1.2	59
Other accidental threats to breathing(c)	320	87	407	1.3	0.3	0.8	840
Exposure to smoke, fire and flames	154	71	225	0.6	0.3	0.4	12
Accidental poisoning by and exposure to noxious substances(d)	2 066	826	2 892	8.1	3.2	5.7	1 788
Accidental exposure to other and unspecified factors	195	79	274	0.8	0.3	0.5	331
Intentional self-harm	7 078	1 839	8 917	27.8	7.2	17.5	7
Assault	698	326	1 024	2.7	1.3	2.0	10
Complications of medical and surgical care	58	63	121	0.2	0.2	0.2	3 276
Sequelae of external causes of morbidity and mortality(e)	175	49	224	0.7	0.2	0.4	246

— nil or rounded to zero (including null cells)

(a) Crude rate, deaths per 100,000 persons.

(b) Accidents and Injury.

(c) Includes Accidental suffocation, strangulation and hanging as well as other causes (see Explanatory Notes).

(d) Includes X40–X49.

(e) For this category, the External cause occurred one year or more before the death.

## OLDER ADULTS (65 YEARS AND OVER)

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### UNDERLYING CAUSE OF DEATH

External causes of death accounted for a relatively small proportion of all deaths of those aged 65 years and over (2.2%). Many more deaths occurred as a result of Falls and Accidental exposure to other and unspecified factors (includes fractures unspecified; see discussion below) than of Transport accidents. The rate of death from Intentional self-harm (suicide) for those aged 65 years and older was similar to that of all persons.

Overall there was little difference between numbers of deaths from External causes between males and females for those aged 65 years and over. However, for some specific causes of death there was variation between males and females. For example, more females than males died from Falls and Accidental exposure to other and unspecified factors and more males than females died from Transport accidents and suicide.

### ASSOCIATED CAUSE

There were 11,372 deaths of those aged 65 years or older where the underlying cause of death was an External cause. A further 19,385 deaths had External causes recorded as an associated cause of death (External cause was mentioned on the death certificate as a contributing cause, but not the underlying cause). Most of these (10,692) were where Complications of medical and surgical care was listed as an associated cause. In almost all of the cases where Complications of medical and surgical care was included on the death certificate, it was listed as an associated cause. Accidental falls and Accidental exposure to other and unspecified factors were frequently listed associated causes of death for those aged 65 years and over.

## OLDER ADULTS (65 YEARS AND OVER) *continued*

### 8 EXTERNAL CAUSES OF DEATH, Older Adults (65 years and over)—number and rate(a)— 1998–2002

	UNDERLYING CAUSE OF DEATH						ASSOCIATED
							CAUSE OF
	Males	Females	Persons	Males	Females	Persons	DEATH
	no.	no.	no.	rate	rate	rate	Persons
<b>All Causes of Death</b>	<b>247 060</b>	<b>258 803</b>	<b>505 863</b>	<b>4 716.2</b>	<b>3 887.0</b>	<b>4 252.2</b>	<b>409 538</b>
<b>External causes of morbidity and mortality(b)</b>	<b>5 738</b>	<b>5 634</b>	<b>11 372</b>	<b>109.5</b>	<b>84.6</b>	<b>95.6</b>	<b>19 385</b>
Transport accidents	979	631	1 610	18.7	9.5	13.5	69
Pedestrian injured in transport accident	276	205	481	5.3	3.1	4.0	3
Motorcycle rider injured in transport accident	25	1	26	0.5	—	0.2	—
Car occupant injured in transport accident	459	364	823	8.8	5.5	6.9	18
Falls	906	1 055	1 961	17.3	15.8	16.5	657
Exposure to inanimate mechanical forces	64	19	83	1.2	0.3	0.7	15
Accidental drowning and submersion	116	46	162	2.2	0.7	1.4	10
Other accidental threats to breathing(c)	226	205	431	4.3	3.1	3.6	2 375
Exposure to smoke, fire and flames	89	71	160	1.7	1.1	1.3	31
Accidental poisoning by and exposure to noxious substances(d)	118	122	240	2.3	1.8	2.0	249
Accidental exposure to other and unspecified factors	1 545	2 627	4 172	29.5	39.5	35.1	6 541
Intentional self-harm	1 179	342	1 521	22.5	5.1	12.8	2
Assault	52	49	101	1.0	0.7	0.8	3
Complications of medical and surgical care	225	261	486	4.3	3.9	4.1	10 692
Sequelae of external causes of morbidity and mortality(e)	133	103	236	2.5	1.5	2.0	349

— nil or rounded to zero (including null cells)

(a) Crude rate, deaths per 100,000 persons.

(b) Accidents and injury.

(c) Includes Accidental suffocation, strangulation and hanging as well as other causes (see Explanatory Notes).

(d) Includes X40-X49.

(e) For this category, the External cause occurred one year or more before the death.

#### COMPLICATIONS OF MEDICAL AND SURGICAL CARE

Complications of medical and surgical care was a major cause of death of those aged 65 years and over, listed as the underlying cause for 486 deaths and as an associated cause for 10,692. Of these deaths, Surgical and other medical procedures as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure (Y83-Y84) was a cause (underlying or associated) in 8,950 deaths. Of these, Surgical operation and other surgical procedures as the cause of abnormal reaction of the patient (Y83) was a cause of death (either underlying or associated) in 7,971 deaths. The types of surgery where large numbers of these deaths occurred included Amputation of limb(s) and removal of an organ (2,292), Surgical operation with implant of artificial internal device (1,476), and Surgical operation with anastomosis, bypass or graft (1,160).

Misadventures to patients during surgical and medical care (Y60-Y69) (such as Unintentional cut, puncture, perforation or haemorrhage during surgical and medical care) were an underlying or associated cause of death in 51 deaths of those aged 65 years and over in 1998–2002.

## OLDER ADULTS (65 YEARS AND OVER) *continued*

### ACCIDENTAL EXPOSURE TO OTHER AND UNSPECIFIED FACTORS

A large number of deaths of those aged 65 years and over were attributed to the underlying cause of Accidental exposure to other and unspecified factors (4,172). For a further 6,541 deaths, this was an associated cause. Accidental exposure to other and unspecified factors is often used to code the death where there is a fracture, but the cause is uncertain (for example it would seem that there had been a fall, but this could not be confirmed). This code may also be used when the coroner has found that the death was from External causes, but no further decision has been made.

Where Accidental exposure to other and unspecified factors was coded as the underlying cause of death, Injuries to the hip and thigh (S70-S79) (mainly fracture of femur) were commonly recorded on the death certificate of those aged 65 years and over. Causes of death in the category of Frostbite, poisonings and toxic effects were frequently reported as associated causes where the underlying cause of death was Accidental exposure to other and unspecified factors (1,403 deaths). The main associated cause of death in the category of Frostbite, poisonings and toxic effects was Certain early complications of trauma (T79), an associated cause in 838 deaths of those aged 65 years and over where the underlying cause was Accidental exposure to other and unspecified factors.

### **9** ACCIDENTAL EXPOSURE TO OTHER AND UNSPECIFIED FACTORS(a), Nature of Injuries (selected)(b)—Older Adults (65 years and over)—1998–2002

	ACCIDENTAL EXPOSURE TO OTHER AND UNSPECIFIED FACTORS(a)	
	<i>no.</i>	%
<b>CHAPTER XIX Injury, poisoning and certain other consequences of external causes(c)</b>	<b>4 170</b>	<b>100</b>
Injuries to the head	218	5
Injuries to the neck	72	2
Injuries to the thorax	223	5
Injuries to the abdomen, lower back, lumbar spine and pelvis	402	10
Injuries to the shoulder and upper arm	160	4
Injuries to the elbow and forearm	35	1
Injuries to the wrist and hand	13	—
Injuries to the hip and thigh	3 046	73
Injuries to the knee and lower leg	66	2
Injuries to the ankle and foot	10	—
Injuries involving multiple body regions	21	1
Injuries to unspecified part of trunk, limb or body region	149	4
Effects of foreign body entering through natural orifice	22	1
Burns and corrosions	1	—
Frostbite, poisonings and toxic effects	1 403	34

— nil or rounded to zero (including null cells)

(a) Includes X58-X59.

(b) This table contains numbers of deaths where the underlying cause of death was Accidental exposure to other and unspecified factors and where a code for nature of injury was also recorded. There could be more than one nature of injury code recorded per death (for example, Injuries to the head and Injuries to the thorax). Therefore, the sum of the components of Chapter XIX (nature of injury) will not equal the total deaths for Chapter XIX. See paragraphs 2 and 3 of Explanatory Notes.

(c) Includes S00-T98.

Note: There were two deaths with Accidental exposure to other and unspecified factors reported as the underlying cause, but no cause reported from Chapter XIX Injury, poisoning and certain other consequences of external causes.



## INDIGENOUS AUSTRALIANS

### UNDERLYING CAUSE OF DEATH

Deaths from External causes are a leading cause of death for both Indigenous and non-Indigenous persons; however, proportionally, they account for substantially more deaths in the Indigenous population. Deaths data for Indigenous persons are based on records from New South Wales, Queensland, South Australia, Western Australia and the Northern Territory combined, jurisdictions determined as having sufficient Indigenous deaths coverage.

### 10 EXTERNAL CAUSES OF DEATH, Indigenous Population and Total Australian Population— 1998–2002

	INDIGENOUS POPULATION (a)				TOTAL AUSTRALIAN POPULATION			
	Males		Females		Males		Females	
	no.	%	no.	%	no.	%	no.	%
<b>All Causes of Death</b>	<b>5 602</b>	<b>100.0</b>	<b>4 202</b>	<b>100.0</b>	<b>336 837</b>	<b>100.0</b>	<b>309 009</b>	<b>100.0</b>
<b>External causes of morbidity and mortality (b)</b>	<b>1 118</b>	<b>20.0</b>	<b>460</b>	<b>10.9</b>	<b>27 849</b>	<b>8.3</b>	<b>12 521</b>	<b>4.1</b>
Transport accidents	281	5.0	134	3.2	7 233	2.1	2 690	0.9
Pedestrian injured in transport accident	97	1.7	55	1.3	1 229	0.4	531	0.2
Motorcycle rider injured in transport accident	9	0.2	—	—	1 025	0.3	69	—
Car occupant injured in transport accident	136	2.4	64	1.5	3 459	1.0	1 753	0.6
Falls	22	0.4	12	0.3	1 575	0.5	1 238	0.4
Exposure to inanimate mechanical forces	21	0.4	5	0.1	585	0.2	71	—
Accidental drowning and submersion	54	1.0	23	0.5	959	0.3	290	0.1
Other accidental threats to breathing (c)	68	1.2	20	0.5	729	0.2	363	0.1
Exposure to smoke, fire and flames	16	0.3	15	0.4	301	0.1	176	0.1
Accidental poisoning by and exposure to noxious substances	74	1.3	42	1.0	2 657	0.8	1 122	0.4
Accidental exposure to other and unspecified factors	28	0.5	21	0.5	1 793	0.5	2 734	0.9
Intentional self-harm	374	6.7	80	1.9	9 764	2.9	2 548	0.8
Assault	114	2.0	89	2.1	983	0.3	528	0.2
Complications of medical and surgical care	4	0.1	9	0.2	286	0.1	329	0.1
Sequelae and supplementary factors of external cause	25	0.4	1	—	323	0.1	157	0.1

— nil or rounded to zero (including null cells)

(b) Accidents and Injury.

(a) Includes data from NSW, Qld, SA, WA and NT only, where coverage of Indigenous deaths is deemed acceptable.

(c) Includes Accidental suffocation, strangulation and hanging as well as other causes (see Explanatory Notes).

Table 11 shows Standardised Mortality Ratios (SMR). These are calculated as the ratio of observed deaths to expected deaths. The SMR provides a relative assessment of the health status of a particular population by comparing the actual number of deaths for that population to the expected number of deaths that would have occurred if that population had the same mortality experience as the reference (or standard) population.

Expected deaths in this publication were calculated by applying standard death rates for Australia (persons) for 2000–2002 to experimental Indigenous 2001 estimates, for the five states or territories where coverage of Indigenous deaths is deemed acceptable (NSW, Qld, SA, WA, and NT). The standard rates were also applied to 2001 estimated resident populations for the total Australian population. These rates were applied in 5 year age groups from 0–4 years to 75 years and over. For comparison, the SMR for persons in Australia (all states/territories) is 1.0. Rates from only one standard population (persons) have been used for the calculations, so SMRs for males and females are able to be compared in this case.

## INDIGENOUS AUSTRALIANS *continued*

### UNDERLYING CAUSE OF DEATH *continued*

Table 11 shows that Indigenous males in particular experience a substantial proportion of deaths from External causes. After adjusting for differences in age structure, there were 3.7 times as many male Indigenous deaths from External causes as would be expected, if total Australian rates for persons are applied to the Indigenous population. In comparison, there were only 1.4 times as many deaths as expected for males from the total population.

**11** SMR(a), Selected External causes of death—2000–2002

	INDIGENOUS POPULATION (b)			TOTAL AUSTRALIAN POPULATION		
	Males	Females	Persons	Males	Females	Persons
<b>External causes of morbidity and mortality(c)</b>	<b>3.7</b>	<b>1.5</b>	<b>2.6</b>	<b>1.4</b>	<b>0.6</b>	<b>1.0</b>
Transport accidents	2.9	1.4	2.1	1.5	0.5	1.0
Intentional self-harm	4.0	0.9	2.4	1.6	0.4	1.0
Assault	8.1	6.5	7.3	1.3	0.7	1.0

(a) Standardised mortality ratio, the ratio of observed to expected deaths.

(b) Includes data from NSW, Qld, SA, WA and NT only, where coverage of Indigenous deaths is deemed acceptable.

(c) Accidents and Injury.

Reasons for high rates of Indigenous injury mortality are complex and have been the subject of much research. Harrison and Moller (1994) suggest that, amongst other factors, alcohol plays a significant role in the high rate of injury of Indigenous Australians particularly with regard to Motor vehicle accidents and injuries to pedestrians. The high speed of travel on rural roads, general socioeconomic disadvantage, and the consequences of social disruption, are also suggested as factors which may contribute to high Indigenous rates of death from External causes.

For a more extensive discussion of Indigenous mortality and coverage issues see *The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples* (ABS & AIHW, 2003. ABS cat. no. 4704.0, AIHW Cat. No. IHW11) and *Deaths, Australia 2002* (ABS cat. no. 3302.0).

## RE MOTENESS

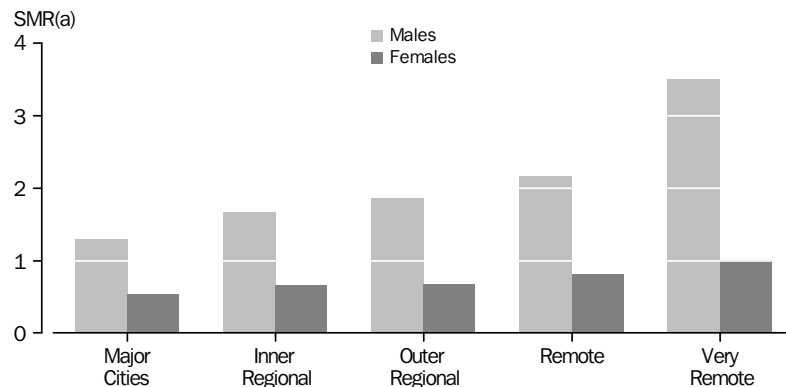
### STANDARDISED MORTALITY RATIOS

When considering the standardised mortality ratio (SMR) for deaths from External causes for different remoteness groups, it is clear that the SMR increases substantially (especially for males) with increasing remoteness. The trend for females is less evident, but still apparent. These results are consistent with other health research and support the proposition that "people living in rural and regional Australia have many health disadvantages compared to their urban counterparts" (AIHW, 1998).

Many factors have been suggested as contributing to health disadvantage in rural and remote areas, including geographic isolation, shortage of and lack of access to health services, socioeconomic disadvantage, Indigenous health needs, lower road quality and greater exposure to injury, especially in farming and mining industries (AIHW, 1998).

It is important to note, however, that the proportion of Indigenous deaths may impact on the association between mortality and remoteness (Coorey, 2003). For example, the following table indicates that 45% of the population in the very remote category is Indigenous. The very high SMRs for males in very remote areas may in fact reflect the high proportion of Indigenous persons in these areas. Indigenous death rates from External causes are known to be very high compared to the total population (ABS, 2003). For further information about remoteness and mortality see AIHW (2003) *Rural, Regional and Remote Health: a study on mortality*; AIHW Cat. No. PHE 45.

**12** SMR(a) DEATHS FROM EXTERNAL CAUSES, Remoteness areas—2001



(a) Standardised Mortality Ratio, ratio of observed to expected deaths. For comparison, the SMR for persons (Australia) is 1.0.

**13** ESTIMATED RESIDENT POPULATION, By remoteness structure—2001

	Indigenous Population	Total Australian Population	Indigenous Percentage
	no.	no.	%
Major cities	138 494	12 870 986	1.1
Inner regional	92 988	4 025 895	2.3
Outer regional	105 875	2 013 563	5.3
Remote	40 161	324 321	12.4
Very remote	81 002	178 475	45.4
<b>Total</b>	<b>458 520</b>	<b>19 413 240</b>	<b>2.4</b>

## STATES AND TERRITORIES

### AGE STANDARDISED RATES

Table 14 below displays the age standardised rates of deaths from External causes for all of the states and territories. The Northern Territory had a higher rate of deaths from External causes than other states. The state with the lowest rate of deaths from External causes was the Australian Capital Territory. The Northern Territory had the highest rate of death from Transport accidents, followed by Western Australia, Tasmania, South Australia, Queensland, Victoria, New South Wales and the Australian Capital Territory. The Northern Territory and Tasmania had the highest rates of death from Falls, and South Australia had the lowest. Death rates from Accidental poisoning by and exposure to noxious substances were highest for Victoria. Rates of death from Intentional self-harm were highest for the Northern Territory and lowest for the Australian Capital Territory and Victoria.

### **14** EXTERNAL CAUSES OF DEATH, State and Territory—Age Standardised Rates(a)—1998–2002

	<i>NSW</i>	<i>Vic.</i>	<i>Qld</i>	<i>SA</i>	<i>WA</i>	<i>Tas.</i>	<i>NT</i>	<i>ACT</i>	<i>Aust.</i>
	rate	rate	rate	rate	rate	rate	rate	rate	rate
<b>All Causes of Death</b>	<b>690.2</b>	<b>673.7</b>	<b>701.1</b>	<b>688.8</b>	<b>664.1</b>	<b>762.6</b>	<b>969.5</b>	<b>632.4</b>	<b>688.7</b>
<b>External causes of morbidity and mortality(b)</b>	<b>40.3</b>	<b>38.9</b>	<b>47.1</b>	<b>40.6</b>	<b>45.9</b>	<b>48.4</b>	<b>89.5</b>	<b>36.5</b>	<b>42.4</b>
Transport accidents	9.6	9.7	10.6	11.1	11.6	11.4	28.5	7.3	10.4
Pedestrian injured in transport accident	1.9	1.8	1.6	1.9	1.7	1.5	6.2	0.9	1.8
Motorcycle rider injured in transport accident	1.0	1.2	1.2	1.2	1.4	0.9	1.8	0.6	1.1
Car occupant injured in transport accident	5.1	5.1	5.5	6.3	6.1	5.1	15.4	4.4	5.4
Falls	3.4	1.9	3.9	1.6	3.1	4.8	8.0	3.8	3.0
Exposure to inanimate mechanical forces	0.6	0.6	0.8	0.7	0.7	1.6	1.3	0.2	0.7
Accidental drowning and submersion	1.4	1.0	1.5	0.9	1.5	1.6	3.0	1.2	1.3
Other accidental threats to breathing(c)	1.1	0.8	1.4	1.3	1.5	1.3	1.1	1.7	1.1
Exposure to smoke, fire and flames	0.5	0.4	0.4	0.6	0.4	1.3	3.0	0.3	0.5
Accidental poisoning by and exposure to noxious substances(d)	3.7	4.9	3.3	3.2	4.2	3.8	3.6	3.9	3.9
Accidental exposure to other and unspecified factors	4.4	5.2	5.8	3.7	5.1	4.9	5.5	5.2	4.9
Intentional self-harm	12.1	11.3	14.9	13.5	13.8	13.9	21.1	11.1	12.8
Assault	1.7	1.2	1.6	1.7	1.5	1.3	7.7	0.4	1.6
Complications of medical and surgical care	0.6	0.6	0.8	0.8	0.8	0.7	2.7	0.7	0.7
Sequelae of external causes of morbidity and mortality(e)	0.5	0.4	0.7	0.4	0.7	0.7	0.7	0.2	0.5

(a) Age Standardised Rates, deaths per 100,000 persons.

(b) Accidents and injury.

(c) Includes Accidental suffocation, strangulation and hanging as well as other causes (see Explanatory Notes).

(d) Includes X40-X49.

(e) For this category, the External cause occurred one year or more before the death.

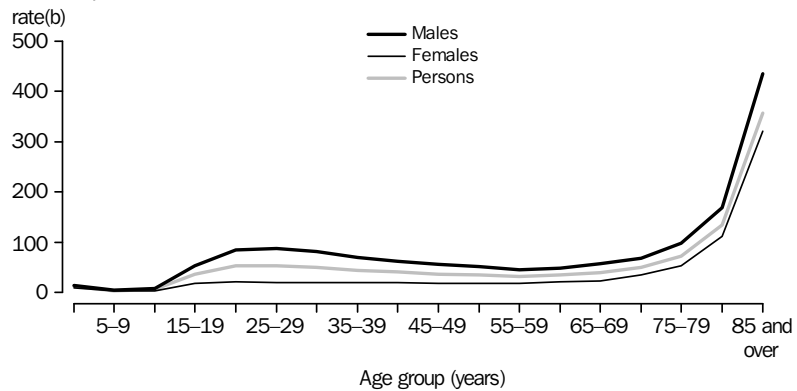
# SELECTED LEADING EXTERNAL CAUSES OF DEATH

## ALL EXTERNAL CAUSES Age Specific Rates

Over 1998–2002, age specific death rates of External causes of death increased at the age group of 15–19 years. Rates decreased through older age groups, and then increased for those aged 70 years and over.

Males and females had similar trends of age specific rates of deaths from External causes. In childhood, death rates from External causes were even between the sexes. From the age group of 15–19 years, death rates for males increased more so than for females.

**15** EXTERNAL CAUSES OF MORBIDITY AND MORTALITY(a), Age Specific Rates—1998–2002

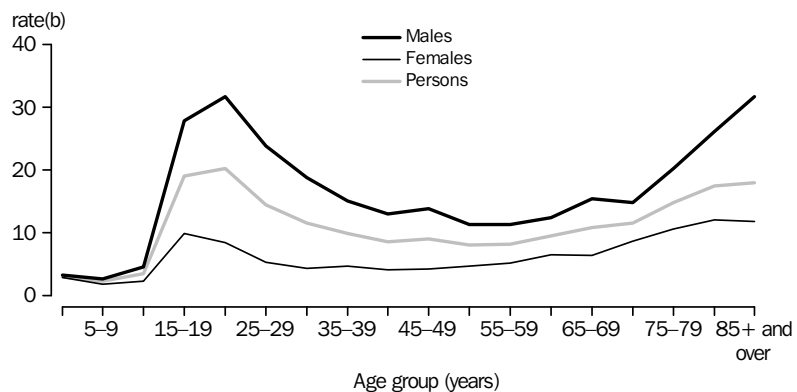


(a) Accidents and Injury, includes V01-Y98.  
(b) Age Specific Rate, deaths per 100,000 persons.

## TRANSPORT ACCIDENTS Age Specific Rates

Overall, high rates of Transport accident deaths occurred for those aged 15–19 years, 20–25 years and 25–29 years during 1998–2002. This trend was more pronounced for males than females. As discussed earlier, an increase in risk taking behaviour is one possible factor increasing the likelihood of fatal Transport accidents of young adults (particularly males). Death rates decreased through older age groups, and then increased for those aged 65 years and over. The increase in death rates from Transport accidents in older age groups was more pronounced for males.

**16** TRANSPORT ACCIDENTS(a), Age Specific Rates(b)—by sex—1998–2002



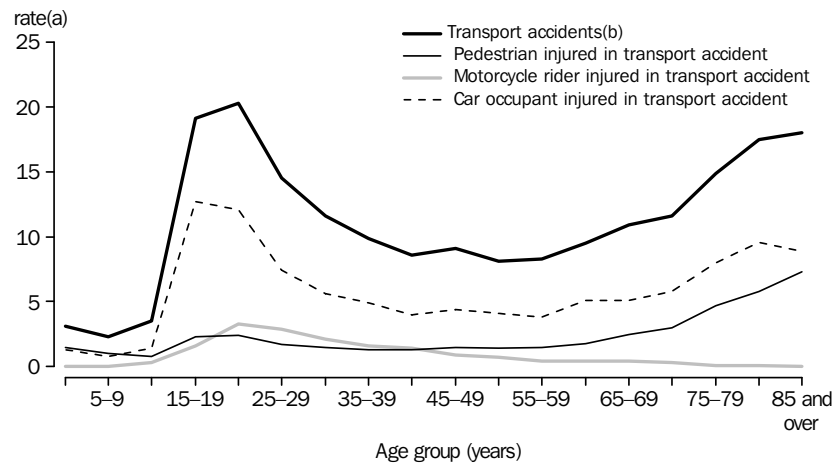
(a) Includes (V01-V99).  
(b) Age Specific Rate, deaths per 100,000 persons.

## SELECTED LEADING EXTERNAL CAUSES OF DEATH *continued*

### Age Specific Rates *continued*

During 1998–2002, age specific death rates from accidents where a car occupant was injured were highest for the age group 15–29 years. Age specific death rates from accidents where a pedestrian was injured were high for those aged 15–24 years and very high for those aged 70 years and over. Age specific death rates for accidents where a motorcycle rider was injured peaked during the ages of 20–34 years.

**17** TRANSPORT ACCIDENTS, Age Specific Rates(a)—1998–2002



(a) Age Specific Rate, deaths per 100,000 persons.

(b) Includes V01-V99.

### Nature of Injury

During 1998–2002, Injuries to the head and thorax (chest region) and Injuries to multiple body regions were the most common injuries causing death for Transport accidents.

Where a car occupant was killed in an accident, Injuries to the head and Injuries to multiple body regions were likely to be reported as associated causes of death. Those injured in Pedestrian accidents and Air transport accidents were more likely to have Injuries to multiple body regions as a cause of death than those injured in any other Transport accidents. Pedal cyclists and those injured in Water transport accidents were more likely to sustain Injuries to the head as a cause of death, compared with those injured in other types of Transport accidents.

There was variation among age groups as to the types of injuries listed as a cause of death for Transport accidents. Those aged 0–14 years were more likely to sustain Injuries to the head as a cause of death in Transport accidents. Those aged 65 years and over were more likely to sustain Injuries to the thorax and Injuries to multiple body regions where there was a Transport accident causing death. A table containing types of Transport accidents and nature of injuries causing death, by age group is included in the Detailed tables, see page 27.

## SELECTED LEADING EXTERNAL CAUSES OF DEATH *continued*

### 18 TRANSPORT ACCIDENTS(a), nature of injuries(b)—all persons—1998–2002

	<i>Chapter XIX Injury, poisoning and other consequences of external causes(c) (b)</i>				
	<i>Head injuries</i>	<i>Thorax injuries</i>	<i>Injuries to multiple body regions</i>	<i>Other injuries, poisoning and consequences of external cause(d)</i>	
	no.	no.	no.	no.	no.
<b>Transport accidents(a)</b>	<b>9 705</b>	<b>3 845</b>	<b>2 236</b>	<b>3 859</b>	<b>3 333</b>
Pedestrian injured in transport accident	1 737	723	311	824	469
Pedal cyclist injured in transport accident	196	109	38	67	60
Motorcycle rider injured in transport accident	1 076	421	277	424	359
Car occupant injured in transport accident	5 101	2 110	1 275	1 999	1 740
Water transport accidents	244	34	9	7	220
Air and space transport accidents	233	40	25	161	59
Other transport accidents(e)	1 118	408	301	377	426

(a) Includes V00-V99.

(b) This table contains numbers of deaths where the underlying cause of death was coded to the category Transport accidents, and where a code for nature of injury was also recorded. There could be more than one nature of injury code recorded per death (for example, Injuries to the head and Injuries to the thorax). Therefore, the sum of the components of Chapter XIX (nature of injury) will not equal the total deaths for Chapter XIX. See paragraphs 2 and 3 of Explanatory Notes.

(c) Includes S00-T98.

(d) Includes S10-S19, S30-S99, T08-T98.

(e) Includes V10-V19, V30-V39, V50-V89, V98-V99.

Note: There were 218 deaths registered where transport accident was identified as the underlying cause of death, but no cause was recorded in Chapter XIX Injury, poisoning and certain other consequences of external cause.

#### INTENTIONAL SELF-HARM AND ASSAULT

##### *Age Specific Rates*

Over 1998–2002, age specific death rates from Assault were higher for those aged 0–4 years and 5–9 years than for those aged 10–14 years. Age specific rates then increased and remained stable throughout older age groups.

Trends in age specific death rates for Intentional self-harm (suicide) were different between the sexes. For females, the age specific death rate for suicide was highest in the age group of 25–44 years.

For males, death rates from suicide were substantially higher for those aged 20–39 years than for most other age groups. Age specific death rates were also very high for elderly males. Of all males, those aged 85 years and over had the highest rate of death from suicide in 1998–2002.

The NSW Health Department Centre for Mental Health (2000) stated, in its report on suicides in NSW, that older people who attempted suicide were more likely to die than younger people who attempted suicide. This report also noted that more older males were more likely to make a non-fatal suicide attempt than older females. Conversely, for younger age groups, females were more likely to make a non-fatal suicide attempt resulting in hospitalisation than males (Helps, Cripps & Harrison, 2002).

# SELECTED LEADING EXTERNAL CAUSES OF DEATH *continued*

**19** INTENTIONAL SELF-HARM(a) AND ASSAULT(b), Age Specific Rates(c)—1998–2002



(a) Includes X60-X84.  
 (b) Includes X85-Y09.  
 (c) Age Specific Rate, deaths per 100,000 persons.

### Method of Suicide

The most common methods of suicide causing death were Hanging, strangulation and suffocation and Self poisoning. Males were more likely than females to commit suicide by Hanging, strangulation and suffocation and using Firearms, and females were more likely to use Self poisoning.

**20** INTENTIONAL SELF-HARM, Method by sex—1998–2002

	Males		Females		Persons	
	no.	%	no.	%	no.	%
<b>Intentional self-harm</b>	<b>9 764</b>	<b>100.0</b>	<b>2 548</b>	<b>100.0</b>	<b>12 312</b>	<b>100.0</b>
Self poisoning(a)	3 018	30.9	1 122	44.0	4 140	33.6
Hanging, strangulation and suffocation	4 411	45.2	918	36.0	5 329	43.3
Firearm	1 133	11.6	71	2.8	1 204	9.8
Drowning and submersion	122	1.2	103	4.0	225	1.8
Other methods of Intentional self-harm	1 080	11.1	334	13.1	1 414	11.5

(a) Includes poisoning by motor vehicle gases.

### ACCIDENTAL FALLS Age Specific Rates

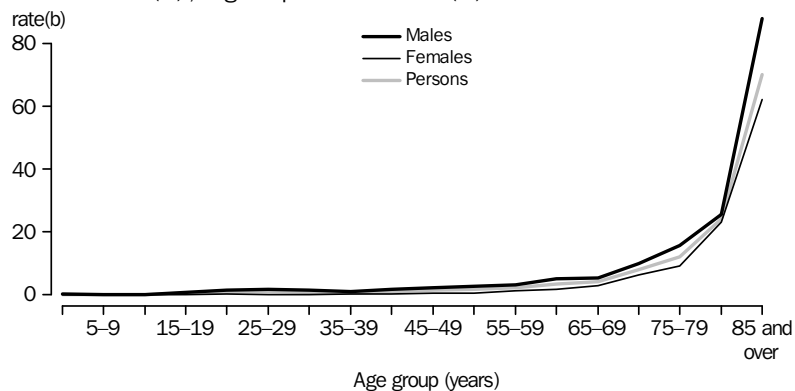
Death rates from Falls were clearly highest for those aged 70 years and over. In comparison, death rates from Falls were very low for those aged under 50 years.



# SELECTED LEADING EXTERNAL CAUSES OF DEATH *continued*

Age Specific Rates  
*continued*

**21** FALLS(a), Age Specific Rates(b)—1998–2002



(a) Includes W00-W19.

(b) Age Specific Rate, deaths per 100,000 persons.

## Nature of Injury from Fall

Where a Fall was reported as the underlying cause of death, the most common injuries reported as a cause of death were Injuries to the head. Of those aged under 65 years who had a Fall as the underlying cause of death, 69% had Injuries to the head reported as a cause of death, compared to 54% of those aged 65 years and over who died as the result of a Fall. Of those aged 65 years and over who died as a result of a Fall, 22% had Injuries to the hip and thigh reported as a cause of death compared to only 4% of those aged under 65 years who died as a result of a Fall.

**22** FALLS, Nature of injuries (selected)(a)—By age group—1998–2002

	0–64 years		65 years and over		All Persons	
	no.	%	no.	%	no.	%
<b>CHAPTER XIX Injury, poisoning and certain other consequences of external causes</b>	<b>839</b>	<b>100.0</b>	<b>1 912</b>	<b>100.0</b>	<b>2 751</b>	<b>100.0</b>
Injuries to the head	575	68.5	1 005	52.6	1 580	57.4
Injuries to the thorax	88	10.5	192	10.0	280	10.2
Injuries to the hip and thigh	35	4.2	423	22.1	458	16.6
Certain early complications of trauma	25	3.0	210	11.0	235	8.5

(a) This table contains numbers of deaths where the underlying cause of death was coded to the category Fall, and where a code for nature of injury was also recorded. There could be more than one nature of injury code recorded per death (for example, Injuries to the head and Injuries to the hip and thigh). Therefore, the sum of the components of Chapter XIX (nature of injury) will not equal the total deaths for Chapter XIX. See paragraphs 2 and 3 of Explanatory Notes.

Note: There were 62 deaths registered where accidental fall was identified as the underlying cause of death, but there was no cause listed in Chapter XIX Injury, poisoning and certain other consequences of external causes.

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TRANSPORT ACCIDENTS, Injuries causing death(a)—By age group—1998–2002

0-14		15-24		25-64		65 YEARS		ALL	
YEARS		YEARS		YEARS		AND OVER		PERSONS	
no.	%	no.	%	no.	%	no.	%	no.	%

ALL TRANSPORT ACCIDENTS (b)

**CHAPTER XIX Injury, poisoning and certain other consequences of external causes(c)**

Injuries to the head	586	100	2 510	100	5 030	100	1 576	100	9 705	100
Injuries to the thorax	363	62	1 198	48	1 846	37	438	28	3 845	40
Injuries involving multiple body regions	72	12	484	19	1 203	24	477	30	2 236	23
Other Injury, poisoning and certain other consequences of external cause(d)	159	27	931	37	2 098	42	669	42	3 859	40
	165	28	783	31	1 816	36	568	36	3 333	34

CAR OCCUPANT INJURED IN A TRANSPORT ACCIDENT

**CHAPTER XIX Injury, poisoning and certain other consequences of external causes(c)**

Injuries to the head	224	100	1 582	100	2 487	100	807	100	5 101	100
Injuries to the thorax	141	63	790	50	984	40	195	24	2 110	41
Injuries involving multiple body regions	38	17	317	20	618	25	302	37	1 275	25
Other Injury, poisoning and certain other consequences of external cause	54	24	584	37	1 026	41	334	41	1 999	39
	69	31	509	32	871	35	291	36	1 740	34

PEDESTRIAN INJURED IN A TRANSPORT ACCIDENT

**CHAPTER XIX Injury, poisoning and certain other consequences of external causes(c)**

Injuries to the head	218	100	301	100	740	100	477	100	1 737	100
Injuries to the thorax	148	68	138	46	265	36	172	36	723	42
Injuries involving multiple body regions	20	9	38	13	156	21	97	20	311	18
Other Injury, poisoning and certain other consequences of external cause	64	29	140	47	380	51	239	50	824	47
	49	23	60	20	219	30	141	30	469	27

OTHER TRANSPORT ACCIDENTS (e)

**CHAPTER XIX Injury, poisoning and certain other consequences of external causes(c)**

Injuries to the head	144	100	627	100	1 803	100	292	100	2 867	100
Injuries to the thorax	74	51	270	43	597	33	71	24	1 012	35
Injuries involving multiple body regions	14	10	129	21	429	24	78	27	650	23
Other Injury, poisoning and certain other consequences of external cause	41	29	207	33	692	38	96	33	1 036	36
	47	33	214	34	726	40	136	47	1 124	39

- (a) Injuries listed on any part of the death record, thus there could be more than one injury recorded for each death.
- (b) Includes V00-V99.
- (c) Number of deaths where an injury causing death was reported. Includes S00-T98.

(d) Includes S10-S19, S30-S99, T08-T98.

(e) Includes V10-V19, V30-V39, V50-V89, V98-V99.

Note: There were 218 deaths registered where Transport accident was identified as the underlying cause of death, but no cause was recorded in Chapter XIX Injury, poisoning and certain other consequences of external cause.

	0–4 years	5–9 years	10–14 years	15–19 years	20–24 years	25–29 years	30–34 years	35–39 years	40–44 years
	rate	rate	rate	rate	rate	rate	rate	rate	rate
<b>External causes of morbidity and mortality (V01-Y98)(c)</b>	<b>14.7</b>	<b>5.4</b>	<b>8.1</b>	<b>53.3</b>	<b>84.7</b>	<b>88.1</b>	<b>82.1</b>	<b>70.0</b>	<b>62.8</b>
<b>Transport accidents (V01-V99)</b>	<b>3.3</b>	<b>2.7</b>	<b>4.6</b>	<b>27.9</b>	<b>31.7</b>	<b>23.9</b>	<b>18.8</b>	<b>15.1</b>	<b>13.1</b>
Pedestrian injured in transport accident	1.8	1.2	1.1	3.7	3.8	2.9	2.5	1.8	1.9
Pedal cyclist injured in transport accident	—	0.3	0.8	0.7	0.4	0.4	0.2	0.3	0.3
Motorcycle rider injured in transport accident	—	0.1	0.6	3.0	5.8	5.6	3.9	3.1	2.7
Occupant of three-wheeled motor vehicle injured in transport accident	—	—	—	—	0.1	0.1	—	—	—
Car occupant injured in transport accident	1.2	0.8	1.4	17.7	18.0	11.2	8.2	6.7	5.1
Occupant of pick-up truck or van injured in transport accident	—	—	0.1	0.6	0.7	0.6	0.5	0.5	0.3
Occupant of heavy transport vehicle injured in transport accident	—	0.1	0.1	0.1	0.3	0.6	1.0	0.7	0.8
Bus occupant injured in transport accident	—	—	—	0.1	—	—	—	—	—
Other land transport accidents	0.2	0.2	0.4	1.7	1.5	1.3	1.0	0.9	1.0
Water transport accidents	0.1	0.1	0.1	0.2	0.5	0.8	0.8	0.4	0.6
Air and space transport accidents	—	0.1	—	0.1	0.4	0.4	0.6	0.6	0.4
<b>Other external causes of accidental injury (W00-X59)</b>	<b>9.8</b>	<b>2.0</b>	<b>2.2</b>	<b>8.5</b>	<b>19.1</b>	<b>24.2</b>	<b>22.8</b>	<b>18.0</b>	<b>16.4</b>
Falls	0.3	0.1	0.1	0.8	1.6	1.8	1.6	1.2	1.7
Exposure to inanimate mechanical forces	0.6	0.3	0.5	0.9	1.3	1.0	1.7	1.6	1.4
Exposure to animate mechanical forces	0.1	—	—	0.1	0.2	0.1	0.1	0.1	—
Accidental drowning and submersion	5.0	0.8	0.5	1.5	2.2	2.6	2.3	1.7	1.9
Other accidental threats to breathing	2.6	0.2	0.3	1.0	1.3	2.0	1.6	1.1	1.2
Exposure to electric current, radiation and extreme ambient air temperature and pressure	0.1	0.1	0.1	0.4	0.5	0.7	0.6	0.4	0.6
Exposure to smoke, fire and flames	0.5	0.3	0.1	0.3	0.5	0.5	0.5	0.5	0.7
Contact with heat and hot substances	—	—	—	—	—	—	—	0.1	—
Contact with venomous animals and plants	—	0.1	—	—	—	0.1	—	0.1	0.1
Exposure to forces of nature	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2
Accidental poisoning by and exposure to noxious substances	0.2	0.1	0.2	3.0	10.8	14.5	13.7	10.5	8.0
Overexertion, travel and privation	—	—	—	—	—	—	—	—	0.1
Accidental exposure to other and unspecified factors	0.4	—	0.2	0.4	0.5	0.7	0.6	0.6	0.7
<b>Other external causes of mortality (X60-Y36)</b>	<b>1.6</b>	<b>0.6</b>	<b>1.3</b>	<b>16.8</b>	<b>33.6</b>	<b>39.6</b>	<b>40.0</b>	<b>36.4</b>	<b>32.5</b>
Intentional self-harm	—	—	0.9	14.6	29.9	34.9	35.0	31.9	28.8
Assault	1.4	0.6	0.3	2.0	2.7	3.4	3.4	3.3	2.8
Event of undetermined intent	0.1	—	—	0.2	0.9	1.1	1.3	1.1	0.9
Legal intervention and operations of war	—	—	—	0.1	0.1	0.2	0.2	0.1	0.1
<b>Complications of medical and surgical care (Y40-Y84)</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>0.1</b>	<b>—</b>	<b>—</b>	<b>0.2</b>
Drugs, medicaments and biological substances causing adverse effects in therapeutic use	—	—	—	—	—	—	—	—	0.1
Misadventures to patients during surgical and medical care	—	—	—	—	—	—	—	—	—
Surgical and other medical procedures(d)	—	—	—	—	—	0.1	—	—	0.1
<b>Sequelae and supplementary factors of external cause (Y85-Y98)</b>	<b>—</b>	<b>—</b>	<b>0.1</b>	<b>0.1</b>	<b>0.3</b>	<b>0.3</b>	<b>0.5</b>	<b>0.5</b>	<b>0.6</b>
Sequelae of external causes of morbidity and mortality	—	—	0.1	0.1	0.3	0.3	0.5	0.5	0.6

— nil or rounded to zero (including null cells)

(a) Three external causes of death (with age specific rates of less than 0.1) were not shown in this table. These were: Other and unspecified transport accidents (V98-V99), Medical devices associated with adverse incidents in diagnostic and therapeutic use (Y70-Y82) and Supplementary factors related to causes of morbidity and mortality classified elsewhere (Y90-Y98).

(b) Age Specific Death Rates, deaths per 100,000 persons.

(c) Accidents and Injury.

(d) Surgical and other medical procedures as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure.

	45–49 years	50–54 years	55–59 years	60–64 years	65–69 years	70–74 years	75–79 years	80–84 years	85 years and over
	rate	rate	rate	rate	rate	rate	rate	rate	rate
<b>External causes of morbidity and mortality (V01-Y98)(c)</b>	<b>55.9</b>	<b>51.4</b>	<b>46.0</b>	<b>49.0</b>	<b>57.2</b>	<b>68.1</b>	<b>98.0</b>	<b>169.6</b>	<b>434.2</b>
<b>Transport accidents (V01-V99)</b>	<b>13.9</b>	<b>11.3</b>	<b>11.4</b>	<b>12.4</b>	<b>15.4</b>	<b>14.9</b>	<b>20.2</b>	<b>26.2</b>	<b>31.7</b>
Pedestrian injured in transport accident	2.2	2.1	1.9	2.4	3.4	3.3	6.2	8.4	13.4
Pedal cyclist injured in transport accident	0.3	0.3	0.4	0.3	0.4	0.6	0.5	0.2	0.5
Motorcycle rider injured in transport accident	1.7	1.2	0.9	0.6	0.7	0.6	0.2	0.3	—
Occupant of three-wheeled motor vehicle injured in transport accident	0.1	—	—	—	0.1	—	—	—	0.3
Car occupant injured in transport accident	5.9	4.8	4.3	5.5	6.3	6.7	10.4	13.8	14.7
Occupant of pick-up truck or van injured in transport accident	0.4	0.3	0.3	0.3	0.6	0.3	0.3	0.3	0.3
Occupant of heavy transport vehicle injured in transport accident	0.8	0.5	0.3	0.3	0.1	0.1	0.1	—	—
Bus occupant injured in transport accident	—	—	0.1	—	0.1	0.2	0.2	—	—
Other land transport accidents	1.0	0.7	1.6	1.6	2.2	1.9	1.9	2.7	2.3
Water transport accidents	0.5	0.7	0.7	0.6	0.8	0.5	0.2	0.5	0.3
Air and space transport accidents	0.9	0.7	1.0	0.6	0.7	0.6	0.4	—	—
<b>Other external causes of accidental injury (W00-X59)</b>	<b>13.3</b>	<b>14.2</b>	<b>12.4</b>	<b>13.9</b>	<b>16.0</b>	<b>25.7</b>	<b>50.4</b>	<b>103.6</b>	<b>344.7</b>
Falls	2.2	2.8	3.2	5.2	5.3	10.1	15.8	25.7	88.0
Exposure to inanimate mechanical forces	1.5	2.0	1.9	1.6	1.3	1.0	0.9	1.3	2.3
Exposure to animate mechanical forces	0.1	—	—	—	0.2	0.1	0.4	0.2	0.3
Accidental drowning and submersion	1.4	2.3	2.0	1.4	1.3	2.1	3.3	2.4	3.1
Other accidental threats to breathing	1.1	0.9	0.9	0.9	1.5	2.0	4.0	8.9	19.1
Exposure to electric current, radiation and extreme ambient air temperature and pressure	0.3	0.4	0.4	0.4	0.1	0.3	0.1	0.2	—
Exposure to smoke, fire and flames	0.7	0.9	0.4	0.6	0.7	1.2	2.2	3.0	4.4
Contact with heat and hot substances	0.1	—	0.1	—	0.2	0.1	0.2	0.3	2.1
Contact with venomous animals and plants	0.1	0.1	—	—	0.1	—	0.1	0.2	—
Exposure to forces of nature	0.1	0.2	0.2	0.1	0.5	0.4	0.5	1.7	3.1
Accidental poisoning by and exposure to noxious substances	5.1	3.6	2.1	2.1	1.9	1.9	2.0	2.7	5.4
Overexertion, travel and privation	—	—	—	—	0.1	0.2	0.1	0.2	0.5
Accidental exposure to other and unspecified factors	0.5	1.0	0.9	1.3	2.6	6.4	20.9	56.8	216.5
<b>Other external causes of mortality (X60-Y36)</b>	<b>27.3</b>	<b>25.0</b>	<b>20.8</b>	<b>20.5</b>	<b>21.7</b>	<b>21.8</b>	<b>22.3</b>	<b>27.7</b>	<b>38.4</b>
Intentional self-harm	24.4	22.6	18.6	18.1	20.1	20.4	21.9	26.6	36.6
Assault	2.4	2.0	2.0	1.9	1.4	1.1	0.2	0.8	1.0
Event of undetermined intent	0.5	0.4	0.2	0.4	0.2	0.3	0.2	0.3	0.8
Legal intervention and operations of war	—	—	0.1	—	—	—	—	—	—
<b>Complications of medical and surgical care (Y40-Y84)</b>	<b>0.1</b>	<b>0.3</b>	<b>0.5</b>	<b>0.9</b>	<b>2.3</b>	<b>3.5</b>	<b>3.1</b>	<b>8.6</b>	<b>12.4</b>
Drugs, medicaments and biological substances causing adverse effects in therapeutic use	0.1	—	—	0.3	0.3	0.6	1.1	0.8	1.5
Misadventures to patients during surgical and medical care	—	0.1	—	—	—	0.1	—	0.2	0.3
Surgical and other medical procedures(d)	0.1	0.2	0.4	0.6	2.0	2.8	2.0	7.2	10.6
<b>Sequelae and supplementary factors of external cause (Y85-Y98)</b>	<b>1.2</b>	<b>0.6</b>	<b>0.9</b>	<b>1.3</b>	<b>1.9</b>	<b>2.1</b>	<b>2.0</b>	<b>3.5</b>	<b>7.0</b>
Sequelae of external causes of morbidity and mortality	1.2	0.6	0.9	1.3	1.9	2.1	2.0	3.5	7.0

— nil or rounded to zero (including null cells)

(a) Three external causes of death (with age specific rates of less than 0.1) were not shown in this table. These were: Other and unspecified transport accidents (V98-V99), Medical devices associated with adverse incidents in diagnostic and therapeutic use (Y70-Y82) and Supplementary factors related to causes of morbidity and mortality classified elsewhere (Y90-Y98).

(b) Age Specific Death Rates, deaths per 100,000 persons.

(c) Accidents and Injury.

(d) Surgical and other medical procedures as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure.

EXTERNAL CAUSES OF DEATH(a), Age Specific Rates(b)—Females—1998–2002

	0-4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years
	rate	rate	rate	rate	rate	rate	rate	rate	rate
<b>External causes of morbidity and mortality (V01-Y98)(c)</b>	<b>10.0</b>	<b>3.3</b>	<b>4.2</b>	<b>19.0</b>	<b>21.7</b>	<b>19.9</b>	<b>19.5</b>	<b>20.4</b>	<b>20.9</b>
<b>Transport accidents (V01-V99)</b>	<b>2.9</b>	<b>1.9</b>	<b>2.4</b>	<b>9.9</b>	<b>8.5</b>	<b>5.3</b>	<b>4.4</b>	<b>4.8</b>	<b>4.2</b>
Pedestrian injured in transport accident	1.3	0.8	0.6	0.8	0.9	0.5	0.6	0.8	0.6
Pedal cyclist injured in transport accident	—	—	—	0.1	0.1	0.1	—	0.1	0.1
Motorcycle rider injured in transport accident	—	—	0.1	0.2	0.6	0.2	0.2	0.1	0.2
Occupant of three-wheeled motor vehicle injured in transport accident	—	—	—	—	—	—	—	—	—
Car occupant injured in transport accident	1.4	0.8	1.3	7.5	5.9	3.7	3.1	3.2	2.9
Occupant of pick-up truck or van injured in transport accident	—	—	0.1	0.1	0.2	0.1	—	0.1	0.1
Occupant of heavy transport vehicle injured in transport accident	—	0.1	—	—	—	0.1	—	0.1	—
Bus occupant injured in transport accident	—	—	—	—	—	—	—	—	—
Other land transport accidents	0.2	0.2	0.3	1.0	0.7	0.4	0.3	0.3	0.2
Water transport accidents	—	—	—	0.1	0.1	0.1	—	—	0.1
Air and space transport accidents	—	—	—	0.1	—	0.2	0.1	0.1	0.1
<b>Other external causes of accidental injury (W00-X59)</b>	<b>5.8</b>	<b>1.0</b>	<b>1.0</b>	<b>3.0</b>	<b>4.7</b>	<b>4.8</b>	<b>4.9</b>	<b>5.0</b>	<b>6.2</b>
Falls	0.2	0.2	0.1	0.2	0.4	0.2	0.2	0.3	0.3
Exposure to inanimate mechanical forces	0.3	—	0.1	0.2	0.1	0.1	0.1	0.2	0.2
Exposure to animate mechanical forces	0.1	—	0.1	—	—	—	—	—	—
Accidental drowning and submersion	2.5	0.3	0.2	0.4	0.3	0.4	0.4	0.3	0.4
Other accidental threats to breathing	1.5	0.1	0.1	0.2	0.3	0.3	0.3	0.2	0.2
Exposure to electric current, radiation and extreme ambient air temperature and pressure	—	—	—	—	0.1	—	—	—	—
Exposure to smoke, fire and flames	0.6	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.3
Contact with heat and hot substances	—	—	—	—	—	—	—	—	—
Contact with venomous animals and plants	—	—	—	—	—	—	—	—	—
Exposure to forces of nature	—	—	—	—	—	—	—	—	—
Accidental poisoning by and exposure to noxious substances	0.2	0.1	0.1	1.7	3.3	3.4	3.5	3.4	4.4
Overexertion, travel and privation	—	—	—	—	—	—	—	—	—
Accidental exposure to other and unspecified factors	0.3	0.2	0.1	0.2	0.2	0.2	0.2	0.4	0.3
<b>Other external causes of mortality (X60-Y36)</b>	<b>1.2</b>	<b>0.3</b>	<b>0.8</b>	<b>6.1</b>	<b>8.4</b>	<b>9.6</b>	<b>9.9</b>	<b>10.2</b>	<b>10.1</b>
Intentional self-harm	—	—	0.5	4.8	6.0	7.4	7.6	8.1	8.4
Assault	1.2	0.3	0.2	1.1	2.0	1.7	1.9	1.7	1.2
Event of undetermined intent	—	—	—	0.2	0.3	0.5	0.4	0.4	0.5
Legal intervention and operations of war	—	—	—	—	—	—	—	—	—
<b>Complications of medical and surgical care (Y40-Y84)</b>	<b>0.1</b>	—	—	—	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.2</b>	<b>0.2</b>
Drugs, medicaments and biological substances causing adverse effects in therapeutic use	—	—	—	—	—	—	0.1	0.1	0.1
Misadventures to patients during surgical and medical care	—	—	—	—	—	—	—	—	0.1
Surgical and other medical procedures(d)	—	—	—	—	—	—	0.1	0.1	0.1
<b>Sequelae and supplementary factors of external cause (Y85-Y98)</b>	—	—	—	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>
Sequelae of external causes of morbidity and mortality	—	—	—	0.1	0.1	0.1	0.2	0.2	0.2

— nil or rounded to zero (including null cells)

(a) Three external causes of death (with age specific rates of less than 0.1) were not shown in this table. These were: Other and unspecified transport accidents (V98-V99), Medical devices associated with adverse incidents in diagnostic and therapeutic use (Y70-Y82) and Supplementary factors related to causes of morbidity and mortality classified elsewhere (Y90-Y98).

(b) Age Specific Death Rates, deaths per 100,000 persons.

(c) Accidents and Injury.

(d) Surgical and medical procedures as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure.

	45–49 years	50–54 years	55–59 years	60–64 years	65–69 years	70–74 years	75–79 years	80–84 years	85 years and over
	rate	rate	rate	rate	rate	rate	rate	rate	rate
<b>External causes of morbidity and mortality (V01-Y98)(c)</b>	<b>18.3</b>	<b>18.6</b>	<b>18.3</b>	<b>21.5</b>	<b>23.3</b>	<b>35.2</b>	<b>52.8</b>	<b>112.7</b>	<b>321.4</b>
<b>Transport accidents (V01-V99)</b>	<b>4.3</b>	<b>4.8</b>	<b>5.2</b>	<b>6.6</b>	<b>6.5</b>	<b>8.7</b>	<b>10.7</b>	<b>12.1</b>	<b>11.9</b>
Pedestrian injured in transport accident	0.7	0.7	1.1	1.3	1.6	2.8	3.5	4.2	4.6
Pedal cyclist injured in transport accident	—	0.1	—	0.1	0.1	—	0.1	—	0.1
Motorcycle rider injured in transport accident	0.2	0.1	—	0.1	0.1	—	—	—	—
Occupant of three-wheeled motor vehicle injured in transport accident	—	—	—	—	—	—	—	0.1	—
Car occupant injured in transport accident	2.8	3.4	3.3	4.6	4.0	5.0	6.2	7.1	6.3
Occupant of pick-up truck or van injured in transport accident	0.1	—	0.1	0.2	0.2	0.1	0.2	—	—
Occupant of heavy transport vehicle injured in transport accident	—	—	—	—	—	—	—	—	—
Bus occupant injured in transport accident	—	0.1	—	0.1	—	—	0.1	0.1	0.1
Other land transport accidents	0.2	0.3	0.4	0.3	0.3	0.8	0.6	0.6	0.8
Water transport accidents	—	0.1	—	0.1	0.1	—	—	—	—
Air and space transport accidents	0.2	0.1	0.1	0.1	0.2	0.1	—	—	—
<b>Other external causes of accidental injury (W00-X59)</b>	<b>5.7</b>	<b>5.2</b>	<b>5.8</b>	<b>7.2</b>	<b>8.3</b>	<b>17.0</b>	<b>33.1</b>	<b>84.6</b>	<b>287.8</b>
Falls	0.7	0.6	1.4	1.9	2.9	6.3	9.4	23.3	62.1
Exposure to inanimate mechanical forces	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.5	0.6
Exposure to animate mechanical forces	—	—	—	0.1	—	0.1	—	0.1	0.1
Accidental drowning and submersion	0.7	0.7	0.5	0.8	0.4	0.5	1.6	0.3	0.5
Other accidental threats to breathing	0.3	0.4	0.5	0.7	0.9	1.4	2.1	4.3	10.8
Exposure to electric current, radiation and extreme ambient air temperature and pressure	—	—	—	0.1	0.1	—	—	0.1	—
Exposure to smoke, fire and flames	0.3	0.4	0.3	0.5	0.3	1.0	0.9	1.5	2.5
Contact with heat and hot substances	—	—	—	0.1	—	0.2	0.1	0.8	0.8
Contact with venomous animals and plants	—	—	—	—	—	0.1	—	0.3	—
Exposure to forces of nature	—	—	0.1	—	0.2	0.2	0.7	0.9	1.7
Accidental poisoning by and exposure to noxious substances	3.3	2.6	2.4	2.0	1.9	1.6	1.3	2.0	3.0
Overexertion, travel and privation	—	—	—	0.2	0.1	0.1	0.1	—	0.7
Accidental exposure to other and unspecified factors	0.2	0.3	0.3	0.8	1.4	5.3	16.7	50.4	205.0
<b>Other external causes of mortality (X60-Y36)</b>	<b>8.0</b>	<b>8.1</b>	<b>6.8</b>	<b>6.6</b>	<b>6.0</b>	<b>6.5</b>	<b>5.5</b>	<b>7.2</b>	<b>5.9</b>
Intentional self-harm	6.6	6.8	6.0	5.4	4.9	5.3	4.5	6.1	5.1
Assault	0.9	0.9	0.6	0.8	0.8	0.8	0.6	1.1	0.2
Event of undetermined intent	0.4	0.4	0.2	0.4	0.2	0.4	0.3	—	0.6
Legal intervention and operations of war	—	—	—	—	—	—	—	—	—
<b>Complications of medical and surgical care (Y40-Y84)</b>	<b>0.3</b>	<b>0.3</b>	<b>0.4</b>	<b>0.7</b>	<b>1.9</b>	<b>2.4</b>	<b>2.8</b>	<b>6.6</b>	<b>9.7</b>
Drugs, medicaments and biological substances causing adverse effects in therapeutic use	0.1	—	—	0.2	0.3	1.0	0.7	1.9	2.4
Misadventures to patients during surgical and medical care	—	0.1	—	—	0.1	0.1	0.1	0.1	—
Surgical and other medical procedures(d)	0.1	0.2	0.3	0.6	1.4	1.3	1.9	4.5	7.2
<b>Sequelae and supplementary factors of external cause (Y85-Y98)</b>	<b>0.1</b>	<b>0.2</b>	<b>0.2</b>	<b>0.5</b>	<b>0.6</b>	<b>0.5</b>	<b>0.6</b>	<b>2.2</b>	<b>6.2</b>
Sequelae of external causes of morbidity and mortality	0.1	0.2	0.2	0.5	0.6	0.5	0.6	2.2	6.2

— nil or rounded to zero (including null cells)

(a) Three external causes of death (with age specific rates of less than 0.1) were not shown in this table. These were: Other and unspecified transport accidents (V98-V99), Medical devices associated with adverse incidents in diagnostic and therapeutic use (Y70-Y82) and Supplementary factors related to causes of morbidity and mortality classified elsewhere (Y90-Y98).

(b) Age Specific Death Rates, deaths per 100,000 persons.

(c) Accidents and Injury.

(d) Surgical and medical procedures as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure.

	0–4 years	5–9 years	10–14 years	15–19 years	20–24 years	25–29 years	30–34 years	35–39 years	40–44 years
	rate	rate	rate	rate	rate	rate	rate	rate	rate
<b>External causes of morbidity and mortality (V01-Y98)(c)</b>	<b>12.4</b>	<b>4.3</b>	<b>6.2</b>	<b>36.5</b>	<b>53.7</b>	<b>53.9</b>	<b>50.6</b>	<b>45.1</b>	<b>41.7</b>
<b>Transport accidents (V01-V98)</b>	<b>3.1</b>	<b>2.3</b>	<b>3.5</b>	<b>19.1</b>	<b>20.3</b>	<b>14.5</b>	<b>11.6</b>	<b>9.9</b>	<b>8.6</b>
Pedestrian injured in transport accident	1.5	1.0	0.8	2.3	2.4	1.7	1.5	1.3	1.3
Pedal cyclist injured in transport accident	—	0.1	0.4	0.4	0.3	0.2	0.1	0.2	0.2
Motorcycle rider injured in transport accident	—	—	0.3	1.6	3.3	2.9	2.1	1.6	1.4
Occupant of three-wheeled motor vehicle injured in transport accident	—	—	—	—	0.1	—	—	—	—
Car occupant injured in transport accident	1.3	0.8	1.4	12.7	12.1	7.4	5.6	4.9	4.0
Occupant of pick-up truck or van injured in transport accident	—	—	0.1	0.3	0.4	0.3	0.3	0.3	0.2
Occupant of heavy transport vehicle injured in transport accident	—	0.1	—	0.1	0.2	0.3	0.5	0.4	0.4
Bus occupant injured in transport accident	—	—	—	0.1	—	—	—	—	—
Other land transport accidents	0.2	0.2	0.3	1.3	1.1	0.8	0.7	0.6	0.6
Water transport accidents	—	0.1	0.1	0.2	0.3	0.4	0.4	0.2	0.3
Air and space transport accidents	—	—	—	0.1	0.2	0.3	0.3	0.4	0.3
<b>Other external causes of accidental injury (W00-X59)</b>	<b>7.9</b>	<b>1.5</b>	<b>1.6</b>	<b>5.8</b>	<b>12.0</b>	<b>14.5</b>	<b>13.8</b>	<b>11.5</b>	<b>11.3</b>
Falls	0.2	0.1	0.1	0.5	1.0	1.0	0.9	0.7	1.0
Exposure to inanimate mechanical forces	0.4	0.2	0.3	0.5	0.7	0.6	0.9	0.9	0.8
Exposure to animate mechanical forces	0.1	—	—	0.1	0.1	0.1	—	0.1	—
Accidental drowning and submersion	3.8	0.5	0.4	1.0	1.3	1.5	1.4	1.0	1.1
Other accidental threats to breathing	2.1	0.2	0.2	0.6	0.8	1.2	0.9	0.7	0.7
Exposure to electric current, radiation and extreme ambient air temperature and pressure	0.1	—	0.1	0.2	0.3	0.4	0.3	0.2	0.3
Exposure to smoke, fire and flames	0.5	0.2	0.1	0.2	0.3	0.3	0.4	0.4	0.5
Contact with heat and hot substances	—	—	—	—	—	—	—	—	—
Contact with venomous animals and plants	—	—	—	—	—	—	—	—	—
Exposure to forces of nature	—	—	0.1	—	0.1	0.1	0.1	0.1	0.1
Accidental poisoning by and exposure to noxious substances	0.2	0.1	0.1	2.4	7.1	8.9	8.6	6.9	6.2
Overexertion, travel and privation	—	—	—	—	—	—	—	—	—
Accidental exposure to other and unspecified factors	0.3	0.1	0.1	0.3	0.3	0.5	0.4	0.5	0.5
<b>Other external causes of mortality (X60-Y36)</b>	<b>1.4</b>	<b>0.5</b>	<b>1.0</b>	<b>11.6</b>	<b>21.2</b>	<b>24.5</b>	<b>24.8</b>	<b>23.2</b>	<b>21.2</b>
Intentional self-harm	—	—	0.7	9.8	18.1	21.1	21.2	19.9	18.5
Assault	1.3	0.4	0.3	1.5	2.3	2.5	2.6	2.5	2.0
Event of undetermined intent	0.1	—	—	0.2	0.6	0.8	0.9	0.7	0.7
Legal intervention and operations of war	—	—	—	—	0.1	0.1	0.1	—	—
<b>Complications of medical and surgical care (Y40-Y84)</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.2</b>
Drugs, medicaments and biological substances causing adverse effects in therapeutic use	—	—	—	—	—	—	—	0.1	0.1
Misadventures to patients during surgical and medical care	—	—	—	—	—	—	—	—	—
Surgical and other medical procedures(d)	—	—	—	—	—	0.1	0.1	—	0.1
<b>Sequelae and supplementary factors of external cause (Y85-Y98)</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>0.1</b>	<b>0.2</b>	<b>0.2</b>	<b>0.3</b>	<b>0.3</b>	<b>0.4</b>
Sequelae of external causes of morbidity and mortality	—	—	—	0.1	0.2	0.2	0.3	0.3	0.4

— nil or rounded to zero (including null cells)

(a) Three external causes of death (with age specific rates of less than 0.1) were not shown in this table. These were: Other and unspecified transport accidents (V98-V99), Medical devices associated with adverse incidents in diagnostic and therapeutic use (Y70-Y82) and Supplementary factors related to causes of morbidity and mortality classified elsewhere (Y90-Y98).

(b) Age Specific Death Rates, deaths per 100,000 persons.

(c) Accidents and Injury.

(d) Surgical and other medical procedures as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure.



	45–49 years	50–54 years	55–59 years	60–64 years	65–69 years	70–74 years	75–79 years	80–84 years	85 years and over
	rate	rate	rate	rate	rate	rate	rate	rate	rate
<b>External causes of morbidity and mortality (V01-Y98)(c)</b>	<b>37.0</b>	<b>35.2</b>	<b>32.4</b>	<b>35.3</b>	<b>39.9</b>	<b>50.8</b>	<b>72.3</b>	<b>134.6</b>	<b>356.0</b>
<b>Transport accidents (V01-V98)</b>	<b>9.1</b>	<b>8.1</b>	<b>8.3</b>	<b>9.5</b>	<b>10.9</b>	<b>11.6</b>	<b>14.8</b>	<b>17.5</b>	<b>18.0</b>
Pedestrian injured in transport accident	1.5	1.4	1.5	1.8	2.5	3.0	4.7	5.8	7.3
Pedal cyclist injured in transport accident	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.2
Motorcycle rider injured in transport accident	0.9	0.7	0.4	0.4	0.4	0.3	0.1	0.1	—
Occupant of three-wheeled motor vehicle injured in transport accident	—	—	—	—	—	—	—	0.1	0.1
Car occupant injured in transport accident	4.4	4.1	3.8	5.1	5.1	5.8	8.0	9.6	8.9
Occupant of pick-up truck or van injured in transport accident	0.2	0.2	0.2	0.3	0.4	0.2	0.2	0.1	0.1
Occupant of heavy transport vehicle injured in transport accident	0.4	0.3	0.1	0.2	0.1	0.1	—	—	—
Bus occupant injured in transport accident	—	—	0.1	—	—	0.1	0.1	0.1	0.1
Other land transport accidents	0.6	0.5	1.0	1.0	1.3	1.3	1.2	1.4	1.3
Water transport accidents	0.3	0.4	0.4	0.3	0.4	0.3	0.1	0.2	0.1
Air and space transport accidents	0.6	0.4	0.6	0.3	0.4	0.3	0.2	—	—
<b>Other external causes of accidental injury (W00-X59)</b>	<b>9.5</b>	<b>9.8</b>	<b>9.2</b>	<b>10.5</b>	<b>12.1</b>	<b>21.1</b>	<b>40.6</b>	<b>91.9</b>	<b>305.2</b>
Falls	1.5	1.7	2.3	3.6	4.1	8.1	12.1	24.2	70.1
Exposure to inanimate mechanical forces	0.8	1.1	1.0	0.9	0.7	0.6	0.6	0.8	1.1
Exposure to animate mechanical forces	—	—	—	—	0.1	0.1	0.2	0.1	0.2
Accidental drowning and submersion	1.0	1.5	1.3	1.1	0.9	1.3	2.3	1.1	1.3
Other accidental threats to breathing	0.7	0.7	0.7	0.8	1.2	1.7	2.9	6.1	13.4
Exposure to electric current, radiation and extreme ambient air temperature and pressure	0.1	0.2	0.2	0.3	0.1	0.1	—	0.1	—
Exposure to smoke, fire and flames	0.5	0.7	0.4	0.6	0.5	1.1	1.5	2.1	3.1
Contact with heat and hot substances	—	—	0.1	—	0.1	0.2	0.2	0.6	1.2
Contact with venomous animals and plants	0.1	0.1	—	—	0.1	0.1	—	0.3	—
Exposure to forces of nature	0.1	0.1	0.2	0.1	0.4	0.3	0.6	1.2	2.1
Accidental poisoning by and exposure to noxious substances	4.2	3.1	2.2	2.1	1.9	1.7	1.6	2.3	3.7
Overexertion, travel and privation	—	—	—	0.1	0.1	0.2	0.1	0.1	0.6
Accidental exposure to other and unspecified factors	0.3	0.7	0.6	1.1	2.0	5.8	18.5	52.9	208.5
<b>Other external causes of mortality (X60-Y36)</b>	<b>17.6</b>	<b>16.6</b>	<b>13.9</b>	<b>13.6</b>	<b>13.7</b>	<b>13.8</b>	<b>12.8</b>	<b>15.1</b>	<b>15.9</b>
Intentional self-harm	15.5	14.8	12.4	11.8	12.3	12.4	12.1	14.0	14.8
Assault	1.7	1.4	1.3	1.4	1.1	1.0	0.4	1.0	0.5
Event of undetermined intent	0.4	0.4	0.2	0.4	0.2	0.3	0.3	0.1	0.6
Legal intervention and operations of war	—	—	—	—	—	—	—	—	—
<b>Complications of medical and surgical care (Y40-Y84)</b>	<b>0.2</b>	<b>0.3</b>	<b>0.4</b>	<b>0.8</b>	<b>2.1</b>	<b>2.9</b>	<b>3.0</b>	<b>7.4</b>	<b>10.5</b>
Drugs, medicaments and biological substances causing adverse effects in therapeutic use	0.1	—	—	0.2	0.3	0.8	0.9	1.5	2.1
Misadventures to patients during surgical and medical care	—	0.1	—	—	0.1	0.1	0.1	0.1	0.1
Surgical and other medical procedures(d)	0.1	0.2	0.4	0.6	1.7	2.0	2.0	5.6	8.2
<b>Sequelae and supplementary factors of external cause (Y85-Y98)</b>	<b>0.7</b>	<b>0.4</b>	<b>0.6</b>	<b>0.9</b>	<b>1.2</b>	<b>1.3</b>	<b>1.2</b>	<b>2.7</b>	<b>6.4</b>
Sequelae of external causes of morbidity and mortality	0.7	0.4	0.6	0.9	1.2	1.3	1.2	2.7	6.4

— nil or rounded to zero (including null cells)

(a) Three external causes of death (with age specific rates of less than 0.1) were not shown in this table. These were: Other and unspecified transport accidents (V98-V99), Medical devices associated with adverse incidents in diagnostic and therapeutic use (Y70-Y82) and Supplementary factors related to causes of morbidity and mortality classified elsewhere (Y90-Y98).

(b) Age Specific Death Rates, deaths per 100,000 persons.

(c) Accidents and Injury.

(d) Surgical and other medical procedures as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure.

## EXPLANATORY NOTES

### EXPLANATORY NOTES

- 1** The data used in this publication are made available to the ABS from the Registrar of Births, Deaths and Marriages in each state and territory. The ABS compiles the data and codes the causes of death to the International Statistical Classification of Diseases and Related Health Problems, Tenth Revision (ICD-10).
- 2** The ICD-10 prescribes that when a death is attributed to an External cause, the event leading to the death should be assigned a code from Chapter XX, External causes of morbidity and mortality (V01-Y98) (see below) as well as a code to indicate the nature of the resulting condition. Most often, the condition is classifiable to Chapter XIX of ICD-10, Injury, poisoning and certain other consequences of External causes (S00-T98).
- 3** If the External cause was determined to be the underlying cause of death (or the main cause of death), the resulting condition or injury is listed as an associated cause of death. For example, if a patient dies of head injuries resulting from a car accident, the underlying cause of death is coded to Chapter XX, External causes of morbidity and mortality (Transport Accident). The resulting condition (head injuries) is coded from Chapter XIX Injury, poisoning and certain other consequences of External causes, as an associated cause of death. There may be more than one resulting injury from the External cause.
- 4** Accidental Poisoning as reported in the section Trends over the last 30 years included the codes of Accidental poisoning by and exposure to noxious substances (X40-X49), Event of undetermined intent (Y10-Y19) and drugs, medicaments and biological substances causing adverse effects in therapeutic use (Y40-Y59). In all other sections of this report, Accidental Poisoning by and Exposure to noxious substances (X40-X49) was reported alone.
- 5** Other accidental threats to breathing (W75-W84) includes the following causes: Accidental suffocation and strangulation in bed, Other accidental hanging and strangulation, Threat to breathing due to cave-in, falling earth and other substances, Inhalation of gastric contents, Inhalation and ingestion of food causing obstruction of respiratory tract, Inhalation and ingestion of other objects causing obstruction of respiratory tract, Confined to or trapped in a low-oxygen environment, Other specified threats to breathing and Unspecified threat to breathing.
- 6** The table below displays ICD-10 codes for Chapter XX, External causes of morbidity and mortality (V01-Y98).

## EXPLANATORY NOTES *continued*

EXPLANATORY NOTES *continued*

### EXTERNAL CAUSES OF DEATH DESCRIPTION AND ICD-10 CODE

<i>External Causes of Death description</i>	<i>ICD-10 code</i>
<b>CHAPTER XX External causes of morbidity and mortality</b>	<b>V01-Y98</b>
<b>Transport accidents</b>	<b>V01-V99</b>
Pedestrian injured in transport accident	V01-V09
Pedal cyclist injured in transport accident	V10-V19
Motorcycle rider injured in transport accident	V20-V29
Occupant of three-wheeled motor vehicle injured in transport accident	V30-V39
Car occupant injured in transport accident	V40-V49
Occupant of pick-up truck or van injured in transport accident	V50-V59
Occupant of heavy transport vehicle injured in transport accident	V60-V69
Bus occupant injured in transport accident	V70-V79
Other land transport accidents	V80-V89
Water transport accidents	V90-V94
Air and space transport accidents	V95-V97
Other and unspecified transport accidents	V98-V99
<b>Other external causes of accidental injury</b>	<b>W00-X59</b>
Falls	W00-W19
Exposure to inanimate mechanical forces	W20-W49
Exposure to animate mechanical forces	W50-W64
Accidental drowning and submersion	W65-W74
Other accidental threats to breathing	W75-W84
Exposure to electric current, radiation and extreme ambient air temperature and pressure	W85-W99
Exposure to smoke, fire and flames	X00-X09
Contact with heat and hot substances	X10-X19
Contact with venomous animals and plants	X20-X29
Exposure to forces of nature	X30-X39
Accidental poisoning by and exposure to noxious substances	X40-X49
Overexertion, travel and privation	X50-X57
Accidental exposure to other and unspecified factors	X58-X59
<b>Other external causes of mortality</b>	<b>X60-Y36</b>
Intentional self-harm	X60-X84
Assault	X85-Y09
Event of undetermined intent	Y10-Y34
Legal intervention and operations of war	Y35-Y36
<b>Complications of medical and surgical care</b>	<b>Y40-Y84</b>
Drugs, medicaments and biological substances causing adverse effects in therapeutic use	Y40-Y59
Misadventures to patients during surgical and medical care	Y60-Y69
Medical devices associated with adverse incidents in diagnostic and therapeutic use	Y70-Y82
Surgical and other medical procedures as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure	Y83-Y84
<b>Sequelae and supplementary factors of external cause</b>	<b>Y85-Y98</b>
Sequelae of external causes of morbidity and mortality	Y85-Y89
Supplementary factors related to causes of morbidity and mortality classified elsewhere	Y90-Y98

**7** All age standardised death rates in this publication have been calculated using the 2001 Estimated Resident Population for Australia (persons) as the standard population.

## GLOSSARY

<b>Age specific death rate</b>	Age-specific death rates within this publication are the average number of registered deaths per year over the 5-year-period (1998–2002) at a specified age per 100,000 of the estimated resident population of the same age, at the mid-point of the year 2000 (which is the mid-point of the 5-year-period 1998–2002).
<b>Associated cause of death</b>	Any cause listed on the death certificate other than the underlying cause. Each death record may have many associated causes which may have contributed to the death but were not judged to be the underlying cause of death. Nature of injury codes, pre-existing conditions and manifestations of complications of surgery are examples of causes which may be recorded as associated causes of death.
<b>Crude death rate</b>	The crude death rate is the average number of deaths (registered per year over the 5-year-period 1998–2002) per 100,000 estimated resident population at 30 June 2000.
<b>Multiple cause of death</b>	All causes listed on the death certificate (either above or below the line), including, therefore, both the underlying cause as well as all associated causes. For example, Diabetes as a multiple cause would refer to all instances in which Diabetes is listed somewhere on the death certificate.
<b>Standardised death rate</b>	<p>Standardised death rates enable the comparison of death rates between populations with different age structures by relating them to a standard population. The ABS standard populations relate to the years ending in 1 (e.g. 2001). The current standard population is all persons in the 2001 Australian population. All Age Standardised Death Rates in this publication have been calculated using the 2001 Estimate Resident Population for Australia (Persons) as the standard population. They are expressed per 100,000 persons. There are two methods of calculating standardised death rates:</p> <ul style="list-style-type: none"><li>■ The direct method — this is used when the populations under study are large and the age-specific death rates are reliable. It is the overall death rate that would have prevailed in the standard population if it had experienced at each age the death rates of the population under study; and</li><li>■ The indirect method — this is used when the populations under study are small and the age-specific death rates are unreliable or not known. It is an adjustment to the crude death rate of the standard population to account for the variation between the actual number of deaths in the population under study and the number of deaths which would have occurred if the population under study had experienced the age-specific death rates of the standard population.</li></ul>
<b>Standardised mortality ratio (SMR)</b>	The ratio of the actual number of deaths in the population under study and the number of deaths which would have occurred if the population under study had experienced the age-specific death rates of the standard population (see also standardised death rate, the indirect method).
<b>Remoteness</b>	The remoteness classification used in this publication is the Australian Standard Geographical Classification (ASGC) 2001 Remoteness structure which is based on the Accessibility/Remoteness Index of Australia (ARIA) in which remoteness is defined on the basis of road distance from any point to the nearest town.
<b>Underlying cause of death</b>	The cause which is deemed to have started the morbid train of events which has led to death. There must always be an underlying cause. If only one cause is listed above the line on the death certificate then this will be the underlying cause.

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