

## 2. DIMENSIONS OF THE PROBLEM

In this chapter, the Task Force provides an overview of the incidence of suicidal behaviour. Data are provided on deaths by suicide, suicide attempts and estimates of the impact of suicide on the community. The extent of suicide in Victoria is placed in a national and international context, and the incidence within Victoria is, wherever possible, examined over a 30-year period.

During the course of its inquiry, the Task Force became aware of the varying levels of community understanding of the problem. The analysis contained in this chapter challenges some of the common myths concerning suicide, and confirms a number of significant facts about the nature and extent of the problem.

### 2.1 COMMON MYTHS ABOUT SUICIDE

Some of the more common misconceptions that were apparent among the many consultations and submissions received by the Task Force were:

- Myth: Death by suicide is a common occurrence.

Death by suicide accounted for around 3 per cent of all deaths in Australia in 1995. However, deaths by injury accounted for 6 per cent of deaths at all ages. The human tragedy of premature death by suicide, especially among young people, as told in personal submissions to the Task Force, has significant repercussions for the Victorian community. For those aged 15–24 years, death by suicide represents about 20 per cent of all deaths: about 25 per cent of all deaths for males, and 17 per cent for all females of the same age group.

- Myth: Death by suicide is a new phenomenon.

Suicide has transcended generations. Epidemiological data available to the Task Force (see figure 2.2) indicate that while overall rates of suicide have fluctuated at times in Australia, they have essentially remained the same over the last 100 years. For males, deaths by suicide in Australia contributed 20.6 deaths per 100,000 in 1887 compared with 21 per 100,000 in 1995. For females, rates of suicide have remained constant at around 5.5 deaths per 100,000. The dimensions of suicide across different age groups have, however, changed.

- Myth: Death by suicide is a youth issue.

Suicide transcends all age groups. Historically, it has been associated with persons in the older age group. Until recently, there has been little indication it was a problem in the younger population. What has been seen over the past 30 years has been an increase in the proportion of deaths by suicide among young people aged 15–24 years, particularly young men, which reflects a worldwide trend. This trend is greater in developed countries such as Australia (see figure 2.1).

In Australia, rates of suicide among young males aged 15–24 years have tripled since the 1960s. In Australia, as shown in figures 2.3 and 2.4, there has been a growing suicide rate over the last three decades among individuals below 25 years of age, and within this group, rates have been especially high for males aged 20–24 years. This trend is also confirmed for Victorian data, as shown later in figure 2.12.

### 2.2 DEATHS BY SUICIDE

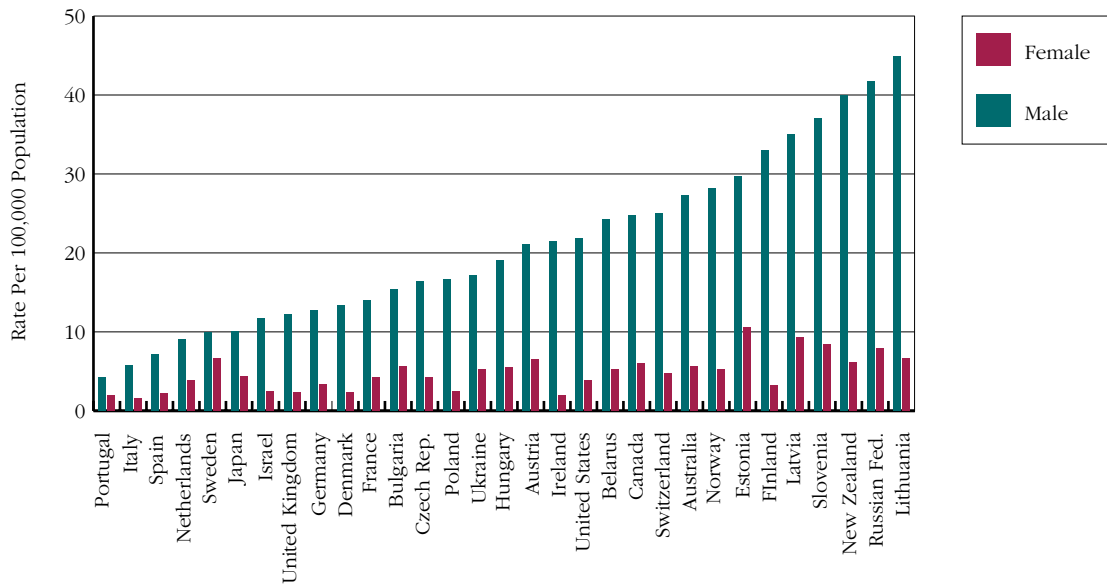
Most information collected addresses completed suicide. Data on suicide deaths available to the Task Force have been drawn from a number of sources, including the World Health Organisation (WHO), the Australian Institute of Suicide Research and Prevention (AISRAP), Australian Bureau of Statistics (ABS), the National Injury Surveillance Unit (NISU) and the Victorian Coroner. These different data sources mean some data are not comparable or refer to different time periods. However, taken together, they do provide an indication of the extent of the problem.

#### 2.2.1 THE INTERNATIONAL PICTURE

Suicide has ranked among the top 10 causes of death in western countries for many years. WHO estimates nearly one million people worldwide will die by suicide each year.

International data shows Australia has one of the higher rates of suicide among young people aged 15–24 years in developed countries, and male rates are significantly higher than female rates (figure 2.1).

**FIGURE 2.1: DEATHS BY SUICIDE—INTERNATIONAL DATA 1991–93 FOR PEOPLE AGED 15–24 YEARS (RATES PER 100,000)**

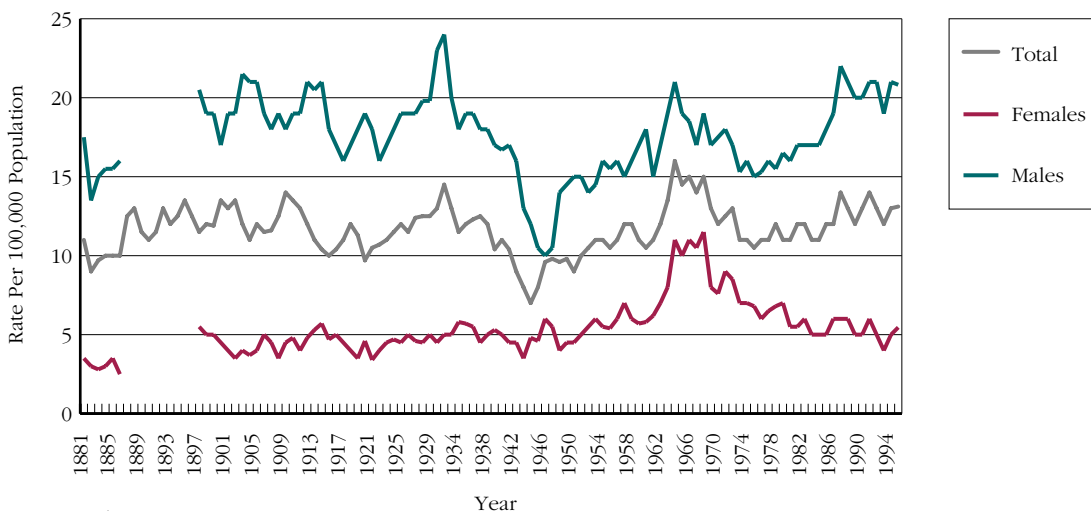


Source: Australian Institute for Suicide Research and Prevention (AISRAP: 1996).

## 2.2.2 THE AUSTRALIAN SITUATION

While there have been fluctuations over time, rates of suicide for all ages in Australia have remained relatively constant since the 1880s. Rates have been significantly higher for males compared with females, a fact the Task Force returns to constantly throughout this report. As figure 2.2 shows, Australia experienced a dramatic increase in suicide rates in the period after 1945, and again around the 1960s. It is from this latter period that the Task Force has sought to examine suicide trends.

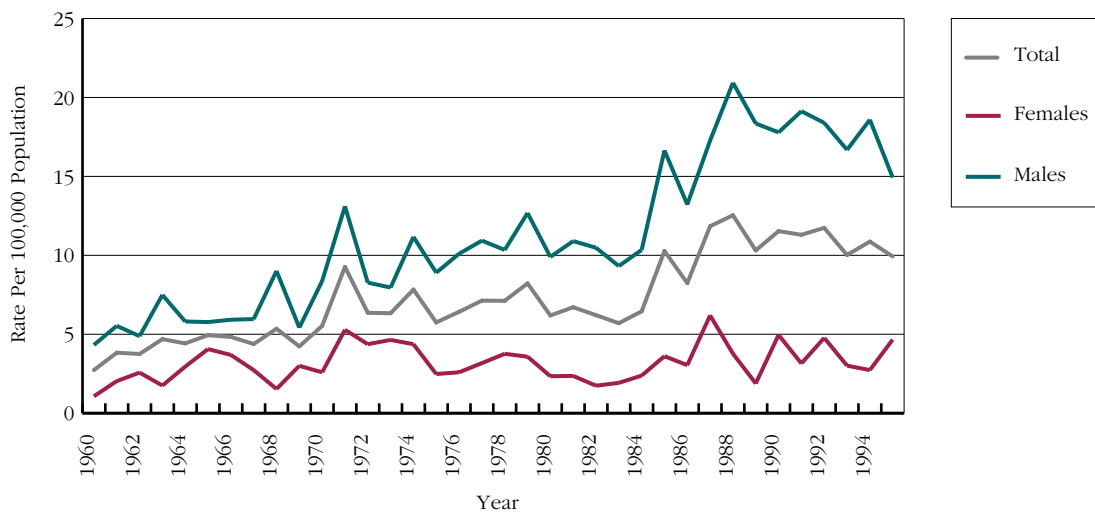
**FIGURE 2.2: DEATH BY SUICIDE IN AUSTRALIA: MALE, FEMALE AND TOTAL, ALL AGES, 1881–1995<sup>1</sup> (RATES PER 100,000)**



Source: AISRAP, 1996

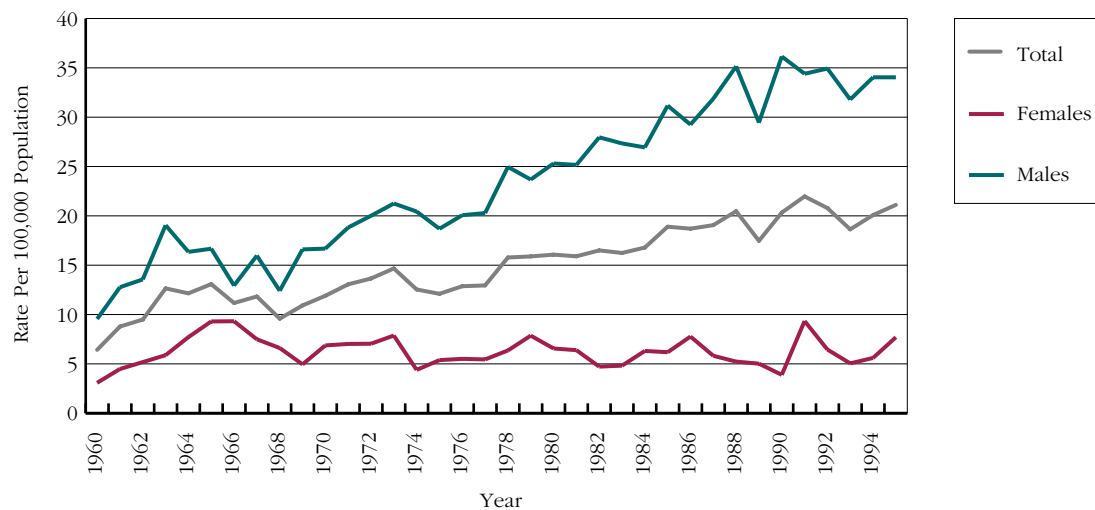
In Australia, and overseas, since the 1960s, there has been a dramatic rise in suicide rates among young males, especially those aged 20–24 years, as shown in Figures 2.3 and 2.4.

**FIGURE 2.3: RATES OF SUICIDE IN AUSTRALIA: MALE, FEMALE AND TOTAL, AGES 15–19 YEARS, 1960–95**



Source: AISRAP, 1996

**FIGURE 2.4: RATES OF SUICIDE IN AUSTRALIA: MALE, FEMALE AND TOTAL, AGES 20–24 YEARS, 1960–95**



Source: AISRAP, 1996

## INTERSTATE COMPARISONS

While Australia as a whole has one of the highest suicide rates in the western world, particularly among young males, there are interstate variations. As figure 2.5 shows for 1995, youth suicide rates among States and Territories were highest in Queensland, South Australia and Western Australia, which have rates well above the national average and have done so consistently for the last 14 years. Victoria's rate of youth suicide was among the lowest of all States and Territories for males, but among the highest for females in that year.

**FIGURE 2.5: RATES OF SUICIDE FOR EACH STATE AND TERRITORY BY GENDER: 15–24 YEAR OLDS, 1995**



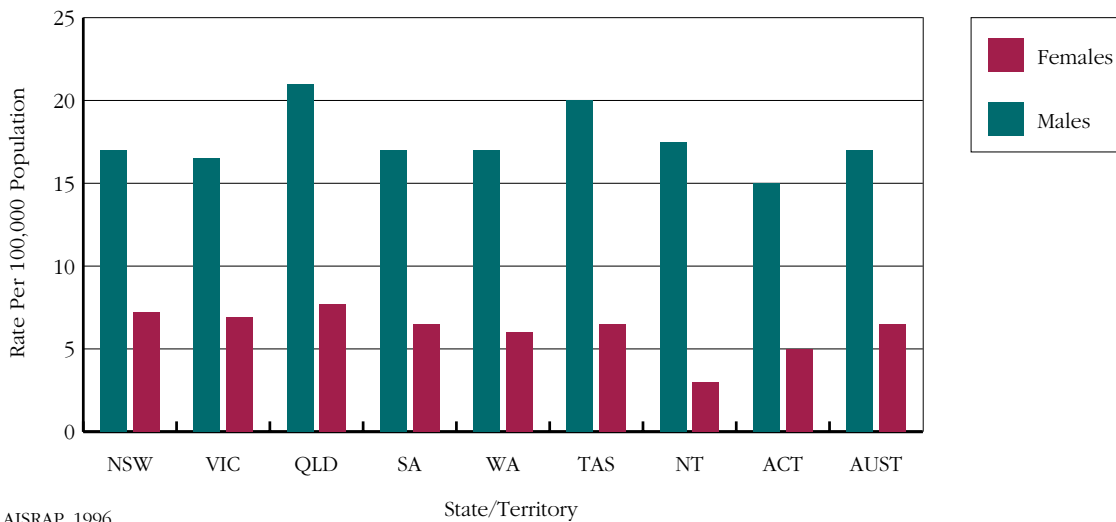
Source: AISRAP, 1996

### 2.2.3 VICTORIA-SPECIFIC DATA

Victoria’s rate of suicide across all age groups was 12.4 per 100,000 population in 1995, just below that for Australia as a whole at 13 deaths per 100,000 in the same year.

When taken as a 30-year average since 1964, Victoria, with New South Wales, has shown the lowest recorded average suicide rate of any State in Australia. Figures 2.6 and 2.7 show the 30-year average rates for all-age suicides and youth suicides.

**FIGURE 2.6: THIRTY-YEAR AVERAGE OF ALL-AGE SUICIDE RATES FOR STATES AND TERRITORIES, AUSTRALIA, 1964–95**



Source: AISRAP, 1996

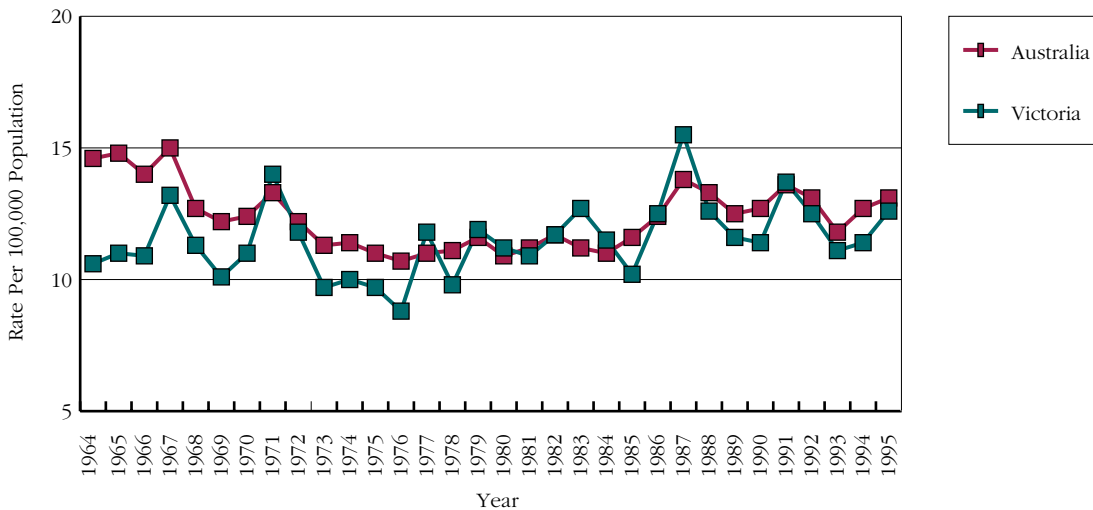
**FIGURE 2.7: THIRTY-YEAR AVERAGE YOUTH (15–24) SUICIDE RATES FOR STATES AND TERRITORIES, 1964–95**



Source: AISRAP, 1996

Compared with Australia as a whole (figure 2.8), Victoria has followed a pattern of fluctuating rates of all-age suicide since 1964, and has had lower rates than Australia as a whole over the past five years.

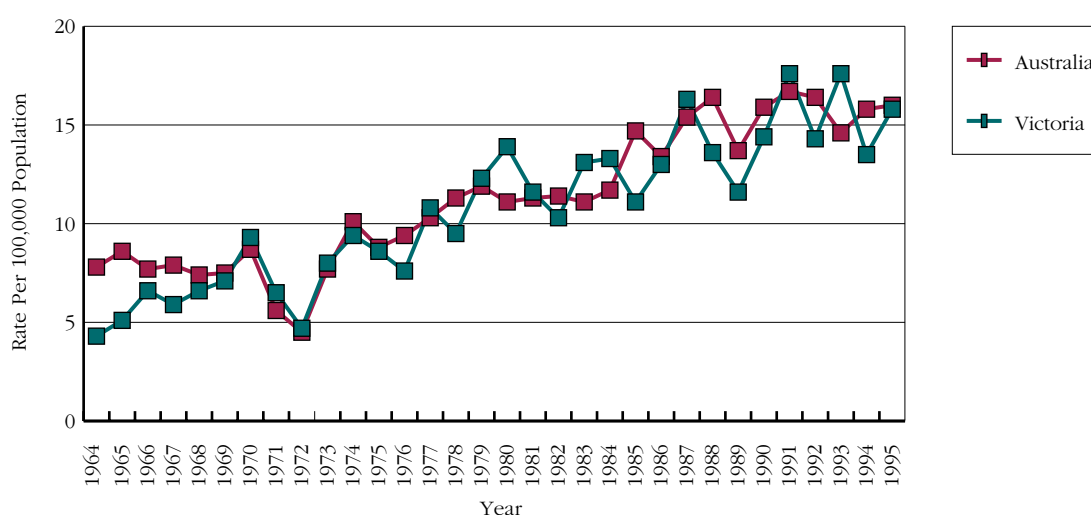
**FIGURE 2.8: COMPARISON OF ALL-AGE SUICIDE RATES, VICTORIA AND AUSTRALIA, 1964–95**



Source: AISRAP, 1996

For rates of youth suicide, Victoria has exhibited a similar pattern of increases to that of Australia as a whole with observable fluctuations over the 30-year period (see figure 2.9).

**FIGURE 2.9: COMPARISON OF SUICIDE RATES FOR YOUTH AGED 15–24, VICTORIA AND AUSTRALIA, 1964–95**



Source: AISRAP, 1996

The statistical evidence, internationally and across Australia, confirms a number of facts about suicide that are also relevant to Victoria. Further historical data provided by way of submission to the Task Force highlights that death by suicide has always been higher for males, but has changed dramatically by age when compared to rates in the middle of last century and the early part of this century (Cooke, 1997, submission to Task Force).

Table 2.1 shows the rates for youth suicides in Victoria and Australia since 1964. ABS data confirm that rates for males in Victoria have increased dramatically (from 5.6 per 100,000 in 1964 to 22.9 per 100,000 in 1995) while female rates have more than doubled (from 3.0 per 100,000 in 1964 to 8.4 per 100,000 in 1995).

**TABLE 2.1: RATES OF SUICIDE FOR YOUTH AGED 15–24, VICTORIA 1964–95**

Year	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
<i>Victoria</i>																
Male	5.6	6.9	8.2	8.3	7.7	10.2	11.6	6.6	8.2	19.0	13.4	13.0	11.4	16.2	14.0	18.2
Female	3.0	3.2	5.0	3.4	5.4	3.9	6.8	6.5	2.5	2.9	5.3	4.1	3.7	5.2	4.8	6.3
Persons	4.3	5.1	6.6	5.9	6.6	7.1	9.3	6.5	4.7	8.0	9.4	8.6	7.6	10.8	9.5	12.3
<i>Australia</i>																
Male	10.5	10.6	9.1	10.7	10.6	10.9	12.5	5.4	6.8	11.9	15.7	13.6	14.9	15.4	17.3	18.0
Female	5.1	6.4	6.2	5.0	4.0	4.0	4.7	6.0	2.4	4.2	4.4	3.9	4.0	4.3	5.0	5.7
Persons	7.8	8.6	7.7	7.9	7.4	7.5	8.7	5.6	4.5	7.7	10.1	8.8	9.4	10.3	11.3	11.9

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
<i>Victoria</i>																
Male	20.4	18.1	16.5	22.7	21.1	18.7	19.1	23.7	22.4	19.6	23.3	28.0	23.0	29.2	23.1	22.9
Female	7.1	5.0	3.8	3.2	5.2	3.2	6.6	8.8	4.5	3.4	5.1	7.0	5.4	5.5	3.6	8.4
Persons	13.9	11.6	10.3	13.1	13.3	11.1	13.0	16.3	13.6	11.6	14.4	17.6	14.3	17.6	13.5	15.8
<i>Australia</i>																
Male	17.5	18.0	19.3	18.5	18.8	24.0	21.2	24.4	27.8	23.7	26.8	26.8	26.9	24.6	26.8	25.3
Female	4.4	4.4	3.3	3.4	4.4	4.9	5.4	6.0	4.5	3.6	4.4	6.3	5.6	4.1	4.3	6.3
Persons	11.1	11.3	11.4	11.1	11.7	14.7	13.4	15.4	16.4	13.7	15.9	16.7	16.4	14.6	15.8	16.0

Source: AISRAP, 1996

The following table (table 2.2) shows the actual number of deaths by suicide in Victoria and Australia as a whole over the last 10-year period. As the data show, there were 566 officially recorded deaths by suicide in Victoria in 1995, the most recent year for which suicide data is publicly available from the ABS. Of these, 107 (19 per cent) were young people aged 15–24 years. In the 10-year period since 1986, 5,447 Victorians have died as a result of suicide; about one-quarter of the total for Australia over the same period.

**TABLE 2.2: NUMBERS OF ALL-AGE SUICIDES BY GENDER, VICTORIA AND AUSTRALIA, 1986–95**

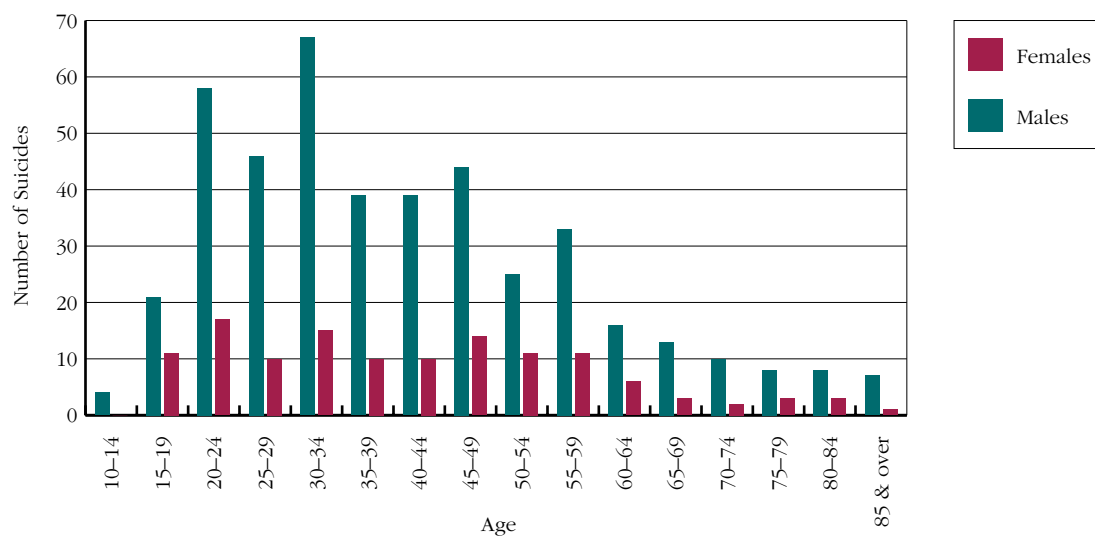
		1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
<i>Victoria</i>	M	378	505	417	380	399	472	445	403	401	439
	F	141	149	121	119	100	135	112	94	110	127
	P	519	654	538	499	499	607	557	497	511	566
<i>Australia</i>	M	1531	1773	1730	1658	1735	1847	1820	1687	1830	1872
	F	451	467	467	438	426	513	474	394	428	495
	P	1982	2240	2197	2096	2161	2360	2294	2081	2258	2367

Source: ABS (1986–95 unpublished data)

## AGE AND GENDER DIFFERENCES

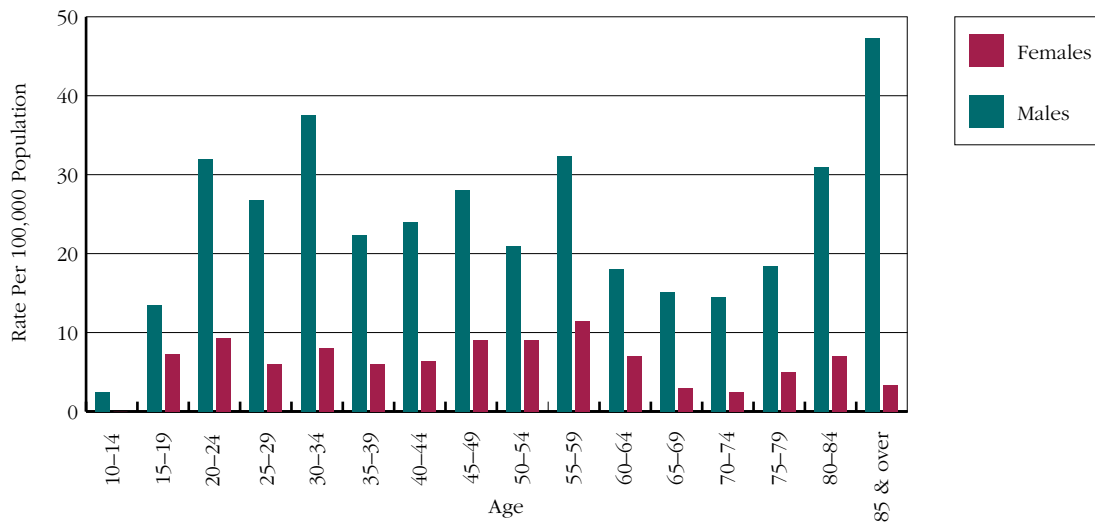
The age and gender of deaths by suicide in Victoria in 1995 are shown in figure 2.10. Figure 2.11 shows the rates of suicide by age and gender for that year. As shown, in terms of numbers, males aged 20–24 and 30–34 constitute the highest group. In terms of rates per 100,000 population, males aged 85 plus years are highest, although numerically this group is small.

**FIGURE 2.10: NUMBER OF SUICIDES BY AGE AND GENDER, VICTORIA, 1995**



Source: Australian Bureau of Statistics (Unpublished data, 1995)

**FIGURE 2.11: RATES OF SUICIDE BY AGE AND GENDER, VICTORIA, 1995**



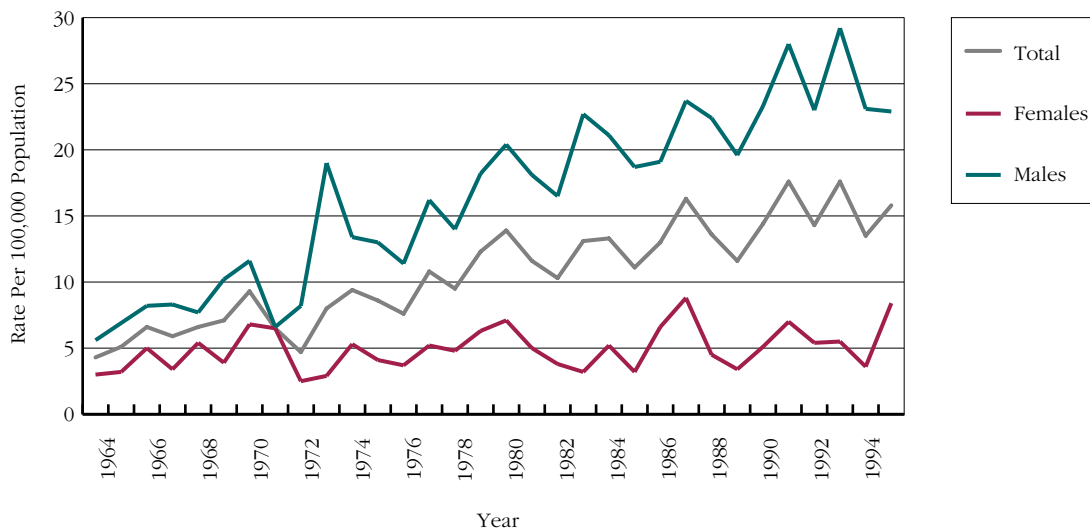
Source: Australian Bureau of Statistics (Unpublished data, 1995)

Data from the Victorian Coroner for deaths by suicide from 1991 to 1996 reflect these figures.

Further analysis by age and gender for Victoria shows:

- Suicide is relatively low in children under the age of 15 years, although there are some signs numbers may be increasing. Four deaths by suicide in 1995 were young people aged 10–14 years.
- Suicide numbers begin to increase after early adolescence. In terms of rates per 100,000, deaths by suicide among young persons aged 15–24 have increased from 4.3 per 100,000 in 1964 to 15.8 in 1995 (see figure 2.12). This pattern is similar to that shown earlier for Australia in figures 2.3 and 2.4.

**FIGURE 2.12: RATES OF YOUTH (15–24) SUICIDES BY GENDER, VICTORIA, 1964–95**



Source: AISRAP, 1996

For males the increase has been especially dramatic: from 5.6 per 100,000 to 22.9 per 100,000 population.

Trend data for Victoria indicate that, while suicide rates for middle (45–54) and older aged (65 plus) people have generally fallen over the 30-year period 1964–95, rates of suicide for those below 25 have increased substantially (figure 2.13).

**FIGURE 2.13: NUMBER OF SUICIDES BY AGE GROUP, VICTORIA, 1964 AND 1995 (RATES PER 100,000 POPULATION)**

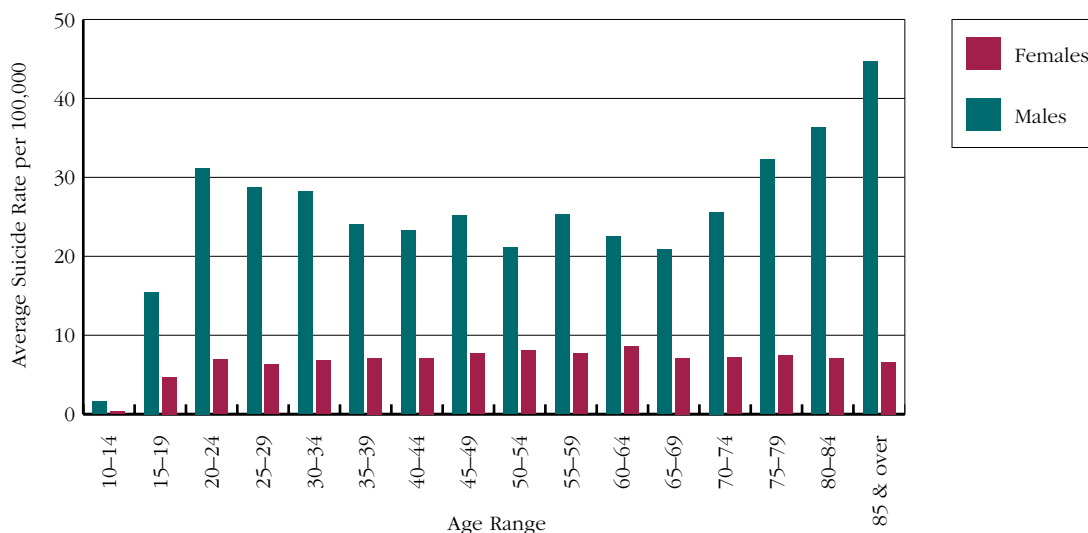


Source: AISRAP, 1996

While the numbers of deaths are small, high rates of suicide are evident in older people, especially males. The suicide rate for older men aged 65–69 years in 1995 was 15.2 per 100,000 population, and only 3.27 among women of the same age.

The convention in suicide reporting is to express suicide rates as a proportion of total population (that is, males plus females). When expressed as a rate of age- and sex-specific cohorts, however (that is, males per 100,000 males and females per 100,000 females), suicide rates among the male population have been highest for any group among persons aged 85 plus over the period 1986–95 in Victoria. This is shown in figure 2.14.

**FIGURE 2.14: AVERAGE SUICIDE RATE FOR 1986–95 (MALES VS. FEMALES) BY AGE GROUP, VICTORIA**



Source: Derived from ABS 1986–95 data provided to Task Force

One of the most perplexing facts about suicide is that deaths by suicide are highest among males across all age groups, and represent around 78 per cent of the total number of deaths by suicide in 1995. Rates of male suicide have increased since the 1970s, while overall female rates have declined over the last 20 years. As figure 2.12 showed, young males aged 15–24 in Victoria have suicide rates at least four times as high as young females in the same age range.

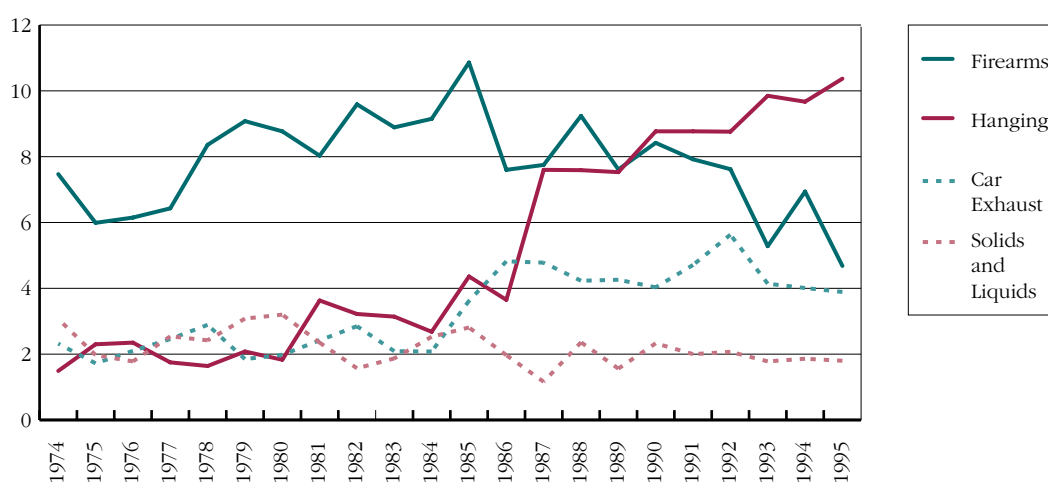
Gender-specific differences in the risk factors associated with suicide may help to explain differences in suicide rates among males and females. Such factors as a history of mental or addictive disorder, substance abuse, personality traits (aggressiveness, impulsiveness, hopelessness and anti-social behaviours), and psycho-social and environmental factors (such as physical or sexual abuse) have varying incidence among men and women. Biological, social and psychological factors have also been identified as affecting suicidal behaviour differently in men compared to women.

Gender differences in factors that protect an individual against contemplating suicide (that is, ‘protective factors’) are also apparent. Women, for example, are more likely than men to have stronger social supports, to have established protective relationships based on open communication, and to seek psychiatric and medical help, thus contributing to their lower rates of death by suicide.

## METHODS OF SUICIDE

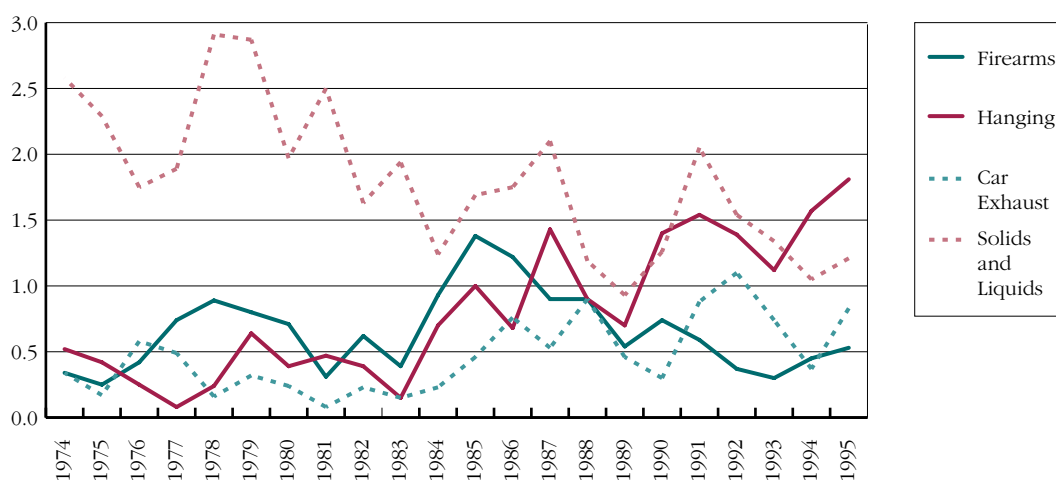
One of the factors that helps explain male/female differences in rates of death by suicide is the use of more violent and more lethal suicide methods by men. The methods of suicide vary over time according to gender and locality. As the figures for Australia show (figures 2.15 and 2.16), the most common methods are hanging, carbon monoxide poisoning, firearms, and ingestion of substances. Death by hanging and car exhaust deaths have risen considerably since the 1970s, while firearm deaths have declined overall. Suicide by jumping, or lying in front of moving vehicles (cars/trucks, trains) also occurs, but numbers are smaller relative to other methods.

**FIGURE 2.15: SUICIDE RATES FOR MAJOR METHODS, AUSTRALIA, MALES 15–24 YEARS, 1974–95**



Source: AISRAP, 1996

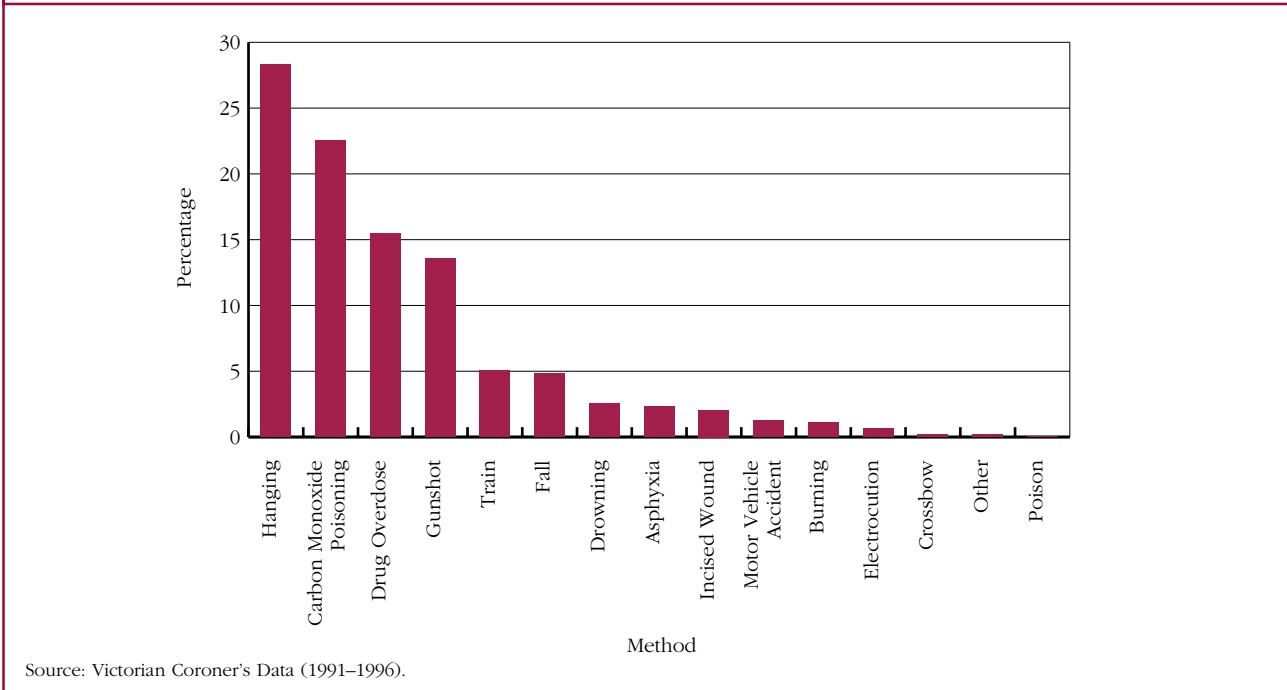
**FIGURE 2.16: SUICIDE RATES FOR MAJOR METHODS, AUSTRALIA, FEMALES 15–24 YEARS, 1974–95**



Source: AISRAP, 1996

Data obtained from the Victorian Coroner for the period 1991 to mid-1996 (figure 2.17) confirm the general pattern of methods for suicide for Victoria.

**FIGURE 2.17: PERCENTAGE OF SUICIDES (ALL AGES) BY METHOD, VICTORIA, 1991–96**



These data are important insofar as limiting access to means of suicide is a preventive measure. This is an issue the Task Force addresses in chapter 5 of the report.

## URBAN AND RURAL DIFFERENCES

Suicide rates, especially for young adult males, are particularly high in rural areas. Small, isolated country towns are vulnerable to high suicide rates. Pockets of equally high suicide rates also occur in certain metropolitan locations (especially the inner city and southern metropolitan regions).

Analysis of data for Victoria over the 1990s reveals variations in the rates of suicide between metropolitan and rural areas, and differences within rural areas between provincial centres and smaller country towns. The data confirm youth suicide rates are a particular problem for parts of rural Victoria with populations of less than 20,000 people.

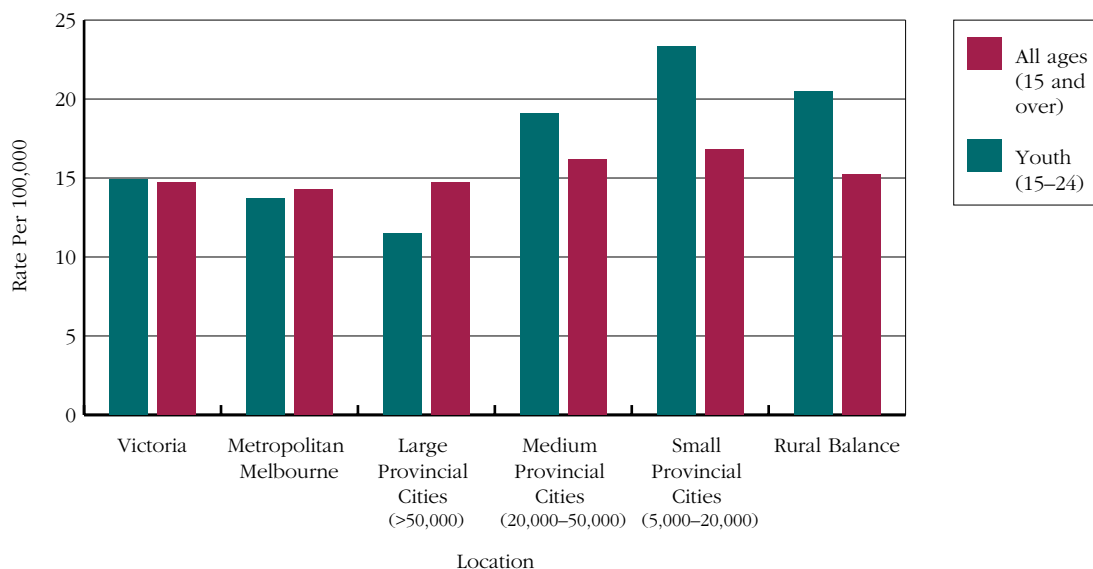
The data indicate rural Victoria is overrepresented in youth suicide statistics, and has rates for total suicide that are generally higher than metropolitan areas.

Data prepared for the Task Force from ABS information at the local area level indicate the spread of suicide across Victoria. No area has been found to be immune from suicidal incidence. Coroner's data over the period 1995–96 indicate around two-thirds of deaths took place in the same location as the person's residence.

At the local area level, the Task Force found suicide numbers fluctuate dramatically over time, are small in number, and differ markedly from locality to locality. While the data indicate certain communities may experience particular problems at particular times, the Task Force has avoided drawing inferences on which local areas of Victoria have high rates of suicide. This is because numbers are often very small and any variations from year to year significantly distort the suicide rates.

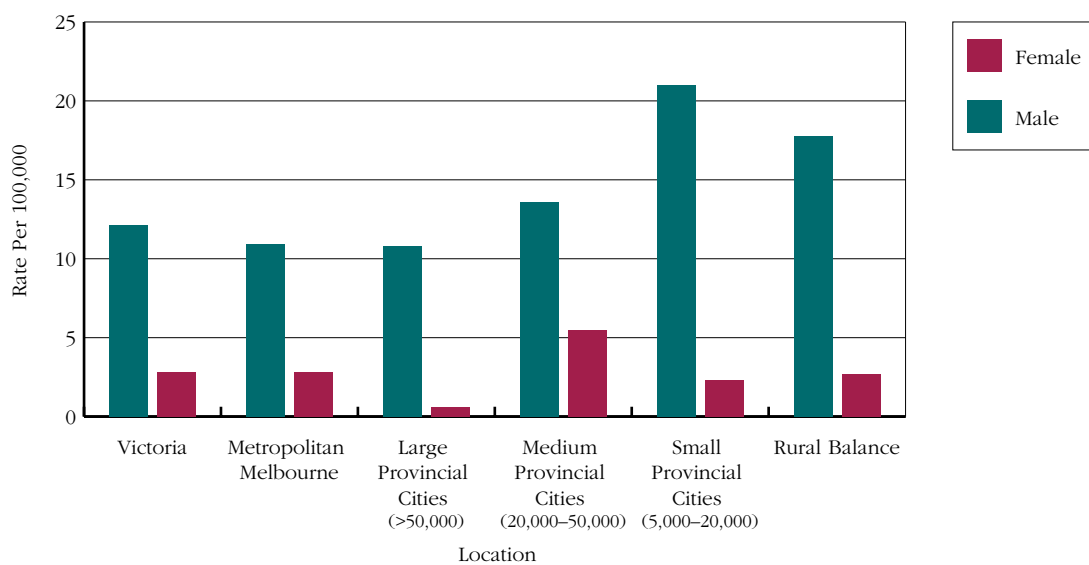
At the regional level, indications are suicide rates during the 1990s have been highest on average for youth (15–24) and all-age suicides in rural areas (figures 2.18 and 2.19).

**FIGURE 2.18: YOUTH (15–24) VS. ALL-AGE SUICIDE RATES BY LOCATION, VICTORIA, 1990–95**



Source: Australian Bureau of Statistics (Unpublished data, 1990–1995)

**FIGURE 2.19: MALE VS. FEMALE AVERAGE YOUTH (15–24) SUICIDE RATES BY LOCATION, VICTORIA, 1990–95**

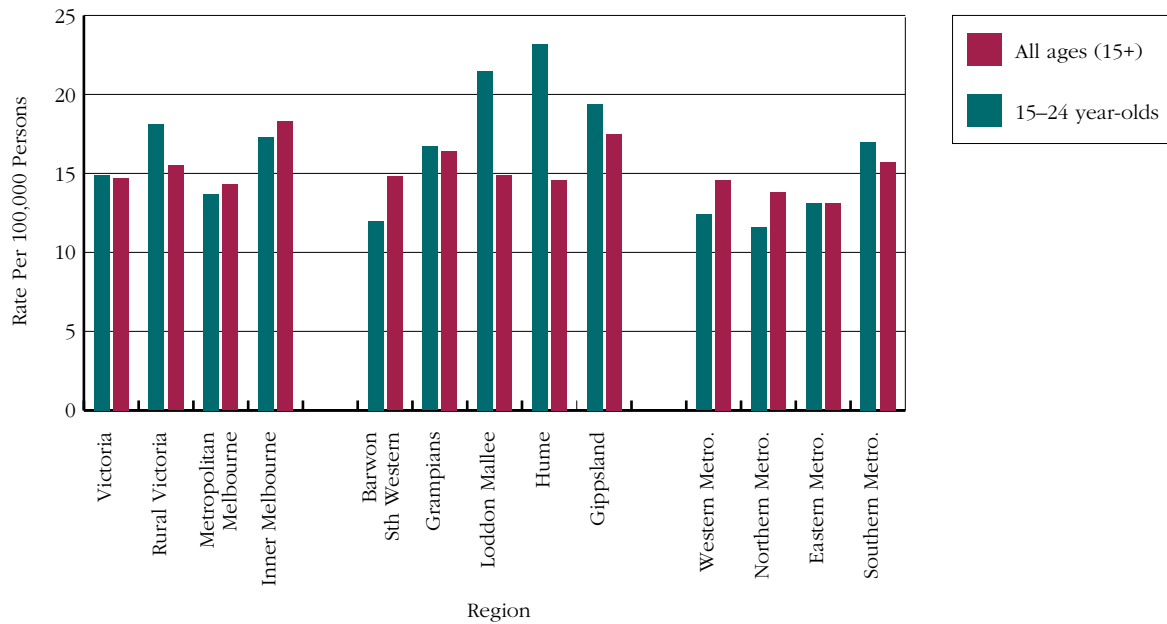


Source: Australian Bureau of Statistics (Unpublished data, 1990–1995)

Analysis of those areas in rural Victoria experiencing high rates of youth suicide over the period 1990–95 suggest Hume, Loddon Mallee, and Gippsland have experienced higher rates of youth and all-age suicide (figure 2.20).

In metropolitan Melbourne, rates of youth and all-age suicide are highest in the Department of Human Services largest metropolitan region, Southern Metropolitan Region. Rates are also known to be high in inner city areas (figure 2.20).

**FIGURE 2.20: AVERAGE SUICIDE RATES BY AGE GROUP AND REGION, VICTORIA, 1990–95**



Source: ABS (unpublished data, 1990–95)

### 2.3 SUICIDE ATTEMPTS

Attempted suicides are more difficult to study because there are no generally accepted reporting procedures nor well-accepted definitions. Systematic data on suicide attempts are not available in Victoria or Australia. There is also ongoing debate about whether suicide and attempted suicide are distinct or overlapping occurrences, or aspects of the same thing. While deaths by suicide are most common among males, across all age groups, females attempt suicide at a substantially higher rate than males. Attempted suicide is most frequently observed in young persons, especially young women. A number of studies have found up to 15 per cent of people who engage in suicidal behaviour (that is, suicide attempts) will ultimately take their own lives.

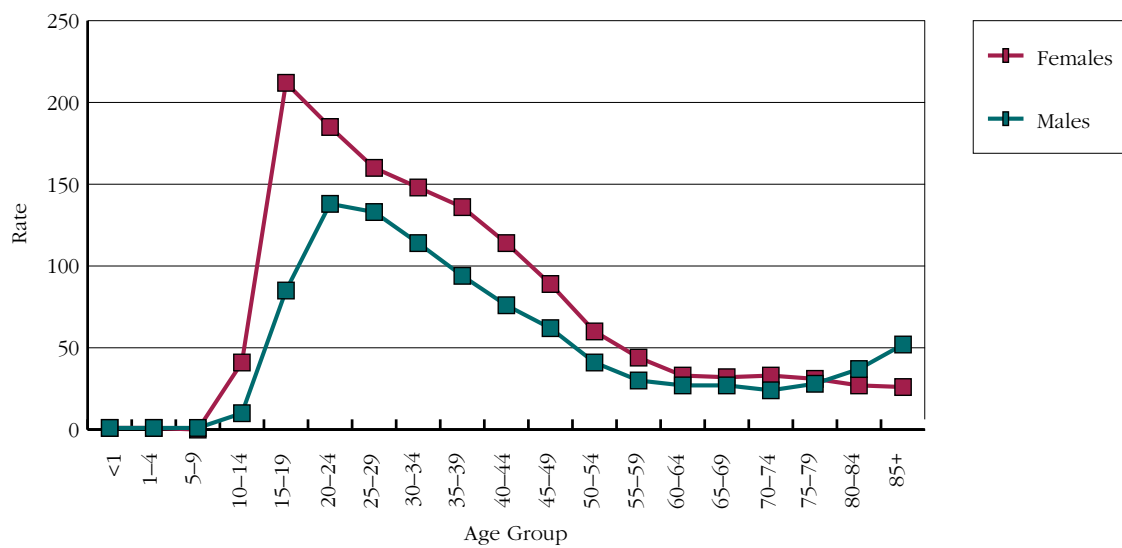
The incidence of suicide attempts has been found in suicide studies to range significantly by gender. Estimates suggest for every male suicide there are between 30 and 50 suicide attempts; for every female suicide, between between 150 and 300 attempts. These estimates suggest many more attempt suicide than die from suicide each year in Victoria. It is expected numbers vary according to age, sex and other factors as the definition for suicide attempt seems to vary from one emergency department to the next within the State.

Most research reports use hospital contacts as an indicator of suicide attempts. The Task Force has had access to available data on intentional self-inflicted injuries that provides some indication of the extent of the problem.

Data from the Victorian Inpatient Minimum Dataset (VIMD) was updated at the Task Force’s request by the Monash University Accident Research Centre<sup>2</sup>. This has allowed comparison of hospitalised injuries in Victoria between July 1987 to June 1993, with the addition of data from July 1993 to June 1996. The data may underrepresent the true extent of self-inflicted injury in Victoria, perhaps by as much as 50 per cent. It excludes people discharging from emergency departments of hospitals within four hours, and reporting practice and standardised measures are subject to refinement and improvement. On the other hand, not all self-inflicted injuries can be taken to reflect suicidal behaviour or intent.

Notwithstanding these limitations, data on self-inflicted injury show intentional self-inflicted injuries are most frequently observed among young persons aged 15–19 years for females, and 20–24 years for males (figure 2.21). More females intentionally self-injure than males, although anecdotal evidence to the Task Force suggests these differences between gender may be narrowing. This requires further research.

**FIGURE 2.21: INTENTIONAL SELF-INFLICTED AVERAGE ANNUAL RATES BY AGE AND SEX, PUBLIC HOSPITAL ADMISSIONS, VICTORIA, JULY 1987 TO JUNE 1996**

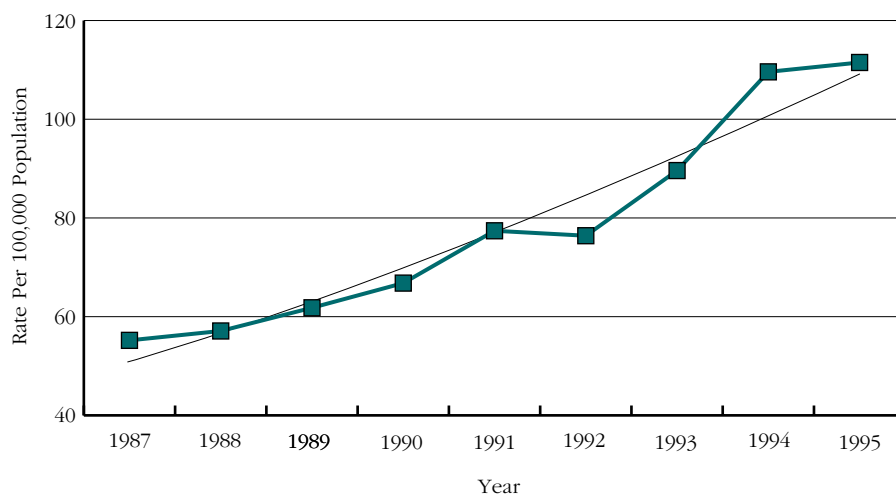


Source: Monash University Accident Research Centre, 1997.

While changes in reporting and recording affect the reliability of data, hospital separation data indicate:

- From July 1987 to June 1996, males had a higher annual average injury rate than females across injuries overall (1,838 per 100,000 population compared with 1,424 per 100,000). The opposite is the case with regard to self-inflicted injury (64 per 100,000 males compared with 93 per 100,000 females). This is due to the much higher rate of self-inflicted poisonings among females.
- Annual self-inflicted injury rates from July 1987 to June 1996 show the rate for self-inflicted injury for all age groups increased from 55 per 100,000 population at the end of 1987, to 112 per 100,000 at the end of 1995, and 1992 was the only year where there was a decrease in the annual rate (77 per 100,000 to 76 per 100,000). Figure 2.22 also shows the slope of the trend line is significant ( $p < 0.05$ ).

**FIGURE 2.22: INTENTIONAL SELF-INFLICTED INJURIES, ALL AGES, RATES AND TREND, PUBLIC HOSPITAL ADMISSIONS, VICTORIA, JULY 1987 TO JUNE 1996**



Source: Monash University Accident Research Centre, 1997

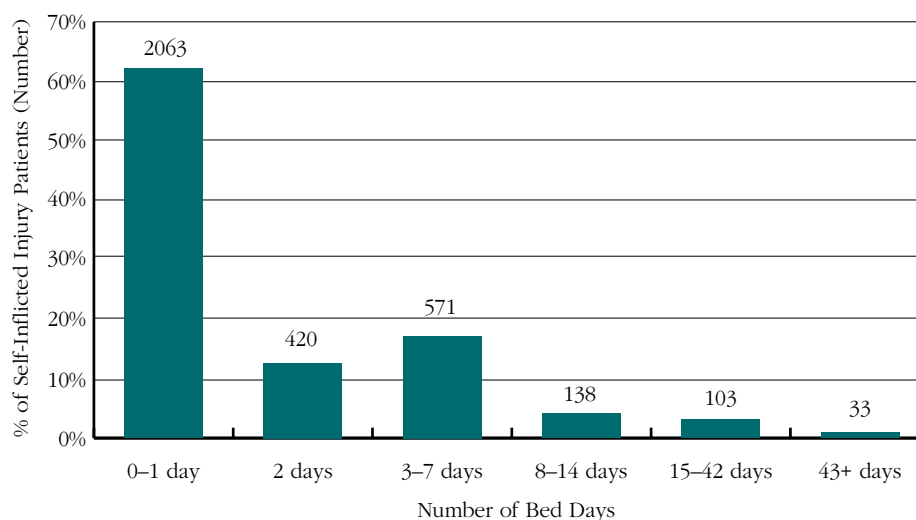
### 2.3.1 AVERAGE ANNUAL BED-DAYS

Annual average bed-days in Victorian public hospitals arising from self-inflicted injury from July 1987 to June 1996 are presented in figure 2.23. The proportion of 0–1 day stay patients has increased from 55 per cent of all self-inflicted injury patients in the period 1987–93 to 62 per cent with the addition of data from July 1993 to June 1996. This seems to reflect increasing numbers of minor self-inflicted injury patients presenting to hospital. A comparison

of figures shows the relative proportions of longer stay patients has remained the same in both study periods. Moreover, from a suicide prevention perspective, the data show:

- The average length of stay in public hospitals following attendance at an emergency department for persons admitted for self-inflicted injury is one day or less. Discharge procedures have significance for prevention and are examined further in chapter 7.

**FIGURE 2.23: SELF-INFLICTED INJURIES, ALL AGES, AVERAGE ANNUAL BED-DAYS, PUBLIC HOSPITAL ADMISSIONS, VICTORIA, JULY 1987 TO JUNE 1996**



Source: Monash University Accident Research Centre, 1997

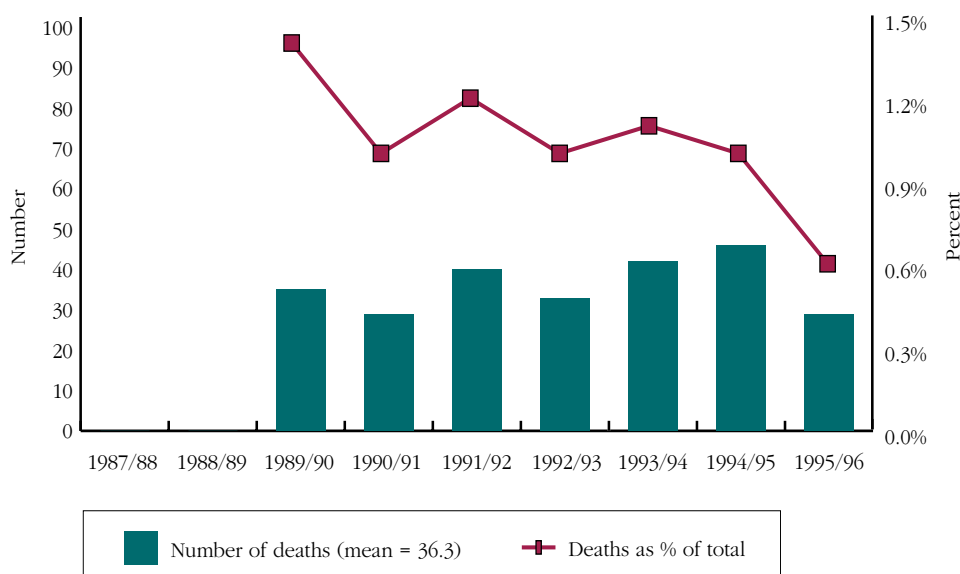
The Task Force has examined the destination of those leaving public hospitals following admission for intentional self-inflicted injury. These data (table 2.3) reveal that by far the majority (75 per cent) of discharges are to private accommodation/home. Of 4722 discharges from public hospitals in 1995, 3507 were discharged directly to private accommodation/home. Only 30 were discharged after domiciliary care had been organised prior to departure. These data are significant when it is considered suicide risk is much greater where there is no community follow-up after discharge, and rates of suicide are greatest in the period immediately following discharge from inpatient care for self-inflicted harm. This is examined further in chapter 7.

**TABLE 2.3 DESTINATIONS OF PERSONS SEPARATED FROM PUBLIC HOSPITALS FOLLOWING ADMISSION FOR INTENTIONAL SELF-INFLICTED INJURY, VICTORIA, 1995**

<b>Total Number Discharged</b>		<b>4722</b>	<b>100.0</b>
<b>Destination:</b>	<b>Number</b>	<b>Per Cent</b>	
Private accommodation/home	3507	74.3	
Private accommodation/home with domiciliary care arrangement	30	0.6	
Transferred to other hospital within region	328	6.9	
Approved psychiatric service or psychogeriatric program	184	3.9	
Transfer to other hospital outside region	177	3.7	
Discharged at own risk	167	3.5	
Other discharge	131	2.8	
Transfer to major specialist/teaching hospital	121	2.6	
Death	46	1.0	
Other Acute Care	14	0.3	
Transfer to nursing home	8	0.2	
Transferred to non-acute psychiatric unit	7	0.1	
Non-acute care	2	0.0	

Source: Monash University Accident Research Centre, 1997

**FIGURE 2.24: ADMISSIONS RESULTING IN DEATHS, NUMBER AND PER CENT OF ALL SELF-INFLICTED INJURY ADMISSIONS, PUBLIC HOSPITAL ADMISSIONS, VICTORIA, JULY 1987 TO JUNE 1996**



Source: Monash University Accident Research Centre, 1997

Figure 2.24 presents self-inflicted injury hospitalisations resulting in death as a proportion of all self-inflicted injury hospitalisations from July 1987 to June 1996. While the overall number of deaths seems to fluctuate around a mean of 36.3 between July 1989 and June 1996, there is a distinct downward trend from 1.4 per cent to 0.6 per cent when expressed as a proportion of all self-inflicted injury hospitalisations.

## 2.4 THE IMPACT OF DEATH BY SUICIDE

In addition to establishing the nature and extent of suicide in Victoria, the Task Force has been required to identify the impact of suicide on the family and community in general. The tragic and complex phenomenon of suicide touches the lives of many Victorians each year, and has devastating consequences for those closely associated with the death as amply illustrated throughout this report. There is a need for better understanding of the nature of suicide if the impact on our community is to be reduced.

### 2.4.1 ESTIMATE OF POTENTIAL YEARS LOST

One measure of the impact of suicide that reflects the damage to our society is the number of years of life lost. Table 2.4 gives a comparison of the years of potential life lost from various causes of death in 1995 among persons aged 1–75 years. It shows that for every death by suicide in Victoria in 1995, the loss of potential human life and endeavour to the community was 36.7 years. This compares with 41 years lost from deaths through motor vehicle traffic accidents, which have been the subject of concerted campaigns over recent years.

The contribution suicides made to total years of potential life lost for all causes of death in Victoria was 9.2 per cent in 1995. This is equal to the national figure.

**TABLE 2.4: IMPACT OF SUICIDE: YEARS OF POTENTIAL LIFE LOST, 1995**

Cause of Death	Australia		Victoria		Persons *		Average Years Lost
	Years of Potential Life Lost	%	Years of Potential Life Lost	%	0–75 Years		
Malignant Neoplasms (cancer)	275,249	30.5%	70,936	33.1%	5,782	39.1%	12.27
Accidents	139,111	15.4%	29,267	13.6%	748	5.1%	39.13
<i>Motor vehicle traffic accidents</i>	<i>78,428</i>	<i>8.7%</i>	<i>16,238</i>	<i>7.6%</i>	<i>396</i>	<i>2.7%</i>	<i>41.01</i>
Ischaemic heart disease (lack of blood to heart)	113,148	12.5%	26,518	12.4%	2,864	19.4%	9.26
Suicide	82,781	9.2%	19,740	9.2%	<b>537</b>	<b>3.6%</b>	36.76
Cerebrovascular disease (stroke)	30,654	3.4%	6,737	3.1%	749	5.1%	8.99
Chronic obstructive pulmonary disease (asthma, emphysema, bronchitis, etc.)	27,098	3.0%	6,480	3.0%	772	5.2%	8.39
Diabetes mellitus (low insulin)	13,157	1.5%	4,094	1.9%	442	3.0%	9.26
Chronic liver disease and cirrhosis	15,692	1.7%	3,720	1.7%	201	1.4%	18.51
Disease of arteries, arterioles and capillaries (including atherosclerosis and aortic aneurysm)	8,153	0.9%	1,975	0.9%	233	1.6%	8.48
Hereditary and degenerative diseases of the central nervous systems	8,199	0.9%	1,873	0.9%	180	1.2%	10.41
Pneumonia and influenza	8,015	0.9%	1,686	0.8%	115	0.8%	14.66
Other causes	181,455	20.1%	41,562	19.4%	2,175	14.7%	19.11
All causes	902,632		214,588		14,798		14.50

Source: Australian Bureau of Statistics, 1996, *Causes of Death: Australia 1995*.

\* Excludes persons 75 years and over (N=29)

These figures point to one measure of the cost of suicide in terms of its impact. Further measures relate to effects of profound loss on those who are left behind, and the economic cost of suicide.

## 2.4.2 AFTERMATH OF SUICIDE

The event of a death through suicide has significant repercussions for the family and friends of the deceased as well as society as a whole.

The magnitude of the problem of suicide aftermath in epidemiological terms is discussed in the literature. It is estimated that up to 10 people are directly affected by the suicide of another. Using a multiplier approach, it may be assumed the number of people bereaved by suicide in Victoria is likely to be in the thousands, or an estimated 5000 to 6000 based on Victoria's 566 deaths by suicide in 1995. Those who live through such an ordeal are more vulnerable to health problems.

The need for greater support to be directed to those bereaved by suicide is underscored by the fact that rates of self-inflicted death for this group have been found to be up to 10 times higher than for the general population. The Task Force returns to this issue in chapter 8.

## 2.4.3 ECONOMIC IMPACT

The economic impact of suicide on Victoria is difficult to measure. The Task Force did not seek to undertake rigorous analysis in this area and more detailed analysis is required. Methods range from the value of contribution to society that has been lost, the opportunity cost, the willingness of society to pay to reduce the loss by suicide, or a combination of approaches. While the Task Force cannot place an exact estimate of suicide's impact in dollar terms, crude figures estimate the cost of youth suicide, in particular, could be in the vicinity of \$180 million for Victoria. This reflects the losses in terms of lost market production and contribution to family and community activities.

## 2.5 LIMITATIONS OF DATA

Caution is necessary in using and interpreting suicide and suicide-related data included in this chapter. No amount of tables, charts and diagrams can adequately describe the human tragedy of suicide. The information presented has been developed to put the rest of the Task Force's work into perspective.

Data available serve to inform the community of the scale and spread of suicide and associated problems, and assist the development of a preventive strategy.

Numerous studies reviewed by the Task Force point to the extent of suicide overseas and within Australia. Few studies have specifically and systematically recorded and examined the Victorian situation. The available Victorian data on suicide vary from study to study in value and analysis of the problems.

Presenters at community forums, expert witnesses to Task Force meetings, a review of suicide literature and numerous submissions have highlighted a range of gaps and limitations in the suicide statistics. The Task Force has also been informed estimated suicide rates are likely to understate the true rate of deaths by suicide in Victoria.

Data relating to suicide cannot be viewed as being based on pure measures. The Task Force was advised the classification of an event as suicide is subject to the availability of evidence and the readiness of individuals to identify a death as suicide. The Task Force heard, for example, of some reluctance in returning a death by suicide verdict among coroners, especially in some rural areas.

Moreover, the role of human intent is not always clear, and may range from carelessness to reckless indifference to deliberate self-destruction. This suggests some deaths recorded as 'other causes' may, in fact, be suicide. For example, a proportion of deaths involving single car accidents, particularly where good driving conditions are evident and there is only one occupant in the vehicle, may be hidden suicide statistics. In 1996, single vehicle crashes accounted for 35 per cent of road fatalities in Victoria (RACV, submission to Task Force). Expert opinion suggests 1 per cent to 30 per cent of such crashes may be suicide, but Monash University's Accident Research Centre (which is conducting a study into this issue) has so far found very few incidences of suicide-related deaths from its analysis. This study relies, however, on interpretation of 'intent' as it is perceived by those left behind. A study of survivors of single person car accidents, where suicide intent is suspected, may provide more accurate data on this issue.

Similarly, deaths due to drug overdoses recorded as accidental deaths may hide suicide. Observers also argue high-risk behaviours and/or death resulting from anorexia nervosa, and failure to regulate prescribed life-saving injections, might have an association with suicide or may hide a suicide intent. The Task Force has no way of verifying whether such claims are true. It takes a broad approach in dealing with suicide statistics in this chapter, while expecting the numbers of completed suicides involved among such groups is likely to be small.

A further limitation has been the availability and accessibility of data on death by suicide, particularly at the sub-regional level. Data on suicides in Australia are now centralised in the ABS in Brisbane. Data on suicides in Victoria have only been available up until 1995. More recent 1996 data is not expected to be available until September 1997, which may be more than a year after the recorded incidence of death. Data at the level of statistical local area has required the prior approval of the Registrar of Births, Deaths and Marriages before release to avoid possible identification of individual cases.

These qualifications to suicide data affect the extent to which the Task Force has been able to provide a full picture of the problem in Victoria. They suggest the true incidence of suicide is almost certainly higher than the recorded incidence. This is always likely to be so, and the chances are we may never know the actual number of those whose death results from suicide.

The data limitations that understate the actual level of suicide in the community are minor in comparison with the much greater deficiencies in the data on suicide attempts. These are a matter of considerable concern to the Task Force because of their importance to development of intervention strategies.

## ENDNOTES

<sup>1</sup> The Task Force acknowledges the assistance of AISRAP in preparing tables, charts and text for inclusion within this section of the report.

<sup>2</sup> The Task Force acknowledges the assistance of the Monash University Accident Research Centre for preparing updated data on hospital separations for the period 1993–1996.