

INFORMATION PAPER

SUICIDES 2001

INTRODUCTION

In recent years suicide has emerged as a major public health issue. Although death by suicide is a relatively uncommon event (in 2001, only 1.9% of all deaths registered were attributed to suicide), the human and economic costs are significant. Apart from the loss of life, there are health care costs associated with attempted suicide and the circumstances surrounding death can be particularly difficult for family and friends to deal with.

YEAR OF REGISTRATION

This paper contains summary statistics on deaths by year of registration, where the underlying cause of death was determined as suicide.

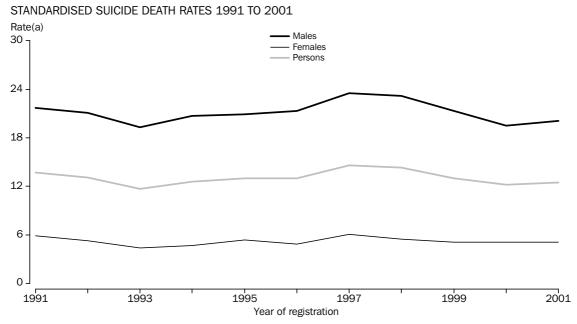
DEFINITION AND CLASSIFICATION

Suicide can be defined as the deliberate taking of one's life. To be classified as a suicide, a death must be recognised as due to other than natural causes. It must also be established by coronial inquiry that the death results from a deliberate act of the deceased with the intent of ending his or her own life. Possible suicides where the coroner concludes an 'open' finding and not explicitly suicide are excluded.

In this paper, suicide deaths data for registration years 1991-1996 were coded to ICD-9 while data for registration years 1997-2001 were coded to ICD-10. For suicide deaths, ICD-9 and ICD-10 classifications are comparable.

OVERALL TRENDS

For 2001, (the latest year available) there were 2454 suicides registered, compared with 2363 for the year 2000. The age standardised rate for the year 2001 (12.5 deaths per 100,000 persons) was 15% lower than it was in 1997 (14.6 deaths per 100,000) when the highest ever recorded number of 2720 suicides were registered; and 2.2% higher than the 2000 age standardised rate of 12.2 per 100,000 persons.



(a) per 100,000 estimated resident population

AGE AND SEX

Over the period 1991 to 2001 male suicides have outnumbered female suicides by a factor of approximately four. This ratio was fairly consistent over all age groups. While publicity has focussed on youth suicide in recent years, the age group with the highest age specific death rate in 2001 was the 25-34 year age group with 20.6 per 100,000, followed by the 35-44 year age group with a rate of 18.9 per 100,000. Numerically these two age groups accounted for 47% of total suicide deaths in 2001.

Major figures for registered deaths in each age group include:

15 - 24 year age group

- In 2001, suicide accounted for 339 deaths with a death rate of 12.7 per 100,000 persons.
- In 2001, suicide accounted for 25% of total male deaths and 16% of total female deaths in this age group.
- Over the period 1991-2001, the lowest number of suicides registered in this age group was 338 in 2000 (age-specific rate of 12.8), while the highest number of suicides was 509 deaths registered in 1997 (rate of 19.3).

25 - 34 year age group

- In 2001, suicide accounted for 594 deaths with a death rate of 20.6 per 100,000 persons.
- In 2001, suicide accounted for 30% of total male deaths and 18% of total female deaths in this age group
- Over the period 1991-2001 suicides registered varied from a low of 484 deaths (rate of 17.1) in 1993 to a high of 700 deaths (rate of 24.2) in 1998.

35 - 44 year age group

- In 2001, suicide accounted for 565 deaths with a death rate of 18.9 per 100,000 persons.
- In 2001, suicide accounted for 20% of total male deaths and 9% of total female deaths.
- For the period 1991-2001 suicides registered varied from a low of 366 deaths (rate of 13.7) in 1993 to a high of 614 deaths (rate of 21.1) in 1998.

45 - 54 year age group

- In 2001, suicide accounted for 417 deaths with a death rate of 15.6 per 100,000 persons.
- In 2001, suicide accounted for 8% of total male deaths and 4% of total female deaths.
- For the eleven years 1991 2001 suicides registered varied from a low of 318 deaths (rate of 15.4) in 1993 to a high of 417 deaths (rate of 15.6) in 2001.

55 - 64 year age group

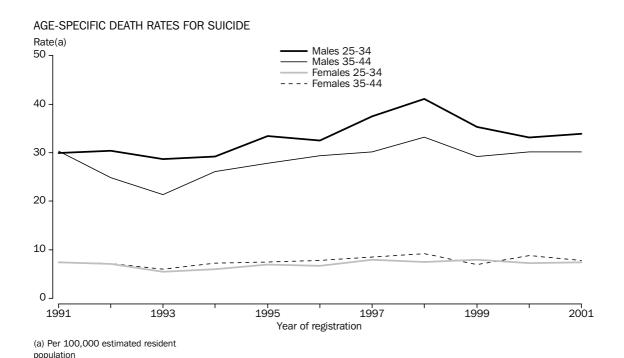
- In 2001, suicide accounted for 223 deaths with a death rate of 12.1 per 100,000 persons.
- In 2001, suicide accounted for 2% of total male deaths and 1% of total female deaths.
- For the eleven years 1991 2001 suicides registered varied from a low of 197 deaths (rate of 11.1) in 2000 to a high of 233 deaths (rate of 14.7) in 1997.

65 - 74 year age group

- In 2001, suicide accounted for 160 deaths with a death rate of 12.1 per 100,000 persons.
- In 2001, suicide accounted for less than 1% of total male deaths and of total female deaths.

75+ year age group

- In 2001, suicide accounted for 145 deaths with a death rate of 13.0 per 100,000 persons.
- In 2001, suicide accounted for less than 1% of total male deaths and of total female deaths. Detailed information on suicide by sex and age groups (numbers and rates) for 1991 2001 is included in Tables 1 and 2

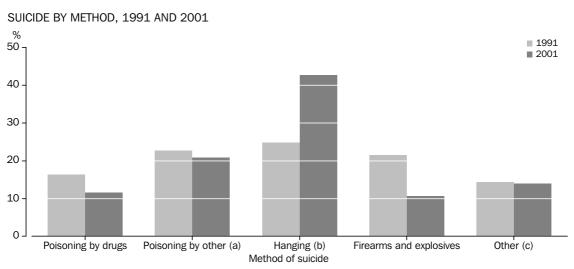


METHOD OF SUICIDE

Over the period 1991 - 2001, there have been noticeable changes in the various methods employed for suicide. These include:

- A decrease in the use of firearms. Over this period, the proportion of male suicides using this method decreased from 26% of total male suicides in 1991 to 13% in 2001, while the corresponding female proportion decreased from 4.5% of total female suicides in 1991 to 3.9% in 2001.
- An increase in hanging, strangulation and suffocation. Over this period, the proportion of male suicides using this method increased from 26% of total male suicides in 1991 to 44% in 2001, while the corresponding female proportion increased from 21% of total female suicides in 1991 to 38% in 2001.
- A decrease in poisoning by drugs and medicaments. Over this period, the proportion of female suicides using this method decreased from 35% of total female suicides in 1991 to 26% in 2001, while the corresponding male proportion decreased from 11% of total male suicides in 1991 to 7.8% in 2001.
- The proportion of suicides where the method was "poisoning by other" (primarily motor vehicle exhaust) has remained relatively stable over this period.

Detailed information on method of suicide (numbers and rates) for 1991 to 2001 is included in Tables 3 and 4.



- (a) Includes other solids, liquids, gases and vapours (including motor vehicle exhaust)
- (b) Includes strangulation and suffocation.
- (c) Includes drowning, cutting and piercing instruments, jumping from high places and other and unspecified means

YEARS OF POTENTIAL LIFE LOST (YPLL)

Years of Potential Life Lost (YPLL) is a method used to measure the extent of premature mortality associated with various causes of mortality. This measurement assumes that premature mortality is any death between ages 1 and 75 years for both males and females. In 2001:

- Male suicide accounted for 5.5% of total male deaths 1 to 75 years of age but was responsible for 13% of the total Years of Potential Life Lost.
- Female suicide accounted for 2.5% of total female deaths 1 to 75 years of age but was responsible for 6% of the total Years of Potential Life Lost.
- Suicide as a proportion of total YPLL has risen from 8.7% to 10.6% over the period 1991-2001

More detailed information on Years of Potential Life Lost for suicide is included in Table 5.

STATE AND TERRITORY

Over the eleven year period 1991 to 2001, there was some variation in the standardised suicide death rate across States and Territories, including:

- The Queensland suicide death rate has been higher than the national rate for each of the eleven years.
- Suicide death rates for Northern Territory and Tasmania have been higher than the national rate for ten and eight years respectively.
- Victoria's suicide death rate has been lower than the national rate for each of the eleven years.
- Suicide death rates for New South Wales and Australian Capital Territory have been lower than the national rate for seven and nine years respectively.

Detailed information on suicide rates by sex for States and Territories for 1991 to 2001 is included in Tables 6 and 7.

1. SUICIDE BY AGE AND SEX, Number of Deaths

Year (a)	15-24	25-34	35-44	45-54	55-64	65-74	75+	All Ages(b)
•••••	•••••		MALES	······	•••••			•••••
1991	376	423	400	251	156	125	110	1,847
1992	378	431	331	260	170	154	91	1,820
1993	345	406	286	247	170	135	94	1,687
1994	374	414	354	270	173	141	100	1,830
1995	350	475	382	270	177	117	96	1,873
1996	351	465	413	266	181	136	112	1,931
1997	416	540	431	294	177	146	131	2,143
1998	364	591	479	314	163	136	97	2,150
1999	309	507	427	312	176	140	121	2,002
2000	263	475	444	291	146	120	113	1,860
2001	276	486	447	311	175	127	107	1,935
			FEMALE	::::::::::::::::::::::::::::::::::::::				
1001	96	104	06	71	70	40	20	E10
1991 1992	86 77	104 100	96 95	71 62	73 52	42 45	39 40	513 474
1992	55	78	80	71	37	39	33	394
1993	57	85	99	68	47	32	37	428
1995	84	99	104	89	50	37	32	495
1996	56	96	110	88	40	38	27	462
1997	93	115	122	96	56	47	41	577
1998	82	109	135	72	53	41	39	533
1999	71	116	104	97	42	29	23	490
2000	75	106	132	67	51	41	30	503
2001	63	108	118	106	48	33	38	519
			PERSON	IS				
1991	462	527	496	322	229	167	149	2,360
1992	455	531	426	322	222	199	131	2,294
1993	400	484	366	318	207	174	127	2,081
1994	431	499	453	338	220	173	137	2,258
1995	434	574	486	359	227	154	128	2,368
1996	407	561	523	354	221	174	139	2,393
1997	509	655	553	390	233	193	172	2,720
1998	446	700	614	386	216	177	136	2,683
1999	380	623	531	409	218	169	144	2,492
2000	338	581	576	358	197	161	143	2 363
2001	339	594	565	417	223	160	145	2,454

⁽a) Year of registration

⁽b) Includes deaths aged under 15 and age not stated.

2. SUICIDE BY AGE AND SEX, Age-Specific Death Rates (a)

Year (b)	15-24	25-34	35-44	45-54	55-64	65-74	75+ All	Ages (c)
			MALES))			••••••	•••••
1991	26.7	29.9	30.3	26.1	21.3	22.8	38.2	21.7
1992	27.0	30.4	24.9	25.8	23.1	27.3	30.6	21.1
1993	24.7	28.7	21.4	23.5	22.9	23.3	30.6	19.3
1994	27.0	29.2	26.1	24.7	23.1	23.6	31.7	20.7
1995	25.4	33.4	27.8	23.9	23.3	19.3	29.2	20.9
1996	25.7	32.5	29.4	22.7	23.4	22.2	32.4	21.3
1997	30.9	37.5	30.2	24.3	22.2	23.5	36.1	23.5
1998	27.3	41.1	33.2	25.1	19.9	21.7	25.6	23.2
1999	23.2	35.3	29.2	24.4	20.6	22.2	30.5	21.3
2000	19.6	33.1	30.2	22.3	16.4	18.9	27.2	19.5
2001	20.3	33.9	30.2	23.3	18.9	19.9	24.4	20.1
			FEMALE	::::::::::::::::::::::::::::::::::::::				
1991	6.3	7.4	7.4	7.8	10.0	6.6	8.1	5.9
1992	5.7	7.1	7.2	6.4	7.1	7.0	8.1	5.3
1993	4.1	5.5	6.0	7.1	5.0	5.9	6.5	4.4
1994	4.3	6.0	7.3	6.5	6.3	4.8	7.1	4.7
1995	6.4	7.0	7.5	8.1	6.6	5.5	5.9	5.4
1996 1997	4.3 7.2	6.7	7.8 8.5	7.7 8.1	5.2 7.1	5.6 6.9	4.8 7.0	4.9 6.1
1997	6.4	8.0 7.5	9.2	5.9	6.5	6.0	6.4	5.5
						4.3		
1999	5.5	8.0 7.3	7.0	7.7	5.0 5.8	4.3 6.0	3.6 4.6	5.1
2000 2001	5.8 4.8	7.3 7.4	8.8 7.8	5.1 7.9	5.8 5.3	4.8	4.6 5.6	5.1 5.1
	ч.о			1.0		٠		
			PERSON	IS				
1991	16.7	18.7	18.9	17.2	15.7	14.1	19.4	13.7
1992	16.5	18.7	16.1	16.3	15.1	16.5	16.5	13.1
1993	14.6	17.1	13.7	15.4	14.0	14.0	15.5	11.7
1994	15.9	17.6	16.7	15.8	14.7	13.6	16.4	12.6
1995	16.1	20.2	17.6	16.1	15.0	12.0	14.7	13.0
1996	15.2	19.6	18.6	15.3	14.4	13.4	15.3	13.0
1997	19.3	22.7	19.3	16.3	14.7	14.8	18.1	14.6
1998	17.0	24.2	21.1	15.6	13.2	13.5	13.8	14.3
1999	14.5	21.6	18.1	16.1	12.9	12.9	14.0	13.0
2000	12.8	20.1	19.4	13.7	11.1	12.2	13.4	12.2
2001	12.7	20.6	18.9	15.6	12.1	12.1	13.0	12.5

⁽a) Deaths per 100,000 of the estimated mid-year population for each age group

⁽b) Year of registration

⁽c) Standardised death rate per 100,000 persons. Standardised to the estimated mid year 1991 Australian population.

3. SUICIDE BY METHOD, Number of Deaths

Year (d)	Poisoning by drugs	Poisoning by other (a)	Hanging (b)	Firearms and explosives	Other (c)	Total
•••••	•••••		MALES	•••••	•••••	••••••
1991	208	448	479	487	225	1,847
1992	172	459	496	464	229	1,820
1993	135	395	507	418	232	1,687
1994	188	425	532	400	285	1,830
1995	194	455	585	366	273	1,873
1996	163	486	672	369	241	1,931
1997	160	555	812	309	307	2,143
1998	157	499	1,035	218	241	2,150
1999	158	492	868	257	227	2,002
2000	144	472	807	213	224	1,860
2001	151	427	855	242	260	1,935
•••••					• • • • • • • • • • • • • • • • • • • •	
			FEMALES			
1991	180	87	108	23	115	513
1992	179	68	93	26	108	474
1993	127	67	88	17	95	394
1994	142	72	107	20	87	428
1995	154	101	114	23	103	495
1996	165	94	120	15	68	462
1997	149	116	175	21	116	577
1998	153	87	182	17	94	533
1999	120	103	160	13	94	490
2000	129	102	182	10	80	503
2001	134	86	195	20	84	519
			PERSONS			
1991	388	535	587	510	340	2,360
1992	351	527	589	490	337	2,294
1993	262	462	595	435	327	2,081
1994	330	497	639	420	372	2,258
1995	348	556	699	389	376	2,368
1996	328	580	792	384	309	2,393
1997	309	671	987	330	423	2,720
1998	310	586	1,217	235	335	2,683
1999	278	595	1,028	270	321	2,492
2000	273	574	989	223	304	2,363
2001	285	513	1,050	262	344	2,454

⁽a) Includes other solids and liquids and gases and vapours (including motor vehicle exhaust)

⁽b) Includes strangulation and suffocation.

⁽c) Includes drowning, cutting and piercing instruments, jumping from high places and other and unspecified means.

⁽d) Year of registration

4. SUICIDE BY METHOD, Proportion of Total Suicides

Year (d)		Poisoning by other (a)		Firearms and explosives	Other (c)	Total
•••••			MALES			•••••
1991	11.3	24.3	25.9	26.4	12.2	100.0
1992	9.5	25.2	27.3	25.5	12.6	100.0
1993	8.0	23.4	30.1	24.8	13.8	100.0
1994	10.3	23.2	29.1	21.9	15.6	100.0
1995	10.4	24.3	31.2	19.5	14.6	100.0
1996	8.4	25.2	34.8	19.1	12.5	100.0
1997	7.5	25.9	37.9	14.4	14.3	100.0
1998	7.3	23.2	48.1	10.1	11.2	100.0
1999	7.9	24.6	43.4	12.8	11.3	100.0
2000	7.7	25.4	43.4	11.5	12.0	100.0
2001	7.8	22.1	44.2	12.5	13.4	100.0
•••••			FEMALES	•••••		
			FEIVIALES			
1991	35.1	17.0	21.1	4.5	22.4	100.0
1992	37.8	14.3	19.6	5.5	22.8	100.0
1993	32.2	17.0	22.3	4.3	24.1	100.0
1994	33.2	16.8	25.0	4.7	20.3	100.0
1995	31.1	20.4	23.0	4.6	20.8	100.0
1996	35.7	20.3	26.0	3.2	14.7	100.0
1997	25.8	20.1	30.3	3.6	20.1	100.0
1998	28.7	16.3	34.1	3.2	17.6	100.0
1999	24.5	21.0	32.7	2.7	19.2	100.0
2000	25.6	20.3	36.2	2.0	15.9	100.0
2001	25.8	16.6	37.6	3.9	16.2	100.0
•••••			PERSONS	•••••		
			LINGUING			
1991	16.4	22.7	24.9	21.6	14.4	100.0
1992	15.3	23.0	25.7	21.4	14.7	100.0
1993	12.6	22.2	28.6	20.9	15.7	100.0
1994	14.6	22.0	28.3	18.6	16.5	100.0
1995	14.7	23.5	29.5	16.4	15.9	100.0
1996	13.7	24.2	33.1	16.0	12.9	100.0
1997	11.4	24.7	36.3	12.1	15.6	100.0
1998	11.6	21.8	45.4	8.8	12.5	100.0
1999	11.2	23.9	41.3	10.8	12.9	100.0
2000	11.6	24.3	41.9	9.4	12.9	100.0
2001	11.6	20.9	42.8	10.7	14.0	100.0

⁽a) Includes other solids and liquids and gases and vapours (including motor vehicle exhaust)

⁽b) Includes strangulation and suffocation.

⁽c) Includes drowning, cutting and piercing instruments, jumping from high places and other and unspecified means.

⁽d) Year of registration

5. SUICIDE AND ALL CAUSES, Number of Deaths and Years of Potential Life Lost (YPLL) (a)

	Number	of deaths (b)	Years of Potent	SUICIDE AS A PERCENTAGE OF TOTAL		
Year (d)	Suicide	All Causes	Suicide	All Causes	Deaths (b)	YPLL
1991	2,228	59,784	81,371	937,178	3.7	8.7
1992	2,170	60,386	78,873	930,112	3.6	8.5
1993	1,966	58,928	70,912	907,161	3.3	7.8
1994	2,135	59,683	77,802	902,319	3.6	8.6
1995	2,252	58,994	82,974	902,900	3.8	9.2
1996	2,270	58,914	83,407	897,389	3.9	9.3
1997	2,565	58,472	96,653	899,640	4.4	10.7
1998	2,559	56,782	97,074	884,189	4.5	11.0
1999	2,361	55,632	87,637	864,679	4.2	10.1
2000	2,235	54,232	82,922	836,594	4.1	9.9
2001	2,324	53,351	85,324	801,266	4.4	10.6

⁽a) YPLL measures the extent of premature mortality which is assumed to be any death occurring between ages 1 and 75 inclusive.

⁽b) Deaths occurring between ages 1-75 years inclusive

⁽c) YPLL age-standardised to June 1991 population - see Technical Note in ABS 2001 Causes of Death Australia 3303.0

⁽d) Year of registration

6. SUICIDE BY STATE OR TERRITORY(a) AND SEX, Number of Deaths

⁽a) State or Territory of Usual Residence

⁽b) Year of registration

7. SUICIDE BY STATE OR TERRITORY(a) AND SEX, Standardised Death Rates (b)

Year (c)	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
MALES									
1991	20.4	21.6	23.9	24.0	21.0	23.7	17.8	19.0	21.7
1992	19.9	20.2	22.3	22.6	21.0	33.1	25.7	18.2	21.1
1993	19.1	18.2	20.1	18.1	20.7	29.4	26.6	14.4	19.3
1994	21.1	18.0	23.2	19.1	22.1	27.7	17.9	16.6	20.7
1995	19.5	19.5	24.3	22.3	20.7	22.4	22.5	22.6	20.9
1996	21.6	17.1	27.3	20.5	19.4	24.0	28.3	16.9	21.3
1997	23.0	23.2	26.0	21.9	23.2	17.4	36.5	18.7	23.5
1998	22.6	19.3	26.6	27.3	26.2	20.9	35.8	19.4	23.2
1999	21.5	18.9	22.7	20.9	21.1	30.0	24.5	22.7	21.3
2000	18.1	16.2	24.1	21.3	21.8	18.5	33.4	15.6	19.5
2001	18.4	17.3	22.8	22.7	22.7	22.8	39.3	21.2	20.1
		•••••		FEMAL	 ES				
1991	5.8	6.0	5.3	8.0	5.2	6.0	2.8	5.5	5.9
1992	4.7	4.9	6.4	6.5	5.1	8.7	3.6	3.8	5.3
1993	4.4	4.1	4.0	4.5	5.2	6.6	5.6	2.6	4.4
1994	4.8	4.7	5.6	3.9	3.5	3.0	6.4	6.1	4.7
1995	5.5	5.5	6.0	5.1	4.5	6.3	4.9	2.0	5.4
1996	4.8	4.7	5.2	4.2	5.3	3.8	7.8	6.6	4.9
1997	6.8	5.9 5.6	5.9	4.5	5.5	4.4 3.7	5.1	8.5	6.1
1998 1999	4.8 5.5	5.6 4.6	7.1 4.8	5.4 5.8	5.8 4.7	3. <i>1</i> 4.5	7.2 5.0	1.9 5.4	5.5 5.1
2000	5.5 4.2	4.6 5.2	4.8 6.6	5.8 5.0	4. <i>1</i> 5.9	4.5 4.5	5.0 5.0		5.1
	4.2 4.9	5.2 5.1	5.0	5.0 4.8	5.9 5.7	4.5 5.1	5.0 4.0	2.0 7.0	5.1
2001	4.9	2.1	5.0	4.8	5.7	2.1	4.0	7.0	5.1
				PERSO	NS				
1991	13.0	13.6	14.5	15.8	13.1	14.6	10.9	11.8	13.7
1992	12.2	12.4	14.3	14.5	13.0	20.7	15.5	10.6	13.1
1993	11.6	11.0	11.8	11.1	13.0	18.0	16.4	8.4	11.7
1994	12.8	11.2	14.3	11.4	12.8	15.0	13.1	11.3	12.6
1995	12.4	12.3	15.1	13.6	12.6	14.2	14.7	11.7	13.0
1996	13.0	10.8	16.2	12.2	12.3	13.5	18.9	11.8	13.0
1997	14.8	14.3	15.8	13.1	14.2	10.7	21.5	13.5	14.6
1998	13.5	12.3	16.8	16.4	15.9	12.1	22.3	10.1	14.3
1999	13.3	11.5	13.7	13.3	12.8	16.9	15.2	13.7	13.0
2000	11.0	10.5	15.2	13.1	13.9	11.4	19.9	8.8	12.2
2001	11.5	11.0	13.8	13.7	14.2	13.6	22.6	14.0	12.5

⁽a) State or Territory of Usual Residence

.....

 $⁽b) \ Standardised \ death \ rate \ per \ 100,000 \ persons. \ Standardised \ to \ the \ estimated \ mid \ year \ 1991 \ Australian \ population.$

⁽c) Year of registration

APPENDIX 1:

STANDARDISED RATES

Age-standardised rates in this paper were calculated using direct standardisation. Five year age groups (0-4, 5-9,.... 85 & over) were used and a small number of records where age was not stated were excluded from the calculations. The standard population was the 1991 Estimated Resident Population (ERP) for Australia.

ESTIMATED RESIDENT POPULATIONS

Estimated Resident Populations used in the calculation of rates in this paper were obtained from the ABS Information Warehouse in November 2002 and were current at that time. Estimated Resident Populations are subject to revision. Small changes in estimates of resident populations in specific age groups may cause slight changes in age-specific or age-standardised rates calculated using those populations. Thus, there may be slight differences between rates published in this paper and rates for the same time period(s) published elsewhere.

Following the 2001 Census, revised Estimated Resident Populations for 1997-2001 will become available in March/April 2003. Rates calculated using these revised ERPs may also be slightly different from rates published in this paper.

CODING

In this paper, suicide deaths data for registration years 1991-1996 were coded to ICD-9 while data for registration years 1997-2001 were coded to ICD-10. For suicide deaths, ICD-9 and ICD-10 classifications are comparable.

Method of suicide	ICD-9 codes (a)	ICD-10 codes(b)
Poisoning by drugs	E950.0 - E950.5	X60 - X64
Poisoning by "other"		
(includes motor vehicle exhaust)	E950.6 - E952.9	X65 - X69
Hanging, strangulation, and	E953	X70
suffocation		
Firearms and explosives	E955	X72 - X75
Other (Includes drowning, cutting and	E954, E956 - E959	X71, X76 - X84
piercing instruments, jumping from high		
places and other and unspecified means)		
Suicides (total)	E950 - E959	X60 - X84

⁽a) ICD-9 codes used for 1991-1996 data in this paper

⁽b) ICD-10 codes used for 1997-2001 data in this paper