

DEATHS

AUSTRALIA

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- For further information about these and related statistics, contact the National Information Service on 1300 135 070, or Rachel Meyer on Canberra 02 6252 5117.

NOTES

ABOUT THIS ISSUE

This publication brings together statistics and indicators for deaths in Australia.

CHANGES IN THIS ISSUE

Age specific death rates at age zero are the number of infant deaths (less than one year old) per thousand estimated resident population at age zero. Prior to 1999 data presented as age specific death rates at age zero were infant mortality rates.

Data for 1999 cause of death is coded to ICD-10 (see Explanatory Note 10).

ROUNDING

In commentary based on the statistics in this publication, it is recommended that the relevant statistics be rounded. All data are affected by errors in reporting and processing. Death registration data are also affected by delays in registration. These data have had small values randomised to protect confidentiality. No reliance should be placed on statistics with small values.

DATA IN THIS PUBLICATION

This publication uses death registration data except where otherwise stated.

SYMBOLS AND OTHER USAGES

ABS	Australian Bureau of Statistics
ASDR	Age-specific death rate
CDR	Crude death rate
ERP	Estimated resident population
HIV/AIDS	Human immuno-deficiency virus/acquired immuno-deficiency virus
IMR	Infant mortality rate
ISDR	Indirect standardised death rate
n.a.	not available
n.p.	not available for publication but included in totals where applicable
p	preliminary
r	figure or series revised since previous issue
SD	Statistical Division
SDR	Standardised death rate
SIDS	Sudden Infant Death Syndrome
SLA	Statistical Local Area
SMR	Standardised mortality ratio
..	not applicable
—	nil, or rounded to zero (including null cells) (see Explanatory Notes, paragraph 3)

Dennis Trewin
Australian Statistician

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SECTION **1** MAIN FEATURES

MORTALITY CONTINUES TO DECLINE

- Despite an increase in the number of deaths registered between 1998 and 1999 due to the ageing of the population, the death rate continued to decline. There were 128,100 deaths registered in Australia, an increase of 900 deaths from 1998 (127,200) (page 15).
- Over the ten year period 1989–1999 death rates declined in all States and Territories (page 16). Among the States and Territories the highest death rate in 1999, after controlling for age structure (standardised death rate), was observed in the Northern Territory and the lowest in the Australian Capital Territory (page 15).
- Currently births outnumber deaths by 2 to 1 (page 7). The excess of births over deaths is expected to decrease in the future as the population grows older and the birth rate falls. Population projections for Australia indicate that sometime in the 2030s the number of deaths will exceed the number of births. From then on, any increase in population size would only occur from net overseas migration (page 8).

LIFE EXPECTANCY CONTINUES TO INCREASE

- Reflecting the general decrease in death rates, life expectancy at birth continued to increase. A boy born in 1997–1999 could be expected to live 76.2 years, while a girl could be expected to live 81.8 years (page 91).
- Internationally, Australia's estimated life expectancy at birth in the year 2000 of 76 years for males and 82 years for females ranks behind Japan (77 years and 84 years), Switzerland (77 years and 83 years), Hong Kong (77 years and 84 years), and Sweden (77 years and 84 years). Australian life expectancy is about the same as France, Canada, Spain and Greece, and is slightly higher than New Zealand (74 years and 80 years), the United Kingdom (74 years and 80 years) and the United States of America (74 years and 79 years) (page 10).
- Life expectancy at birth was highest for males in the ACT (77.9 years), while Western Australia had the highest female life expectancy (82.1 years). The Northern Territory had the lowest male and female life expectancies at 70.6 years for males and 75.1 for females (page 91).
- Between 1979 and 1999 the difference in male and female life expectancy at birth narrowed from 7 years in 1979 (life expectancy of 70.9 years for males and 77.9 years for females) to 5.6 years in 1999 (life expectancy of 76.2 years for males and 81.8 years for females) (page 37).

VARIATIONS IN MORTALITY

- Over the last 10 years, death rates have fallen for males and females in all age groups with the exception of death rates for females in the 30–34 years age group (up 0.1%) (page 37).
- The 1999 infant mortality rate was 5.7 deaths per 1,000 live births, a slight increase from the 1998 rate of 5.0 deaths per 1,000 live births. Over one-third (37%) of all infant deaths occurred within one day of birth (page 66).
- With an overall male standardised death rate 60% higher than the female rate, males were more likely to die than females at every age. The greatest difference in age-specific death rates occurred in the 20–29 years age group where male death rates were over three times higher than female rates (page 35).

VARIATIONS IN MORTALITY *continued*

- Males and females who never married had death rates almost twice those of their married counterparts (page 38).
- Overseas-born people in Australia had lower death rates than the Australian-born population. This was particularly apparent among the Asian-born population. Vietnamese-born residents had the lowest death rates in 1999, with a death rate around half that of the total population (page 40).
- Death rates in Australia's remote areas were higher than the more accessible areas. The highest death rates were in the remote areas of the Northern Territory (page 43).
- Among the Statistical Divisions, Northern Territory—Balance had the highest death rate and Midlands (in Western Australia) the lowest (after accounting for the age structure of the population) (refer to table 4.5 page 49).

INDIGENOUS MORTALITY

- Overall the Indigenous population had death rates at least twice as high as the total population in 1999 (page 73).
- The 1999 infant mortality rate for Indigenous Australians was two and half times the total Australian rate (page 75).
- The median age at death for Indigenous people was 53 years (half the deaths occur below age 53 and half occur above age 53), around 25 years less than the median age for total people of 78 years (page 74).
- Indigenous life expectancy at birth was about 20 years less than for the total population, 56 years for Indigenous males compared to 76 years for Australian males and 63 years for Indigenous females compared to 82 years for Australian females (page 73).

CAUSES OF DEATH

- Drug related deaths contributed to 2% of all deaths and 19% of all deaths in the 20–49 years age group. Of all drug related deaths 40% were attributable to accidental poisoning, 32% were intentional self-poisonings and 26% were attributable to mental and behavioural disorders due to psychoactive substance use (page 36).
- In 1999, malignant neoplasms (cancer) was the leading cause of death, responsible for 35,100 deaths or 27% of all deaths. Ischaemic heart disease was the second leading cause of death, contributing 27,600 deaths or 22% of all deaths. Stroke (cerebrovascular diseases) was responsible for 10% of all deaths while chronic lower respiratory diseases were responsible for 5% of all deaths (page 16).
- Accidents were the fifth leading cause of death accounting for 4% of deaths (page 17).
- The leading causes of death among 25–39 year olds were intentional self-harm (21%), malignant neoplasms (15%), accidental poisoning by, and exposure to, noxious substances (13%) and transport accidents excluding water, air and space accidents (12%) (page 60).

SECTION 2 DEATHS IN CONTEXT

DEATHS AS A COMPONENT OF POPULATION CHANGE

Australian population growth is composed of births minus deaths plus net overseas migration. The excess of births over deaths represents natural increase, the major component of population growth. While net overseas migration makes a significant contribution to population growth in Australia, natural increase has been the greater contributor in every year since 1950, except during 1987–89.

POPULATION CHANGE, Components(a)

	Live births	Deaths	Natural increase	Net overseas migration	Population at end of period	Population increase.....	
Period(b)	'000	'000	'000	'000	'000	'000(c)	%
1979	223.1	106.6	116.6	68.6	14 602.5	171.7	1.2
1980	225.5	108.7	116.8	100.9	14 807.4	204.9	1.4
1981	235.8	109.0	126.8	123.1	15 054.1	246.7	1.7
1982	239.9	114.8	125.1	102.7	15 288.9	234.8	1.6
1983	242.6	110.1	132.5	55.0	15 483.5	194.6	1.3
1984	238.5	111.9	126.6	59.8	15 677.3	193.8	1.3
1985	242.9	116.8	126.1	89.3	15 900.6	223.3	1.4
1986	243.4	115.0	128.4	110.7	16 138.8	238.2	1.5
1987	244.0	117.3	126.6	136.1	16 394.6	255.9	1.6
1988	246.2	119.9	126.3	172.8	16 687.1	292.4	1.8
1989	250.9	124.2	126.6	129.5	16 936.7	249.6	1.5
1990	262.6	120.1	142.6	97.1	17 169.8	233.0	1.4
1991	259.1	119.7	139.4	81.7	17 387.0	217.3	1.3
1992	262.1	122.9	139.2	51.4	17 581.3	194.3	1.1
1993	258.6	120.1	137.8	34.8	17 760.0	178.7	1.0
1994	258.4	127.0	131.4	55.5	17 951.5	191.5	1.1
1995	254.9	125.1	129.8	106.9	18 196.1	244.6	1.4
1996	252.9	128.2	124.7	97.4	18 423.6	227.6	1.3
1997	251.1	128.8	122.3	72.4	18 618.3	194.7	1.1
1998	248.3	127.4	120.8	103.1	18 842.2	223.9	1.2
1999p	250.7	129.3	121.5	87.5	19 051.2	208.9	1.1

(a) Births and deaths are as recorded for population estimation purposes. See *Australian Demographic Statistics Quarterly* (Cat. no. 3101.0).

(b) Calendar years.

(c) The addition of natural increase and net overseas migration will not necessarily equate with the difference between the population in consecutive years. This difference is known as intercensal discrepancy. See Glossary for more information.

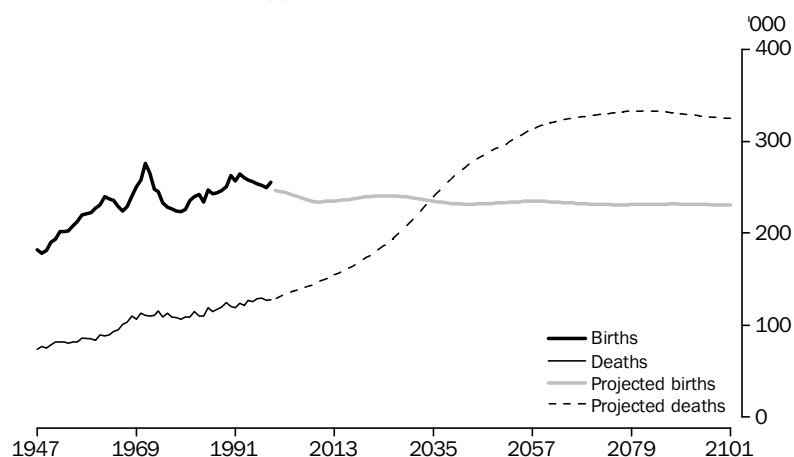
The average number of deaths occurring each year over the period 1989–1999 was 124,900, just under half the average number of births occurring over the same period (255,800). This has resulted in an average annual level of natural increase of 130,900 or 61% of total population growth.

DEATHS AS A COMPONENT OF POPULATION CHANGE *continued*

The number of deaths registered in 1999 was 128,100, a 3% increase on the number of deaths registered in 1989 (124,200). This increase has resulted from an overall increase in the population, and in particular, an increase in the number of older people.

Natural increase has been positive in Australia throughout the 20th century. Since 1976 the fertility rate has been at a lower level than required to replace the population in the long-term. Natural increase has remained positive despite the fall in fertility because the relatively young age structure of the population has provided a sufficient number of women of childbearing ages to maintain a relatively high number of total births. At the same time, there have been fewer people in the older ages, where death rates are high, resulting in a relatively small number of deaths. As the population ages the gap between the number of births and deaths will decrease, and assuming a total fertility rate of 1.6 babies per woman and net overseas migration of 90,000 per year, natural increase is projected to fall below zero sometime around 2035 (series II).

ACTUAL AND PROJECTED(a) BIRTHS AND DEATHS



(a) Series II in *Population Projections, Australia 1999–2101* (Cat. no. 3222.0).

Beyond this point, only net overseas migration will contribute to population growth. The projected decline in natural increase is particularly affected by the ageing of the large cohort of Australians born between the late 1940s and the early 1960s, known as the baby boomers. Once the women within this cohort have moved out of the child bearing ages, there is little prospect of an increase in the total number of annual births, given that the following cohorts of women are smaller in number. A second significant demographic impact of the ageing baby boomers is expected to occur as this group moves into their 70s in the years 2020 and beyond. The total number of deaths is expected to increase particularly rapidly for a period of around 20 years at this time.

DIFFERENT DEATHS DATA

Deaths as a component of population estimates

The ABS produces estimates of the population at various geographic levels. These are produced by taking the population at one point, adding births, subtracting deaths and adding net overseas migration. To meet the conflicting demands for accuracy and timeliness, this is done three times; preliminary estimates are produced six months after the end of the reference period, revised estimates are produced 15 months after a financial year and final estimates are produced following a census. Therefore three estimates of the number of deaths are produced.

Deaths registered

Most of the analysis in this publication is based on the number of deaths which were registered in a given year, usually 1999. Because there is a delay between when a death occurs and when it is registered, only 96% of the deaths registered in 1999 had actually occurred in 1999. Virtually all of the remaining deaths (4%) occurred in 1998.

The majority of deaths are registered in the State or Territory where they occur, although in some instances deaths are registered in a different State or Territory. Analysis in this publication is based on the number of deaths by State or Territory of usual residence.

Deaths occurrence basis

Using death registration statistics, but compiling them on a year-of-occurrence basis gives an estimate of the number of deaths that occurred in a given year. However, as deaths that occur in a given year may be registered years later, statistics based on this concept are never finalised and are always subject to revision.

INTERNATIONAL CONTEXT

Throughout the year 2000, it is expected that around 55 million deaths would occur world-wide. This has not increased much since 1950 when, in that year, there were around 50 million deaths. However, over the same period, the world's population has grown from 2.5 billion to 6.1 billion inhabitants. The relatively small increase in deaths from a rapidly growing population is reflected in the more than halving of the crude death rate from 20 deaths to 9 deaths per 1,000 population over the 50 year period. Much of the decline in the world death rate can be attributed to the significant decrease in death rates throughout the less developed world. The unprecedented population increase seen since 1950 is largely a result of the mortality decline in Africa, Asia, Central and South America, coupled with fertility levels remaining relatively high. Although the total fertility rate has declined from 5.0 to 2.9 births per woman since 1950, the annual number of births has increased from 94 to 133 million over the 1950–2000 period, leading to average annual population growth of around 72 million (or 1.8%) in 2000 (PRB, 2000).

Life expectancy at birth

As death rates have declined, average life expectancy has increased. In 2000, global life expectancy at birth was projected to be 66 years (males and females combined), a gain of more than 20 years of life from 1950 when a newborn infant could expect to live on average for 45 years. However, life expectancy differs markedly in different regions of the world. Regions defined by the UN as being made up of less developed countries¹ have an overall life expectancy of 64 years, compared to 75 years for developed regions. The African continent has the lowest life expectancies, with wide variation across the continent. The lowest life expectancies were projected for the Sub-saharan African countries where HIV/AIDs has had a devastating impact. Malawi and Zambia for example, have projected life expectancies of only 39 and 37 years respectively for 2000.

In contrast, Australia's 1997–99 life expectancy of 76 years for males and 82 years for females is among the highest in the world. In a summary produced by the Population Reference Bureau (2000), Australia's male life expectancy for 2000 is projected to be 76 years for males and 82 years for females, behind Japan (77 years and 84 years), Switzerland (77 years and 83 years), and Hong Kong and Sweden (each 77 and 82 years). Similar life expectancies to Australia are projected for France (75 and 82 years), Canada (76 and 81 years), Spain (74 and 82 years) and Greece (75 and 81 years). The United Kingdom and New Zealand each have projected life expectancies of 74 years for males and 80 years for females, while the United States of America has projected life expectancies of 74 years for males and 79 years for females. The world's most populous country, China, is projected to have a life expectancy of 69 years for males and 73 years for females in 2000, while a life expectancy of 62 years for males and 66 years for females is projected for Indonesia.

¹ Countries outside Europe, North America, Australia, Japan and New Zealand (1999, PRB).

INTERNATIONAL LIFE EXPECTANCY AT BIRTH



Infant mortality

The infant mortality rate (IMR) is used widely as a general indicator of population health and living conditions. The 2000 world IMR is projected to be 57 infant deaths per 1,000 live births. As with the world average life expectancy, the average IMR hides the marked contrast between the developed and less developed regions. The less developed regions are projected to have an average IMR in 2000 of 63 infant deaths per 1,000 live births while the more developed regions IMR is projected to be an average of 8 infant deaths per 1,000 live births.

Australia's 1999 IMR of 5.7 infant deaths per 1,000 live births was among the lowest in the world. Projections for 2000 (PRB, 2000) show Iceland with the lowest IMR, of 2.6 infant deaths per 1,000 live births, followed by Singapore (3.2), Hong Kong (3.2), Sweden (3.5), and Japan (3.5). In contrast, the world's highest IMRs were projected for regions in Sub-saharan Africa where the projected IMR for Middle Africa was 106 and for Eastern Africa was 102 infant deaths per 1,000 live births for 2000. Most infant deaths in Africa are from infectious and parasitic diseases (including HIV/AIDs) and from nutritional deficiencies.

2.1 SUMMARY, Australia and Selected Countries

		Australia	Canada	Germany	Greece	Hong Kong	Italy	Japan	Malaysia	Republic of Korea	New Zealand	United Kingdom	United States of America
MALES													
<i>Crude death rate</i>													
Reference year	year	1999	1995	1996	1997	1997	1994	1997	1997	1995	1996	1997	1995
Crude death rate	rate	7.1	7.6	10.2	10.2	5.5	10.3	6.5	5.1	6.1	8.1	10.4	9.1
<i>Infant mortality rate</i>													
Reference year	year	1999	1995	1997	n.a.	n.a.	1994	1997	1997	n.a.	n.a.	1997	1996
Infant mortality rate	rate	6.4	6.7	5.4	n.a.	n.a.	7.2	4.0	10.6	n.a.	n.a.	6.4	8.0
<i>Expectation of life(a)</i>													
Reference period	years	1997–99	1995–2000(a)	1995–2000(a)	1995–2000(a)	1995–2000(a)	1995–2000(a)	1995–2000(a)	1995–2000(a)	1995–2000(a)	1995–2000(a)	1995–2000(a)	1995–2000(a)
Age 0	years	76.2	76.1	73.9	75.6	75.8	75.0	76.8	69.9	68.8	74.1	74.5	73.3
Age 1	years	75.7	75.6	73.4	75.2	75.3	74.5	76.2	69.8	68.5	73.6	74.1	72.9
Age 25	years	52.5	52.2	49.9	51.9	51.7	51.2	52.8	47.1	45.5	50.6	50.7	49.8
Age 45	years	33.8	33.4	31.1	33.1	32.6	32.1	33.7	28.7	27.2	31.9	31.6	31.7
Age 65	years	16.6	16.6	14.9	16.3	16.1	15.4	16.8	13.4	12.3	15.3	14.9	15.7
Age 85	years	5.5	5.9	4.8	5.1	5.7	4.9	5.3	4.8	3.6	5.1	5.0	5.3
<i>Age-specific death rates(b)</i>													
Reference year	year	1999	1995	1996	1997	1997	1994	1997	1997	1995	1996	1997	1995
0	rate	6.4	6.6	5.7	6.8	3.6	7.1	3.9	11.2	3.3	n.a.	6.3	8.4
1–4	rate	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.8	0.7	1.9(c)	0.3	0.4
5–9	rate	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.4	0.4	0.2	0.1	0.2
10–14	rate	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.5	0.4	0.3	0.2	0.3
15–19	rate	0.8	0.8	0.7	0.7	0.4	0.8	0.5	1.4	1.1	1.3	0.6	1.2
20–24	rate	1.2	1.0	1.0	1.1	0.8	0.9	0.6	1.7	1.2	1.5	0.9	1.6
25–29	rate	1.4	1.1	1.0	1.2	0.8	1.2	0.7	1.9	1.7	1.5	0.9	1.7
30–34	rate	1.4	1.3	1.2	1.2	0.8	1.7	0.8	2.3	2.1	1.4	1.0	2.3
35–39	rate	1.4	1.7	1.8	1.6	1.0	1.7	1.1	2.7	3.0	1.5	1.2	2.9
40–44	rate	1.8	2.2	2.8	2.2	1.8	2.1	1.7	3.5	4.6	1.7	2.0	3.8
45–49	rate	2.5	3.2	4.2	3.5	2.4	3.1	2.9	5.2	6.6	3.2	3.1	5.0
50–54	rate	3.9	5.1	6.8	5.6	4.3	5.5	4.7	8.6	10.2	5.4	5.1	7.3
55–59	rate	6.7	8.4	10.4	8.2	7.1	8.9	7.2	13.5	14.3	9.1	9.0	11.1
60–64	rate	11.0	14.1	17.3	12.8	12.3	15.2	12.0	23.0	20.6	15.7	14.9	17.7
65–69	rate	19.0	23.3	27.8	21.4	20.5	25.0	19.2	36.6	34.0	24.6	25.8	26.5
70–74	rate	33.0	36.8	42.8	34.9	32.9	39.1	29.1	57.9	55.3	40.2	43.4	40.3
75–79	rate	52.6	59.3	67.0	55.9	50.5	63.5	50.1	119.0(d)	92.4	64.0	67.9	60.4
80–84	rate	88.3	94.8	115.2	103.4	76.8	100.3	86.5	n.a.	269.1(e)	104.8	110.3	96.3
85 and over	rate	166.1	171.8	201.1	n.a.	123.3	183.2	n.a.	n.a.	n.a.	203.6	n.a.	179.8

(a) United Nations projection data, unpublished.

(b) Number of deaths per 1,000 population.

(c) Includes age 0.

(d) Aged 75 years and over.

(e) Aged 80 years and over.

Source: *United Nations Demographic Yearbook, 1998*, unpublished, (for all countries apart from Australia)

n.a. not available

2.1 SUMMARY, Australia and Selected Countries *continued*

		Australia	Canada	Germany	Greece	Hong Kong	Italy	Japan	Malaysia	Republic of Korea	New Zealand	United Kingdom	United States of America
FEMALES													
<i>Crude death rate</i>													
Reference year	year	1999	1995	1996	1997	1997	1994	1997	1997	1995	1996	1997	1995
Crude death rate	rate	6.4	6.6	11.3	8.9	4.2	9.2	8.1	3.8	4.7	7.5	11.0	8.5
<i>Infant mortality rate</i>													
Reference year	year	1999	1995	1997	n.a.	n.a.	1994	1997	1997	n.a.	n.a.	1997	1996
Infant mortality rate	rate	4.9	5.5	4.3	n.a.	n.a.	5.9	3.4	8.3	n.a.	n.a.	5.3	6.6
<i>Expectation of life(a)</i>													
Reference period	year	1997–99	1995–2000(a)	1995–2000(a)	1995–2000(a)	1995–2000(a)	1995–2000(a)	1995–2000(a)	1995–2000(a)	1995–2000(a)	1995–2000(a)	1995–2000(a)	1995–2000(a)
Age 0	years	81.8	81.8	80.2	80.7	81.4	81.2	82.9	74.3	76.0	79.7	79.8	80.1
Age 1	years	81.2	81.3	79.6	80.3	80.8	80.8	82.3	74.0	75.8	79.3	79.3	79.6
Age 25	years	57.6	57.6	56.0	56.6	57.2	57.2	58.6	50.7	52.6	55.8	55.6	56.0
Age 45	years	38.2	38.2	36.6	37.1	37.7	37.7	39.2	31.7	33.7	36.5	36.2	36.9
Age 65	years	20.2	20.5	18.8	18.7	19.8	19.6	20.9	14.9	16.5	19.2	18.8	19.5
Age 85	years	6.6	7.3	5.8	5.3	7.2	6.2	6.7	4.9	5.0	6.6	6.6	6.8
<i>Age-specific death rates (b)</i>													
Reference year	year	1999	1995	1996	1997	1997	1994	1997	1997	1995	1996	1997	1995
0	rate	4.9	5.5	4.4	6.2	3.3	5.8	3.4	8.6	2.6	n.a.	5.2	6.9
1–4	rate	0.3	0.2	0.3	0.3	0.2	0.3	0.3	0.7	0.7	1.7(c)	0.2	0.4
5–9	rate	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.3	0.3	0.2	0.1	0.2
10–14	rate	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.3	0.2	0.3	0.1	0.2
15–19	rate	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.5	0.5	0.7	0.3	0.5
20–24	rate	0.4	0.3	0.3	0.3	0.2	0.3	0.3	0.5	0.6	0.5	0.3	0.5
25–29	rate	0.4	0.4	0.4	0.3	0.4	0.4	0.3	0.6	0.7	0.5	0.4	0.6
30–34	rate	0.6	0.5	0.5	0.5	0.3	0.6	0.4	0.9	0.8	0.7	0.5	0.9
35–39	rate	0.7	0.8	0.9	0.6	0.5	0.7	0.6	1.3	1.1	0.8	0.8	1.3
40–44	rate	1.1	1.2	1.4	1.1	0.9	1.0	1.0	1.8	1.6	1.1	1.3	1.8
45–49	rate	1.6	2.0	2.3	1.5	1.3	1.7	1.6	3.1	2.3	2.5	2.1	2.6
50–54	rate	2.3	3.1	3.4	2.3	2.3	2.7	2.3	4.9	3.8	3.7	3.3	4.1
55–59	rate	3.8	5.1	4.8	3.6	3.6	4.1	3.2	8.3	5.6	5.7	5.4	6.6
60–64	rate	6.3	7.7	7.8	5.7	5.9	6.6	5.1	14.5	8.7	9.9	9.0	10.4
65–69	rate	9.9	12.7	13.2	10.9	9.7	11.1	7.9	25.7	15.7	14.9	15.3	15.7
70–74	rate	17.8	20.1	22.8	20.3	17.7	19.9	13.3	42.6	29.2	23.4	26.2	24.4
75–79	rate	30.4	33.5	39.3	38.7	30.4	36.8	24.9	98.8(d)	54.9	39.2	42.2	38.2
80–84	rate	59.1	59.0	76.7	85.6	51.0	66.5	48.2	n.a.	223.5(e)	71.2	73.1	63.6
85 and over	rate	136.1	136.4	166.6	n.a.	109.9	155.6	n.a.	n.a.	n.a.	157.4	n.a.	144.9

(a) United Nations projection data, unpublished.

(b) Number of deaths per 1,000 population.

(c) Includes age 0.

(d) Aged 75 years and over.

(e) Aged 80 years and over.

Source: *United Nations Demographic Yearbook, 1998*, unpublished (for all countries apart from Australia)

n.a. not available

2.2 STATE OR TERRITORY OF USUAL RESIDENCE, By State or Territory of Registration

STATE OR TERRITORY OF REGISTRATION.....

State or Territory of usual residence	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.(a)
New South Wales	44 352	222	351	36	17	3	12	222	45 215
Victoria	182	31 559	83	51	18	12	5	8	31 918
Queensland	204	44	22 563	11	11	3	4	9	22 849
South Australia	29	33	16	11 188	10	3	11	—	11 291
Western Australia	16	13	13	9	10 815	3	6	—	10 877
Tasmania	9	24	7	—	5	3 735	—	—	3 783
Northern Territory	4	7	3	21	8	—	790	—	832
Australian Capital Territory	44	6	6	3	—	—	—	1 270	1 331
Australia(a)	44 842	31 908	23 041	11 318	10 889	3 759	831	1 514	128 102

(a) Includes Other Territories.

— nil or rounded to zero (including null cells)

2.3 DEATHS REGISTERED in 1999, By Year of Occurrence(a)

STATE OR TERRITORY OF REGISTRATION.....

Year of occurrence	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.(b)
Before 1990	3	—	—	3	—	—	—	—	8
1990	—	—	—	—	—	—	—	—	4
1991	—	—	—	—	—	—	—	—	3
1992	—	—	—	—	—	—	—	—	—
1993	—	—	—	3	—	—	—	—	4
1994	—	3	—	—	—	—	—	—	8
1995	—	3	3	—	—	—	—	—	7
1996	—	9	3	4	—	—	—	—	17
1997	7	26	5	7	4	—	—	—	49
1998	1 396	1 159	1 464	462	405	256	69	58	5 269
1999	43 425	30 703	21 563	10 840	10 478	3 503	762	1 456	122 730
Total(c)	44 842	31 908	23 041	11 318	10 889	3 759	831	1 514	128 102

(a) See paragraph 2 of the Explanatory Notes.

(b) Includes Other Territories.

(c) Includes year of occurrence not available.

— nil or rounded to zero (including null cells)

SECTION **3** DEATHS

NATIONAL AND STATE REGISTRATIONS

In 1999, a total of 128,100 deaths (67,200 males and 60,900 females) were registered in Australia. This represents an increase of 900 (0.7%) on the registrations for 1998. The 20 year trend shows the number of deaths has increased by an average of 0.9% per year since 1979. The steady increase in the number of deaths over time reflects the increasing size of the population, and in particular, the increasing number of older people. With the continued ageing of the population, the number of deaths will continue to rise in the future.

The proportion of deaths registered by State or Territory of usual residence in 1999 followed the State and Territory population distribution, with more than three-quarters of all deaths coming from the three most populous eastern States. Of the total 128,100 deaths registered in 1999, 35% were from New South Wales (45,200), 25% were from Victoria (32,000) and 18% were from Queensland (22,800).

While the total number of deaths throughout Australia in 1999 was around 3% higher than in 1989, there was great variation among the States and Territories in the percentage increase in registered deaths over the past 10 years.

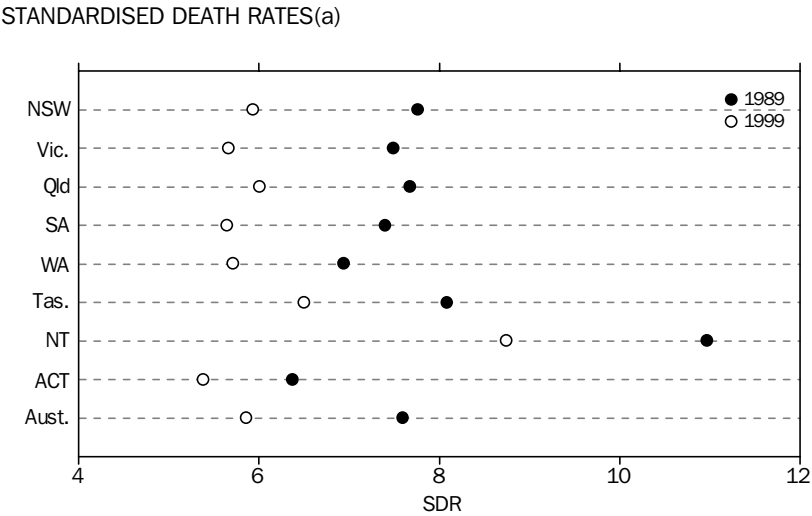
Registrations for the Australian Capital Territory increased the most, up 36% over the 1989–99 period. The high population growth States of Western Australia and Queensland followed with increases of 14% and 12% respectively. The Northern Territory had the fourth highest percentage increase (up 6%). Victoria and South Australia recorded slight decreases in the number of deaths registered over the 10 year period (down 1% each), while the number of registered deaths in New South Wales remained relatively unchanged.

DECLINING DEATH RATES

Despite the ageing of the population over the last 20 years, deaths rates have continued to decline. The crude death rate (CDR) fell slightly, from 7.3 deaths per 1,000 population in 1979 to 6.8 deaths per 1,000 in 1999. The fall in CDR against the background of an older population indicates the considerable decline in age-specific death rates over the period. The standardised death rate (SDR) (which eliminates the effect of the changing age structure of the population) was 5.9 deaths per 1,000 population in 1999, down by 2% from 1998 (6.0) and down by 32% from 1979 (8.6), or an average of 2% per year.

Although all States and Territories contributed to the national decline in the SDR, there were some considerable State-Territory differences in SDRs. In 1999, the lowest SDR was recorded in the ACT at 5.4 deaths per 1,000 standard population. Western Australia, South Australia and Victoria followed with SDRs of 5.7 each. The Northern Territory had the highest SDR at 8.7 deaths per 1,000 standard population, and Tasmania had the second highest SDR at 6.5.

STANDARDISED DEATH RATES *continued*



(a) Per 1,000 population standardised to the 1991 Australian population.

AGE AT DEATH

The median age at death in 1999 was 74.8 years for males and 81.4 years for females. The median age at death in the Northern Territory was 20 years less than the median age nationally. This results from a combination of a young age structure and high mortality of the Indigenous population who comprise around 28% of the total Territory's population. South Australia had the highest median ages at death with 75.8 years for males and 82.2 years for females, reflecting the slightly older population of South Australia compared to other States and Territories.

LEADING CAUSES OF DEATH

In 1999, malignant neoplasms (cancer) was the leading cause of death, with 35,100 deaths or 27% of all deaths. The SDR for cancer deaths was 166 deaths per 100,000 population. The ACT SDR for cancer deaths was 3% below (160 deaths per 100,000 population) the national rate and was the lowest SDR of all the States and Territories. The highest SDR for cancer was observed in the Northern Territory at 177 death per 100,000 population, 26% above the national rate.

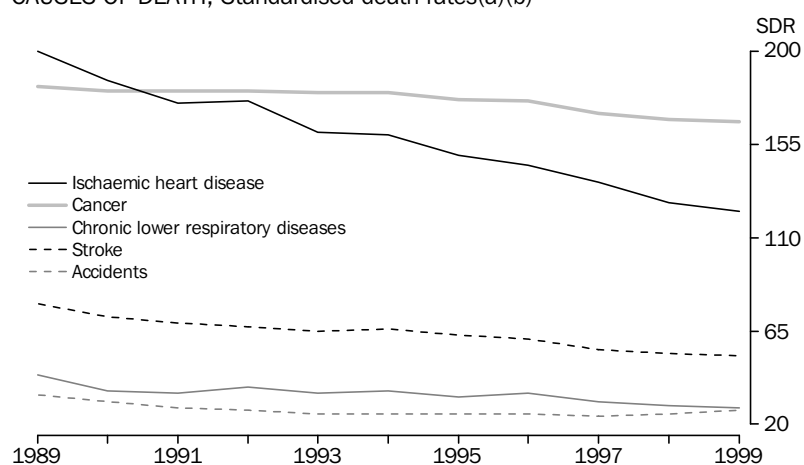
Of deaths due to malignant neoplasms, lung cancer was the leading cause among males (contributing 23% of all male cancer deaths), while breast cancer was the leading cancer-type death among females, contributing 16% of all female cancer deaths.

Ischaemic heart disease (IHD) was the second leading cause of death, contributing 27,600 deaths or 22%, of all deaths with a SDR of 123 deaths per 100,000 population. Again, the Northern Territory experienced the highest SDR for IHD at 142 death per 100,000 population (15% above the national level), while the ACT had the lowest rate (103 deaths per 100,000 population), 16% below the national rate.

During the last decade, IHD and cancer remained the two leading causes of death. In 1991, cancer overtook IHD as the leading cause of death. This has been the result of the long-term downward trend in the SDR for IHD, declining by an average of 4% per year from 1979 to 1999, while the SDR for malignant neoplasms declined by an average of just 0.2% per year over the same period.

LEADING CAUSES OF DEATH *continued*

CAUSES OF DEATH, Standardised death rates(a)(b)



(a) Per 100,000 population standardised to the 1991 Australian population.

(b) 1999 data are coded to ICD-10. Prior to 1999 the SDR for chronic respiratory diseases is the SDR for the group of diseases in ICD-9 under the heading of chronic obstructive pulmonary disease and conditions (including asthma, emphysema bronchitis) (490–496).

Cerebrovascular disease (stroke) was the third leading cause of death contributing 10% of all deaths. The SDR for stroke deaths was 53 deaths per 100,000 population. Stroke deaths have undergone a decline similar to that of ischaemic heart disease, with the SDR declining by an average of 4% per year from 1979 to 1999. The Northern Territory had the highest SDR for stroke, 23% higher than the national rate (65 deaths per 100,000 standard population).

Chronic lower respiratory diseases were the fourth leading cause of death in 1999, with 5% of all deaths and SDR of 28 deaths per 100,000 population. The Northern Territory's SDR for chronic lower respiratory diseases (52 deaths per 100,000 population) was almost double the national rate, while Tasmania had an SDR 32% higher than the national level at 37 deaths per 100,000 population.

Accidents were the fifth leading cause of death, accounting for 4% of all deaths, with an SDR of 27 deaths per 100,000 population. Transport accidents contributed 38% of these deaths while accidental poisoning by and exposure to noxious substances contributed 21%. The Northern Territory SDR for accidents was 43% higher than the national level (38 deaths per 100,000 standard population), while South Australia had SDR for accidents 18% less than the national level (22 deaths per 100,000 population).

3.1 DEATHS, Summary(a)—States and Territories

		NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.(b)
DEATHS										
Total deaths	no.	45 215	31 918	22 849	11 291	10 877	3 783	832	1 331	128 102
Males	no.	23 782	16 433	12 180	5 840	5 843	1 954	509	682	67 227
Females	no.	21 433	15 485	10 669	5 451	5 034	1 829	323	649	60 875
Sex ratio	ratio	111.0	106.1	114.2	107.1	116.1	106.8	157.6	105.1	110.4
<i>Indigenous deaths(c)</i>	no.	435	130	529	116	350	n.p.	399	n.p.	1 976
Males	no.	257	80	305	62	208	n.p.	221	n.p.	1 142
Females	no.	178	50	224	54	142	n.p.	178	n.p.	834
<i>Standardised death rates</i>	rate	5.9	5.7	6.0	5.7	5.7	6.5	8.7	5.4	5.9
Males	rate	7.6	7.1	7.5	7.2	7.3	8.2	9.6	6.5	7.4
Females	rate	4.6	4.5	4.8	4.4	4.4	5.2	7.7	4.5	4.6
<i>Crude death rates</i>	rate	7.1	6.8	6.5	7.6	5.9	8.0	4.3	4.3	6.8
Males	rate	7.5	7.1	6.9	7.9	6.2	8.4	5.0	4.4	7.1
Females	rate	6.7	6.5	6.1	7.2	5.5	7.7	3.6	4.2	6.4
<i>Median age at death</i>	years	77.7	78.2	77.4	78.5	77.4	77.8	57.7	75.3	77.8
Males	years	74.8	75.2	74.2	75.8	74.3	75.4	55.5	72.3	74.8
Females	years	81.3	81.8	81.2	82.2	81.5	80.5	61.7	79.5	81.4
Age specific death rates										
Age group (years)										
Males										
0	rate	6.4	6.2	6.6	5.4	5.5	8.4	13.2	6.2	6.4
1–4	rate	0.3	0.3	0.3	0.3	0.6	0.2	0.4	0.2	0.3
5–14	rate	0.1	0.2	0.2	0.1	0.2	0.3	0.2	0.2	0.2
15–24	rate	1.0	0.9	1.0	0.9	1.2	1.2	2.5	0.6	1.0
25–34	rate	1.4	1.3	1.3	1.4	1.4	1.6	3.1	1.3	1.4
35–44	rate	1.7	1.5	1.6	1.8	1.5	1.7	3.5	1.4	1.6
45–54	rate	3.3	3.0	3.3	2.9	3.1	3.5	4.4	3.0	3.2
55–64	rate	8.9	8.1	9.1	7.8	8.0	8.7	15.0	6.9	8.6
65–74	rate	26.4	24.4	26.3	24.7	23.9	26.8	36.6	20.9	25.5
75–84	rate	65.5	63.4	64.1	64.9	65.2	76.9	70.5	55.4	64.8
85 and over	rate	170.5	161.9	166.0	163.0	163.7	176.0	119.2	161.3	166.1
Females										
0	rate	5.4	5.0	4.7	3.1	3.8	6.1	10.5	5.3	4.9
1–4	rate	0.3	0.2	0.3	0.1	0.2	0.5	0.4	0.5	0.3
5–14	rate	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.0	0.1
15–24	rate	0.4	0.3	0.4	0.4	0.3	0.5	0.9	0.2	0.4
25–34	rate	0.4	0.5	0.5	0.5	0.5	0.5	1.0	0.4	0.5
35–44	rate	0.9	0.9	1.0	0.9	0.9	1.0	1.8	0.9	0.9
45–54	rate	2.0	1.8	2.0	2.0	1.9	3.0	3.9	1.9	2.0
55–64	rate	5.2	4.5	5.0	5.0	4.5	5.4	10.3	4.5	4.9
65–74	rate	14.0	13.2	14.3	13.0	12.9	16.2	30.6	14.0	13.8
75–84	rate	41.4	41.5	42.3	39.5	40.8	46.6	74.9	38.7	41.5
85 and over	rate	135.9	134.8	142.4	131.9	132.3	141.3	87.0	140.5	136.1

(a) See Glossary for definitions of terms used.

(b) Includes Other Territories.

(c) Does not include all Indigenous deaths—see table 6.1.

3.1 DEATHS, Summary(a)—States and Territories *continued*

		NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.(b)
DEATHS										
Expectation of life(c)										
Males										
Age 0	years	76.1	76.7	76.0	76.4	76.4	75.4	70.6	77.9	76.2
Age 1	years	75.5	76.1	75.6	75.8	75.8	75.0	70.4	77.2	75.7
Age 25	years	52.3	52.8	52.4	52.5	52.7	51.8	47.8	53.9	52.5
Age 45	years	33.6	34.0	33.7	33.8	34.1	33.0	30.5	35.0	33.8
Age 65	years	16.5	16.8	16.7	16.6	16.8	16.0	15.0	17.3	16.6
Age 85	years	5.5	5.6	5.7	5.4	5.6	5.2	5.3	5.7	5.5
Females										
Age 0	years	81.7	82.0	81.7	82.1	82.1	80.7	75.1	81.8	81.8
Age 1	years	81.1	81.4	81.2	81.4	81.5	80.1	75.0	81.3	81.2
Age 25	years	57.5	57.7	57.6	57.8	57.9	56.5	51.8	57.6	57.6
Age 45	years	38.2	38.4	38.3	38.4	38.6	37.2	33.2	38.3	38.2
Age 65	years	20.2	20.3	20.3	20.3	20.5	19.5	17.1	20.2	20.2
Age 85	years	6.6	6.6	6.7	6.6	6.7	6.4	5.7	6.6	6.6
Leading causes of death (SDR per 100,000 population)										
Males										
Malignant neoplasms (C00–C97)	rate	213	213	219	211	221	225	238	184	215
Ischaemic heart diseases (I20–I25)	rate	171	150	178	163	151	173	190	132	164
Cerebrovascular diseases (I60–I69)	rate	60	50	56	54	54	63	53	39	55
Chronic lower respiratory diseases (J40–J47)	rate	40	40	44	32	39	52	58	39	40
Accidents (V01–X59)	rate	36	40	39	31	41	42	52	33	38
Females										
Malignant neoplasms (C00–C97)	rate	126	132	130	124	130	148	177	143	129
Ischaemic heart diseases (I20–I25)	rate	91	82	102	84	82	95	89	80	89
Cerebrovascular diseases (I60–I69)	rate	53	46	52	48	47	48	74	61	50
Chronic lower respiratory diseases (J40–J47)	rate	21	18	20	18	17	26	43	17	20
Accidents (V01–X59)	rate	15	17	16	13	18	23	24	12	16

(a) See Glossary for definitions of terms used.

(b) Includes Other Territories.

(c) Life expectancy was calculated over the three year period 1997–1999.

3.1 DEATHS, Summary(a)—States and Territories *continued*

		NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.(b)
INFANT DEATHS										
Total Infant deaths	no.	504	331	266	78	117	46	42	24	1 408
Males	no.	281	188	159	50	70	27	24	13	812
Females	no.	223	143	107	28	47	19	18	11	596
<i>Aboriginal and Torres Strait Islander infant deaths(c)</i>	no.	41	9	39	5	26	n.p.	27	n.p.	149
Males	no.	17	5	32	3	10	n.p.	15	n.p.	82
Females	no.	24	4	7	3	16	n.p.	12	n.p.	67
<i>Infant mortality rates</i>	rate	5.8	5.6	5.7	4.3	4.7	7.6	11.7	5.6	5.7
Males	rate	6.3	6.2	6.6	5.4	5.5	8.8	13.2	6.1	6.4
Females	rate	5.3	5.0	4.7	3.2	3.9	6.4	10.3	5.2	4.9
Age at death										
Males										
Under 1 day	no.	107	76	53	16	20	8	9	4	293
1 day and under 1 week	no.	59	30	27	5	15	6	2	4	148
1 week and under 1 month	no.	43	24	16	3	12	4	6	4	112
1 month and under 1 year	no.	72	58	63	26	23	9	7	—	259
Females										
Under 1 day	no.	88	68	35	8	19	5	6	4	233
1 day and under 1 week	no.	30	22	11	—	6	3	2	—	77
1 week and under 1 month	no.	27	20	17	5	7	7	4	3	90
1 month and under 1 year	no.	78	33	44	13	15	4	6	3	196

(a) See Glossary for definitions of terms used.

(b) Includes Other Territories.

(c) Does not include all Indigenous deaths—see table 6.1.

— nil or rounded to zero (including null cells)

3.2 DEATHS, Summary(a)—Selected Years

		1989	1994	1995	1996	1997	1998	1999
		DEATHS						
Total deaths	no.	124 232	126 692	125 133	128 719	129,350	127,202	128 102
Males	no.	66 926	67 464	66 251	68 206	67 752	67 073	67 227
Females	no.	57 306	59 228	58 882	60 513	61 598	60 129	60 875
Sex ratio		116.8	113.9	112.5	112.7	110.0	111.5	110.4
<i>Standardised death rates</i>	rate	7.6	6.7	6.4	6.4	6.3	6.0	5.9
Males	rate	9.8	8.7	8.2	8.2	7.9	7.6	7.4
Females	rate	5.9	5.2	5.0	5.0	4.9	4.7	4.6
<i>Crude death rates</i>	rate	7.4	7.1	6.9	7.0	7.0	6.8	6.8
Males	rate	8.0	7.6	7.4	7.5	7.4	7.2	7.1
Females	rate	6.8	6.6	6.5	6.6	6.6	6.4	6.4
<i>Median age at death</i>	years	75.1	76.6	76.6	77.0	77.2	77.4	77.8
Males	years	72.2	73.5	73.5	74.0	74.2	74.5	74.8
Females	years	78.7	80.2	80.3	80.7	81.0	81.0	81.4
<i>Age specific death rates</i>								
<i>Age group (years)</i>								
Males								
0	rate	8.9	6.6	6.1	6.4	5.7	5.5	6.4
1–4	rate	0.4	0.4	0.4	0.4	0.4	0.4	0.3
5–14	rate	0.2	0.2	0.2	0.2	0.2	0.2	0.2
15–24	rate	1.2	1.0	1.0	1.0	1.1	1.0	1.0
25–34	rate	1.4	1.3	1.3	1.3	1.3	1.4	1.4
35–44	rate	1.8	1.8	1.8	1.7	1.7	1.7	1.6
45–54	rate	4.4	3.6	3.5	3.4	3.4	3.2	3.2
55–64	rate	13.3	10.8	10.3	9.9	9.6	9.1	8.6
65–74	rate	34.6	30.2	28.9	28.3	27.4	26.2	25.5
75–84	rate	86.7	78.5	73.6	74.1	70.6	67.5	64.8
85 and over	rate	200.0	186.9	176.6	181.3	174.0	167.2	166.1
Females								
0	rate	7.1	5.2	5.1	5.0	4.9	4.5	4.9
1–4	rate	0.4	0.3	0.3	0.3	0.2	0.3	0.3
5–14	rate	0.2	0.2	0.2	0.1	0.1	0.1	0.1
15–24	rate	0.4	0.3	0.4	0.3	0.4	0.4	0.4
25–34	rate	0.5	0.4	0.5	0.5	0.5	0.5	0.5
35–44	rate	1.0	0.9	0.9	0.9	0.9	0.9	0.9
45–54	rate	2.6	2.2	2.2	2.1	2.1	2.1	2.0
55–64	rate	7.0	5.9	5.7	5.7	5.5	5.2	4.9
65–74	rate	18.3	16.2	15.6	15.1	15.1	14.2	13.8
75–84	rate	53.1	48.8	47.0	46.4	44.8	42.9	41.5
85 and over	rate	159.9	149.2	142.6	145.7	144.6	136.1	136.1

(a) See Glossary for definitions of terms used.

3.2 DEATHS, Summary(a)—Selected Years *continued*

		1989	1994	1995	1996	1997	1998	1999
DEATHS								
Expectation of life(b)								
Males								
Age 0	years	73.3	75.0	75.0	75.2	75.6	75.9	76.2
Age 1	years	73.0	74.5	74.5	74.7	75.0	75.3	75.7
Age 25	years	49.9	51.3	51.3	51.5	51.8	52.1	52.5
Age 45	years	31.2	32.5	32.5	32.8	33.1	33.4	33.8
Age 65	years	14.7	15.7	15.7	15.8	16.1	16.3	16.6
Age 85	years	4.8	5.1	5.1	5.1	5.3	5.4	5.5
Females								
Age 0	years	79.6	80.9	80.8	81.1	81.3	81.5	81.8
Age 1	years	79.1	80.3	80.3	80.5	80.7	80.9	81.2
Age 25	years	55.6	56.7	56.7	56.9	57.1	57.3	57.6
Age 45	years	36.3	37.3	37.3	37.5	37.7	38.0	38.2
Age 65	years	18.7	19.4	19.5	19.6	19.8	20.0	20.2
Age 85	years	5.9	6.2	6.3	6.4	6.4	6.5	6.6
Leading causes of death (SDR per 100,000 population)(c)								
Males								
Malignant neoplasms (140–208)	rate	242	239	231	230	220	217	215
Ischaemic heart diseases (410–414)	rate	270	214	202	196	183	171	164
Cerebrovascular diseases (430–438)	rate	81	72	67	66	59	56	55
Chronic obstructive pulmonary disease and conditions (including asthma, emphysema bronchitis) (490–496)	rate	72	54	49	51	45	42	40
Accidents (E800–E949)	rate	47	35	35	36	33	35	38
Females								
Malignant neoplasms (140–208)	rate	141	139	138	139	135	131	129
Ischaemic heart diseases (410–414)	rate	145	118	110	106	101	93	89
Cerebrovascular diseases (430–438)	rate	74	62	60	58	53	51	50
Chronic obstructive pulmonary disease and conditions (including asthma, emphysema bronchitis) (490–496)	rate	26	24	22	24	22	21	20
Accidents (E800–E949)	rate	21	15	15	14	15	15	16
INFANT DEATHS								
Total Infant deaths	no.	2 004	1 512	1 449	1 460	1 341	1 252	1 408
Males	no.	1 136	866	807	843	744	706	812
Females	no.	868	646	642	617	597	546	596
<i>Infant mortality rates</i>	rate	8.0	5.9	5.7	5.8	5.3	5.0	5.7
Males	rate	8.8	6.5	6.1	6.5	5.8	5.5	6.4
Females	rate	7.1	5.2	5.1	5.0	4.9	4.5	4.9
Age at death								
Males								
Under 1 day	no.	345	326	313	313	262	228	293
1 day and under 1 week	no.	183	153	118	133	132	132	148
1 week and under 1 month	no.	125	107	103	100	91	114	112
1 month and under 1 year	no.	483	280	273	297	259	232	259
Females								
Under 1 day	no.	266	238	241	244	239	198	233
1 day and under 1 week	no.	157	113	97	92	94	83	77
1 week and under 1 month	no.	103	71	85	82	81	87	90
1 month and under 1 year	no.	342	224	219	199	183	178	196

(a) See Glossary for definitions of terms used.

(b) From 1995 onwards, life expectancy was calculated over the three years ending in the year in the table heading.

(c) 1999 data is on ICD10 refer to Explanatory Note 10.

3.3 DEATHS REGISTERED, By States and Territories

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.(a)
MALES									
1979	21 361	15 990	9 384	5 323	4 595	1 810	373	421	59 257
1984	21 220	15 843	9 767	5 540	4 817	1 971	323	506	59 987
1989	24 170	17 079	11 360	6 094	5 271	1 914	501	537	66 926
1994	23 690	16 765	11 896	6 241	5 598	2 136	489	644	67 464
1995	23 612	16 960	11 112	5 879	5 617	1 952	521	593	66 251
1996	23 765	17 009	12 151	6 061	5 978	2 052	487	698	68 206
1997	23 746	17 122	11 915	6 029	5 774	1 966	535	663	67 752
1998	23 520	16 407	12 235	6 095	5 750	1 889	527	646	67 073
1999	23 782	16 433	12 180	5 840	5 843	1 954	509	682	67 227
FEMALES									
1979	17 548	13 128	6 979	4 337	3 421	1 390	206	302	47 311
1984	18 082	13 689	7 638	4 559	3 686	1 625	224	424	49 927
1989	20 890	15 300	9 085	5 254	4 272	1 776	286	443	57 306
1994	21 073	15 588	9 759	5 469	4 695	1 775	287	578	59 228
1995	21 161	15 465	9 551	5 339	4 747	1 802	292	521	58 882
1996	21 376	15 717	10 130	5 545	5 049	1 820	271	602	60 513
1997	21 895	16 139	10 030	5 629	5 033	1 843	356	671	61 598
1998	21 221	15 600	10 086	5 619	4 914	1 716	344	626	60 129
1999	21 433	15 485	10 669	5 451	5 034	1 829	323	649	60 875
PERSONS									
1979	38 909	29 118	16 363	9 660	8 016	3 200	579	723	106 568
1984	39 302	29 532	17 405	10 099	8 503	3 596	547	930	109 914
1989	45 060	32 379	20 445	11 348	9 543	3 690	787	980	124 232
1994	44 763	32 353	21 655	11 710	10 293	3 911	776	1 222	126 692
1995	44 773	32 425	20 663	11 218	10 364	3 754	813	1 114	125 133
1996	45 141	32 726	22 281	11 606	11 027	3 872	758	1 300	128 719
1997	45 641	33 261	21 945	11 658	10 807	3 809	891	1 334	129 350
1998	44 741	32 007	22 321	11 714	10 664	3 605	871	1 272	127 202
1999	45 215	31 918	22 849	11 291	10 877	3 783	832	1 331	128 102

(a) Includes Other Territories.

3.4 STANDARDISED DEATH RATES, By States and Territories

	<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.(a)</i>
MALES									
1979	11.4	11.4	11.2	10.9	11.0	11.8	16.3	10.4	11.3
1984	10.2	10.2	12.1	10.0	9.8	11.3	11.3	9.4	10.1
1989	10.1	9.6	9.9	9.7	8.9	9.8	12.8	8.0	9.8
1994	8.8	8.4	8.8	8.8	8.2	9.9	12.2	7.5	8.6
1995	8.5	8.3	7.9	8.1	7.9	8.9	11.6	6.8	8.2
1996	8.3	8.1	8.3	8.1	8.2	9.2	10.3	7.8	8.2
1997	8.0	7.9	7.8	7.8	7.7	8.6	11.5	7.1	7.9
1998	7.7	7.4	7.8	7.7	7.4	8.1	9.8	6.6	7.6
1999	7.6	7.1	7.5	7.2	7.3	8.2	9.6	6.5	7.4
FEMALES									
1979	6.7	6.6	6.6	6.3	6.5	6.8	11.8	5.6	6.6
1984	6.0	6.0	6.0	5.7	5.7	6.8	9.3	6.0	6.0
1989	6.0	5.9	5.9	5.7	5.4	6.6	9.0	5.1	5.9
1994	5.2	5.2	5.2	5.1	4.9	5.7	8.9	5.2	5.2
1995	5.1	5.0	4.9	4.9	4.8	5.7	8.2	4.4	5.0
1996	5.0	4.9	5.0	4.9	4.9	5.6	6.8	4.9	5.0
1997	5.0	4.9	4.8	4.8	4.7	5.5	8.2	5.1	4.9
1998	4.7	4.6	4.7	4.7	4.5	5.0	7.8	4.6	4.7
1999	4.6	4.5	4.8	4.4	4.4	5.2	7.7	4.5	4.6
PERSONS									
1979	8.7	8.7	8.7	8.3	8.5	9.0	14.0	7.5	8.6
1984	7.6	7.6	7.6	7.4	7.4	8.6	10.1	7.3	7.6
1989	7.8	7.5	7.7	7.4	6.9	8.1	11.0	6.4	7.6
1994	6.8	6.6	6.8	6.7	6.4	7.6	10.5	6.3	6.7
1995	6.6	6.4	6.3	6.3	6.2	7.1	9.9	5.4	6.4
1996	6.4	6.3	6.5	6.3	6.4	7.1	8.6	6.1	6.4
1997	6.3	6.2	6.2	6.1	6.0	6.8	9.9	6.0	6.3
1998	6.0	5.8	6.1	6.0	5.8	6.3	8.9	5.4	6.0
1999	5.9	5.7	6.0	5.7	5.7	6.5	8.7	5.4	5.9

(a) Includes Other Territories

3.5 LEADING CAUSES OF DEATH, 1999

Cause of death	MALES.....			FEMALES.....		
	no.	SDR(a)	Median age	no.	SDR(a)	Median age
<i>Chapter I Certain infectious and parasitic diseases (A00–B99)</i>	842	9	74.4	761	6	81.0
<i>Chapter II Neoplasms (C00–D48)</i>	20 283	219	73.0	15 573	132	73.9
Malignant neoplasms (C00–C97)	19 866	215	72.9	15 187	129	73.6
Digestive organs (C15–C26)	5 600	60	72.0	4 312	36	76.2
Colon (C18)	1 771	19	72.4	1 557	13	76.6
Trachea, bronchus and lung (C33, C34)	4 655	50	72.1	2 148	19	72.2
Breast (C50)	22	—	—	2 505	22	66.3
Female genital organs (C51–C58)	..	..	..	1 300	11	72.1
Male genital organs (C60–C63)	2 546	29	78.6	..	..	..
Prostate (C61)	2 499	28	78.8	..	..	..
Lymphoid, haematopoietic and related tissue (C81–C96)	1 962	21	72.2	1 596	13	76.2
<i>Chapter IV Endocrine, nutritional and metabolic diseases (E00–E90)</i>	2 001	22	74.1	2 099	16	80.2
Diabetes mellitus (E10–E14)	1 485	16	75.0	1 462	11	80.1
<i>Chapter V Mental and behavioural disorders (F00–F99)</i>	1 256	14	76.5	1 552	10	86.7
<i>Chapter VI Diseases of the nervous system (G00–G99)</i>	1 818	20	76.3	2 072	15	82.4
Alzheimer's disease (G30)	493	6	82.7	1 023	7	86.9
<i>Chapter IX Diseases of the circulatory system (I00–I99)</i>	24 824	277	78.0	26 479	183	84.8
All heart diseases (I05–I09, I11, I13, I20–I25, I26, I27, I30–I52)	18 116	201	77.3	17 229	120	84.6
Ischaemic heart diseases (I20–I25)	14 865	164	76.8	12 744	89	84.3
Acute myocardial infarction (I21)	8 028	89	77.1	7 124	50	83.6
Pulmonary heart disease and diseases of pulmonary circulation and other forms of heart disease (I26–I52)	2 955	33	79.7	3 896	26	85.9
Heart failure (I50)	989	12	84.4	1 725	11	88.0
Cerebrovascular diseases (I60–I69)	4 894	55	80.5	7 372	50	85.3
Diseases of arteries, arterioles and capillaries (I70–I79)	1 476	17	78.9	1 388	10	84.8
<i>Chapter X Diseases of the respiratory system (J00–J99)</i>	5 296	59	78.1	4 317	32	82.0
Chronic lower respiratory diseases (J40–J47)	3 609	40	77.0	2 487	20	78.3
<i>Chapter XI Diseases of the digestive system (K00–K93)</i>	2 111	23	72.7	2 110	16	82.2
Diseases of liver (K70–K77)	863	9	61.1	380	3	66.1
<i>Chapter XIV Diseases of the genitourinary system (N00–N99)</i>	1 232	14	82.5	1 536	11	84.5
<i>Chapter XVI Certain conditions originating in the perinatal period (P00–P96)</i>	377	4	0.5	264	3	0.5
<i>Chapter XVII Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)</i>	392	4	0.8	323	4	0.8
<i>Chapter XX External causes of morbidity and mortality (V01–Y98)</i>	5 868	63	38.1	2 493	23	53.0
Transport accidents (V01–V99)	1 441	16	32.8	570	6	37.2
Falls (W00–W19)	309	3	71.1	211	2	82.3
Accidental drowning and submersion (W65–W74)	203	2	30.5	75	1	33.5
Intentional self-harm (X60–X84)	2 002	21	38.8	490	5	40.2
All Causes	67 227	740	74.8	60 875	462	81.4

(a) Deaths per 100,000 population.

— nil or rounded to zero (including null cells)

.. not applicable.

3.6 PRINCIPAL CAUSES OF DEATH, Selected Years—Males

<i>Cause of death</i>	1989	1994	1995	1996	1997	1998
<i>Neoplasms (140–239)</i>	17 350	19 553	19 425	19 889	19 571	19 861
Malignant neoplasms (cancer) (140–208)	17 201	19 287	19 144	19 586	19 279	19 590
Trachea, bronchus and lung (162)	4 666	4 810	4 696	4 773	4 605	4 821
Prostate (185)	2 014	2 590	2 575	2 660	2 448	2 531
Other (remainder 140–239)	149	266	281	303	292	271
<i>Diseases of the circulatory system (390–459)</i>	28 376	27 031	26 261	26 550	25 717	24 746
Ischaemic heart diseases (410–414)	18 132	16 515	16 133	16 092	15 565	15 024
Other heart diseases (393–398, 402, 404, 415, 416, 420–429)	3 217	3 327	3 128	3 421	3 406	3 177
Cerebrovascular diseases (stroke) (430–438)	5 057	5 260	5 108	5 205	4 879	4 812
Other (remainder of 390–459)	1 970	1 929	1 892	1 832	1 867	1 733
<i>Diseases of the respiratory system (460–519)</i>	6 366	5 791	5 407	5 733	6 960	6 593
Chronic obstructive pulmonary disease and allied conditions (490–496)	4 711	4 132	3 884	4 147	3 830	3 628
<i>Diseases of the digestive system (520–579)</i>	2 299	1 962	1 961	2 022	2 024	1 969
Chronic liver disease and cirrhosis (571)	825	729	731	768	764	725
<i>Diseases of the genitourinary system (580–629)</i>	842	977	947	1 001	1 090	1 117
<i>Congenital anomalies (740–759)</i>	400	413	343	350	411	334
<i>Certain conditions originating in the perinatal period (760–779)</i>	481	402	384	391	336	325
<i>All other diseases (remainder of 001–799)</i>	5 109	6 246	6 369	6 836	6 250	6 514
<i>External causes (E800–E999)</i>	5 703	5 089	5 154	5 434	5 393	5 614
Motor vehicle traffic accidents (810–819)	2 000	1 370	1 398	1 399	1 240	1 224
Accidental falls (880–888)	505	458	457	523	486	531
Accidental drowning and submersion (910)	244	209	190	188	217	187
All other accidents (remainder of 800–949)	987	926	930	1 057	989	1 221
Suicide (950–959)	1 658	1 830	1 873	1 931	2 146	2 150
Other (remainder of 800–999)	309	296	306	336	315	301
Total	66 926	67 464	66 251	68 206	67 752	67 073

3.7 PRINCIPAL CAUSES OF DEATH, Selected Years—Females

<i>Cause of death</i>	1989	1994	1995	1996	1997	1998
<i>Neoplasms (140–239)</i>	13 074	14 653	14 943	15 363	15 316	15 212
Malignant neoplasms (cancer) (140–208)	12 943	14 374	14 662	15 085	15 037	14 970
Trachea, bronchus and lung (162)	1 570	1 887	1 993	2 054	2 058	2 053
Breast (174)	2 431	2 655	2 629	2 623	2 602	2 542
Other (remainder 140–239)	131	279	281	278	279	242
<i>Diseases of the circulatory system (390–459)</i>	28 453	27 858	27 146	27 440	26 924	26 051
Ischaemic heart diseases (410–414)	14 507	14 061	13 480	13 545	13 486	12 801
Other heart diseases (393–398, 402, 404, 415, 416, 420–429)	4 405	4 353	4 270	4 446	4 350	4 253
Cerebrovascular diseases (stroke) (430–438)	7 522	7 578	7 572	7 601	7 254	7 170
Other (remainder of 390–459)	2 019	1 866	1 824	1 848	1 834	1 827
<i>Diseases of the respiratory system (460–519)</i>	4 245	4 167	4 024	4 561	6 299	5 817
Chronic obstructive pulmonary disease and allied conditions (490–496)	2 469	2 581	2 504	2 814	2 627	2 486
<i>Diseases of the digestive system (520–579)</i>	1 945	1 897	1 910	1 871	1 928	1 968
Chronic liver disease and cirrhosis (571)	284	319	286	305	287	293
<i>Diseases of the genitourinary system (580–629)</i>	1 087	1 133	1 127	1 243	1 362	1 433
<i>Congenital anomalies (740–759)</i>	373	341	335	301	349	271
<i>Certain conditions originating in the perinatal period (760–779)</i>	372	293	291	309	284	252
<i>All other diseases (remainder of 001–799)</i>	5 289	6 787	6 846	7 302	6 792	6 793
<i>External causes (E800–E999)</i>	2 468	2 099	2 260	2 123	2 344	2 332
Motor vehicle traffic accidents (810–819)	828	590	631	544	561	507
Accidental falls (880–888)	609	545	538	579	639	651
Accidental drowning and submersion (910)	70	41	69	59	59	58
All other accidents (remainder of 800–949)	378	338	352	331	353	425
Suicide (950–959)	438	428	495	462	577	533
Other (remainder of 800–999)	145	157	175	148	155	158
Total	57 306	59 228	58 882	60 513	61 598	60 129

3.8 PRINCIPAL CAUSES OF DEATH, Selected Years—Standardised Death Rates: Males(a)

Cause of death	1989	1994	1995	1996	1997	1998
<i>Neoplasms (140–239)</i>	245	243	235	234	223	221
Malignant neoplasms (cancer) (140–208)	242	239	232	230	220	218
Trachea, bronchus and lung (162)	64	59	56	55	52	53
Prostate (185)	32	35	33	33	29	29
Other (remainder 140–239)	2	4	4	4	4	3
<i>Diseases of the circulatory system (390–459)</i>	433	359	336	328	307	286
Ischaemic heart diseases (410–414)	270	215	203	196	184	172
Other heart diseases (393–398, 402, 404, 415, 416, 420–429)	51	45	41	43	41	37
Cerebrovascular diseases (stroke) (430–438)	81	72	67	66	59	57
Other (remainder of 390–459)	31	26	24	23	23	20
<i>Diseases of the respiratory system (460–519)</i>	100	78	70	72	85	78
Chronic obstructive pulmonary disease and allied conditions (490–496)	72	54	49	51	45	42
<i>Diseases of the digestive system (520–579)</i>	34	25	24	24	23	22
Chronic liver disease and cirrhosis (571)	10	8	8	8	8	8
<i>Diseases of the genitourinary system (580–629)</i>	14	14	13	13	14	13
<i>Congenital anomalies (740–759)</i>	5	5	4	4	5	4
<i>Certain conditions originating in the perinatal period (760–779)</i>	6	5	4	4	4	4
<i>All other diseases (remainder of 001–799)</i>	75	81	79	83	73	74
<i>External causes (E800–E999)</i>	71	59	59	61	60	61
Motor vehicle traffic accidents (810–819)	24	16	16	16	14	13
Accidental falls (880–888)	8	6	6	7	6	6
Accidental drowning and submersion (910)	3	2	2	2	2	2
All other accidents (remainder of 800–949)	12	11	10	12	11	13
Suicide (950–959)	20	21	21	21	23	23
Other (remainder of 800–999)	4	3	3	4	3	3
Total	981	867	824	824	794	764

(a) Deaths per 100,000 population

3.9 PRINCIPAL CAUSES OF DEATH, Selected Years—Standardised Death Rates: Females(a)

<i>Cause of death</i>	1989	1994	1995	1996	1997	1998
<i>Neoplasms (140–239)</i>	143	142	141	141	137	133
Malignant neoplasms (cancer) (140–208)	141	139	138	139	135	131
Trachea, bronchus and lung (162)	17	19	19	19	19	19
Breast (174)	27	26	26	25	24	23
Other (remainder 140–239)	1	3	2	2	2	2
<i>Diseases of the circulatory system (390–459)</i>	282	230	216	209	198	186
Ischaemic heart diseases (410–414)	145	118	109	105	101	92
Other heart diseases (393–398, 402, 404, 415, 416, 420–429)	43	35	33	33	32	30
Cerebrovascular diseases (stroke) (430–438)	74	61	59	57	53	50
Other (remainder of 390–459)	20	15	14	14	14	13
<i>Diseases of the respiratory system (460–519)</i>	43	37	34	37	48	43
Chronic obstructive pulmonary disease and allied conditions (490–496)	26	24	22	24	22	21
<i>Diseases of the digestive system (520–579)</i>	20	16	16	15	15	15
Chronic liver disease and cirrhosis (571)	3	3	3	3	3	3
<i>Diseases of the genitourinary system (580–629)</i>	11	9	9	10	10	10
Congenital anomalies (740–759)	5	4	4	3	4	3
<i>Certain conditions originating in the perinatal period (760–779)</i>	5	3	3	4	3	3
<i>All other diseases (remainder of 001–799)</i>	54	59	57	58	54	52
<i>External causes (E800–E999)</i>	27	21	23	20	22	22
Motor vehicle traffic accidents (810–819)	10	6	7	6	6	5
Accidental falls (880–888)	6	4	4	4	4	4
Accidental drowning and submersion (910)	1	—	1	1	1	1
All other accidents (remainder of 800–949)	4	4	4	3	3	4
Suicide (950–959)	5	5	5	5	6	6
Other (remainder of 800–999)	2	2	2	2	2	2
Total	589	521	503	498	492	467

(a) Deaths per 100,000 population.

— nil or rounded to zero (including null cells)

3.10 LEADING CAUSES OF DEATH, States and Territories—Males

<i>Cause of death</i>	<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.(a)</i>
<i>Chapter I Certain infectious and parasitic diseases (A00–B99)</i>	352	204	122	67	55	18	13	11	842
<i>Chapter II Neoplasms (C00–D48)</i>	7 022	5 098	3 685	1 778	1 835	565	104	196	20 283
Malignant neoplasms (C00–C97)	6 853	4 996	3 620	1 743	1 803	554	101	196	19 866
Digestive organs (C15–C26)	1 887	1 509	969	485	503	164	29	54	5 600
Colon (C18)	638	462	323	142	131	47	7	21	1 771
Trachea, bronchus and lung (C33, C34)	1 608	1 126	878	405	445	130	29	34	4 655
Male genital organs (C60–C63)	843	693	454	250	203	78	4	21	2 546
Prostate (C61)	827	680	447	245	198	77	4	21	2 499
Lymphoid, haematopoietic and related tissue (C81–C96)	694	501	334	169	177	56	6	25	1 962
<i>Chapter IV Endocrine, nutritional and metabolic diseases (E00–E90)</i>	577	652	341	188	154	52	20	17	2 001
Diabetes mellitus (E10–E14)	418	499	249	140	116	35	15	13	1 485
<i>Chapter V Mental and behavioural disorders (F00–F99)</i>	515	276	175	112	116	33	15	14	1 256
<i>Chapter VI Diseases of the nervous system (G00–G99)</i>	641	480	300	123	192	48	13	21	1 818
Alzheimer's disease (G30)	195	108	87	17	74	9	3	—	493
<i>Chapter IX Diseases of the circulatory system (I00–I99)</i>	9 137	5 783	4 561	2 240	1 999	740	141	221	24 824
All heart diseases (I05–I09, I11, I13, I20–I25, I26, I27, I30–I52)	6 616	4 232	3 372	1 633	1 459	516	118	169	18 116
Ischaemic heart diseases (I20–I25)	5 379	3 450	2 866	1 344	1 185	417	91	133	14 865
Acute myocardial infarction (I21)	2 836	1 867	1 628	737	633	227	29	71	8 028
Pulmonary heart disease and diseases of pulmonary circulation and other forms of heart disease (I26–I52)	1 127	710	460	255	250	96	22	34	2 955
Heart failure (I50)	384	240	135	90	85	42	—	11	989
Cerebrovascular diseases (I60–I69)	1 824	1 128	887	440	412	149	18	35	4 894
Diseases of arteries, arterioles and capillaries (I70–I79)	567	343	246	133	108	60	4	15	1 476
<i>Chapter X Diseases of the respiratory system (J00–J99)</i>	1 821	1 296	964	502	439	176	42	56	5 296
Chronic lower respiratory diseases (J40–J47)	1 245	909	697	267	302	126	27	36	3 609
<i>Chapter XI Diseases of the digestive system (K00–K93)</i>	775	490	377	190	184	45	20	30	2 111
Diseases of liver (K70–K77)	335	207	130	82	64	15	11	19	863
<i>Chapter XIV Diseases of the genitourinary system (N00–N99)</i>	442	334	203	99	90	37	15	12	1 232
<i>Chapter XVI Certain conditions originating in the perinatal period (P00–P96)</i>	139	87	61	21	32	16	13	8	377
<i>Chapter XVII Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)</i>	127	97	84	24	36	8	8	8	392
<i>Chapter XX External causes of morbidity and mortality (V01–Y98)</i>	1 936	1 423	1 153	416	590	172	96	80	5 868
Transport accidents (V01–V99)	441	338	270	114	177	56	31	13	1 441
Falls (W00–W19)	127	63	61	15	25	6	3	9	309
Accidental drowning and submersion (W65–W74)	68	41	41	11	28	—	6	6	203
Intentional self-harm (X60–X84)	689	440	396	155	192	68	27	35	2 002
All Causes	23 782	16 433	12 180	5 840	5 843	1 954	509	682	67 227

(a) Includes Other Territories.

— nil or rounded to zero (including null cells)

3.11 LEADING CAUSES OF DEATH, States and Territories—Females

<i>Cause of death</i>	<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.(a)</i>
<i>Chapter I Certain infectious and parasitic diseases (A00–B99)</i>	293	192	126	71	39	24	11	5	761
<i>Chapter II Neoplasms (C00–D48)</i>	5 275	4 129	2 702	1 364	1 359	470	72	202	15 573
Malignant neoplasms (C00–C97)	5 141	4 020	2 628	1 329	1 336	460	72	201	15 187
Digestive organs (C15–C26)	1 434	1 186	697	398	386	141	12	58	4 312
Colon (C18)	508	443	266	137	133	45	6	19	1 557
Trachea, bronchus and lung (C33, C34)	735	553	388	178	207	55	10	22	2 148
Breast (C50)	811	684	428	197	240	86	26	33	2 505
Female genital organs (C51–C58)	434	328	240	118	121	34	10	15	1 300
Lymphoid, haematopoietic and related tissue (C81–C96)	552	440	250	157	116	45	6	30	1 596
<i>Chapter IV Endocrine, nutritional and metabolic diseases (E00–E90)</i>	615	633	359	211	176	67	24	14	2 099
Diabetes mellitus (E10–E14)	398	476	258	130	130	41	18	11	1 462
<i>Chapter V Mental and behavioural disorders (F00–F99)</i>	504	458	231	167	138	29	5	20	1 552
<i>Chapter VI Diseases of the nervous system (G00–G99)</i>	735	542	382	116	208	64	10	15	2 072
Alzheimer's disease (G30)	374	262	189	41	122	31	3	3	1 023
<i>Chapter IX Diseases of the circulatory system (I00–I99)</i>	9 764	6 423	4 740	2 380	2 060	761	84	265	26 479
All heart diseases (I05–I09, I11, I13, I20–I25, I26, I27, I30–I52)	6 322	4 192	3 116	1 556	1 323	500	55	164	17 229
Ischaemic heart diseases (I20–I25)	4 569	3 070	2 449	1 154	988	366	32	115	12 744
Acute myocardial infarction (I21)	2 528	1 726	1 370	717	525	178	14	66	7 124
Pulmonary heart disease and diseases of pulmonary circulation and other forms of heart disease (I26–I52)	1 522	958	590	352	295	118	18	43	3 896
Heart failure (I50)	683	478	225	149	125	45	7	13	1 725
Cerebrovascular diseases (I60–I69)	2 757	1 775	1 286	672	578	190	24	89	7 372
Diseases of arteries, arterioles and capillaries (I70–I79)	500	335	265	106	119	50	3	11	1 388
<i>Chapter X Diseases of the respiratory system (J00–J99)</i>	1 531	1 042	714	496	325	149	22	38	4 317
Chronic lower respiratory diseases (J40–J47)	940	603	429	202	184	92	14	23	2 487
<i>Chapter XI Diseases of the digestive system (K00–K93)</i>	695	534	373	195	199	72	17	25	2 110
Diseases of liver (K70–K77)	125	92	72	32	32	14	8	5	380
<i>Chapter XIV Diseases of the genitourinary system (N00–N99)</i>	547	432	250	133	102	40	19	13	1 536
<i>Chapter XVI Certain conditions originating in the perinatal period (P00–P96)</i>	99	70	46	11	21	8	4	5	264
<i>Chapter XVII Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)</i>	102	79	64	23	27	12	9	7	323
<i>Chapter XX External causes of morbidity and mortality (V01–Y98)</i>	830	636	457	179	248	84	28	31	2 493
Transport accidents (V01–V99)	192	134	94	50	63	22	8	7	570
Falls (W00–W19)	81	38	41	12	29	9	—	3	211
Accidental drowning and submersion (W65–W74)	21	17	18	—	11	4	4	—	75
Intentional self-harm (X60–X84)	180	112	84	45	44	10	5	10	490
All Causes	21 433	15 485	10 669	5 451	5 034	1 829	323	649	60 875

(a) Includes Other Territories.

— nil or rounded to zero (including null cells)

3.12 LEADING CAUSES OF DEATH, States & Territories—Standardised Death Rates: Males(a)

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.(b)
Cause of death	rate	rate	rate	rate	rate	rate	rate	rate	rate
<i>Chapter I Certain infectious and parasitic diseases (A00–B99)</i>	11	9	7	8	7	7	25	8	9
<i>Chapter II Neoplasms (C00–D48)</i>	218	217	223	216	225	230	251	184	219
Malignant neoplasms (C00–C97)	213	213	219	211	221	225	238	184	215
Digestive organs (C15–C26)	58	64	58	59	61	67	77	50	60
Colon (C18)	20	20	20	17	16	19	16	19	19
Trachea, bronchus and lung (C33, C34)	50	48	53	49	55	52	70	33	50
Male genital organs (C60–C63)	27	30	29	30	26	33	16	22	29
Prostate (C61)	27	30	29	30	26	32	16	22	28
Lymphoid, haematopoietic and related tissue (C81–C96)	21	21	20	21	21	23	11	22	21
<i>Chapter IV Endocrine, nutritional and metabolic diseases (E00–E90)</i>	18	28	20	23	19	22	39	17	22
Diabetes mellitus (E10–E14)	13	22	15	17	15	15	30	14	16
<i>Chapter V Mental and behavioural disorders (F00–F99)</i>	17	12	11	15	14	14	17	14	14
<i>Chapter VI Diseases of the nervous system (G00–G99)</i>	21	21	18	15	24	20	27	19	20
Alzheimer's disease (G30)	7	5	6	2	10	4	4	1	6
<i>Chapter IX Diseases of the circulatory system (I00–I99)</i>	293	252	285	273	258	309	322	229	277
All heart diseases (I05–I09, I11, I13, I20–I25, I26, I27, I30–I52)	211	184	210	199	186	215	253	172	201
Ischaemic heart diseases (I20–I25)	171	150	178	163	151	173	190	132	164
Acute myocardial infarction (I21)	90	81	101	90	81	93	66	69	89
Pulmonary heart disease and diseases of pulmonary circulation and other forms of heart disease (I26–I52)	37	31	29	32	32	41	56	38	33
Heart failure (I50)	13	11	9	11	12	18	5	13	12
Cerebrovascular diseases (I60–I69)	60	50	56	54	54	63	53	39	55
Diseases of arteries, arterioles and capillaries (I70–I79)	18	15	16	16	14	25	14	16	17
<i>Chapter X Diseases of the respiratory system (J00–J99)</i>	58	57	61	61	57	73	91	59	59
Chronic lower respiratory diseases (J40–J47)	40	40	44	32	39	52	58	39	40
<i>Chapter XI Diseases of the digestive system (K00–K93)</i>	24	21	23	23	23	19	41	26	23
Diseases of liver (K70–K77)	10	8	7	10	7	6	15	13	9
<i>Chapter XIV Diseases of the genitourinary system (N00–N99)</i>	15	15	13	12	12	16	38	15	14
<i>Chapter XVI Certain conditions originating in the perinatal period (P00–P96)</i>	5	4	4	3	4	7	11	6	4
<i>Chapter XVII Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)</i>	4	5	5	4	4	4	7	6	4
<i>Chapter XX External causes of morbidity and mortality (V01–Y98)</i>	62	61	68	57	65	77	85	56	63
Transport accidents (V01–V99)	14	15	16	16	20	25	27	9	16
Falls (W00–W19)	4	3	4	2	3	2	2	8	3
Accidental drowning and submersion (W65–W74)	2	2	2	1	3	1	5	4	2
Intentional self-harm (X60–X84)	22	19	23	21	21	30	24	23	21
All Causes	756	712	748	720	727	817	962	647	740

(a) Deaths per 100,000 population.

(b) Includes Other Territories.

3.13 LEADING CAUSES OF DEATH, States & Territories—Standardised Death Rates: Females(a)

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.(b)
<i>Cause of death</i>	rate	rate	rate	rate	rate	rate	rate	rate	rate
<i>Chapter I Certain infectious and parasitic diseases (A00–B99)</i>	7	6	6	6	3	7	25	4	6
<i>Chapter II Neoplasms (C00–D48)</i>	129	136	133	127	132	151	177	144	132
Malignant neoplasms (C00–C97)	126	132	130	124	130	148	177	143	129
Digestive organs (C15–C26)	34	38	34	35	37	44	46	41	36
Colon (C18)	12	14	13	12	12	15	22	13	13
Trachea, bronchus and lung (C33, C34)	19	19	20	17	21	18	32	17	19
Breast (C50)	21	24	21	20	23	28	45	23	22
Female genital organs (C51–C58)	11	11	12	11	12	11	22	12	11
Lymphoid, haematopoietic and related tissue (C81–C96)	13	14	12	15	11	14	14	21	13
<i>Chapter IV Endocrine, nutritional and metabolic diseases (E00–E90)</i>	14	19	16	17	16	20	64	10	16
Diabetes mellitus (E10–E14)	9	14	12	10	12	13	47	8	11
<i>Chapter V Mental and behavioural disorders (F00–F99)</i>	10	11	9	12	11	7	14	14	10
<i>Chapter VI Diseases of the nervous system (G00–G99)</i>	16	15	17	11	17	18	23	10	15
Alzheimer's disease (G30)	7	6	7	3	9	7	4	2	7
<i>Chapter IX Diseases of the circulatory system (I00–I99)</i>	192	169	195	173	169	195	243	184	183
All heart diseases (I05–I09, I11, I13, I20–I25, I26, I27, I30–I52)	125	111	130	114	109	130	155	114	120
Ischaemic heart diseases (I20–I25)	91	82	102	84	82	95	89	80	89
Acute myocardial infarction (I21)	51	47	58	52	44	47	40	46	50
Pulmonary heart disease and diseases of pulmonary circulation and other forms of heart disease (I26–I52)	29	24	24	25	24	31	53	30	26
Heart failure (I50)	12	11	8	10	10	11	27	8	11
Cerebrovascular diseases (I60–I69)	53	46	52	48	47	48	74	61	50
Diseases of arteries, arterioles and capillaries (I70–I79)	10	9	11	8	10	12	8	8	10
<i>Chapter X Diseases of the respiratory system (J00–J99)</i>	33	29	32	38	28	41	64	27	32
Chronic lower respiratory diseases (J40–J47)	21	18	20	18	17	26	43	17	20
<i>Chapter XI Diseases of the digestive system (K00–K93)</i>	15	15	16	16	17	20	29	17	16
Diseases of liver (K70–K77)	3	3	4	3	3	5	9	4	3
<i>Chapter XIV Diseases of the genitourinary system (N00–N99)</i>	11	11	10	10	8	10	56	9	11
<i>Chapter XVI Certain conditions originating in the perinatal period (P00–P96)</i>	4	4	3	2	3	4	4	4	3
<i>Chapter XVII Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)</i>	3	4	4	3	3	5	9	5	4
<i>Chapter XX External causes of morbidity and mortality (V01–Y98)</i>	22	23	23	20	25	30	33	19	23
Transport accidents (V01–V99)	6	5	5	6	7	10	8	5	6
Falls (W00–W19)	2	1	2	1	3	2	—	1	2
Accidental drowning and submersion (W65–W74)	1	1	1	—	1	2	4	—	1
Intentional self-harm (X60–X84)	6	5	5	6	5	5	5	6	5
All Causes	464	451	475	442	444	521	772	453	462

(a) Deaths per 100,000 population.

(b) Includes Other Territories.

— nil or rounded to zero (including null cells)

SECTION 4

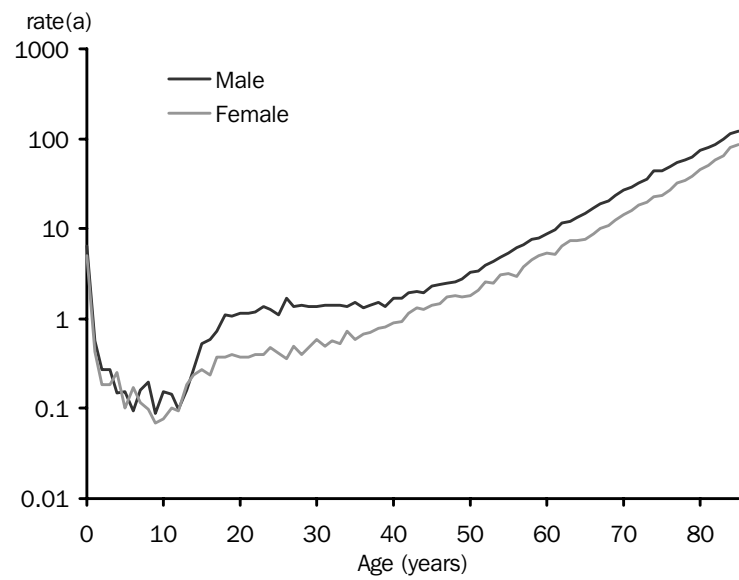
DIFFERENTIALS IN MORTALITY

Mortality rates are not uniformly experienced throughout the life course. Differentials are evident by age, sex, marital status, country of birth and geographical region.

AGE AT DEATH

The median age at death in 1999 was 74.8 years for males and 81.4 years for females, an increase of 2.5 years and 2.7 years respectively on the median age at death in 1989. This reflects the ageing of the population, as well as an increase in the life expectancy of males and females over the period.

MALE AND FEMALE AGE-SPECIFIC DEATH RATES—1999



(a) Logarithmic scale

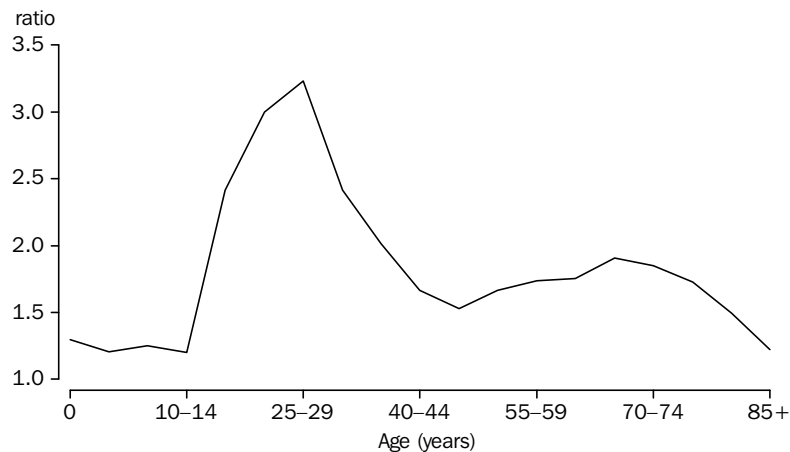
From the relatively high rates of death in infancy, age-specific death rates (ASDRs) sharply decline through childhood. The lowest death rates at any age were experienced by males and females aged 5–9 years, with an ASDR of 0.1 male deaths and 0.1 female deaths per 1,000 respective populations. While the ASDRs of children aged 10–14 years were slightly higher than at 5–9 years, the increase seen after age 15 years is far more dramatic. Males aged 15–19 years had an ASDR of 0.8 deaths per 1,000 male population — five times higher than the 10–14 years ASDR, while the female ASDR at ages 15–19 years (0.3 deaths per 1,000 females) was two times higher than the 10–14 years age group. The male ASDR increased a further 52% to age 20–24 years, and levelled off somewhat until after age 40 where it increased steadily throughout the rest of the life cycle. The ASDRs for females aged 15–29 years remained relatively constant. Steady increase in the female ASDR was seen after age 30 years which continued throughout the remaining age groups.

SEX

Male deaths (67,200) outnumbered female deaths (60,900) registered in 1999, giving a sex ratio of 110 male deaths for every 100 female deaths. This ratio has decreased from 117 male deaths per 100 female deaths in 1989. Since 1989, male deaths have increased by 0.4% while female deaths have increased by 6.2%, due to the change in the age composition of the population.

Overall in 1999, the male standardised death rate (SDR) of 7.4 deaths per 1,000 population was 60% higher than the female SDR (4.6 deaths per 1,000 population). The male age-specific death rates for all age groups were at least 20% higher than female death rates at the same age. The greatest difference in age-specific death rates occurred in the 20–24 year and 25–29 year age groups where male death rates were 3 times higher than the female death rates. Overall, male and female age-specific death rates in 1999 showed the greatest similarity at the beginning (up until the 10–14 years age group) and end of life.

RATIO OF MALE TO FEMALE AGE-SPECIFIC DEATH RATES—1999



CAUSE OF DEATH BY AGE AND SEX

Certain conditions originating in the perinatal period were the leading cause of death among infants and were responsible for 45% of all infant deaths¹. The leading cause of death for males aged 1–4 years was accidental drowning (23%). In contrast, the leading cause of death for females in this age group was transport accidents (excluding water, air and space accidents) (19%). The leading causes of death for both males and females in the 5–14 years age group were transport accidents (excluding water, air and space accidents) and malignant neoplasms. These two causes were responsible for 45% of male and female deaths in the 5–14 years age group.

Transport accidents (excluding water, air and space accidents) were the leading cause of death for 15–19 year olds, contributing over one-third of male deaths and one-quarter of female deaths. Intentional self-harm was the second most common cause of death among 15–19 year olds with 18% of male and 13% of female deaths in this age group.

Intentional self-harm was the leading cause of male deaths throughout the 20–39 years age group, causing just under one-quarter of all deaths. Transport accidents (excluding water, air and space accidents) were the second most common cause and contributed around 15% of deaths.

¹ For further information on infant deaths see Section 5 *Infant Deaths*.

CAUSE OF DEATH BY AGE AND SEX continued

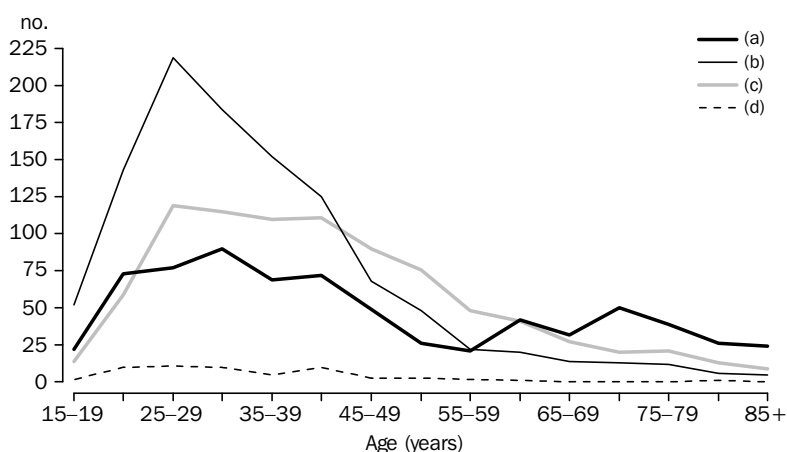
For females aged 20–24 years, the leading causes of death were transport accidents (excluding water, air and space accidents) (21%) and intentional self-harm (16%), while for those aged 25–29 years, malignant neoplasms and intentional self-harm contributed 18% and 17% of deaths respectively. Malignant neoplasms remained the dominant cause of death among women until age 80 years and beyond, when ischaemic heart disease was more common. Malignant neoplasms also dominated male deaths in the 40–79 years age group, with ischaemic heart disease being the leading cause from age 80 years.

Drug related deaths¹

In 1999, 2,000 male deaths and 690 female deaths were drug related. The majority of these deaths occurred in the 20–49 years age group (75% of male drug related deaths and 67% of female drug related deaths). Of all drug related deaths 40% were attributable to accidental poisoning by and exposure to noxious substances, 32% to intentional self-poisoning by and exposure to noxious substances and 26% to mental and behavioural disorders due to psychoactive substance use.

Drug related deaths contributed one-quarter of all male and female deaths in the 20–24 years age group. A large proportion of these deaths were due to accidental poisoning by and exposure to noxious substances (51% of male drug related deaths and 46% of female drug related deaths). One-third of all male deaths and around one-quarter of all female deaths for those aged 25–34 years old were drug related. Again, a large proportion of these deaths were due to accidental poisoning by and exposure to noxious substances (50% of male drug related deaths and 45% of female drug related deaths).

COMPONENTS OF DRUG RELATED DEATHS, by age—1999



(a) Mental and behavioural disorders due to psychoactive substance use (F10–F19)

(b) Accidental poisoning by and exposure to noxious substances (X40–X49)

(c) Intentional self-poisoning by and exposure to noxious substances (X60–X69)

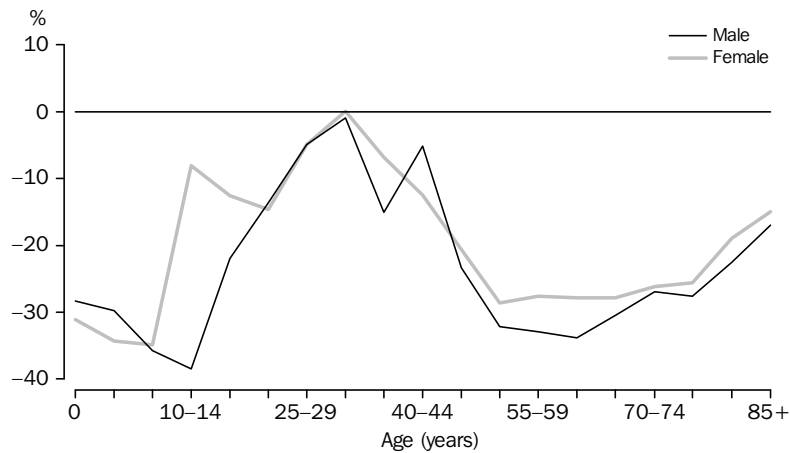
(d) Poisoning by and exposure to noxious substances—intent undetermined (Y10–Y19)

¹ The ICD-10 codes deaths involving drugs across several sections of the classification. For this reason a separate analysis has been conducted for drug related deaths. In this analysis drug related deaths refer to deaths caused by mental and behavioural disorders due to psychoactive substance use (F10–F19), accidental poisoning by and exposure to noxious substances (X40–X49), intentional self-poisoning and exposure to noxious substances (X60–X69), and poisoning by and exposure to noxious substances—intent undetermined (Y10–Y19).

DECLINES IN DEATH RATES

Between 1989 and 1999, the risk of dying has declined for people of almost all age groups. Since 1989, the infant mortality rate declined by 28% for males and 31% for females. The largest declines in male ASDRs occurred in the 10–14 years age group (38%), the 5–9 years age group (36%) and the 60–64 years age group (34%). Furthermore, no male ASDRs increased over this period. Female ASDRs declined substantially in the age groups of 5–9 years (35%), 1–4 years (34%) and 50–54 years (29%). However, the female ASDR for the 30–34 years age group did not decline (increasing by 0.1%).

PERCENTAGE CHANGE IN AGE-SPECIFIC DEATH RATES—1989–1999



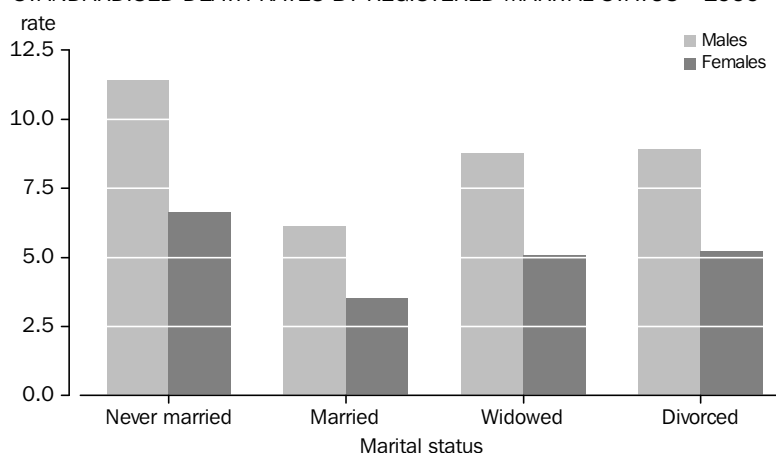
Although male ASDRs and SDRs have always been higher than females', in the last 20 years or so the gap has narrowed as males (mainly over 45 years) have experienced considerable declines in deaths from circulatory diseases. In 1979 males had an SDR of 11.3 deaths per 1,000 standard population, almost five deaths higher than the female SDR of 6.6 deaths per 1,000 standard population. By 1999, the male SDR was 7.4 deaths per 1,000 standard population, around three deaths higher than the female rate of 4.6 deaths per 1,000 standard population. Over the same period the difference in male and female life expectancy at birth also narrowed, from 7 years in 1979 (life expectancy of 70.9 years for males and 77.9 years for females) to 5.6 years in 1999 (life expectancy of 76.2 years for males and 81.8 years for females).

MARITAL STATUS

Of all men whose deaths were registered during 1999, 56% were married at the time of death, while 19% were widowed and 16% had never married. In contrast, of all women whose deaths were registered during 1999, 57% were widows at the time of death, with a further 27% being married and 10% never married. This difference is a consequence of the greater longevity of women.

SDRs by sex and marital status for 1999 indicate that males and females who had never married had death rates almost twice the death rates of their married counterparts. Both men and women who were widowed had slightly lower death rates than those who were divorced.

STANDARDISED DEATH RATES BY REGISTERED MARITAL STATUS—1999



The difference in ASDRs between never married and married males was highest in the 35–44 year and 25–34 year age groups (4.0 and 3.3 times higher respectively). Among females the greatest differences in ASDRs between never married and married females occurred in the 25–34, 35–44 and 55–64 year age groups (2.6 times higher each).

There are substantial differences in the ASDR by marital status for some causes of death. For example, the ASDR for drug-related deaths of never married males aged 25–34 years was seven times higher than that of married males of the same age. Similarly, for females aged 35–44 years, the ASDR due to intentional self-harm was four times higher for never married females than for married females.

The fact that married people have lower mortality than unmarried people has been observed in many studies over time and in different countries (Lillard & Panis 1996). The reasons for this have been debated for over 100 years (Farr 1858). Two main explanations have been put forward. The first suggests that marriage improves a person's health status, thus reducing the risk of death. Married people are less likely to participate in risky behaviour and more likely to nurture each other's health through promoting good diet and physical care. The second states that differentials are based on selection of healthier individuals into marriage. Particularly in a country like Australia, where marriage is far from universal, selectivity is likely to be an important factor.

AGE-SPECIFIC DEATH RATES(a), By Registered Marital Status—Selected causes of death:

AGE AND MARITAL STATUS AT

Cause of death	25–34 years.....		35–44 years.....		45–54 years.....		55–64 years.....	
	Never married	Married	Never married	Married	Never married	Married	Never married	Married
MALES								
Malignant neoplasms (C00–C97)	10	10	44	24	135	98	609	329
Ischaemic heart diseases (I20–I25)	4	3	32	11	134	46	498	147
Cerebrovascular diseases (I60–I69)	1	1	6	2	19	7	81	27
Chronic lower respiratory diseases (J40–J47)	1	—	1	1	15	2	101	22
Transport accidents, excluding water, air and space accidents (V01–V89)	26	11	21	8	15	7	19	9
Intentional self-harm (X60–X84)	48	14	58	18	61	16	47	14
Drug related deaths (F10–F19, X40–X49, X60–X69, Y10–Y19)(b)	68	10	94	11	62	9	43	9
Total	189	57	344	87	703	228	1 884	681
FEMALES								
Malignant neoplasms (C00–C97)	9	10	46	35	177	101	492	247
Ischaemic heart diseases (I20–I25)	1	—	8	2	28	8	158	44
Cerebrovascular diseases (I60–I69)	1	1	7	2	14	6	69	22
Chronic lower respiratory diseases (J40–J47)	1	1	3	—	10	4	50	16
Transport accidents, excluding water, air and space accidents (V01–V89)	7	3	8	2	14	3	6	6
Intentional self-harm (X60–X84)	14	3	14	4	19	5	9	3
Drug related deaths (F10–F19, X40–X49, X60–X69, Y10–Y19)(b)	21	4	27	5	22	4	13	4
Total	71	27	169	66	402	161	1 103	422

(a) Per 100,000 male or female estimated resident population by marital status, June 1999 revised.

(b) Drug related deaths include behavioural disorders due to psychoactive substance use, accidental poisoning by and exposure to noxious substances, intentional self-poisoning and exposure to noxious substances (a part of the intentional self-harm category) and poisoning by and exposure to noxious substances—intent unknown.

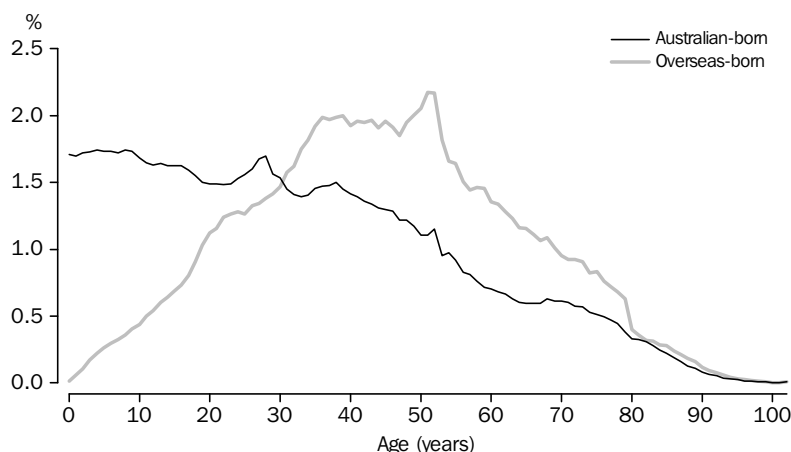
— nil or rounded to zero (including null cells)

COUNTRY OF BIRTH

Australia's overseas-born population accounted for 28% of deaths registered in 1999 despite making up only 23% of the resident population. The main reason for this is that the overseas-born population has an older age structure than the Australian-born population. The median age of the overseas-born population in 1999 was 45.1 years compared to 30.7 years for the Australian-born population.

COUNTRY OF BIRTH *continued*

POPULATION AGE STRUCTURE OF OVERSEAS AND AUSTRALIAN-BORN—1999



Adjusting for the older age structure of the overseas born population, it is apparent that migrants generally have lower death rates than the Australian-born population. This is true for nearly all migrant groups. The lowest death rates were among the Asian-born population.

Largest birthplace groups

Of the largest birthplace groups, Vietnamese-born residents had the lowest indirect standardised death rate (ISDR) in 1999, almost half (47% less) that of the total population. Philippino-born residents had an ISDR that was 46% less than the Australian total, while Chinese-born and Malaysian-born residents had ISDRs 43% and 38% below the national level. The lower ISDRs of these Asian born populations were reflected in all leading causes of death.

The European countries of birth with the lowest ISDRs were Greece (25% less than the total Australian rate) and Italy (16% less). Both South African-born residents and Indian-born residents had an ISDR 25% lower than the national rate.

These results support the view that migrants are, and have always been, a select group. Firstly, good health is one criteria on which Australian migrants are assessed. Secondly, migrants themselves have undertaken to move to another country, suggesting that they feel fit enough to cope with such a challenging change.

Residents born in English-speaking countries generally had death rates closer to the Australian level. The Australian-born population had a death rate 3% higher than the national death rate, while those born in the United Kingdom and New Zealand were 6% and 0.4% below the national rate respectively.

LARGEST BIRTHPLACE GROUPS, Indirect Standardised Death Rates(a)

LEADING CAUSES OF

	<i>Malignant neoplasms</i>	<i>Ischaemic heart diseases</i>	<i>Cerebrovascular diseases</i>	<i>Chronic lower respiratory diseases</i>	<i>Accidents</i>	<i>Total</i>	<i>Total deaths</i>
<i>Birthplace</i>	<i>rate</i>	<i>rate</i>	<i>rate</i>	<i>rate</i>	<i>rate</i>	<i>rate</i>	<i>no.</i>
Australia	188	150	67	35	29	695	91 775
China	124	67	46	18	13	387	714
Germany	193	152	66	25	33	684	1 366
Greece	150	106	52	15	15	510	1 199
India	109	137	42	28	12	506	520
Italy	158	117	48	17	27	570	3 305
Lebanon	127	202	71	10	16	651	344
Malaysia	135	105	49	7	14	421	160
Netherlands	212	138	55	25	31	671	1 246
New Zealand	175	139	72	30	38	673	1 489
Philippines	107	75	37	15	13	368	206
South Africa	153	122	43	21	17	504	283
United Kingdom	189	132	55	33	24	636	14 132
Viet Nam	117	30	53	12	19	357	310
Total Australia	185	146	65	32	28	676	128 102

(a) Per 100,000 population. Standardised using age-specific death rates for the 1999 Australian population.

GEOGRAPHICAL DIFFERENCES IN MORTALITY

Remoteness has been associated with health disadvantage and higher mortality rates through a number of factors including the isolation and distance to services, lack of health services, socioeconomic disparities, higher risk of accidents and Indigenous health needs (AIHW, 1998).

A number of attempts have been made to recognise and determine zones of remoteness in Australia. One is based on an index of accessibility developed by researchers at the University of Adelaide. The index, known as the Accessibility/Remoteness Index of Australia (ARIA) measures remoteness in terms of access along road networks to service centres (a hierarchy of urban centres with populations of 5,000 or more as at the 1996 Census). Populated localities¹ (places where people live) that are more remote have less access to these service centres while those that are less remote have greater access. The ARIA scores for the populated localities were interpolated on to a 1 kilometre grid for Australia and grouped into five categories; highly accessible, accessible, moderately accessible, remote, and very remote (DHAC, 1999).

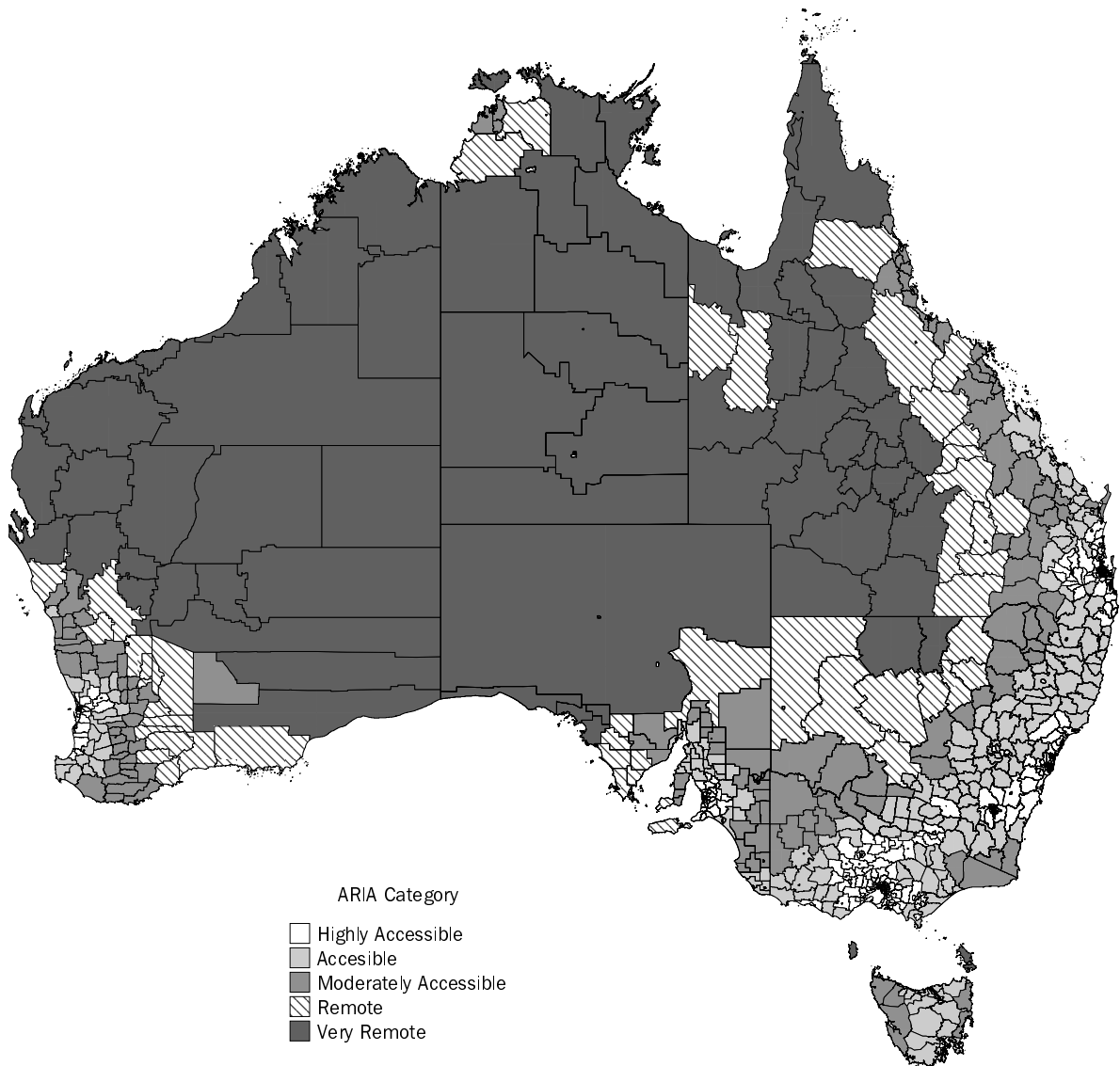
Each Statistical Local Area (SLA) has been allocated an ARIA category which is an average of all the 1 kilometre grid cells within the SLA. SLAs with the same ARIA category have been grouped together at the State and national level. The mortality differential between ARIA categories is represented by the indirect standardised death rate (ISDR) calculated from deaths registered in Australia in 1998².

¹ 11,340 point locations across Australia as defined by the Australian Surveying and Land Information Group.

² Data presented in this analysis has been coded to 1996 SLA boundaries for consistency.

GEOGRAPHICAL DIFFERENCES IN MORTALITY *continued*

ARIA CATEGORIES, by Statistical local areas



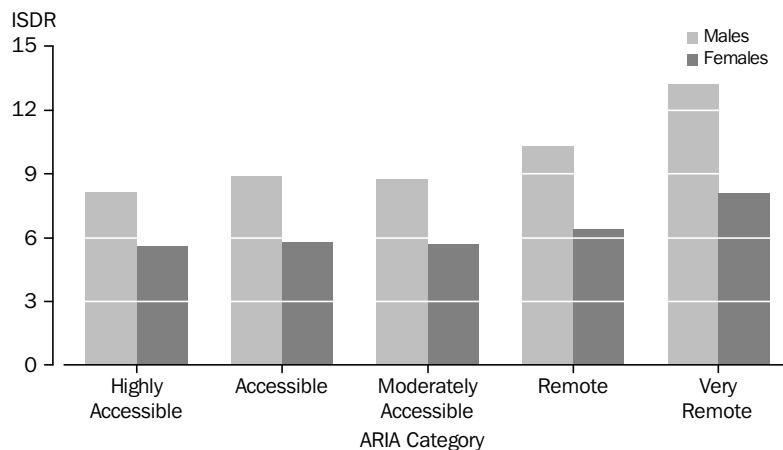
GEOGRAPHICAL DIFFERENCES IN MORTALITY *continued*

Because the ARIA category for each SLA is an average score, the larger the SLA (in geographical size) the greater will be the variance of its ARIA score. Defining remoteness regions by whole SLAs means that a considerable part of the SLA could be much less or much more remote than the average score. Therefore, the results of this analysis should be interpreted with caution.

Male and female mortality

Both male and female ISDRs increased with the level of remoteness. The male ISDR for the highly accessible category was lower than the national rate; 8.1 compared to 8.3 deaths per 1,000 population. The ISDR for females in the highly accessible category was the same as the national rate of 5.6 deaths per 1,000 population. All other ARIA categories had higher ISDRs than the national rate, ranging from 8.8 (moderately accessible) to 13.2 (very remote) deaths per 1,000 population for males and from 5.7 (moderately accessible) to 8.1 (very remote) deaths per 1,000 population for females.

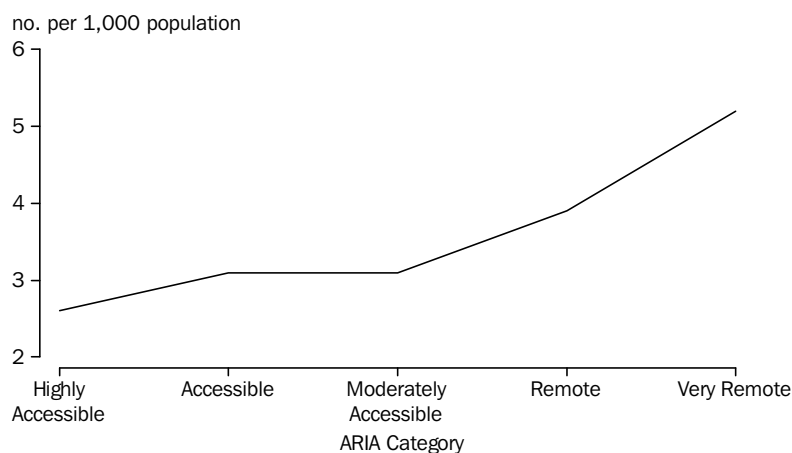
ISDR BY ARIA CATEGORY AND SEX—1998



Overall male ISDRs were higher than female ISDRs and this difference increased with the level of remoteness. At the national level, the difference between male and female ISDRs was 2.7 deaths per 1,000 population. For the highly accessible category the difference between male and female ISDRs was lower (2.6 deaths per 1,000 population). All other ARIA categories had a difference greater than at the national level, ranging from 3.1 (deaths per 1,000 population) for the moderately accessible category to 5.2 (deaths per 1,000 population) for the very remote category.

Male and female mortality *continued*

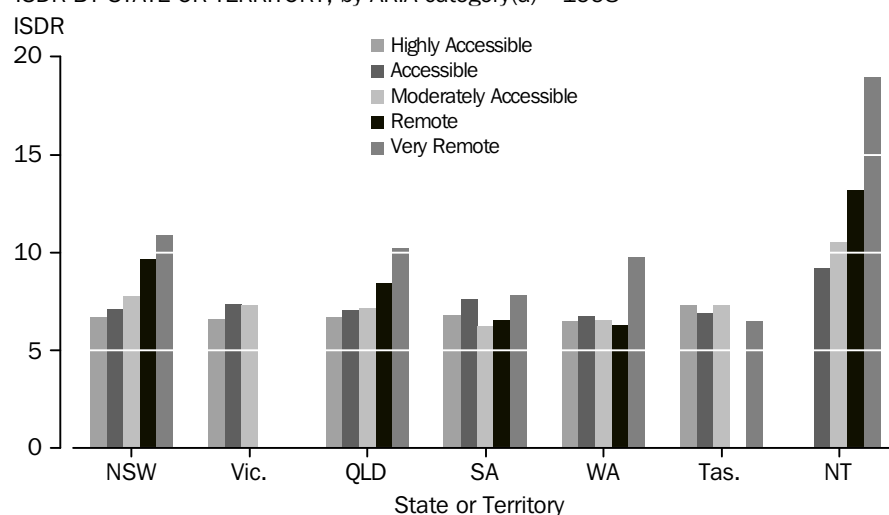
DIFFERENCE BETWEEN MALE AND FEMALE ISDRS, By ARIA Category—1998



State and Territory differences in mortality

Overall the Northern Territory had the highest ISDRs across all ARIA categories, apart from the highly accessible category¹. Tasmania had the highest ISDR for the highly accessible category (7.3 deaths per 1,000 population), while Western Australia had the lowest ISDR for this category (6.5 deaths per 1,000 population). The ISDRs for the accessible category ranged from 6.7 deaths per 1,000 population for Western Australia to 9.2 deaths per 1,000 population for the Northern Territory. South Australia had the lowest ISDR (6.3 deaths per 1,000 population) for the moderately accessible category, while 10.5 deaths per 1,000 population (Northern Territory) was the highest. Western Australian had the lowest ISDR of 6.3 deaths per 1,000 population for the remote category, while the Northern Territory had the highest (13.2 deaths per 1,000 population). The very remote category had the largest ISDR range of all the ARIA categories; 6.5 (Tasmania) to 19.0 (Northern Territory) deaths per 1,000 population.

ISDR BY STATE OR TERRITORY, by ARIA category(a)—1998



(a) Not all States and Territories contain all ARIA categories within their boundaries (refer to map on page 42 of this Section).

¹ The Northern Territory does not contain a highly accessible category within the Territory's bounds.

4.1 DEATHS, by Age and Sex—Selected Years

Age group (years)	1979	1984	1989	1994	1995	1996	1997	1998	1999
MALES									
0	1 441	1 258	1 136	866	807	843	744	706	812
1–4	299	275	226	201	206	205	206	199	164
5–9	206	133	138	112	112	115	99	102	95
10–14	227	223	172	144	130	147	133	126	112
15–19	876	629	742	533	492	541	572	506	547
20–24	1 068	1 003	953	842	916	866	857	870	841
25–29	839	736	1 047	831	849	876	938	992	1 027
30–34	765	809	956	968	1 046	1 019	950	1 067	976
35–39	818	827	1 085	1 096	1 157	1 125	1 078	1 137	1 066
40–44	1 115	1 119	1 201	1 294	1 262	1 324	1 321	1 311	1 302
45–49	1 925	1 488	1 576	1 757	1 738	1 757	1 718	1 628	1 664
50–54	3 300	2 497	2 333	2 202	2 212	2 281	2 416	2 354	2 386
55–59	4 757	4 412	3 682	3 151	3 083	3 051	3 044	3 054	3 102
60–64	5 890	6 150	6 070	4 958	4 712	4 636	4 581	4 351	4 166
65–69	8 051	7 290	8 366	7 911	7 531	7 349	7 078	6 677	6 305
70–74	8 686	9 418	9 581	10 091	9 952	9 987	9 818	9 590	9 573
75–79	7 997	8 915	10 878	10 517	9 949	10 474	10 583	10 754	11 167
80–84	5 551	6 878	8 786	10 028	10 068	10 664	10 476	10 221	9 809
85–89	3 647	3 735	5 386	6 529	6 701	7 089	7 193	7 357	7 806
90–94	1 475	1 702	1 988	2 713	2 669	3 035	3 100	3 235	3 425
95–99	277	432	539	617	575	718	735	758	786
100 and over	28	43	81	96	80	90	105	71	87
Not stated	19	15	4	7	4	14	7	7	9
Total	59 257	59 987	66 926	67 464	66 251	68 206	67 752	67 073	67 227
FEMALES									
0	1 093	904	868	646	642	617	597	546	596
1–4	242	181	191	160	151	146	121	148	129
5–9	157	104	103	84	93	73	86	61	72
10–14	104	118	91	104	113	106	81	87	89
15–19	301	251	262	187	214	184	221	237	215
20–24	348	315	313	255	293	228	284	258	269
25–29	314	306	319	276	289	296	320	308	315
30–34	359	337	389	352	414	364	431	374	406
35–39	427	504	488	534	494	556	553	574	531
40–44	623	617	754	740	729	713	746	760	787
45–49	981	847	940	1 056	1 030	1 059	1 072	1 059	1 085
50–54	1 609	1 360	1 281	1 272	1 334	1 380	1 457	1 507	1 390
55–59	2 348	2 092	1 912	1 770	1 728	1 823	1 813	1 715	1 727
60–64	3 133	3 290	3 222	2 622	2 540	2 518	2 484	2 420	2 377
65–69	4 409	4 336	4 716	4 389	4 227	4 024	3 990	3 633	3 440
70–74	5 509	6 210	6 425	6 480	6 357	6 301	6 294	5 994	5 879
75–79	6 766	7 183	8 767	8 358	8 214	8 480	8 304	8 427	8 567
80–84	7 461	8 268	9 758	10 922	10 865	11 013	11 174	10 785	10 561
85–89	6 601	6 876	8 725	9 937	9 973	10 632	11 183	10 886	11 641
90–94	3 396	4 247	5 488	6 226	6 305	6 934	7 142	7 106	7 563
95–99	1 002	1 371	1 961	2 368	2 368	2 587	2 696	2 698	2 706
100 and over	122	204	332	487	509	467	545	545	528
Not stated	6	6	—	3	—	3	4	—	—
Total	47 311	49 927	57 306	59 228	58 882	60 513	61 598	60 129	60 875

— nil or rounded to zero (including null cells)

4.2 AGE SPECIFIC DEATH RATES(a), by Sex—Selected Years

Age group (years)	1979	1984	1989	1994	1995	1996	1997	1998	1999
MALES									
0	12.7	10.3	8.9	6.6	6.1	6.4	5.7	5.5	6.4
1–4	0.6	0.6	0.4	0.4	0.4	0.4	0.4	0.4	0.3
5–9	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1
10–14	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2
15–19	1.3	1.0	1.0	0.8	0.8	0.8	0.9	0.8	0.8
20–24	1.7	1.5	1.4	1.2	1.3	1.2	1.2	1.3	1.2
25–29	1.4	1.1	1.5	1.2	1.2	1.2	1.3	1.3	1.4
30–34	1.3	1.3	1.4	1.3	1.4	1.4	1.3	1.5	1.4
35–39	1.8	1.4	1.7	1.6	1.6	1.5	1.5	1.5	1.4
40–44	2.8	2.4	1.9	2.0	1.9	2.0	1.9	1.9	1.8
45–49	5.0	3.7	3.3	2.8	2.7	2.7	2.6	2.5	2.5
50–54	8.3	6.6	5.7	4.6	4.5	4.4	4.3	4.0	3.9
55–59	13.3	11.5	9.9	8.0	7.6	7.3	7.0	6.8	6.7
60–64	21.1	18.3	16.6	14.0	13.3	13.1	12.7	11.8	11.0
65–69	33.7	29.2	27.3	23.8	22.5	21.8	21.0	20.0	19.0
70–74	52.7	47.3	45.2	38.3	36.9	36.2	34.9	33.5	33.0
75–79	80.2	74.0	72.6	64.4	58.7	58.3	55.7	53.6	52.6
80–84	121.3	112.6	114.0	101.8	98.1	100.8	96.6	92.9	88.3
85 and over	204.5	195.8	200.0	186.9	176.6	181.3	174.0	167.2	166.1
FEMALES									
0	10.1	7.7	7.1	5.2	5.1	5.0	4.9	4.5	4.9
1–4	0.5	0.4	0.4	0.3	0.3	0.3	0.2	0.3	0.3
5–9	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1
10–14	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1
15–19	0.5	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.3
20–24	0.6	0.5	0.5	0.4	0.4	0.3	0.4	0.4	0.4
25–29	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4
30–34	0.6	0.5	0.6	0.5	0.6	0.5	0.6	0.5	0.6
35–39	1.0	0.9	0.8	0.8	0.7	0.8	0.7	0.8	0.7
40–44	1.6	1.4	1.3	1.1	1.1	1.1	1.1	1.1	1.1
45–49	2.7	2.2	2.1	1.8	1.7	1.7	1.7	1.6	1.6
50–54	4.2	3.8	3.3	2.8	2.8	2.8	2.7	2.6	2.3
55–59	6.5	5.6	5.3	4.6	4.4	4.5	4.3	4.0	3.8
60–64	10.3	9.2	8.7	7.3	7.1	7.1	6.8	6.5	6.3
65–69	16.0	15.0	13.8	12.4	11.9	11.3	11.3	10.4	9.9
70–74	26.5	24.6	24.2	20.4	19.7	19.3	19.2	18.2	17.8
75–79	45.1	40.8	40.8	36.7	35.2	34.8	32.5	31.5	30.4
80–84	80.4	73.2	72.9	65.3	63.0	62.4	62.4	59.9	59.1
85 and over	163.2	152.6	159.9	149.2	142.6	145.7	144.6	136.1	136.1

(a) Per 1,000 population.

4.3 DEATHS, by Age and Sex—States and Territories

Age group (years)	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.(a)
MALES									
0	281	188	159	50	70	27	24	13	812
1–4	52	35	30	10	30	—	3	—	164
5–9	31	28	16	6	8	3	—	—	95
10–14	32	24	24	8	13	7	—	—	112
15–19	168	112	116	37	77	17	16	3	547
20–24	262	206	154	59	100	22	25	4	841
25–29	344	248	181	78	111	19	31	13	1 027
30–34	338	221	171	75	94	29	31	15	976
35–39	381	236	190	91	100	29	24	16	1 066
40–44	437	301	241	114	123	33	34	15	1 302
45–49	561	390	320	126	167	49	21	19	1 664
50–54	837	534	482	168	229	62	36	29	2 386
55–59	1 099	988	640	211	264	74	48	37	3 102
60–64	1 491	1 495	788	323	374	118	48	48	4 166
65–69	2 294	2 382	1 151	543	520	194	50	36	6 305
70–74	3 474	2 794	1 721	833	780	256	39	58	9 573
75–79	4 002	2 394	1 875	1 090	926	348	37	88	11 167
80–84	3 506	2 024	1 783	889	808	323	16	90	9 809
85–89	2 706	2 024	1 354	739	672	230	15	66	7 806
90–94	1 205	882	606	316	297	82	6	31	3 425
95–99	247	211	164	63	69	27	—	4	786
100 and over	28	21	14	11	10	—	—	—	87
Not stated	6	—	—	—	—	—	—	—	9
Total	23 782	16 433	12 180	5 840	5 843	1 954	509	682	67 227
FEMALES									
0	223	143	107	28	47	19	18	11	596
1–4	45	22	32	5	12	6	3	4	129
5–9	24	17	15	3	9	—	3	—	72
10–14	22	23	21	11	8	—	3	—	89
15–19	78	43	40	20	22	5	6	—	215
20–24	90	68	48	19	22	10	7	5	269
25–29	89	86	63	18	41	8	6	4	315
30–34	120	116	70	39	34	8	13	6	406
35–39	175	128	116	31	41	18	9	12	531
40–44	245	191	145	70	91	17	18	10	787
45–49	384	235	192	90	89	45	24	26	1 085
50–54	443	331	271	114	145	50	18	18	1 390
55–59	591	418	333	150	138	42	27	28	1 727
60–64	905	532	416	199	203	76	21	25	2 377
65–69	1 221	863	624	272	272	123	21	44	3 440
70–74	2 123	1 463	1 023	523	472	172	40	63	5 879
75–79	3 033	2 253	1 459	765	666	278	37	76	8 567
80–84	3 773	2 685	1 819	970	850	322	27	114	10 561
85–89	4 112	3 024	1 969	1 084	987	341	14	110	11 641
90–94	2 633	1 956	1 338	723	637	207	6	63	7 563
95–99	905	749	478	268	208	71	4	23	2 706
100 and over	197	139	90	50	40	7	—	5	528
Not stated	—	—	—	—	—	—	—	—	3
Total	21 433	15 485	10 669	5 451	5 034	1 829	323	649	60 875

(a) Includes Other Territories.

— nil or rounded to zero (including null cells)

4.4 AGE-SPECIFIC DEATH RATES(a), by Sex—States and Territories

Age group (years)	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.(b)
MALES									
0	6.4	6.2	6.6	5.4	5.5	8.4	13.2	6.2	6.4
1–4	0.3	0.3	0.3	0.3	0.6	0.2	0.4	0.2	0.3
5–9	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1
10–14	0.1	0.1	0.2	0.2	0.2	0.4	0.1	0.3	0.2
15–19	0.7	0.7	0.9	0.7	1.1	1.0	2.1	0.3	0.8
20–24	1.2	1.2	1.2	1.2	1.4	1.5	2.8	0.9	1.2
25–29	1.4	1.3	1.3	1.4	1.5	1.2	2.9	1.2	1.4
30–34	1.4	1.2	1.3	1.4	1.3	1.9	3.3	1.4	1.4
35–39	1.5	1.3	1.4	1.6	1.3	1.6	2.7	1.2	1.4
40–44	1.8	1.7	1.9	2.1	1.7	1.9	4.4	1.6	1.8
45–49	2.5	2.4	2.6	2.4	2.5	2.9	3.0	2.5	2.5
50–54	4.1	3.6	4.2	3.4	3.8	4.1	6.1	3.5	3.9
55–59	6.9	6.3	7.3	5.7	5.9	6.1	11.7	6.8	6.7
60–64	11.4	10.4	11.4	10.3	10.6	11.8	20.7	7.1	11.0
65–69	19.7	17.6	19.7	18.8	17.5	21.5	34.5	14.9	19.0
70–74	34.1	32.2	33.9	31.1	31.5	32.9	39.7	28.4	33.0
75–79	53.2	51.8	50.4	54.6	52.4	61.8	70.7	41.6	52.6
80–84	88.9	85.7	89.9	84.2	90.7	104.5	69.9	84.9	88.3
85 and over	170.5	161.9	166.0	163.0	163.7	176.0	119.2	161.3	166.1
FEMALES									
0	5.4	5.0	4.7	3.1	3.8	6.1	10.5	5.3	4.9
1–4	0.3	0.2	0.3	0.1	0.2	0.5	0.4	0.5	0.3
5–9	0.1	0.1	0.1	0.0	0.1	0.1	0.2	0.1	0.1
10–14	0.1	0.1	0.2	0.2	0.1	0.1	0.3	0.0	0.1
15–19	0.4	0.3	0.3	0.4	0.3	0.3	0.9	0.1	0.3
20–24	0.4	0.4	0.4	0.4	0.3	0.7	0.9	0.4	0.4
25–29	0.4	0.5	0.5	0.3	0.6	0.5	0.6	0.3	0.4
30–34	0.5	0.6	0.5	0.7	0.5	0.5	1.5	0.5	0.6
35–39	0.7	0.7	0.8	0.5	0.5	1.0	1.1	0.9	0.7
40–44	1.0	1.1	1.1	1.2	1.3	0.9	2.6	0.8	1.1
45–49	1.7	1.4	1.6	1.7	1.3	2.7	4.0	2.1	1.6
50–54	2.2	2.2	2.5	2.3	2.6	3.3	3.8	1.7	2.3
55–59	3.8	3.7	4.0	4.0	3.3	3.5	9.3	4.1	3.8
60–64	6.9	5.5	6.3	6.1	5.9	7.5	11.9	5.1	6.3
65–69	10.0	9.6	10.5	8.9	9.0	13.0	17.8	11.0	9.9
70–74	18.1	17.1	18.3	17.1	17.4	19.6	48.9	17.2	17.8
75–79	30.2	30.7	31.1	28.4	29.2	35.8	68.8	24.4	30.4
80–84	59.0	58.8	59.8	56.9	59.3	63.1	85.4	63.5	59.1
85 and over	135.9	134.8	142.4	131.9	132.3	141.3	87.0	140.5	136.1

(a) Per 1,000 population.

(b) Includes Other Territories.

4.5 REGIONAL PATTERNS OF MORTALITY

	Deaths 1999	Estimated resident population June 1999(a)	Crude death rate(b)	Indirect standardised death rate(c)	SEIFA index of disadvantage(d)
Statistical Division	no.	no.	rate	rate	index
.....					
New South Wales					
Sydney	25 776	4 031 944	6.5	5.9	1 028
Hunter	4 573	571 465	8.1	6.3	970
Illawarra	2 816	384 588	7.3	6.0	979
Richmond–Tweed	1 722	208 791	8.3	5.9	960
Mid-North Coast	2 480	270 697	9.0	6.0	947
Northern	1 407	174 546	8.1	6.6	977
North-Western	960	117 314	8.1	7.2	952
Central West	1 505	172 900	8.4	7.0	982
South-Eastern	1 511	181 182	8.0	6.4	1 001
Murrumbidgee	1 154	148 621	7.7	6.7	989
Murray	873	110 467	8.2	6.5	994
Far West	237	24 188	10.2	7.2	919
Total(e)	45 215	6 396 703	7.1	6.1	1 007
Victoria					
Melbourne	21 423	3 413 894	6.5	5.7	1 025
Barwon	1 849	245 343	7.9	6.0	996
Western District	837	98 954	8.8	6.5	1 001
Central Highlands	1 135	137 221	8.4	6.8	989
Wimmera	505	51 453	10.2	6.3	1 006
Mallee	717	88 118	8.7	6.7	983
Loddon–Campaspe	1 298	161 263	8.2	6.3	999
Goulburn	1 454	186 500	7.8	6.1	992
Ovens–Murray	680	90 452	7.6	6.3	1 007
East Gippsland	717	80 652	8.6	6.5	985
Gippsland	1 230	153 740	8.0	6.5	983
Total(e)	31 918	4 707 590	6.9	5.9	1 016
Queensland					
Brisbane	9 930	1 598 916	6.2	5.9	1 011
Moreton	4 671	674 870	6.9	5.6	981
Wide Bay–Burnett	1 845	232 625	7.8	6.0	926
Darling Downs	1 556	201 133	7.5	6.2	982
South-West	194	25 671	7.6	7.4	961
Fitzroy	1 094	180 920	6.0	6.6	972
Central West	83	12 236	7.1	6.0	967
Mackay	626	125 781	5.0	6.1	984
Northern	1 255	196 995	6.5	6.9	984
Far North	1 290	222 107	5.6	6.6	977
North-West	193	35 627	5.3	8.7	941
Total(e)	22 849	3 506 881	6.5	6.0	988

(a) Revised.

(b) Per 1,000 population. It is the average crude death rate 1997–1999.

(c) Per 1,000 population. It is the average indirect standardised death rate 1997–1999.

(d) Socio-Economic Indexes for Areas as defined from the 1996 Census of Population and Housing. Recoded to 1999 Statistical Division boundaries for consistency.

(e) Includes not stated, no fixed abode or overseas residents.

4.5 REGIONAL PATTERNS OF MORTALITY *continued*

	Deaths 1999	Estimated resident population June 1999(a)	Crude death rate(b)	Indirect standardised death rate(c)	SEIFA index of disadvantage(d)
Statistical Division	no.	no.	rate	rate	index
South Australia					
Adelaide	8 283	1 092 369	7.8	5.9	992
Outer Adelaide	713	109 018	6.8	5.3	1 002
Yorke and Lower North	463	44 038	10.8	6.5	956
Murray Lands	545	68 404	7.9	5.9	940
South-East	444	62 877	7.1	6.0	977
Eyre	257	33 234	7.4	5.8	964
Northern	567	82 468	7.3	6.7	927
Total(e)	11 291	1 492 408	7.8	6.0	984
Western Australia					
Perth	8 027	1 361 675	6.0	5.7	1 019
South-West	1 194	182 500	6.4	5.8	965
Lower Great Southern	329	51 747	6.7	5.7	982
Upper Great Southern	126	19 696	6.9	6.0	1 004
Midlands	264	52 600	5.3	5.0	979
South-Eastern	292	58 669	4.6	7.4	981
Central	315	60 149	5.2	5.6	962
Pilbara	108	41 077	2.5	7.0	993
Kimberley	161	29 473	5.6	10.5	906
Total(e)	10 877	1 857 586	5.9	5.8	1 006
Tasmania					
Greater Hobart	1 581	194 389	8.1	6.7	1 000
Southern	242	34 730	6.9	6.3	942
Northern	1 111	133 169	8.0	6.3	967
Mersey-Lyell	834	108 515	7.7	6.6	945
Total(e)	3 783	470 803	7.9	6.5	974
Northern Territory					
Darwin	305	88 052	3.6	7.6	1 029
Northern Territory—Balance	495	104 672	5.0	12.1	903
Total(e)	832	192 724	4.4	10.1	962
Australian Capital Territory					
Canberra	1 327	308 973	4.2	5.5	1 092
Total(e)	1 331	309 295	4.2	5.5	1 091
Australia	128 102	18 937 166	6.8	6.8	1 000.0

(a) Revised.

(b) Per 1,000 population. It is the average crude death rate 1997–1999.

(c) Per 1,000 population. It is the average indirect standardised death rate 1997–1999.

(d) Socio-Economic Indexes for Areas as defined from the 1996 Census of Population and Housing. Recoded to 1999 Statistical Division boundaries for consistency.

(e) Includes not stated, no fixed abode or overseas residents.

4.6 DEATHS, by Age, Sex and Marital Status

MALES.....							FEMALES.....						
Age group (years)	Never married	Married	Widowed	Divorced	Not stated(a)	Total	Never married	Married	Widowed	Divorced	Not stated(a)	Total	
.....													
0	812	—	—	—	—	812	596	—	—	—	—	596	
1–4	164	—	—	—	—	164	129	—	—	—	—	129	
5–9	95	—	—	—	—	95	72	—	—	—	—	72	
10–14	112	—	—	—	—	112	89	—	—	—	—	89	
15–19	421	3	—	—	124	547	151	—	—	—	64	215	
20–24	794	24	—	—	23	841	237	17	—	—	14	269	
25–29	832	124	—	17	52	1 027	214	71	3	15	12	315	
30–34	619	246	—	63	47	976	184	154	4	41	23	406	
35–39	517	367	3	114	65	1 066	153	268	5	81	24	531	
40–44	461	551	3	204	83	1 302	166	462	16	116	27	787	
45–49	394	871	16	292	91	1 664	153	671	27	183	51	1 085	
50–54	412	1 416	41	422	95	2 386	138	884	90	237	41	1 390	
55–59	479	1 945	70	498	110	3 102	147	1 121	155	265	39	1 727	
60–64	527	2 712	206	559	162	4 166	203	1 464	389	284	37	2 377	
65–69	753	4 158	481	739	174	6 305	204	1 833	983	358	62	3 440	
70–74	976	6 365	1 254	775	203	9 573	344	2 537	2 480	457	61	5 879	
75–79	831	7 298	2 148	678	212	11 167	450	2 869	4 744	424	80	8 567	
80–84	650	5 799	2 800	408	152	9 809	644	2 170	7 279	388	80	10 561	
85–89	501	3 962	3 064	213	66	7 806	785	1 343	9 151	312	50	11 641	
90–94	183	1 285	1 844	79	34	3 425	606	383	6 412	128	34	7 563	
95–99	43	201	517	12	13	786	251	51	2 359	34	11	2 706	
100 and over	—	14	71	—	—	87	57	9	448	8	6	528	
Not stated	—	—	—	3	7	9	—	—	—	—	—	3	
Total	10 578	37 340	12 521	5 075	1 713	67 227	5 973	16 307	34 545	3 332	718	60 875	

(a) Includes de facto as only some States and Territories include this category as an option on the death certificate.

— nil or rounded to zero (including null cells)

4.7 AGE-SPECIFIC DEATH RATES(a), by Sex and Marital Status

MALES.....						FEMALES.....				
Age group (years)	<i>Never married</i>	<i>Married</i>	<i>Widowed</i>	<i>Divorced</i>	<i>Total</i>	<i>Never married</i>	<i>Married</i>	<i>Widowed</i>	<i>Divorced</i>	<i>Total</i>
0	6.4	—	—	—	6.4	4.9	—	—	—	4.9
1–4	0.3	—	—	—	0.3	0.3	—	—	—	0.3
5–9	0.1	—	—	—	0.1	0.1	—	—	—	0.1
10–14	0.2	—	—	—	0.2	0.1	—	—	—	0.1
15–19	0.6	1.9	—	—	0.8	0.2	—	—	—	0.3
20–24	1.2	0.6	—	—	1.2	0.4	0.2	—	0.4	0.4
25–29	1.7	0.5	3.6	1.3	1.4	0.6	0.2	2.2	0.6	0.4
30–34	2.3	0.6	0.9	1.8	1.4	1.0	0.3	1.3	0.8	0.6
35–39	2.9	0.7	1.6	1.9	1.4	1.3	0.5	0.9	1.1	0.7
40–44	4.2	1.1	1.0	2.8	1.8	2.3	0.9	1.7	1.3	1.1
45–49	5.7	1.7	3.4	3.7	2.5	3.4	1.3	1.8	1.9	1.6
50–54	8.9	2.9	6.1	5.7	3.9	4.9	2.0	3.7	2.7	2.3
55–59	15.9	5.2	8.0	9.5	6.7	8.1	3.3	4.4	4.5	3.8
60–64	22.6	8.8	16.9	15.4	11.0	14.8	5.4	7.3	7.1	6.3
65–69	36.2	15.6	25.2	28.1	19.0	16.2	8.3	11.8	12.2	9.9
70–74	55.7	28.1	45.2	43.0	33.0	26.9	14.6	20.4	21.6	17.8
75–79	71.4	46.5	63.8	67.7	52.6	37.9	25.7	32.6	32.1	30.4
80–84	116.2	79.4	97.7	106.5	88.3	71.2	50.3	60.3	68.3	59.1
85 and over	185.3	147.7	182.2	166.7	166.1	159.7	95.4	138.6	161.5	136.1

(a) Per 1,000 population.

— nil or rounded to zero (including null cells)

4.8 DEATHS, by Selected Countries of Birth—Males(a)

		<i>Australia</i>	<i>China</i>	<i>Germany</i>	<i>Greece</i>	<i>India</i>	<i>Italy</i>	<i>Lebanon</i>
Deaths	no.	46 910	411	708	734	259	1 979	213
Population(b)	'000	7 204.2	77.1	58.8	72.4	55.7	130.4	41.3
Crude death rate(c)	rate	6.5	5.3	12.1	10.1	4.6	15.2	5.2
Median age at death	years	74.6	76.2	70.4	72.1	74.7	74.9	69.8
Age at death (years)								
0	no.	809	—	—	—	—	—	—
1–4	no.	158	—	—	—	—	—	—
5–14	no.	191	—	—	—	—	—	—
15–24	no.	1 203	—	3	—	—	—	3
25–34	no.	1 660	5	6	3	4	7	9
35–44	no.	1 825	18	5	9	8	12	6
45–54	no.	2 815	14	73	38	17	71	33
55–64	no.	4 744	48	128	148	29	220	33
65–74	no.	10 587	100	237	254	73	688	56
75–84	no.	14 634	140	158	170	67	610	42
85 and over	no.	8 281	85	98	114	60	370	30
Not stated	no.	3	—	—	—	—	—	—
Leading causes of death(d)								
Malignant neoplasms (C00–C97)	rate	246	152	235	185	107	202	136
Ischaemic heart diseases (I20–I25)	rate	203	97	242	140	164	147	255
Cerebrovascular diseases (I60–I69)	rate	71	58	92	59	48	51	95
Chronic lower respiratory diseases (J40–J47)	rate	51	32	35	25	38	26	8
Accidents (V01–X59)	rate	41	20	44	21	18	31	21
<i>Total causes</i>	rate	890	515	901	641	565	689	784

(a) See Glossary for definitions of the terms used.

(b) Estimated male resident population by country of birth, June 1999 revised.

(c) Per 1,000 male estimated resident population by country of birth, June 1999 revised.

(d) ISDR per 100,000 population. Standardised using age-specific death rates for the 1999 Australian population.

— nil or rounded to zero (including null cells)

4.8 DEATHS, by Selected Countries of Birth—Males(a) *continued*

		Malaysia	Netherlands	New Zealand	Philippines	South Africa	United Kingdom	Viet Nam
Deaths	no.	88	754	820	89	141	7 361	175
Population(b)	'000	43.5	47.7	183.0	44.7	36.4	615.9	86.5
Crude death rate(c)	rate	2.0	15.8	4.5	2.0	3.9	12.0	2.0
Median age at death	years	(d)	75.2	66.8	(d)	73.9	77.3	59.9
Age at death (years)								
0	no.	—	—	—	—	—	—	—
1–4	no.	—	—	3	—	—	—	—
5–14	no.	—	—	—	—	—	—	—
15–24	no.	6	—	26	5	—	32	17
25–34	no.	—	5	72	4	—	91	13
35–44	no.	6	12	85	8	7	158	26
45–54	no.	13	38	91	6	18	357	19
55–64	no.	18	83	106	11	20	779	19
65–74	no.	22	231	160	20	24	1 647	55
75–84	no.	16	278	165	30	35	2 494	21
85 and over	no.	6	106	110	5	33	1 803	5
Not stated	no.	—	—	—	—	—	—	—
Leading causes of death(e)								
Malignant neoplasms (C00–C97)	rate	161	281	196	124	179	237	148
Ischaemic heart diseases (I20–25)	rate	158	183	167	116	156	172	45
Cerebrovascular diseases (I60–I69)	rate	59	58	71	51	66	55	64
Chronic lower respiratory diseases (J40–J47)	rate	7	41	38	25	24	42	18
Accidents (V01–X59)	rate	24	40	60	15	24	32	29
Total causes	rate	524	871	814	475	610	772	450

(a) See Glossary for definitions of the terms used.

(b) Estimated male resident population by country of birth, June 1999 revised.

(c) Per 1,000 male estimated resident population by country of birth, June 1999 revised.

(d) Not statistically reliable due to the small numbers involved.

(e) ISDR per 100,000 population. Standardised using age-specific death rates for the 1999 Australian population.

— nil or rounded to zero (including null cells)

4.9 DEATHS, by Selected Countries of Birth—Females(a)

		<i>Australia</i>	<i>China</i>	<i>Germany</i>	<i>Greece</i>	<i>India</i>	<i>Italy</i>	<i>Lebanon</i>
Deaths	no	44 865	303	658	465	261	1 326	131
Population(b)	'000	7 314.0	82.4	61.2	69.9	48.2	114.7	37.6
Crude death rate(c)	rate	6.1	3.7	10.8	6.7	5.4	11.6	3.5
Median age at death	years	81.6	80.4	76.7	76.5	79.6	81.5	73.1
Age at death (years)								
0	no.	594	—	—	—	—	—	—
1–4	no.	123	—	—	—	—	—	—
5–14	no.	150	—	—	—	—	—	—
15–24	no.	413	3	3	—	—	—	3
25–34	no.	582	—	4	—	5	—	—
35–44	no.	1 015	7	8	8	—	7	4
45–54	no.	1 723	4	51	24	12	41	17
55–64	no.	2 819	23	46	78	19	120	17
65–74	no.	6 631	55	167	107	51	246	31
75–84	no.	14 187	103	210	98	91	405	39
85 and over	no.	16 627	108	169	149	82	506	20
Not stated	no.	—	—	—	—	—	—	—
Leading causes of death(d)								
Malignant neoplasms (C00–C97)	rate	145	100	161	114	111	111	117
Ischaemic heart diseases (I20–I25)	rate	117	46	97	75	117	88	147
Cerebrovascular diseases (I60–I69)	rate	65	38	51	46	37	44	48
Chronic lower respiratory diseases (J40–J47)	rate	24	7	19	6	21	8	13
Accidents (V01–X59)	rate	18	6	24	10	6	23	11
<i>Total causes</i>	rate	565	289	544	386	459	454	511

(a) See Glossary for definitions of the terms used.

(b) Estimated female resident population by country of birth, June 1999 revised.

(c) Per 1,000 female estimated resident population by country of birth, June 1999 revised.

(d) ISDR per 100,000 population. Standardised using age-specific death rates for the 1999 Australian population.

— nil or rounded to zero (including null cells)

4.9 DEATHS, by Selected Countries of Birth—Females(a) *continued*

		Malaysia	Netherlands	New Zealand	Philippines	South Africa	United Kingdom	Viet Nam
Deaths	no.	72	492	669	117	142	6 771	135
Population(b)	'000	48.8	43.1	174.0	76.1	36.7	599.1	87.1
Crude death rate(c)	rate	1.5	11.4	3.8	1.5	3.9	11.3	1.5
Median age at death	years	(d)	80.1	78.1	71.8	79.6	83.4	67.7
Age at death (years)								
0	no.	—	—	—	—	—	—	—
1–4	no.	3	—	—	—	—	—	—
5–14	no.	—	—	4	—	—	—	—
15–24	no.	3	—	14	3	3	10	8
25–34	no.	3	—	21	3	—	29	7
35–44	no.	6	7	33	9	3	85	8
45–54	no.	5	26	71	20	11	206	12
55–64	no.	12	40	64	11	11	452	20
65–74	no.	9	84	82	21	22	962	32
75–84	no.	27	187	165	39	39	2 014	36
85 and over	no.	8	146	213	11	53	3 012	12
Not stated	no.	—	—	—	—	—	—	—
Leading causes of death(e)								
Malignant neoplasms (C00–C97)	rate	114	145	155	99	132	148	92
Ischaemic heart diseases (I20–I25)	rate	65	101	118	55	100	103	19
Cerebrovascular diseases (I60–I69)	rate	41	52	72	30	29	55	45
Chronic lower respiratory diseases (J40–J47)	rate	6	11	24	9	20	25	7
Accidents (V01–X59)	rate	6	23	17	12	10	17	9
<i>Total causes</i>	rate	339	496	555	314	430	534	282

(a) See Glossary for definitions of the terms used.

(b) Estimated female resident population by country of birth, June 1999 revised.

(c) Per 1,000 female estimated resident population by country of birth, June 1999 revised.

(d) Not statistically reliable due to the small numbers involved.

(e) ISDR per 100,000 population. Standardised using age-specific death rates for the 1999 Australian population.

— nil or rounded to zero (including null cells)

4.10 DEATHS, by Country of Birth and Duration of Residence

DURATION OF RESIDENCE

	0-4	5-9	10-19	20-29	30-39	40 and over	Not stated	Not applicable	Total	Median duration
Country of birth	no.	no.	no.	no.	no.	no.	no.	no.	no.	years
Oceania and Antarctica										
Australia (incl E T)	..	..	..	..	..	..	..	91 775	91 775	..
Fiji	21	19	44	23	8	27	29	..	171	14.5
New Zealand	107	90	331	183	127	396	255	..	1 489	23.4
Papua New Guinea	4	—	14	22	7	14	10	..	71	(a)
Other	29	20	40	15	4	12	52	..	172	11.4
Total	161	129	429	243	146	450	350	91 775	93 678	21.4
North-West Europe										
Austria	4	3	3	6	38	202	23	..	279	44.7
Denmark	—	3	4	8	10	38	10	..	72	(a)
France	4	—	5	20	18	39	15	..	102	(a)
Germany	18	20	55	60	170	909	134	..	1 366	45.2
Ireland	12	—	44	67	104	340	76	..	644	44.8
Netherlands	7	4	22	35	154	934	90	..	1 246	45.5
Switzerland	3	3	6	3	8	31	9	..	61	(a)
United Kingdom	188	194	979	1 615	2 936	6 985	1 235	..	14 132	42.0
Other	6	4	10	20	52	99	22	..	213	40.3
Total	243	229	1 128	1 834	3 490	9 577	1 614	..	18 115	43.4
Southern and Eastern Europe										
Bosnia and Herzegovina	18	11	—	23	17	25	5	..	99	(a)
Croatia	7	7	7	63	142	195	22	..	443	39.3
Cyprus	—	—	5	25	22	90	5	..	148	47.2
Former Yugoslav Republic of Macedonia	6	5	23	80	100	44	13	..	271	30.7
Greece	6	13	32	97	419	583	49	..	1 199	40.2
Hungary	3	—	20	25	41	359	46	..	495	43.8
Italy	13	7	51	118	720	2 267	129	..	3 305	44.8
Malta	—	—	4	22	98	349	24	..	498	45.2
Poland	13	16	75	29	105	985	87	..	1 310	49.5
Portugal	—	—	9	21	25	4	5	..	65	(a)
Romania	7	11	18	10	16	67	5	..	134	41.8
Russian Federation	11	12	14	17	23	169	27	..	273	48.5
Spain	4	—	6	21	54	14	5	..	105	32.3
Yugoslavia, Federal Republic of	18	10	21	96	114	247	38	..	544	39.1
Other	30	35	52	46	89	1 023	115	..	1 390	49.7
Total	138	130	337	693	1 985	6 421	575	..	10 279	44.9
North Africa and the Middle East										
Egypt	5	5	18	50	100	188	22	..	388	40.6
Iran	5	3	12	13	3	—	7	..	44	(a)
Israel	—	—	3	11	6	38	—	..	63	(a)
Lebanon	3	20	44	101	54	90	32	..	344	29.3
Syria	—	3	—	9	9	—	—	..	25	(a)
Turkey	—	7	16	61	31	38	7	..	162	29.3
Other	11	9	19	20	19	22	13	..	113	27.3
Total	28	46	114	265	222	379	85	..	1 139	31.8

(a) Not statistically reliable due to the small numbers involved.

.. not applicable

— nil or rounded to zero (including null cells)

4.10 DEATHS, by Country of Birth and Duration of Residence *continued*

DURATION OF RESIDENCE

	0-4	5-9	10-19	20-29	30-39	40 and over	Not stated	Not applicable	Total	Median duration
Country of birth	no.	no.	no.	no.	no.	no.	no.	no.	no.	years
South-East Asia										
Cambodia	3	8	30	3	—	—	3	..	48	(a)
Indonesia	17	15	42	18	17	56	19	..	184	23.5
Laos	—	—	16	12	—	—	4	..	34	(a)
Malaysia	16	13	61	34	10	15	11	..	160	16.6
Philippines	24	29	93	28	9	3	22	..	206	12.3
Singapore	26	—	19	15	9	13	3	..	86	(a)
Thailand	4	4	10	6	—	3	3	..	31	(a)
Viet Nam	15	81	147	51	—	3	14	..	310	14.3
Other	4	3	8	27	23	16	3	..	84	(a)
Total	110	156	426	194	72	105	80	..	1 143	16.2
North-East Asia										
China (exc SARs & Taiwan Province)	61	70	250	101	45	131	56	..	714	17.3
Hong Kong (SAR of China)	4	7	27	12	7	15	15	..	87	(a)
Japan	10	3	8	—	5	12	16	..	54	(a)
Korea, Republic of (South)	13	8	33	14	—	—	16	..	84	(a)
Other	8	4	11	—	—	—	4	..	27	(a)
Total	96	92	329	127	57	158	107	..	966	16.4
Southern and Central Asia										
India	30	26	68	134	92	146	24	..	520	29.6
Pakistan	3	3	6	3	4	5	3	..	22	(a)
Sri Lanka	20	19	46	52	41	33	23	..	234	27.0
Other	5	8	11	6	—	—	—	..	33	(a)
Total	57	54	131	194	138	184	51	..	809	28.2
Americas										
Argentina	3	—	8	16	8	7	3	..	45	(a)
Canada	6	3	15	24	29	70	18	..	165	38.8
Caribbean	—	—	5	4	3	—	2	..	15	(a)
Central America	—	7	11	3	3	—	3	..	27	(a)
Chile	—	5	26	20	—	—	3	..	55	(a)
United States of America	13	12	28	56	42	77	50	..	278	30.6
Uruguay	3	3	12	19	—	—	5	..	41	(a)
Other	5	3	5	13	9	6	—	..	43	(a)
Total	29	33	110	155	96	161	85	..	669	28.3
Sub-saharan Africa										
Kenya	3	—	—	5	5	3	3	..	19	(a)
Mauritius	—	3	20	24	30	4	3	..	84	(a)
South Africa	20	10	82	38	40	64	29	..	283	22.8
Zimbabwe	4	3	9	3	8	3	5	..	32	(a)
Other	4	7	9	12	16	8	3	..	59	(a)
Total	31	21	122	82	99	79	43	..	477	26.1
Other and not stated	4	—	3	4	7	30	779	..	827	(a)
Total	897	890	3 129	3 791	6 312	17 544	3 769	91 770	128 102	41.8

(a) Not statistically reliable due to the small numbers involved.

.. not applicable

— nil or rounded to zero (including null cells)

FEATURE ARTICLE—DEATHS OF PEOPLE
AGED 25–39 YEARS

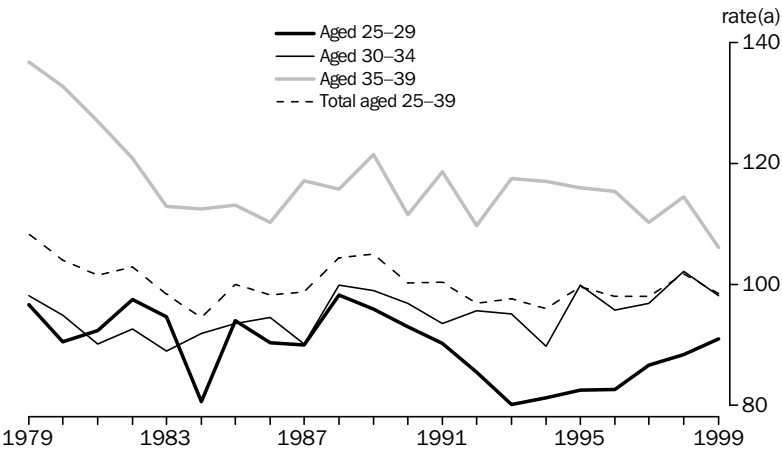
INTRODUCTION

Over the past 10 years, declining death rates have increased the Australian life-expectancy at birth by around 3 years for males and 2 years for females. While overall death rates have declined by around one-fifth since 1989, the death rates for people aged 25–39 years have not undergone the same general decline. In 1999, 4,300 deaths (3% of all deaths) occurred in this age group.

Since 1989, the age-specific death rate (ASDR) among 25–39 year olds decreased by 6% overall, from 105 per 100,000 in 1989 to 99 per 100,000 in 1999. The decrease in the male death rate (7%) was more than double that of the female death rate (3%). Those aged 30–34 years had the smallest improvement in the death rate over the 1989–99 period. Females aged 30–34 years were the only group for which death rates did not decline (increasing by 0.1%). The death rate for males in this age group decreased by just under 1%. Persons aged 25–29 years had the second smallest improvement, with death rates for both males and females decreasing by 5%.

The ASDR for persons aged 25–39 has not declined steadily over time. Since a peak of 108 deaths per 100,000 population in 1979, the death rate dropped to a low of 95 per 100,000 population in 1984 before rising again to 105 per 100,000 population in 1989. These continuing fluctuations mean that the death rates registered for this age group in 1999 are little different to those which occurred throughout much of the 1980s and 90s.

AGE-SPECIFIC DEATH RATES, Persons Aged 25–39—1979–1999

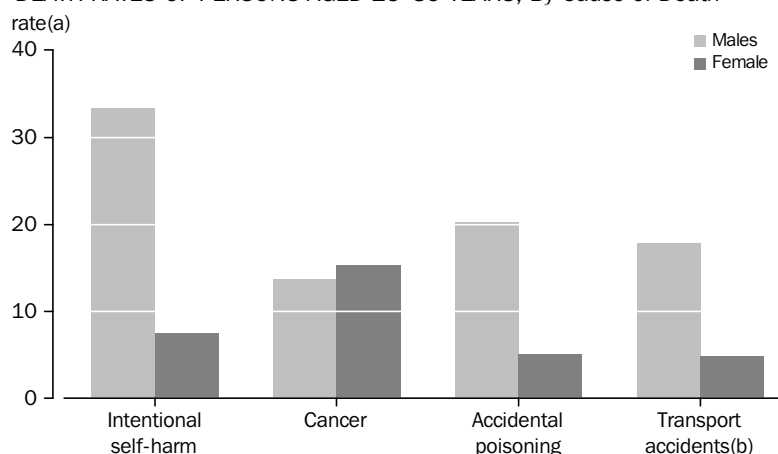


(a) ASDR per 100,000 population.

LEADING CAUSES OF DEATH¹

In 1999, the leading causes of death among 25–39 year olds were intentional self-harm (21% of all deaths), malignant neoplasms (cancer) (15% of all deaths), accidental poisoning by, and exposure to, noxious substances (accidental poisoning) (13% of all deaths) and transport accidents (excluding water, air and space accidents) (12% of all deaths). For each of these except cancer, the death rate for males was considerably higher than that for females, consistent with the fact that the ASDR for males in this age group was approximately two and a half times that for females.

DEATH RATES OF PERSONS AGED 25–39 YEARS, By Cause of Death



(a) ASDR per 100,000 male or female population aged 25–39 years.

(b) Excluding water, air and space accidents.

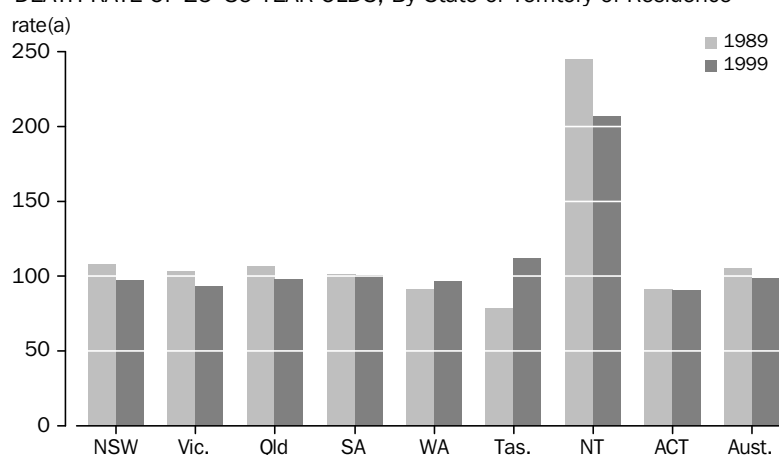
Overall, males accounted for more than 70% of all deaths in this age group. Among the leading causes of death, males comprised 82% of all deaths due to intentional self-harm, 80% of deaths due to accidental poisoning and 78% of deaths due to transport accidents, but less than half (47%) of all cancer deaths.

STATE OR TERRITORY

In 1999, death rates for 25–39 year olds varied among the States and Territories. The ASDR for this age group was lowest in the ACT (91 per 100,000 population) and Victoria (94 per 100,000 population), 8% and 5% lower than the Australian rate of 99 per 100,000 population. The highest death rate was recorded in the Northern Territory (207 per 100,000 population), which was more than twice the Australian rate despite a 15% decrease since 1989 (245 per 100,000 population). Tasmania had the second highest death rate in this age group, increasing 43% from 78 per 100,000 population in 1989 (the lowest death rate in that year) to 112 per 100,000 population in 1999. This was comprised of almost identical increases in both male and female death rates. Western Australia was the only other State to register an increase in the death rate over this period, rising from 91 per 100,000 population in 1989 to 96 per 100,000 in 1999. This increase reflected a 25% increase in the female death rate, rising from 43 per 100,000 female population to 54 per 100,000; the death rate for Western Australian males remained virtually unchanged.

¹ ICD codes 10th revision: Intentional self-harm (X60–X84), cancer (C00–C97), transport accidents (excluding water, air and space accidents) (V01–V89), and accidental poisoning by, and exposure to, noxious substances (X40–X49).

DEATH RATE OF 25–39 YEAR OLDS, By State or Territory of Residence



(a) ASDR per 100,000 male or female population aged 25–39 years.

Consistent with the high national death rate for intentional self-harm, this was the leading cause of death for persons aged 25–39 years in most States and Territories during 1999. Tasmania had the highest rate at 31 per 100,000 population, compared with the Australian death rate of 20 per 100,000 population. Although deaths attributable to intentional self-harm were lowest in the ACT (17 per 100,000 population), it was still the leading cause of death in that region.

In Victoria, accidental poisoning by, and exposure to, noxious substances was the leading cause of death (21 per 100,000 population, compared with the Australian rate of 13 per 100,000 population). Victorian males and females each registered the highest rates for accidental poisoning, at 33 per 100,000 male population and 10 per 100,000 female population respectively. Transport accidents (excluding water, air and space accidents) were the leading cause of death in the Northern Territory at 27 per 100,000 population, more than double the Australian rate (11 per 100,000). This reflected a particularly high male death rate of 45 per 100,000 male population, compared with 18 per 100,000 for males in this age group Australia-wide.

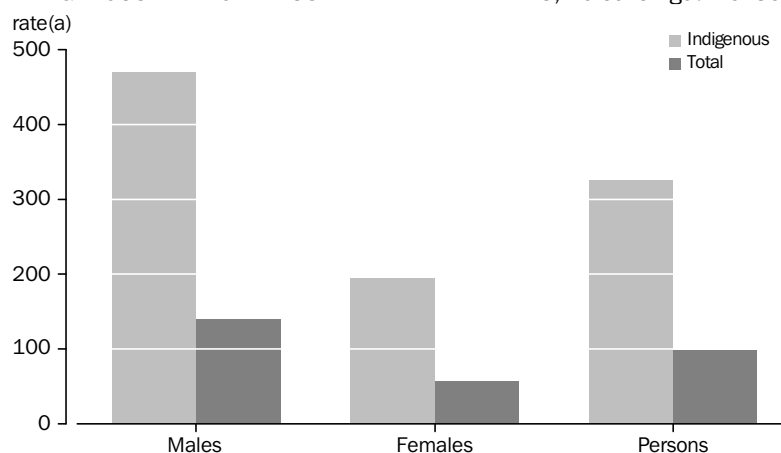
For females, cancer was the leading cause of death in all States and Territories, accounting for between 14% (in the Northern Territory) and 41% (in the ACT) of all female deaths in this age group.

INDIGENOUS DEATHS¹

The general contrast in the health and social conditions between the Indigenous and total population is highlighted by the significantly higher death rates among Indigenous Australians. Based on registered deaths in 1999, the ASDRs for Indigenous males and females aged 25–39 were more than three times higher than the corresponding ASDRs for total Australian males and females in this age group.

¹ Rates in this section are calculated using the 1996-based Indigenous population projections (low series). See Experimental Projections of the Aboriginal and Torres Strait Islander Population 1996–2006 (Cat. no. 3231.0).

INDIGENOUS AND TOTAL AUSTRALIAN DEATH RATES, Persons Aged 25–39 Years



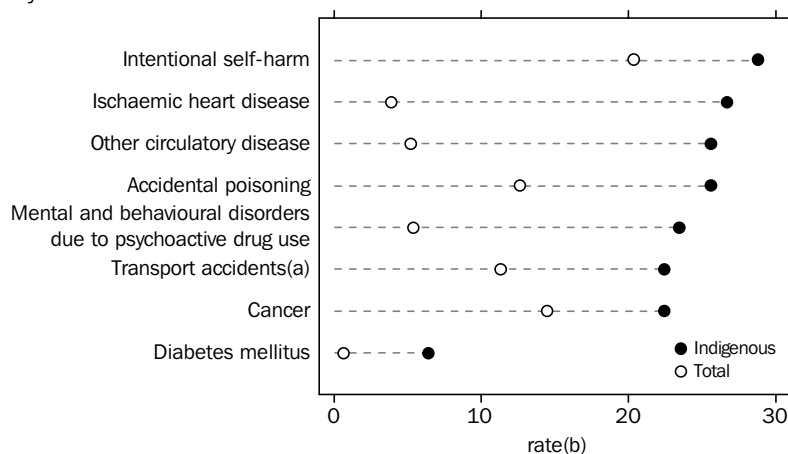
(a) ASDR per 100,000 male or female population aged 25–39 years.

The causes of Indigenous deaths are less concentrated than for total Australian deaths. Whereas 60% of all deaths of persons aged 25–39 could be attributed to four leading causes, the four top causes of Indigenous deaths accounted for just 32% of all Indigenous deaths. As with the total Australian population, intentional self-harm was the leading cause of death among Indigenous 25–39 year olds, accounting for 9% of all Indigenous deaths in this age group (11% of Indigenous male deaths and 4% of Indigenous female deaths). The 25–39 years ASDR for intentional self-harm was 29 deaths per 100,000 Indigenous population, compared with 20 deaths per 100,000 population in total.

The second leading cause of death among Indigenous 25–39 year olds was ischaemic heart disease, accounting for 8% of all Indigenous deaths. For Indigenous males, the ischaemic heart disease death rate was 49 deaths per 100,000 Indigenous male population, around 8 times the corresponding death rate for all males aged 25–39 years (6 per 100,000 male population). For Indigenous females, the ischaemic heart disease rate of 6 deaths per 100,000 Indigenous female population was almost four times greater than the rate for all females aged 25–39 years (2 per 100,000 female population). Overall, circulatory diseases (including ischaemic heart disease) were responsible for 16% of all deaths of Indigenous 25–39 year olds. In contrast, circulatory diseases caused 9% of total deaths in this age group.

Accidental poisoning by, and exposure to, noxious substances was the third leading cause of death for Indigenous persons aged 25–39, although the disparity between the Indigenous death rate and total death rate was less marked than for ischaemic heart disease. The accidental poisoning death rates for Indigenous males and females (43 per 100,000 male Indigenous population and 10 per 100,000 female Indigenous population, respectively) were each approximately double the corresponding death rates for all males and all females in this age group (20 per 100,000 male population and 5 per 100,000 female population, respectively). Indigenous persons also had relatively high death rates for mental and behavioural disorders due to psychoactive substance use, which was the fourth leading causing of death among Indigenous 25–39 year olds. The 25–39 years Indigenous death rate of 23 per 100,000 Indigenous population was more than four times that for all Australians in this age group (5 per 100,000 population).

INDIGENOUS AND TOTAL AUSTRALIAN DEATH RATES, Persons Aged 25–39 Years— By Cause of Death



(a) Excluding water, air and space accidents.

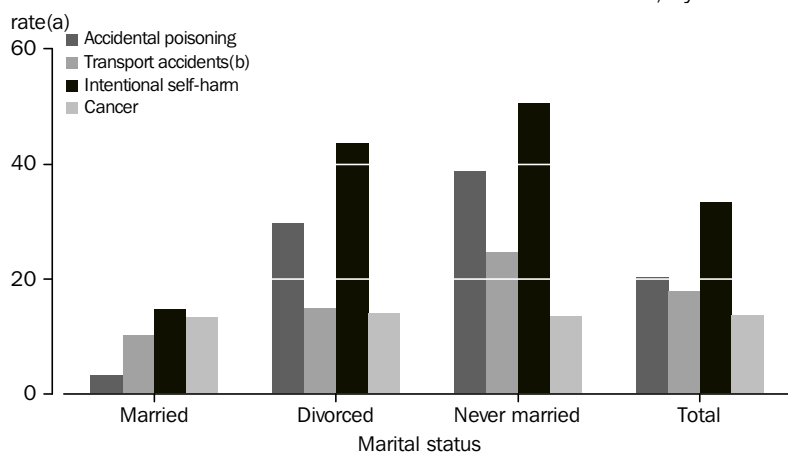
(b) ASDR per 100,000 population aged 25–39 years.

MARITAL STATUS

Death rates for both males and females were highest among those who were never married or divorced. In 1999, married people comprised 57% of the population aged 25–39 years, while never married people made up 37% and divorced people made up 6%. Compared to the total male death rate for this age group, males who were never married had a death rate around 50% higher and divorced males had a death rate 29% higher. Among females, the death rate of the never married group was 43% higher than the overall female death rate, while the divorced female death rate was 60% higher. In contrast, males and females who were married had death rates that were 48% and 33% lower than the respective total death rates in this age group.

Among never married males, deaths due to accidental poisoning, transport accidents and intentional self-harm were each higher than the corresponding rates for other males (90%, 38% and 52% higher respectively than for all males in this age group). Deaths due to cancer were evenly distributed across each marital status group.

REGISTERED MARITAL STATUS OF MALES AGED 25–39 YEARS, By Cause of Death



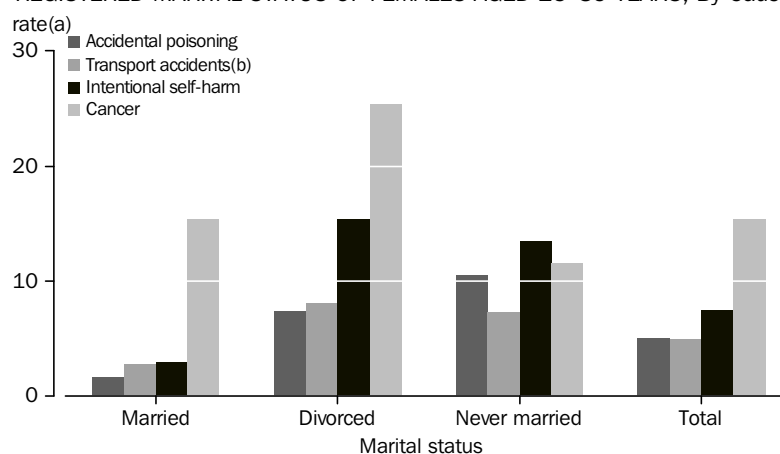
(a) ASDR per 100,000 male population aged 25–39 years by marital status.

(b) Excluding water, air and space accidents.

MARITAL STATUS *continued*

Divorced females had the highest overall female death rate, registering particularly high death rates for cancer (66% higher than the total female cancer death rate) and intentional self-harm (more than double the total rate). Never married females had the highest rate for deaths due to accidental poisoning, approximately double the rate for all females in this age group. Both divorced and never married females had death rates around one and a half times the overall female death rate for transport accident deaths. Cancer was the only major cause of death for which married females had a similar rate to the overall rate.

REGISTERED MARITAL STATUS OF FEMALES AGED 25–39 YEARS, By Cause of Death



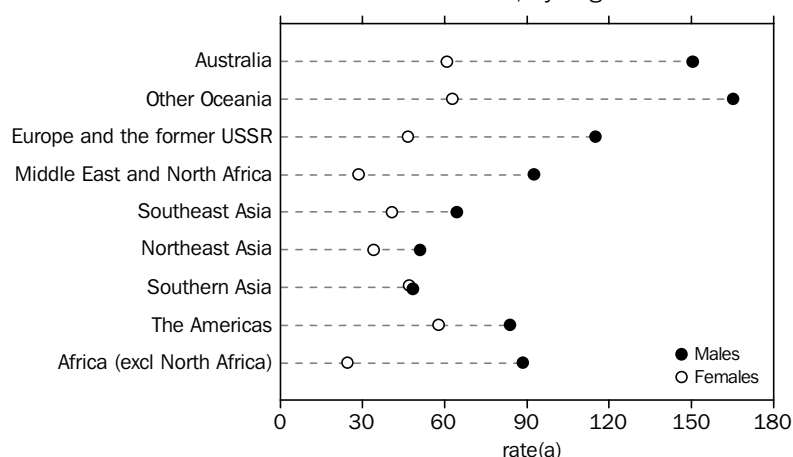
(a) ASDR per 100,000 female population aged 25–39 years by marital status.

(b) Excluding water, air and space accidents.

COUNTRY OF BIRTH

In 1999, Australian-born persons aged 25–39 years were slightly over-represented among death registrations. While 75% of the population aged 25–39 years were Australian-born, they comprised 81% of all deaths in this age group. Australian-born males comprised 81% of all male deaths and Australian-born females comprised 80% of all female deaths. Consequently, the death rate for Australian-born men was 151 per 100,000 Australian-born male population, around 8% higher than the overall male death rate of 140 deaths per 100,000 male population. Similarly, the death rate for Australian-born females (61 per 100,000 Australian-born female population) was almost 7% higher than the overall female death rate (57 per 100,000 female population).

DEATH RATES OF PERSONS AGED 25–39 YEARS, By Region of Birth

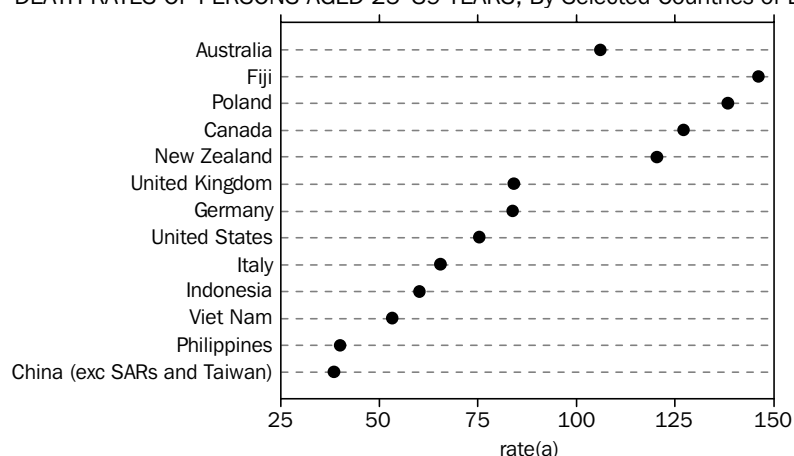


(a) ASDR per 100,000 male or female population aged 25–39 years by region of birth.

COUNTRY OF BIRTH *continued*

Persons born in countries including New Zealand, Canada, Poland and Fiji had death rates in excess of those of Australian-born persons. The death rate for persons born in Fiji (146 per 100,000 Fijian-born) was 38% higher than the rate for Australian-born, and 48% higher than the total death rate in this age group. In contrast, persons from Asian countries generally had much lower death rates than the Australian-born population. For example China (39 per 100,000 Chinese-born population), the Philippines (40 per 100,000 Philippines-born population) and Viet Nam (53 per 100,000 Vietnamese-born population) were all well below the Australian-born rate of 106 per 100,000 Australian-born population.

DEATH RATES OF PERSONS AGED 25–39 YEARS, By Selected Countries of Birth



(a) ASDR per 100,000 population aged 25–39 years by country of birth.

The over-representation of Australian-born persons in deaths statistics is not limited to the 25–39 year old age group. Death registrations for 1999 indicate that the death rates of migrants living in Australia are generally lower than the death rates of the Australian-born population, and the population in total. This suggests that the strict eligibility criteria applied to immigrants contribute to the selection of a particularly healthy and resilient group of people (see Section 4).

SECTION **5**

INFANT DEATHS

INFANT DEATHS

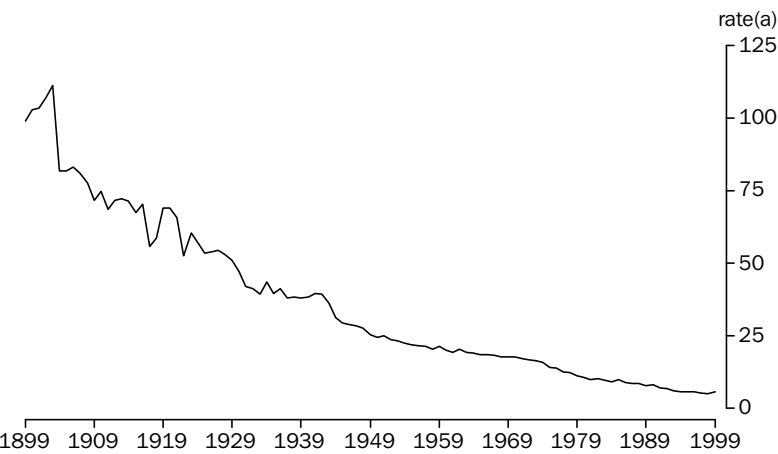
In 1999, 1,400 infants deaths (deaths of children less than one year of age) were registered in Australia. This was an increase of 12% on the number registered in 1998 (1,300). However, the long-term trend in infant deaths is one of decline. The number of infant deaths registered in 1999 was 30% lower than the number registered in 1989 (2,000), and 44% lower than in 1979 (2,500).

The infant mortality rate (IMR) of 5.7 deaths per 1,000 live births in 1999 was 14% higher than in 1998, reflecting the increase in the number of infant deaths in 1999, together with a decline in the number of births. The 1999 IMR was 29% lower than in 1989 (8.0 deaths per 1,000 live births), and 50% lower than in 1979 (11.4 deaths per 1,000 live births).

For the second consecutive year South Australia had the lowest IMR, 4.3 in 1999. The Northern Territory IMR of 11.7 was the highest of the States and Territories, but was below the 1998 level of 12.4. New South Wales, Tasmania and the Northern Territory had IMRs above the national level in 1999, while Queensland matched the national level. Compared to 1989, the largest decrease in the IMR (42%, from 7.4 to 4.3) occurred in South Australia, while the smallest decrease occurred in both Victoria and the ACT (each declining 14% from 6.5 to 5.6).

In the last 100 years, Australia's infant mortality has declined by 94%. In 1899, 1 in 10 infants born did not survive to their first birthday (IMR of 99). Today, only 1 in 177 infants born will not survive their first year of life (IMR of 5.7). The early decline in infant mortality has been linked to improvements in public sanitation and health education. Later declines may be a consequence of the introduction of universal health insurance (Medicare) and improvements in medical technology, such as neonatal intensive care units (Taylor et al. 1998).

INFANT MORTALITY RATE, 1899—1999



(a) Per 1,000 live births.

SEX

Over the last twenty years male infant deaths have consistently outnumbered female infant deaths. In 1999, male infant deaths (812) outnumbered female infant deaths (596) by 36%. However as male births outnumbered female births by 5% the difference in the IMR was 31%, with 6.4 male and 4.9 female deaths per 1,000 live births. In the last twenty years the male IMR has been consistently higher than the female IMR (by between 18% and 33%), reflecting the greater vulnerability of male infants to death (Waldron, 1983).

LEADING CAUSES OF INFANT DEATHS

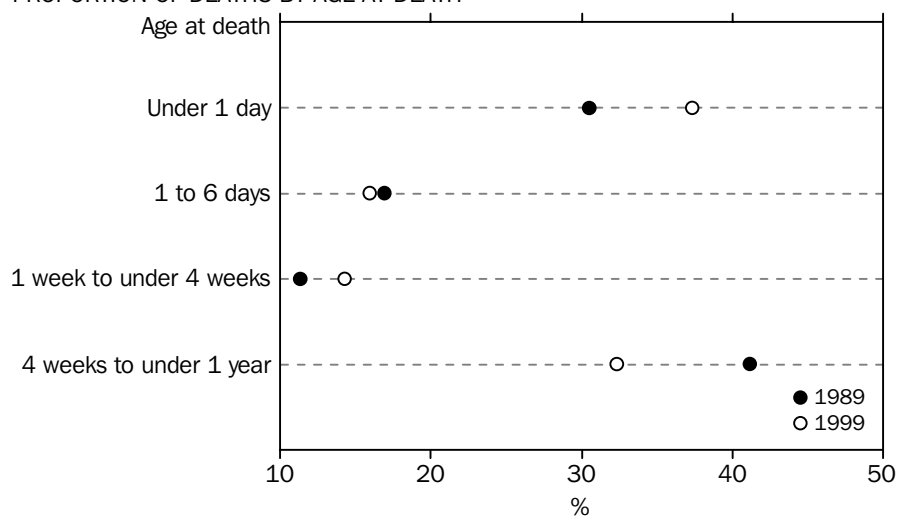
In 1999 the leading cause of infant deaths was the group of conditions classified as 'certain conditions originating in the perinatal period'. This group of causes (which includes disorders relating to short gestation, birth trauma and respiratory distress) was responsible for 640 deaths or 45% of the total infant deaths. Over half (56%) of these deaths were due to maternal conditions and complications of pregnancy, labour and delivery. Congenital malformations, deformations and chromosomal abnormalities were responsible for 30% (430) of infant deaths, while sudden infant death syndrome (SIDS) was responsible for 11% (160) of all infant deaths. In contrast, SIDS contributed to 23% of all infant deaths in 1989.

AGE AT DEATH

In 1999, 37% of all infant deaths occurred within the first day from birth, with a further 30% of all infant deaths occurring in the remainder of the neonatal period (first four weeks of life). Between 1989 and 1999, declines in infant deaths have not been uniform across different age-groups. Deaths that occurred between one month and one year of age experienced the greatest decline over the ten year period (45%), followed by deaths of infants aged one day to six days (34% decline). Smallest reductions were evident in the age groups one week to under four weeks (11% decline) and under one day (14% decline).

A higher proportion of infant deaths occurred within the first day of life in 1999 (37%) compared with 1989 (30%). Conversely, a lower proportion of deaths occurred between one month and one year of age in 1999 (32%) compared with 1989 (41%).

PROPORTION OF DEATHS BY AGE AT DEATH



5.1 INFANT DEATHS, By Age at Death and Sex

Selected years	NEONATAL.....			POST NEONATAL		TOTAL	
	Early neonatal.....			Late neonatal	Total		
	Under one day	One day to six days	Total under one week	One week and under four weeks	Under four weeks	Four weeks and under one year	Under one year
MALES							
1979	528	270	798	148	946	495	1 441
1984	409	212	621	135	756	502	1 258
1989	345	183	528	125	653	483	1 136
1994	326	153	479	107	586	280	866
1995	313	118	431	103	534	273	807
1996	313	133	446	100	546	297	843
1997	262	132	394	91	485	259	744
1998	228	132	360	114	474	232	706
1999	293	148	441	112	553	259	812
FEMALES							
1979	435	194	629	112	741	352	1 093
1984	309	128	437	91	528	376	904
1989	266	157	423	103	526	342	868
1994	238	113	351	71	422	224	646
1995	241	97	338	85	423	219	642
1996	244	92	336	82	418	199	617
1997	239	94	333	81	414	183	597
1998	198	83	281	87	368	178	546
1999	233	77	310	90	400	196	596
PERSONS							
1979	963	464	1 427	260	1 687	847	2 534
1984	718	340	1 058	226	1 284	878	2 162
1989	611	340	951	228	1 179	825	2 004
1994	564	266	830	178	1 008	504	1 512
1995	554	215	769	188	957	492	1 449
1996	557	225	782	182	964	496	1 460
1997	501	226	727	172	899	442	1 341
1998	426	215	641	201	842	410	1 252
1999	526	225	751	202	953	455	1 408

5.2 INFANT MORTALITY RATES(a), By Age at Death and Sex

Selected years	NEONATAL.....				POST NEONATAL		TOTAL
	Early neonatal.....			Late neonatal	Total		
	Under one day	One day to six days	Total under one week	One week and under four weeks	Under four weeks	Four weeks and under one year	Under one year
MALES							
1979	4.6	2.4	7.0	1.3	8.3	4.3	12.6
1984	3.4	1.8	5.2	1.1	6.3	4.2	10.5
1989	2.7	1.4	4.1	1.0	5.1	3.8	8.8
1994	2.5	1.2	3.6	0.8	4.4	2.1	6.5
1995	2.4	0.9	3.3	0.8	4.1	2.1	6.1
1996	2.4	1.0	3.4	0.8	4.2	2.3	6.5
1997	2.0	1.0	3.1	0.7	3.8	2.0	5.8
1998	1.8	1.0	2.8	0.9	3.7	1.8	5.5
1999	2.3	1.2	3.5	0.9	4.3	2.0	6.4
FEMALES							
1979	4.0	1.8	5.8	1.0	6.8	3.2	10.1
1984	2.7	1.1	3.8	0.8	4.6	3.3	7.9
1989	2.2	1.3	3.5	0.8	4.3	2.8	7.1
1994	1.9	0.9	2.8	0.6	3.4	1.8	5.2
1995	1.9	0.8	2.7	0.7	3.4	1.8	5.1
1996	2.0	0.7	2.7	0.7	3.4	1.6	5.0
1997	1.9	0.8	2.7	0.7	3.4	1.5	4.9
1998	1.6	0.7	2.3	0.7	3.0	1.5	4.5
1999	1.9	0.6	2.6	0.7	3.3	1.6	4.9
PERSONS							
1979	4.3	2.1	6.4	1.2	7.6	3.8	11.4
1984	3.1	1.5	4.5	1.0	5.5	3.8	9.2
1989	2.4	1.4	3.8	0.9	4.7	3.3	8.0
1994	2.2	1.0	3.2	0.7	3.9	2.0	5.9
1995	2.2	0.8	3.0	0.7	3.7	1.9	5.7
1996	2.2	0.9	3.1	0.7	3.8	2.0	5.8
1997	2.0	0.9	2.9	0.7	3.6	1.8	5.3
1998	1.7	0.9	2.6	0.8	3.4	1.6	5.0
1999	2.1	0.9	3.0	0.8	3.8	1.8	5.7

(a) Per 1,000 live births.

5.3 INFANT DEATHS, States and Territories

<i>Selected years</i>	<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.(a)</i>
1979	901	632	377	166	249	99	62	48	2 534
1984	721	525	363	152	232	84	44	41	2 162
1989	744	414	357	146	195	72	49	27	2 004
1994	551	327	289	92	140	51	41	21	1 512
1995	498	308	293	112	129	38	50	21	1 449
1996	499	308	304	94	160	29	41	25	1 460
1997	451	300	272	87	131	39	45	16	1 341
1998	371	283	299	73	123	34	45	24	1 252
1999	504	331	266	78	117	46	42	24	1 408

(a) Includes Other Territories.

5.4 INFANT MORTALITY RATES(a), States and Territories

<i>Selected years</i>	<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.(b)</i>
1979	11.6	11.0	10.7	9.0	12.1	14.6	21.8	11.3	11.4
1984	9.2	8.8	9.0	7.6	10.7	11.8	13.8	10.0	9.2
1989	8.7	6.5	8.5	7.4	7.8	10.6	14.5	6.5	8.0
1994	6.3	5.1	6.2	4.7	5.6	7.5	11.3	4.7	5.9
1995	5.7	4.9	6.3	5.8	5.1	5.8	13.3	4.8	5.7
1996	5.8	5.0	6.4	4.9	6.5	4.5	11.5	5.7	5.8
1997	5.2	4.9	5.8	4.7	5.3	6.5	12.5	3.8	5.3
1998	4.3	4.7	6.4	4.0	5.0	5.7	12.4	6.0	5.0
1999	5.8	5.6	5.7	4.3	4.7	7.6	11.7	5.6	5.7

(a) Per 1,000 live births.

(b) Includes Other Territories.

5.5 INFANT DEATHS, By Age at Death and Sex—States and Territories

	NEONATAL.....					POST NEONATAL	TOTAL
	Early neonatal.....			Late neonatal	Total		
	Under one day	One day to six days	Total under one week	One week and under four weeks	Under four weeks	Four weeks and under one year	Under one year
.....							
MALES							
New South Wales	107	59	166	43	209	72	281
Victoria	76	30	106	24	130	58	188
Queensland	53	27	80	16	96	63	159
South Australia	16	5	21	3	24	26	50
Western Australia	20	15	35	12	47	23	70
Tasmania	8	6	14	4	18	9	27
Northern Territory	9	—	11	6	17	7	24
Australian Capital Territory	4	4	8	4	12	—	13
Australia(a)	293	148	441	112	553	259	812
.....							
FEMALES							
New South Wales	88	30	118	27	145	78	223
Victoria	68	22	90	20	110	33	143
Queensland	35	11	46	17	63	44	107
South Australia	8	3	10	5	15	13	28
Western Australia	19	6	25	7	32	15	47
Tasmania	5	3	8	7	15	4	19
Northern Territory	6	—	8	4	12	6	18
Australian Capital Territory	4	3	5	3	8	3	11
Australia(a)	233	77	310	90	400	196	596

— nil or rounded to zero (including null cells)

(a) Includes Other Territories.

5.6 INFANT MORTALITY RATES(a), By Age at Death—States and Territories

	NEONATAL.....					POST NEONATAL	TOTAL
	Early neonatal.....			Late neonatal	Total		
	Under one day	One day to six days	Total under one week	One week and under four weeks	Under four weeks	Four weeks and under one year	Under one year
.....							
New South Wales	2.2	1.0	3.3	0.8	4.1	1.7	5.8
Victoria	2.4	0.9	3.3	0.7	4.1	1.5	5.6
Queensland	1.9	0.8	2.7	0.7	3.4	2.3	5.7
South Australia	1.3	0.4	1.7	0.4	2.2	2.2	4.3
Western Australia	1.6	0.8	2.4	0.8	3.2	1.5	4.7
Tasmania	2.2	1.5	3.6	1.8	5.5	2.2	7.6
Northern Territory	4.2	1.1	5.3	2.8	8.1	3.6	11.7
Australian Capital Territory	1.9	1.2	3.1	1.6	4.7	0.9	5.6
Australia(b)	2.1	0.9	3.0	0.8	3.8	1.8	5.7

— nil or rounded to zero (including null cells)

(a) Per 1,000 live births.

(b) Includes Other Territories.

SECTION **6**

**DEATHS OF ABORIGINAL AND TORRES
STRAIT ISLANDER PEOPLE**

INTRODUCTION

There were 1,980 deaths registered in 1999 where the deceased person was identified as being of Aboriginal, Torres Strait Islander or both origins (Indigenous). Although it is considered likely that most Indigenous deaths are registered, a significant proportion of these deaths are not registered as 'Indigenous'. Therefore, the 1,980 registered Indigenous deaths is an underestimate of the true number of such deaths. The issue and estimated extent of undercoverage of Indigenous deaths is addressed later in this section and summarised in table 6.1.

INDIGENOUS MORTALITY

In 1999, over two times more Indigenous deaths were registered than would have been expected if the age-specific death rates of the total Australian population were experienced throughout the Indigenous population. The indirect standardised death rate (ISDR) for the Indigenous population was 14 deaths per 1,000 population compared to 6 deaths per 1,000 for the total population. Due to the undercoverage of Indigenous deaths Australia-wide, estimates of the disparity between Indigenous and non-Indigenous mortality are likely to be conservative.

While overall mortality is higher among males than females, this difference was greater among the Indigenous population. The Indigenous male ISDR (18 per 1,000 population) was 65% higher than the Indigenous female ISDR (11 per 1,000). Among the total population the male ISDR (7 per 1,000) was 44% higher than the female ISDR (5 per 1,000).

EXPECTATION OF LIFE

Differences in Indigenous and total mortality are also reflected in significantly lower life expectancy among Indigenous people. Based on experimental life tables it is estimated that Indigenous males born in 1997–1999 could be expected to live to about 56 years, 20 years less than life expectancy for total males (76 years), while Indigenous females could be expected to live to about 63 years, around 18 years less than the life expectancy for all females (82 years). The 1997–1999 based Indigenous life expectancies at birth are similar to those experienced among the total male population in 1901–1910, (55 years) and the total female population in 1920–1922 (63 years).

The experimental life tables indicate that life expectancy at birth for Indigenous males in 1997–99 ranged from 54 years in South Australia to 56 years in most States. For Indigenous females, life expectancy at birth ranged from 62 years in the Northern Territory to 65 years in Victoria. From 1990–1992 to 1997–1999 there appears to be some improvement in life expectancy in South Australia, Western Australia and the Northern Territory.

EXPECTATION OF LIFE *continued*

EXPERIMENTAL ESTIMATES OF LIFE EXPECTANCY AT BIRTH, Indigenous(a)

	NSW(b)	Vic.	Qld	SA	WA	NT	Aust.(c)
MALES							
1990–1992(d)	n.a.	n.a.	n.a.	51.2	53.4	54.1	n.a.
1990–1992(e)	n.a.	n.a.	n.a.	52.5	55.0	54.9	n.a.
1995–1997	n.a.	n.a.	n.a.	53.7	55.7	55.5	n.a.
1997–1999	55.6	56.1	55.9	54.4	54.9	56.3	55.6
FEMALES							
1990–1992(d)	n.a.	n.a.	n.a.	57.7	58.7	58.3	n.a.
1990–1992(e)	n.a.	n.a.	n.a.	59.3	60.9	59.7	n.a.
1995–1997	n.a.	n.a.	n.a.	62.8	62.3	61.5	n.a.
1997–1999	64.0	65.2	62.5	62.5	62.8	61.4	63.0

n.a. not available

(a) See Section 7 and Appendix 1 for a detailed discussion of Indigenous life tables.

(b) Based on deaths for 1998 and 1999.

(c) Excludes Tasmania and the Australian Capital Territory.

(d) Derived using the experimental Indigenous ERP at June 1991 (1991 Census based) as the mid-year population.

(e) Derived using the experimental Indigenous ERP at June 1991 (1996 Census based) as the mid-year population.

While the experimental Indigenous lifetables show change over-time care should be taken drawing inferences from this data. See Section 7 and Appendix 1 for further information about the experimental Indigenous life tables.

AGE AT DEATH

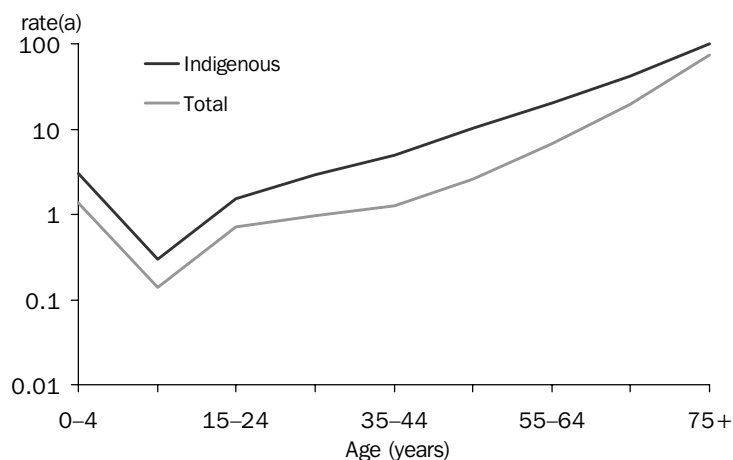
A high proportion of registered Indigenous deaths in 1999 were among young people. The median age at death for Indigenous people was 53 years in 1999, around 25 years less than the median age at death of total persons (78 years). Indigenous males had a median age at death of 49 years, 10 years less than Indigenous female (59 years).

The median age at death among Indigenous males in 1999 was highest in New South Wales (51 years), while the median age at death among Indigenous females was highest in Victoria (65 years). The lowest median age at death among both Indigenous males and females was experienced in South Australia (47 years and 51 years respectively).

Age-specific death rates for the Indigenous population were substantially higher than for the total population in all age groups in 1999. The greatest difference in the rates was in the age group 45–54 years, where the Indigenous age-specific death rate was nearly 300% greater than the total Australian age-specific death rate.

AGE AT DEATH *continued*

AGE-SPECIFIC DEATH RATES



(a) Logarithmic scale.

It is difficult to assess trends in Indigenous mortality over time, due to changes in coverage of Indigenous deaths. Combining data for South Australia, Western Australia and the Northern Territory only, where coverage is estimated to have been reasonably high, indicates that compared with 5 years ago age-specific death rates for Indigenous deaths have declined in all age groups except 15–24 years and 45–54 years. In these age groups death rates have increased by 19% and 1% respectively since 1994.

AGE-SPECIFIC DEATH RATES, Indigenous(a)

	1994	1999
0–4	4.4	3.9
5–14	0.4	0.4
15–24	1.8	2.2
25–34	4.4	4.0
35–44	8.1	7.1
45–54	15.0	15.2
55–64	34.0	26.2
65–74	62.9	48.7
75 and over	116.9	102.7

(a) For South Australia, Western Australia and the Northern Territory combined.

INFANT DEATH

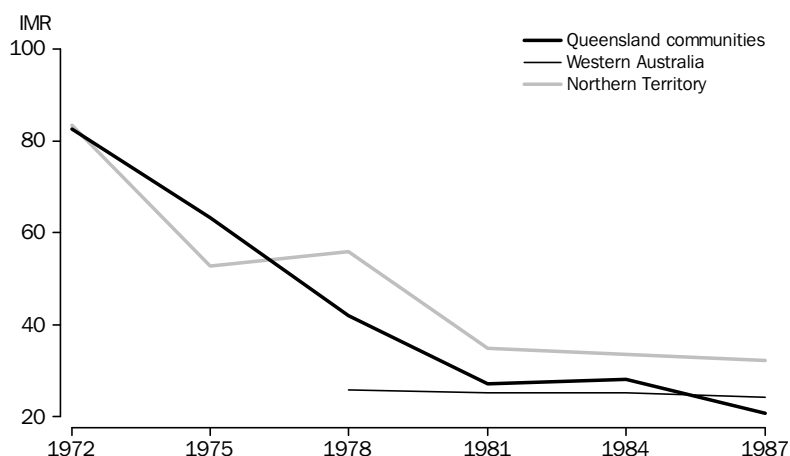
As with other age groups, the Indigenous infant mortality rate was higher than the total infant mortality rate. The 1999 Indigenous infant mortality rate (IMR) was 14.1 deaths per 1,000 live births, two and a half times the total IMR (5.7), and was comparable with the IMR experienced in Eastern Europe (14) (PRB, 2000). The highest Indigenous IMRs were experienced in the Northern Territory (19.0), Victoria (17.3) and Western Australia (16.7), while the lowest Indigenous IMR was experienced in South Australia (7.8).

INFANT DEATHS *continued*

The statistical coverage of Indigenous births throughout Australia has similar deficiencies as the deaths collection, although the level of 1999 births coverage is estimated to be around 106% on 1991 based expectancies and 90% on the 1996 based expectancies (*Births Australia* 1999, ABS Cat no. 3301.0). Given that the level of estimated Indigenous births coverage is higher than the deaths coverage on both 1991 and 1996 Census based projections, the Indigenous IMRs presented here may be a conservative estimate.

Although remaining at high levels in comparison to total infant mortality, studies indicate that Indigenous infant mortality has declined over time. From a rate of around 138 infant deaths per 1,000 live births in 1965, Indigenous infant mortality declined to around 26 per 1,000 in 1981. This major decline in Indigenous infant mortality may have coincided with improvements in community infrastructure and the development, in the 1970s, of intensive Indigenous health programs and services, many of which included a focus on maternal and child health (Taylor, 1997).

INDIGENOUS INFANT MORTALITY RATES(a)



(a) Infant deaths per 1,000 live births. Data are based on the three years surrounding the year labelled, except for 1972 which relates to the two year period 1972–73.

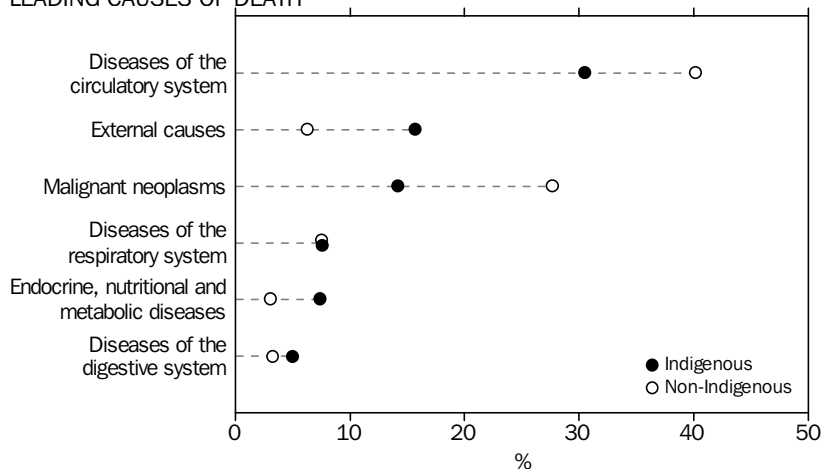
Source: Thomson, N. (1990).

CAUSES OF DEATH

The high mortality of the Indigenous population is evident through all leading causes of death. The leading causes of death for the Indigenous population differ from the total population, reflecting the different health experience of Indigenous Australians. For example, external causes of death contributed a far greater proportion of Indigenous deaths, and deaths from diabetes and diseases of the liver were proportionally more prevalent among Indigenous than the non-Indigenous deaths.

CAUSES OF DEATH *continued*

LEADING CAUSES OF DEATH



The leading causes of death category among the Indigenous population was diseases of the circulatory system, accounting for 31% of all Indigenous deaths in 1999. Ischaemic heart disease was responsible for 56% of deaths within this category, while cerebrovascular disease (stroke) was responsible for 19%.

External causes (including accidents, assault and intentional self-harm) were the second leading cause of death category among the Indigenous population in 1999, accounting for almost 16% of all Indigenous deaths. In contrast, external causes accounted for 7% of deaths among the total population. Intentional self-harm accounted for 3% of all Indigenous deaths, while transport accidents (excluding water, air and space accidents) accounted for 4%. The median age at death for external causes among Indigenous people was 28.4 years, over ten years less than the median age at death for external causes among the total population.

LEADING CAUSES OF INDIGENOUS DEATHS

	Indigenous deaths	Indigenous Total median age deaths at death	Total median age at death	Indigenous SMR(a)	
Cause of death	no.	no.	years	years	rate
.....					
Diseases of the circulatory system (I00–I99)	603	51 303	61.8	81.8	2.7
External causes (V01–Y98)	311	8 361	28.4	41.2	2.3
Malignant neoplasms (C00–C97)	281	35 053	62.8	73.2	1.3
Diseases of the respiratory system (J00–J99)	150	9 613	64.8	79.6	3.4
Endocrine, nutritional, and metabolic diseases (E00–E90)	146	4 100	62.1	77.0	6.2
Diseases of the digestive system (K00–K93)	98	4 221	48.0	77.8	4.0
All causes	1 976	128 102	52.6	77.8	2.1

(a) Standardised using the age-specific death rates of the Australian population at June 1999, in five year age groups from 0–4 years to 75 years and over. The SMR is derived using the ratio of observed deaths to expected deaths. Due to the undercoverage of Indigenous observed deaths, the SMRs presented here are likely to be conservative estimates. Further, undercoverage of Indigenous observed deaths may vary by cause of death.

CAUSES OF DEATH *continued*

Malignant neoplasms (cancer) were the third leading cause of death category, accounting for 14% of Indigenous deaths. Malignant neoplasms of the digestive organs and malignant neoplasms of the trachea, bronchus and lung together accounted for half of all malignant neoplasm deaths.

Diseases of the respiratory system were responsible for 8% of all Indigenous deaths in 1999, while endocrine, nutritional and metabolic disorders accounted for 7%. Of these deaths, 87% were the result of diabetes. The Indigenous population had at least eight times the number of deaths due to diabetes than would have been expected from the age-specific death rates of the total population, indicating the impact of diabetes on the Indigenous population.

The sixth leading cause of death category among Indigenous people was diseases of the digestive system, accounting for 5% of deaths. Two-thirds of these deaths were from liver diseases. Indigenous mortality from diseases of the digestive system were at least four times as high as would be expected if the Indigenous population had experienced the age-specific death rates of the total population.

PROPENSITY TO IDENTIFY AS INDIGENOUS

The coverage of Indigenous deaths is affected by the extent to which people are identified as Indigenous. There are several different forms on which Indigenous status is asked. These forms include the Census of Population and Housing and other Australian Bureau of Statistics (ABS) collections, and administrative forms used for birth and death registrations. Due to a number of factors, the results of this question are not always consistent. The likelihood that a person will identify, or be identified, as Indigenous on a specific form is known as their propensity to identify as Indigenous. Propensity to identify as Indigenous can be thought of as the proportion of the total, unknown, number of Indigenous people who identify as such on a specific form.

Propensity to identify as Indigenous is determined by a range of factors, including who completes the form (e.g. the person in question, a relative, or an official); the perception of how the information will be used; education programs about identifying as Indigenous; and emotional reaction to identifying as Indigenous.

There are three estimates of the number of Indigenous deaths reproduced in table 6.1. Each is based on a different collection, with a different propensity to identify as Indigenous:

- 1991 Census-based projections: These data are estimated using mortality levels based on 1986–1991 Indigenous life tables, and the Indigenous population based on the 1991 Census. These are published in *Experimental Projections of the Aboriginal and Torres Strait Islander Population, 30 June 1991 – 30 June 2001* (Cat. no. 3231.0).
- 1996 Census-based estimates and projections: Estimates prior to 1996 are derived by backdating estimates of the 1996 Indigenous population. The level of mortality is based on the 1991–1996 experimental life tables published in *Experimental Projections of the Aboriginal and Torres Strait Islander Population, 30 June 1996 – 30 June 2006* (Cat. no. 3231.0).
- Death registrations: This publication is based on the registration of deaths by each State and Territories' Registrar of Births, Deaths and Marriages.

PROPENSITY TO IDENTIFY AS INDIGENOUS *continued*

Propensity to identify as Indigenous in the Census can be seen as a social issue, partly reflecting the social attitude Indigenous people have about making what amounts to public statements about their heritage. Propensity to identify on death registration forms is considerably lower than in the Census because the person completing the death certificate (usually a funeral director or doctor) may not know if the deceased is of Indigenous origin, and may be reluctant or unable to ask relatives.

NUMBERS OF DEATHS—COVERAGE

The total number of Indigenous deaths registered in 1999 (1,980) is around 85% of the number expected from the 1991 Census-based experimental projections, and 56% of the number of deaths expected from the 1996 Census-based experimental projections (table 6.1). This represents a decrease of around 8% on the registration coverage estimated in 1998. The variation between the estimated 1991 and 1996 Census-based coverages can be primarily attributed to two factors: the change in propensity to identify as Indigenous on census forms between the 1991 and 1996 Censuses, and the method used to estimate the death rates applied in the projections. In particular, the method used to estimate the death rates is very sensitive to the inputs used so that the resulting projected deaths are quite volatile.

Given this volatility, and the experimental nature of the base populations, the estimates of coverage in table 6.1 are only indicative. For example, the 350 Indigenous deaths registered in Western Australia in 1999 have an estimated coverage of 86% using 1991 Census-based projections and 68% using 1996 Census-based projections. Therefore, actual coverage of death registrations is likely to lie within the 68%–86% range, although possibly outside it. Given this uncertainty, over-precise analysis based on either death registrations or projected deaths should be avoided.

While overall there was an estimated 56–85% coverage of Indigenous deaths in 1999, there is a high degree of variability in the coverage among the States and Territories. Prior to 1998, only South Australia, Western Australia, and the Northern Territory had a relatively high level of coverage. In 1998, Queensland's coverage of Indigenous deaths approached the level of coverage in the areas with traditionally high coverage, following the introduction of a new *Death Information Form* in 1996–97 which included an Indigenous status question. Coverage in New South Wales and Victoria has also improved markedly from previous years. While Tasmania has not provided adequate Indigenous deaths data to date, it is expected that a new *Notice of Death* form will help address this problem when it is introduced in 2000. The ongoing efforts to improve the level of identification on death certificates (such as improved form design and awareness raising) should see further improvement in the coverage of Indigenous death registrations.

In this chapter the number of registered deaths for usual residents in each State and Territory has been published (table 6.1). However, because of the data quality issues described above, more detailed breakdowns of Indigenous deaths are provided for New South Wales, Victoria, Queensland, South Australia and Western Australia only.

DELAY IN REGISTRATION

All data in this chapter are based on period of registration, i.e. deaths registered in 1999, regardless of when they occurred. One reason for this is the delay in registration of some deaths. The allowable time to register a death varies between States and Territories, usually either 28 or 60 days after the death.

Of all deaths registered in 1999, only 1.3% were registered more than two months after death, and less than 0.1% more than 12 months after the death. However, 16.3% of Indigenous deaths registered in 1999 were registered more than two months after death, and 2.6% more than 12 months after death occurrence.

6.1 DEATHS OF INDIGENOUS PEOPLE, Summary

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.(a)
DEATHS REGISTERED AS INDIGENOUS									
1989	189	29	3	139	329	3	422	—	1 115
1990	201	42	4	118	322	—	393	—	1 082
1991	206	50	—	135	401	3	412	—	1 208
1992	165	53	—	107	346	5	397	—	1 074
1993	194	50	—	111	386	6	376	9	1 134
1994	207	50	—	123	377	3	380	10	1 153
1995	224	50	—	121	384	3	387	9	1 182
1996	177	49	258	118	370	—	328	5	1 306
1997	88	93	531	132	351	5	458	4	1 662
1998	462	123	593	127	378	13	415	3	2 114
1999	435	130	529	116	350	11	399	6	1 976
EXPECTED INDIGENOUS DEATHS (1991 Census-based experimental projections)(b)									
1994	509	111	595	124	382	52	368	9	2 152
1995	518	113	604	126	385	54	374	10	2 185
1996	528	114	613	128	390	56	379	10	2 220
1997	537	116	623	131	394	57	386	11	2 257
1998	547	118	634	133	400	59	391	11	2 295
1999	556	121	644	135	406	61	397	12	2 334
EXPECTED INDIGENOUS DEATHS (1996 Census-based experimental estimates and projections)									
1994(c)	916	206	874	183	484	115	439	16	3 239
1995(c)	932	209	887	186	488	119	446	18	3 289
1996(c)	950	211	900	189	494	124	452	18	3 341
1997(d)	966	215	915	193	499	126	460	20	3 397
1998(d)	984	219	936	199	509	130	471	21	3 472
1999(d)	1 010	222	960	202	518	133	482	22	3 552
ESTIMATED COVERAGE OF INDIGENOUS DEATHS (1991 Census-based expectancies) (%)									
1994	41	45	—	99	99	6	103	111	54
1995	43	44	—	96	100	6	103	90	54
1996	34	43	42	92	95	—	87	50	59
1997	16	80	85	101	89	9	119	36	74
1998	84	104	94	95	95	22	106	27	92
1999	78	107	82	86	86	18	101	50	85
ESTIMATED COVERAGE OF INDIGENOUS DEATHS (1996 Census-based expectancies) (%)									
1994	23	24	—	67	78	3	87	61	36
1995	24	24	—	65	79	3	87	50	36
1996	19	23	29	63	75	—	73	28	39
1997	9	43	58	68	70	4	100	20	49
1998	47	56	63	64	74	10	88	14	61
1999	43	59	55	57	68	8	83	27	56

— Nil or rounded to zero (including null cells)

(a) Includes 'Other Territories' from 1993.

(b) Source: *Experimental Projections of the Aboriginal and Torres Strait Islander Population, 1991–2001* (Cat. no. 3231.0), medium series.(c) Source: *Experimental Estimates of the Aboriginal and Torres Strait Islander Population, 1991–1996*, unpublished data.(d) Source: *Experimental Projections of the Aboriginal and Torres Strait Islander Population, 1996–2006* (Cat. no. 3231.0). Low Series.

6.2 MEDIAN AGE AT DEATH, Males(a)

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.(b)
INDIGENOUS(c)									
1989	n.p.	n.p.	n.p.	43.5	50.1	n.p.	49.3	n.p.	47.3
1990	n.p.	n.p.	n.p.	42.0	52.0	n.p.	46.4	n.p.	47.5
1991	n.p.	n.p.	n.p.	41.8	49.3	n.p.	46.8	n.p.	46.2
1992	n.p.	n.p.	n.p.	37.5	51.8	n.p.	49.3	n.p.	49.7
1993	n.p.	n.p.	n.p.	40.5	48.5	n.p.	47.0	n.p.	47.7
1994	n.p.	n.p.	n.p.	51.3	51.8	n.p.	46.6	n.p.	48.3
1995	n.p.	n.p.	n.p.	45.3	49.3	n.p.	50.1	n.p.	48.6
1996	n.p.	n.p.	49.3	47.3	48.5	n.p.	47.0	n.p.	47.9
1997	n.p.	n.p.	50.6	50.3	48.6	n.p.	48.7	n.p.	49.8
1998	50.3	56.5	46.9	44.0	45.0	n.p.	45.5	n.p.	47.7
1999	51.3	51.0	48.9	46.5	49.3	n.p.	47.5	n.p.	48.9
NON-INDIGENOUS									
1989	72.2	72.4	72.2	73.6	72.1	72.5	54.6	66.6	72.3
1990	71.9	72.4	71.9	72.3	72.0	72.4	56.6	66.9	72.0
1991	72.1	72.6	71.9	73.7	72.8	73.1	58.1	67.3	72.3
1992	72.5	73.2	72.1	73.5	72.9	74.1	59.2	69.1	72.7
1993	72.9	73.5	72.6	73.8	73.1	73.2	57.4	69.8	73.0
1994	73.6	74.1	73.2	74.4	73.6	74.0	59.9	69.4	73.6
1995	73.7	73.9	73.0	74.4	73.6	73.8	58.1	70.6	73.6
1996	74.2	74.7	73.4	74.7	74.2	74.2	57.4	71.4	74.2
1997	74.4	74.7	73.6	75.4	74.2	75.2	61.7	72.6	74.4
1998	74.7	75.1	74.4	75.6	74.1	75.0	56.3	72.7	74.7
1999	75.0	75.3	74.5	76.0	74.8	75.5	60.4	72.4	75.0
TOTAL									
1989	72.2	72.4	72.2	73.5	71.6	72.4	51.5	66.6	72.2
1990	71.9	72.4	71.9	72.2	71.5	72.4	51.4	66.9	71.9
1991	72.0	72.6	71.9	73.5	72.2	73.1	53.3	67.3	72.2
1992	72.5	73.2	72.1	73.4	72.5	74.1	54.2	69.1	72.6
1993	72.8	73.5	72.6	73.7	72.6	73.1	53.5	69.8	72.9
1994	73.5	74.0	73.2	74.3	73.1	74.0	53.8	69.3	73.5
1995	73.7	73.9	73.0	74.3	73.3	73.8	54.0	70.5	73.5
1996	74.1	74.7	73.2	74.5	73.7	74.2	54.1	71.4	74.0
1997	74.3	74.7	73.3	75.2	73.6	75.2	56.3	72.5	74.2
1998	74.5	75.0	74.0	75.4	73.7	75.0	52.2	72.7	74.5
1999	74.8	75.2	74.2	75.8	74.3	75.4	55.5	72.3	74.8

n.p. not available for publication, but included in totals where applicable, unless otherwise indicated.

(a) Median age at death does not adjust for the age structure of the populations involved.

(b) Includes Other Territories.

(c) See table 6.1 estimated coverage of Indigenous deaths.

6.3 MEDIAN AGE AT DEATH, Females(a)

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.(b)
INDIGENOUS(c)									
1989	n.p.	n.p.	n.p.	56.0	57.3	n.p.	58.0	n.p.	57.9
1990	n.p.	n.p.	n.p.	57.0	53.0	n.p.	56.7	n.p.	56.1
1991	n.p.	n.p.	n.p.	49.0	59.4	n.p.	52.8	n.p.	55.5
1992	n.p.	n.p.	n.p.	56.0	58.1	n.p.	55.6	n.p.	56.8
1993	n.p.	n.p.	n.p.	56.0	61.5	n.p.	52.0	n.p.	57.4
1994	n.p.	n.p.	n.p.	49.5	62.7	n.p.	60.2	n.p.	59.7
1995	n.p.	n.p.	n.p.	52.0	59.3	n.p.	56.6	n.p.	57.6
1996	n.p.	n.p.	59.0	55.0	58.0	n.p.	54.0	n.p.	57.7
1997	n.p.	n.p.	57.7	52.5	57.8	n.p.	52.3	n.p.	56.8
1998	58.0	63.3	59.3	50.5	57.0	n.p.	49.7	n.p.	57.0
1999	60.8	65.0	60.3	50.5	55.3	n.p.	56.3	n.p.	58.8
NON-INDIGENOUS									
1989	79.0	79.2	78.1	78.9	78.7	78.4	61.5	76.2	78.8
1990	78.7	79.2	78.0	79.0	78.8	78.7	60.5	75.6	78.8
1991	78.8	79.1	78.4	79.7	78.9	78.9	57.0	74.7	78.9
1992	79.3	80.1	78.7	79.9	79.4	79.4	68.2	75.3	79.4
1993	79.5	80.1	79.0	80.0	80.1	79.0	66.0	77.4	79.6
1994	80.2	80.6	79.7	81.0	80.1	79.3	69.6	78.2	80.2
1995	80.2	80.9	79.7	80.8	80.6	79.7	66.0	75.9	80.4
1996	80.7	81.3	80.2	81.2	81.2	79.8	65.3	77.6	80.8
1997	81.1	81.4	80.7	81.6	81.2	80.2	66.0	78.9	81.1
1998	81.0	81.8	80.6	82.1	81.1	80.9	68.0	78.7	81.2
1999	81.4	81.8	81.4	82.2	81.8	80.5	71.3	79.5	81.6
TOTAL									
1989	78.9	79.2	78.1	78.8	78.4	78.4	58.2	76.2	78.7
1990	78.7	79.2	78.0	79.0	78.4	78.7	58.0	75.6	78.7
1991	78.8	79.1	78.4	79.5	78.4	78.9	54.1	74.7	78.8
1992	79.3	80.1	78.7	79.8	79.0	79.4	59.4	75.3	79.3
1993	79.5	80.1	79.0	79.9	79.8	79.0	56.7	77.3	79.5
1994	80.1	80.6	79.7	80.9	79.7	79.3	63.9	78.3	80.2
1995	80.2	80.9	79.7	80.7	80.3	79.7	60.3	75.9	80.3
1996	80.6	81.3	80.1	81.1	80.8	79.8	60.8	77.5	80.7
1997	81.1	81.4	80.4	81.5	80.8	80.2	57.5	78.8	81.0
1998	80.9	81.7	80.3	82.0	80.8	80.9	58.0	78.8	81.0
1999	81.3	81.8	81.2	82.2	81.5	80.5	61.7	79.5	81.4

n.p. not available for publication, but included in totals where applicable, unless otherwise indicated.

(a) Median age at death does not adjust for the age structure of the populations involved.

(b) Includes Other Territories.

(c) See table 6.1 for estimated coverage of Indigenous deaths.

6.4 INDIGENOUS, NON-INDIGENOUS & TOTAL DEATHS, Australia(a)

		INDIGENOUS.....			NON- INDIGENOUS	TOTAL(b)
		Males	Females	Persons	Persons	Persons
Total deaths	no.	1 142	834	1 976	122 268	128 102
Age at death (years)						
0	no.	82	67	149	1 186	1 408
1–14	no.	29	26	55	577	661
15–24	no.	93	26	119	1 683	1 872
25–34	no.	139	58	197	2 421	2 724
35–44	no.	161	79	240	3 311	3 686
45–54	no.	182	117	299	6 005	6 525
55–64	no.	165	134	299	10 740	11 372
65 and over	no.	291	327	618	96 336	99 843
Not stated	no.	—	—	—	9	11
Median age at death	years	48.9	58.8	52.6	78.0	77.8
Indirect standardised death rate (ISDR)(c)	rate	18.3	11.1	14.3	5.8	6.0
Infant mortality rate(d)	rate	15.5	12.7	14.1	5.0	5.7
Leading causes of death						
Malignant neoplasms (C00–C97)	no.	151	130	281	33 832	35 053
Digestive organs (C15–C26)	no.	47	18	65	9 582	9 912
Trachea, bronchus and lung (C33,C34)	no.	46	34	80	6 537	6 803
Diabetes mellitus (E10–E14)	no.	61	67	128	2 762	2 947
Mental and behavioural disorders (F00–F99)	no.	39	11	50	2 658	2 808
Diseases of the circulatory system (I00–I99)	no.	344	259	603	49 155	51 303
Ischaemic heart diseases (I20–I25)	no.	212	127	339	26 462	27 609
Cerebrovascular diseases (I60–I69)	no.	60	52	112	11 780	12 266
Diseases of the respiratory system (J00–J99)	no.	82	68	150	9 134	9 613
Influenza and pneumonia (J10–J18)	no.	14	11	25	1 815	1 898
Chronic lower respiratory diseases (J40–J47)	no.	54	45	99	5 790	6 096
Diseases of the digestive system (K00–K93)	no.	59	39	98	3 983	4 221
Diseases of the liver (K70–K77)	no.	41	26	67	1 131	1 243
Certain conditions originating in the perinatal period (P00–P96)	no.	40	26	66	542	641
Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)	no.	22	22	44	640	715
All other medical conditions (remainder of (A00–R99))	no.	120	125	245	11 820	12 440
External causes of morbidity and mortality (V01–Y98)	no.	224	87	311	7 742	8 361
Transport accidents (V01–V99)	no.	58	24	82	1 854	2 011
Intentional self-harm (X60–X84)	no.	58	7	65	2 330	2 492
Assault (X85–Y09)	no.	19	14	33	256	300
Other external causes (remainder of (V01–Y98))	no.	89	42	131	3 302	3 558

— nil or rounded to zero (including null cells)

(a) 1999 coverage of Indigenous deaths Australia-wide has been estimated at 85% on 1991 Census-based projections and 56% on 1996 Census-based projections. See Table 6.1.

(b) Includes not stated.

(c) Per 1,000 population. See Glossary. The Indigenous population used for the ISDR is the 1999 Indigenous population from the *Experimental Projections of the Aboriginal and Torres Strait Islander Population, 30 June 1996 – 30 June 2006* (Cat. no. 3231.0), low series. Standardised using age-specific death rates for the 1991 Australian population in 5 year age groups from 0–4 years to 75 years and over. The ISDR is derived using the ratio of observed deaths to expected deaths. Due to the undercoverage of Indigenous observed deaths, the ISDRs presented here are likely to be conservative estimates.

(d) Per 1,000 live births.

6.5 INDIGENOUS, NON-INDIGENOUS & TOTAL DEATHS, New South Wales(a)

		INDIGENOUS.....			NON- INDIGENOUS	TOTAL(b)
		Males	Females	Persons	Persons	Persons
Total deaths	no.	257	178	435	41 415	45 215
Age at death (years)						
0	no.	17	24	41	394	504
1–14	no.	8	6	14	169	206
15–24	no.	15	4	19	530	598
25–34	no.	36	8	44	771	891
35–44	no.	32	13	45	1 081	1 238
45–54	no.	29	21	50	1 990	2 225
55–64	no.	48	30	78	3 715	4 086
65 and over	no.	72	72	144	32 759	35 459
Not stated	no.	—	—	—	6	8
Median age at death	years	51.3	60.8	55.8	77.9	77.7
Indirect standardised death rate (ISDR)(c)	rate	14.9	8.4	11.3	5.6	6.1
Infant mortality rate(d)	rate	11.1	15.8	13.4	4.7	5.8
Leading causes of death						
Malignant neoplasms (C00–C97)	no.	37	32	69	11 074	11 994
Diabetes mellitus (E10–E14)	no.	8	10	18	746	816
Mental and behavioural disorders (F00–F99)	no.	14	—	15	924	1 019
Diseases of the circulatory system (I00–I99)	no.	90	54	144	17 387	18 901
Ischaemic heart diseases (I20–I25)	no.	57	32	89	9 137	9 948
Cerebrovascular diseases (I60–I69)	no.	14	7	21	4 231	4 581
Diseases of the respiratory system (J00–J99)	no.	21	17	38	3 045	3 352
Chronic lower respiratory diseases (J40–J47)	no.	16	11	27	1 975	2 185
Diseases of the digestive system (K00–K93)	no.	15	4	19	1 328	1 470
External causes of morbidity and mortality (V01–Y98)	no.	45	22	67	2 467	2 766

— nil or rounded to zero (including null cells)

(a) 1999 coverage of Indigenous deaths in New South Wales has been estimated at 78% on 1991 Census-based projections and 43% on 1996 Census-based projections. See Table 6.1.

(b) Includes not stated.

(c) Per 1,000 population. See Glossary. The Indigenous population used for the ISDR is the 1999 Indigenous population from the *Experimental Projections of the Aboriginal and Torres Strait Islander Population, 30 June 1996 – 30 June 2006* (Cat. no. 3231.0), low series. Standardised using age-specific death rates for the 1991 Australian population in 5 year age groups from 0–4 years to 75 years and over. The ISDR is derived using the ratio of observed deaths to expected deaths. Due to the undercoverage of Indigenous observed deaths, the ISDRs presented here are likely to be conservative estimates.

(d) Per 1,000 live births.

6.6 INDIGENOUS, NON-INDIGENOUS & TOTAL DEATHS, Victoria(a)

		INDIGENOUS.....			NON-INDIGENOUS	TOTAL(b)
		Males	Females	Persons	Persons	Persons
Total deaths	no.	80	50	130	31 769	31 918
Age at death (years)						
0	no.	5	4	9	322	331
1–14	no.	—	—	—	148	149
15–24	no.	9	—	9	418	429
25–34	no.	13	5	18	650	671
35–44	no.	10	—	12	844	856
45–54	no.	10	7	17	1 470	1 490
55–64	no.	5	6	11	2 644	2 656
65 and over	no.	28	25	53	25 272	25 335
Not stated	no.	—	—	—	—	—
Median age at death	years	51.0	65.0	54.7	78.3	78.2
Indirect standardised death rate (ISDR)(c)	rate	20.4	10.1	14.6	5.8	5.9
Infant mortality rate(d)	rate	19.0	15.5	17.3	5.6	5.6
Leading causes of death						
Malignant neoplasms (C00–C97)	no.	12	11	23	8 989	9 016
Diabetes mellitus (E10–E14)	no.	3	—	4	971	975
Mental and behavioural disorders (F00–F99)	no.	3	3	4	730	734
Diseases of the circulatory system (I00–I99)	no.	22	17	39	12 162	12 206
Ischaemic heart diseases (I20–I25)	no.	15	8	23	6 494	6 520
Cerebrovascular diseases (I60–I69)	no.	4	5	9	2 893	2 903
Diseases of the respiratory system (J00–J99)	no.	—	4	6	2 331	2 338
Chronic lower respiratory diseases (J40–J47)	no.	3	4	6	1 506	1 512
Diseases of the digestive system (K00–K93)	no.	4	—	5	1 018	1 024
External causes of morbidity and mortality (V01–Y98)	no.	24	4	28	2 023	2 059

— nil or rounded to zero (including null cells)

(a) 1999 coverage of Indigenous deaths in Victoria has been estimated at 107% on 1991 Census-based projections and 59% on 1996 Census-based projections. See Table 6.1.

(b) Includes not stated.

(c) Per 1,000 population. See Glossary. The Indigenous population used for the ISDR is the 1999 Indigenous population from the *Experimental Projections of the Aboriginal and Torres Strait Islander Population, 30 June 1996 – 30 June 2006* (Cat. no. 3231.0), low series. Standardised using age-specific death rates for the 1991 Australian population in 5 year age groups from 0–4 years to 75 years and over. The ISDR is derived using the ratio of observed deaths to expected deaths. Due to the undercoverage of Indigenous observed deaths, the ISDRs presented here are likely to be conservative estimates.

(d) Per 1,000 live births.

6.7 INDIGENOUS, NON-INDIGENOUS & TOTAL DEATHS, Queensland(a)

		INDIGENOUS.....			NON- INDIGENOUS	TOTAL(b)
		Males	Females	Persons	Persons	Persons
Total deaths	no.	305	224	529	22 304	22 849
Age at death (years)						
0	no.	32	7	39	227	266
1–14	no.	7	7	14	124	138
15–24	no.	27	5	32	326	358
25–34	no.	24	15	39	444	485
35–44	no.	42	22	64	627	692
45–54	no.	54	33	87	1 176	1 265
55–64	no.	32	46	78	2 098	2 177
65 and over	no.	87	89	176	17 282	17 468
Not stated	no.	—	—	—	—	—
Median age at death	years	48.9	60.3	53.6	77.7	77.4
Indirect standardised death rate (ISDR)(c)	rate	17.8	10.9	14.0	6.1	6.2
Infant mortality rate(d)	rate	21.7	4.7	13.1	5.3	5.7
Leading causes of death						
Malignant neoplasms (C00–C97)	no.	53	39	92	6 151	6 248
Diabetes mellitus (E10–E14)	no.	24	22	46	460	507
Mental and behavioural disorders (F00–F99)	no.	3	—	3	402	406
Diseases of the circulatory system (I00–I99)	no.	87	82	169	9 129	9 301
Ischaemic heart diseases (I20–I25)	no.	57	38	95	5 218	5 315
Cerebrovascular diseases (I60–I69)	no.	14	22	36	2 136	2 173
Diseases of the respiratory system (J00–J99)	no.	16	17	33	1 644	1 678
Chronic lower respiratory diseases (J40–J47)	no.	9	14	23	1 102	1 126
Diseases of the digestive system (K00–K93)	no.	17	14	31	718	750
External causes of morbidity and mortality (V01–Y98)	no.	56	19	75	1 531	1 610

— nil or rounded to zero (including null cells)

(a) 1999 coverage of Indigenous deaths in Queensland has been estimated at 82% on 1991 Census-based projections and 55% on 1996 Census-based projections. See Table 6.1.

(b) Includes not stated.

(c) Per 1,000 population. See Glossary. The Indigenous population used for the ISDR is the 1999 Indigenous population from the *Experimental Projections of the Aboriginal and Torres Strait Islander Population, 30 June 1996 – 30 June 2006* (Cat. no. 3231.0), low series. Standardised using age-specific death rates for the 1991 Australian population in 5 year age groups from 0–4 years to 75 years and over. The ISDR is derived using the ratio of observed deaths to expected deaths. Due to the undercoverage of Indigenous observed deaths, the ISDRs presented here are likely to be conservative estimates.

(d) Per 1,000 live births.

6.8 INDIGENOUS, NON-INDIGENOUS & TOTAL DEATHS, South Australia(a)

		INDIGENOUS.....			NON- INDIGENOUS	TOTAL(b)
		Males	Females	Persons	Persons	Persons
Total deaths	no.	62	54	116	10 854	11 291
Age at death (years)						
0	no.	3	3	5	72	78
1–14	no.	—	—	3	40	42
15–24	no.	4	3	7	120	135
25–34	no.	8	5	13	183	210
35–44	no.	14	8	22	273	306
45–54	no.	14	9	23	461	498
55–64	no.	12	7	19	841	883
65 and over	no.	8	18	26	8 864	9 139
Not stated	no.	—	—	—	—	—
Median age at death	years	46.5	50.5	48.5	78.7	78.5
Indirect standardised death rate (ISDR)(c)	rate	17.2	12.6	14.7	5.6	5.8
Infant mortality rate(d)	rate	6.0	9.8	7.8	4.2	4.3
Leading causes of death						
Malignant neoplasms (C00–D97)	no.	6	7	13	2 998	3 072
Diabetes mellitus (E10–E14)	no.	6	3	8	260	270
Mental and behavioural disorders (F00–F99)	no.	3	3	5	258	279
Diseases of the circulatory system (I00–I99)	no.	20	16	36	4 455	4 620
Ischaemic heart diseases (I20–I25)	no.	16	8	24	2 412	2 498
Cerebrovascular diseases (I60–I69)	no.	—	3	5	1 074	1 112
Diseases of the respiratory system (J00–J99)	no.	4	6	10	945	998
Chronic lower respiratory diseases (J40–J47)	no.	—	3	4	448	469
Diseases of the digestive system (K00–K93)	no.	3	3	5	371	385
External causes of morbidity and mortality (V01–Y98)	no.	15	6	21	546	595

— nil or rounded to zero (including null cells)

(a) 1999 coverage of Indigenous deaths in South Australia has been estimated at 86% on 1991 Census-based projections and 57% on 1996 Census-based projections. See Table 6.1.

(b) Includes not stated.

(c) Per 1,000 population. See Glossary. The Indigenous population used for the ISDR is the 1999 Indigenous population from the *Experimental Projections of the Aboriginal and Torres Strait Islander Population, 30 June 1996 – 30 June 2006* (Cat. no. 3231.0), low series. Standardised using age-specific death rates for the 1991 Australian population in 5 year age groups from 0–4 years to 75 years and over. The ISDR is derived using the ratio of observed deaths to expected deaths. Due to the undercoverage of Indigenous observed deaths, the ISDRs presented here are likely to be conservative estimates.

(d) Per 1,000 live births.

6.9 INDIGENOUS, NON-INDIGENOUS & TOTAL DEATHS, Western Australia(a)

		INDIGENOUS.....			NON- INDIGENOUS	TOTAL(b)
		Males	Females	Persons	Persons	Persons
Total deaths	no.	208	142	350	10 406	10 877
Age at death (years)						
0	no.	10	16	26	88	117
1–14	no.	9	4	13	62	80
15–24	no.	21	4	25	187	221
25–34	no.	21	10	31	239	280
35–44	no.	27	15	42	303	355
45–54	no.	41	21	62	552	630
55–64	no.	34	24	58	909	979
65 and over	no.	45	48	93	8 065	8 214
Not stated	no.	—	—	—	—	3
Median age at death	years	49.3	55.3	52.1	77.9	77.4
Indirect standardised death rate (ISDR)(c)	rate	22.3	12.9	17.2	5.7	5.9
Infant mortality rate(d)	rate	13.0	20.3	16.7	3.8	4.7
Leading causes of death						
Malignant neoplasms (C00–C97)	no.	22	13	35	3 087	3 139
Diabetes mellitus (E10–E14)	no.	12	19	31	213	246
Mental and behavioural disorders (F00–F99)	no.	10	3	13	238	254
Diseases of the circulatory system (I00–I99)	no.	57	41	98	3 928	4 059
Ischaemic heart diseases (I20–I25)	no.	29	20	49	2 106	2 173
Cerebrovascular diseases (I60–I69)	no.	14	7	21	961	990
Diseases of the respiratory system (J00–J99)	no.	14	8	22	728	764
Chronic lower respiratory diseases (J40–J47)	no.	11	6	17	463	486
Diseases of the digestive system (K00–K93)	no.	10	7	17	362	383
External causes of morbidity and mortality (V01–Y98)	no.	44	17	61	744	838

— nil or rounded to zero (including null cells)

(a) 1999 coverage of Indigenous deaths in Western Australia has been estimated at 86% on 1991 Census-based projections and 68% on 1996 Census-based projections. See Table 6.1.

(b) Includes not stated.

(c) Per 1,000 population. See Glossary. The Indigenous population used for the ISDR is the 1999 Indigenous population from the *Experimental Projections of the Aboriginal and Torres Strait Islander Population, 30 June 1996 – 30 June 2006* (Cat. no. 3231.0), low series. Standardised using age-specific death rates for the 1991 Australian population in 5 year age groups from 0–4 years to 75 years and over. The ISDR is derived using the ratio of observed deaths to expected deaths. Due to the undercoverage of Indigenous observed deaths, the ISDRs presented here are likely to be conservative estimates.

(d) Per 1,000 live births.

6.10 INDIGENOUS, NON-INDIGENOUS & TOTAL DEATHS, Northern Territory(a)

		INDIGENOUS.....			NON-INDIGENOUS	TOTAL(b)
		Males	Females	Persons	Persons	Persons
<div></div>						
Total deaths	no.	221	178	399	419	832
Age at death (years)						
0	no.	15	12	27	15	42
1–14	no.	4	7	11	3	13
15–24	no.	17	10	27	25	54
25–34	no.	35	15	50	30	81
35–44	no.	34	18	52	32	85
45–54	no.	34	26	60	38	99
55–64	no.	34	20	54	88	144
65 and over	no.	48	70	118	189	314
Not stated	no.	—	—	—	—	—
Median age at death	years	47.5	56.3	50.5	62.8	57.7
Indirect standardised death rate (ISDR)(c)	rate	25.8	17.8	21.5	6.4	9.9
Infant mortality rate(d)	rate	21.0	17.0	19.0	7.1	11.7
Leading causes of death						
Malignant neoplasms (C00–C97)	no.	21	25	46	125	173
Diabetes mellitus (E10–E14)	no.	8	13	21	12	33
Mental and behavioural disorders (F00–F99)	no.	6	3	9	11	20
Diseases of the circulatory system (I00–I99)	no.	65	48	113	108	225
Ischaemic heart diseases (I20–I25)	no.	38	20	58	65	123
Cerebrovascular diseases (I60–I69)	no.	11	8	19	21	42
Diseases of the respiratory system (J00–J99)	no.	24	15	39	24	64
Chronic lower respiratory diseases (J40–J47)	no.	14	7	21	20	41
Diseases of the digestive system (K00–K93)	no.	9	10	19	17	37
External causes of morbidity and mortality (V01–Y98)	no.	38	18	56	65	124

— nil or rounded to zero (including null cells)

(a) 1999 coverage of Indigenous deaths in the Northern Territory has been estimated at 101% on 1991 Census -based projections and 83% on 1996 Census-based projections. See Table 6.1.

(b) Includes not stated.

(c) Per 1,000 population. See Glossary. The Indigenous population used for the ISDR is the 1999 Indigenous population from the *Experimental Projections of the Aboriginal and Torres Strait Islander Population, 30 June 1996 – 30 June 2006* (Cat. no. 3231.0), low series. Standardised using age-specific death rates for the 1991 Australian population in 5 year age groups from 0–4 years to 75 years and over. The ISDR is derived using the ratio of observed deaths to expected deaths. Due to the undercoverage of Indigenous observed deaths, the ISDRs presented here are likely to be conservative estimates.

(d) Per 1,000 live births.

SECTION **7**

LIFE TABLES

THE LIFE TABLE

A life table is a statistical model used to show the levels of mortality of a population at different ages. In its simplest form, a life table is generated from age-specific mortality rates and the resulting values are used to measure mortality, survivorship and life expectancy. However, it is a powerful tool with many applications beyond the measurement of mortality.

The life tables in this publication are current or period life tables, based on mortality rates for a short period of time during which mortality has remained much the same. Mortality rates for the Australian, State and Territory, and Indigenous life tables are based on 1997–1999 data.

Life tables may be complete or abridged, depending on the age interval used in their compilation. Complete life tables such as those for Australian population contain data by single years of age, while abridged life tables, such as those for the Indigenous population, contain data for five-year age groups. Life tables are presented separately for each sex.

The life table depicts the mortality experience of a hypothetical group of newborn babies throughout their entire lifetime. It is based on the assumption that this group is subject to the age-specific mortality rates of the reference period. Typically this hypothetical group is 100,000 in size.

To construct a life table, data on population, deaths and births are needed. Mortality rates have been smoothed to avoid fluctuations in the data. The life tables presented here contain four columns of interrelated information. These functions are:

q_x — the mortality rate. The probability of dying between exact ages x and $x+1$. All other functions of the life table are derived from q_x ;

l_x — the number of survivors to exact age x ;

L_x — the number of person-years lived within the age interval x and $x+1$;

e^0_x — life expectancy. The average remaining lifetime (in years) for persons who survive to exact age x .

EXPECTATION OF LIFE

In 1997–1999 life expectancy at birth was 76.2 years for males and 81.8 years for females, an increase of 0.4 and 0.3 years respectively over the 1996–1998 life expectancies at birth. Male life expectancy was highest in the Australian Capital Territory (77.9 years), while female life expectancy was highest in Western Australia (82.1 years). The lowest life expectancy was in the Northern Territory where a boy born in 1997–1999 could be expected to live an average of 70.6 years, and a girl, 75.1 years.

Life expectancy calculations assume that the mortality rates prevailing over the reference period will continue indefinitely. As future reductions in mortality rates are probable, the actual average life expectancy of boys and girls born in the 1997–1999 period is likely to be higher than figures given here.

EXPECTATION OF LIFE *continued*

Since 1979, life expectancy at birth has increased by 5.4 years for males and 3.9 years for females. Life expectancy of 65 year olds has increased by 2.9 years for males and 2.3 years for females over the 1979–1999 period to 16.6 years for males and 20.2 years for females. It is assumed that by the year 2051 life expectancy at birth will be around 83.3 years for males and 86.6 years for females. This assumption is based on the average annual increase from 1970–1998 for male and female life expectancy at birth, of 0.30 years and 0.22 years respectively, continuing until 2003 and then gradually declining over time.

Assuming that the mortality levels prevailing in the Australian population over the 1997–1999 period were to continue, a boy born in this period would have a 30% chance of living to age 85, while a girl would have a 49% chance of living to age 85. At age 100, these chances would be 1% for males and 2.8% for females.

INDIGENOUS LIFE EXPECTANCY

The Indigenous life expectancy estimates presented in this publication are described as *experimental* because of deficiencies in deaths, births and population data. Consequently, there is uncertainty about the accuracy of death rates. The life expectancy estimates are sensitive to the inputs used and over-precise analysis is cautioned. They should be used only as an indicative summary measure of the level of mortality of the Indigenous population (see appendix 1 for a detailed description of Indigenous life tables).

7.1 AUSTRALIAN LIFE TABLE, 1997–1999—Males

Age	<i>lx</i>	<i>qx</i>	<i>Lx</i>	<i>e^ox</i>	Age	<i>lx</i>	<i>qx</i>	<i>Lx</i>	<i>e^ox</i>
0	100 000	0.00597	99 482	76.22	50	93 932	0.00334	93 777	29.16
1	99 403	0.00058	99 372	75.68	51	93 618	0.00368	93 448	28.25
2	99 346	0.00035	99 327	74.72	52	93 273	0.00407	93 087	27.36
3	99 311	0.00028	99 297	73.75	53	92 894	0.00451	92 688	26.47
4	99 284	0.00022	99 273	72.77	54	92 474	0.00502	92 246	25.58
5	99 262	0.00017	99 253	71.78	55	92 011	0.00559	91 758	24.71
6	99 245	0.00015	99 238	70.80	56	91 497	0.00623	91 217	23.85
7	99 231	0.00014	99 224	69.81	57	90 927	0.00694	90 617	22.99
8	99 217	0.00014	99 210	68.82	58	90 296	0.00774	89 952	22.15
9	99 203	0.00014	99 196	67.83	59	89 597	0.00862	89 217	21.32
10	99 190	0.00014	99 183	66.84	60	88 825	0.00959	88 405	20.50
11	99 176	0.00014	99 169	65.84	61	87 972	0.01067	87 511	19.69
12	99 162	0.00015	99 155	64.85	62	87 034	0.01185	86 526	18.90
13	99 147	0.00019	99 138	63.86	63	86 003	0.01316	85 445	18.12
14	99 128	0.00028	99 115	62.88	64	84 871	0.01462	84 260	17.36
15	99 100	0.00042	99 080	61.89	65	83 630	0.01623	82 961	16.61
16	99 058	0.00060	99 030	60.92	66	82 272	0.01803	81 542	15.87
17	98 999	0.00079	98 961	59.96	67	80 789	0.02001	79 992	15.15
18	98 920	0.00096	98 874	59.00	68	79 173	0.02220	78 306	14.45
19	98 825	0.00110	98 772	58.06	69	77 415	0.02461	76 475	13.77
20	98 717	0.00118	98 659	57.12	70	75 510	0.02726	74 494	13.10
21	98 600	0.00122	98 540	56.19	71	73 452	0.03015	72 358	12.46
22	98 479	0.00124	98 419	55.26	72	71 237	0.03331	70 064	11.83
23	98 357	0.00125	98 296	54.33	73	68 864	0.03676	67 612	11.22
24	98 234	0.00127	98 172	53.39	74	66 333	0.04054	65 002	10.63
25	98 110	0.00129	98 047	52.46	75	63 644	0.04471	62 234	10.06
26	97 983	0.00132	97 919	51.53	76	60 799	0.04932	59 312	9.50
27	97 854	0.00133	97 789	50.59	77	57 800	0.05443	56 239	8.97
28	97 724	0.00134	97 659	49.66	78	54 654	0.06009	53 023	8.46
29	97 594	0.00134	97 528	48.73	79	51 370	0.06634	49 676	7.96
30	97 463	0.00136	97 397	47.79	80	47 962	0.07323	46 213	7.50
31	97 330	0.00137	97 264	46.86	81	44 449	0.08080	42 659	7.05
32	97 197	0.00138	97 131	45.92	82	40 858	0.08908	39 041	6.62
33	97 063	0.00139	96 996	44.98	83	37 218	0.09811	35 392	6.22
34	96 928	0.00141	96 860	44.04	84	33 566	0.10792	31 751	5.84
35	96 792	0.00143	96 723	43.11	85	29 944	0.11853	28 161	5.49
36	96 653	0.00146	96 582	42.17	86	26 395	0.12995	24 668	5.16
37	96 511	0.00150	96 439	41.23	87	22 965	0.14222	21 316	4.86
38	96 366	0.00155	96 292	40.29	88	19 699	0.15533	18 150	4.58
39	96 217	0.00161	96 140	39.35	89	16 639	0.16918	15 210	4.34
40	96 061	0.00168	95 981	38.41	90	13 824	0.18323	12 533	4.12
41	95 900	0.00177	95 816	37.48	91	11 291	0.19687	10 153	3.93
42	95 730	0.00186	95 642	36.54	92	9 068	0.20977	8 090	3.78
43	95 552	0.00196	95 459	35.61	93	7 166	0.22042	6 350	3.65
44	95 365	0.00208	95 266	34.68	94	5 586	0.22810	4 925	3.54
45	95 166	0.00222	95 061	33.75	95	4 312	0.23383	3 788	3.45
46	94 954	0.00239	94 842	32.82	96	3 304	0.23963	2 892	3.36
47	94 728	0.00258	94 607	31.90	97	2 512	0.24669	2 189	3.26
48	94 484	0.00280	94 353	30.98	98	1 892	0.25349	1 642	3.17
49	94 219	0.00305	94 078	30.07	99	1 413	0.26029	1 221	3.09
					100	1 045	0.26709	899	3.01

lx number of persons at exact age *x*

qx proportion dying between exact age *x* and exact age *x* + 1

Lx number of persons years lived within the age interval *x* to *x* + 1

e^ox expectation of life at exact age *x*

7.2 AUSTRALIAN LIFE TABLE, 1997–1999—Females

Age	<i>lx</i>	<i>qx</i>	<i>Lx</i>	<i>e^ox</i>	Age	<i>lx</i>	<i>qx</i>	<i>Lx</i>	<i>e^ox</i>
0	100 000	0.00483	99 576	81.77	50	96 708	0.00216	96 605	33.53
1	99 517	0.00043	99 494	81.17	51	96 499	0.00237	96 386	32.60
2	99 475	0.00025	99 462	80.21	52	96 270	0.00260	96 147	31.68
3	99 450	0.00021	99 439	79.23	53	96 020	0.00285	95 886	30.76
4	99 429	0.00018	99 420	78.24	54	95 747	0.00312	95 600	29.84
5	99 411	0.00016	99 403	77.26	55	95 448	0.00343	95 287	28.94
6	99 395	0.00013	99 389	76.27	56	95 121	0.00377	94 944	28.03
7	99 382	0.00011	99 377	75.28	57	94 762	0.00414	94 569	27.14
8	99 371	0.00010	99 367	74.29	58	94 370	0.00455	94 159	26.25
9	99 362	0.00009	99 357	73.29	59	93 941	0.00499	93 710	25.37
10	99 353	0.00009	99 349	72.30	60	93 472	0.00548	93 220	24.49
11	99 344	0.00010	99 340	71.31	61	92 960	0.00601	92 684	23.62
12	99 335	0.00012	99 329	70.31	62	92 401	0.00659	92 101	22.76
13	99 323	0.00016	99 315	69.32	63	91 792	0.00723	91 465	21.91
14	99 307	0.00021	99 297	68.33	64	91 129	0.00792	90 773	21.07
15	99 287	0.00026	99 274	67.35	65	90 407	0.00869	90 020	20.23
16	99 261	0.00032	99 245	66.36	66	89 621	0.00955	89 199	19.40
17	99 229	0.00036	99 212	65.38	67	88 765	0.01053	88 304	18.59
18	99 194	0.00039	99 174	64.41	68	87 830	0.01165	87 326	17.78
19	99 155	0.00041	99 134	63.43	69	86 806	0.01293	86 254	16.98
20	99 114	0.00042	99 093	62.46	70	85 684	0.01440	85 077	16.20
21	99 073	0.00041	99 052	61.48	71	84 450	0.01608	83 782	15.43
22	99 032	0.00040	99 012	60.51	72	83 092	0.01799	82 357	14.67
23	98 992	0.00040	98 972	59.53	73	81 597	0.02016	80 788	13.93
24	98 953	0.00040	98 933	58.56	74	79 953	0.02260	79 063	13.21
25	98 913	0.00041	98 893	57.58	75	78 146	0.02534	77 171	12.50
26	98 873	0.00042	98 852	56.60	76	76 166	0.02841	75 099	11.81
27	98 831	0.00043	98 810	55.63	77	74 002	0.03189	72 839	11.14
28	98 789	0.00045	98 767	54.65	78	71 642	0.03584	70 376	10.49
29	98 745	0.00047	98 722	53.68	79	69 074	0.04036	67 699	9.86
30	98 698	0.00049	98 675	52.70	80	66 286	0.04551	64 797	9.26
31	98 650	0.00051	98 625	51.73	81	63 269	0.05138	61 664	8.68
32	98 599	0.00054	98 573	50.75	82	60 019	0.05802	58 297	8.12
33	98 546	0.00057	98 518	49.78	83	56 537	0.06551	54 702	7.59
34	98 489	0.00061	98 460	48.81	84	52 833	0.07390	50 896	7.08
35	98 429	0.00065	98 398	47.84	85	48 928	0.08326	46 904	6.61
36	98 365	0.00070	98 331	46.87	86	44 854	0.09363	42 763	6.16
37	98 297	0.00075	98 260	45.90	87	40 655	0.10505	38 523	5.75
38	98 223	0.00080	98 184	44.93	88	36 384	0.11756	34 243	5.36
39	98 144	0.00087	98 102	43.97	89	32 107	0.13112	29 993	5.01
40	98 059	0.00093	98 014	43.01	90	27 897	0.14541	25 852	4.69
41	97 968	0.00101	97 919	42.05	91	23 840	0.16005	21 909	4.41
42	97 869	0.00109	97 816	41.09	92	20 025	0.17486	18 245	4.15
43	97 762	0.00118	97 705	40.13	93	16 523	0.18914	14 927	3.93
44	97 646	0.00128	97 585	39.18	94	13 398	0.20222	12 008	3.73
45	97 521	0.00140	97 454	38.23	95	10 689	0.21405	9 510	3.55
46	97 385	0.00152	97 312	37.28	96	8 401	0.22518	7 424	3.39
47	97 237	0.00166	97 157	36.34	97	6 509	0.23633	5 712	3.23
48	97 076	0.00181	96 989	35.40	98	4 971	0.24815	4 331	3.08
49	96 900	0.00198	96 806	34.46	99	3 737	0.26069	3 230	2.94
					100	2 763	0.27324	2 369	2.80

lx number of persons at exact age *x*

qx proportion dying between exact age *x* and exact age *x* + 1

Lx number of person years lived within the age interval *x* to *x* + 1

e^ox expectation of life at exact age *x*

7.3 EXPECTATION OF LIFE, Australia(a)

AGE (YEARS).....

Selected years	0	1	10	20	30	40	50	60	70	80
MALES										
1979	70.86	70.76	62.04	52.49	43.24	33.82	24.93	17.13	10.80	6.28
1984	72.46	72.22	63.46	53.83	44.48	35.02	25.93	17.86	11.26	6.52
1989	73.32	72.97	64.17	54.53	45.52	35.87	26.67	18.37	11.53	6.59
1994	75.00	74.53	65.70	56.00	46.60	37.21	27.99	19.43	12.29	6.95
1993-95	74.95	74.48	65.66	55.94	46.57	37.19	27.97	19.45	12.35	6.99
1994-96	75.22	74.70	65.86	56.15	46.79	37.41	28.18	19.62	12.45	7.04
1995-97	75.57	75.04	66.20	56.50	47.15	37.77	28.53	19.93	12.69	7.20
1996-98	75.86	75.31	66.48	56.77	47.43	38.05	28.80	20.18	12.86	7.32
1997-99	76.22	75.68	66.84	57.12	47.79	38.41	29.16	20.50	13.10	7.50
FEMALES										
1979	77.88	77.67	68.93	59.13	49.43	39.78	30.52	21.89	14.18	7.94
1984	78.95	78.58	69.77	59.96	50.22	40.54	31.19	22.43	14.64	8.26
1989	79.60	79.17	70.36	60.53	50.79	41.09	31.68	22.81	14.87	8.46
1994	80.94	80.36	71.91	62.04	52.25	42.52	33.03	24.01	15.70	8.80
1993-95	80.84	80.28	71.43	61.59	51.81	42.11	32.64	23.68	15.56	8.85
1994-96	81.05	80.46	71.60	61.76	51.98	42.28	32.80	23.83	15.67	8.92
1995-97	81.27	80.68	71.81	61.79	52.20	42.50	33.01	24.03	15.84	9.02
1996-98	81.52	80.91	72.04	62.20	52.43	42.73	33.25	24.25	16.01	9.13
1997-99	81.77	81.17	72.30	62.46	52.70	43.01	33.53	24.49	16.20	9.26

(a) Based on Annual Life Tables calculated by the Australian Statistician until 1994 and from 1999. From 1995 to 1998 the life tables have been produced as a joint venture between the Australian Bureau of Statistics and the Australian Government Actuary. See paragraph 12 of the Explanatory Notes for more information.

7.4 EXPERIMENTAL LIFE TABLE OF INDIGENOUS PEOPLE, 1997–1999—Australia(a)

Age	l_x	q_x	L_x	e^o_x	Age	l_x	q_x	L_x	e^o_x
Males					Females				
0	100 000	0.02442	97 851	55.62	0	100 000	0.01957	98 278	63.00
1–4	97 558	0.00484	389 002	56.01	1–4	98 043	0.00311	391 391	63.25
5–9	97 086	0.00284	484 741	52.28	5–9	97 738	0.00224	488 145	59.45
10–14	96 811	0.00284	483 366	47.42	10–14	97 520	0.00292	486 886	54.58
15–19	96 536	0.01661	478 669	42.55	15–19	97 235	0.00663	484 562	49.73
20–24	94 932	0.02471	468 795	38.22	20–24	96 590	0.00819	480 973	45.04
25–29	92 586	0.03277	455 344	34.13	25–29	95 799	0.01390	475 666	40.39
30–34	89 552	0.04494	437 696	30.20	30–34	94 467	0.01648	468 446	35.93
35–39	85 527	0.05609	415 642	26.50	35–39	92 911	0.02643	458 416	31.49
40–44	80 730	0.07189	389 141	22.93	40–44	90 456	0.03744	443 811	27.28
45–49	74 927	0.09749	356 370	19.51	45–49	87 069	0.05947	422 399	23.24
50–54	67 622	0.12583	316 836	16.35	50–54	81 891	0.07624	393 845	19.55
55–59	59 113	0.17579	269 586	13.34	55–59	75 647	0.12269	355 033	15.96
60–64	48 721	0.26253	211 630	10.65	60–64	66 366	0.18977	300 344	12.84
65–69	35 931	0.31937	150 965	8.56	65–69	53 771	0.19754	242 303	10.26
70–74	24 455	0.41445	96 938	6.40	70–74	43 150	0.32891	180 267	7.17
75 and over	14 320	1.00000	59 512	4.16	75 and over	28 957	1.00000	129 200	4.46

(a) excludes Tasmania and the Australian Capital Territory.

 l_x number of persons at exact age x q_x proportion dying between exact age x and exact age $x + n$, where n is the age interval L_x number of person years lived within the age interval x to $x + n$ e^o_x expectation of life at exact age x

7.5 EXPERIMENTAL LIFE TABLE OF INDIGENOUS PEOPLE, 1998–1999—New South Wales

Age	l_x	q_x	L_x	e^o_x	Age	l_x	q_x	L_x	e^o_x
Males					Females				
0	100 000	0.02442	97 851	55.61	0	100 000	0.01957	98 278	64.02
1–4	97 558	0.00529	388 879	56.00	1–4	98 043	0.00203	391 686	64.30
5–9	97 042	0.00209	484 703	52.29	5–9	97 844	0.00290	488 512	60.42
10–14	96 839	0.00174	483 775	47.39	10–14	97 561	0.00165	487 402	55.59
15–19	96 671	0.01468	479 806	42.47	15–19	97 400	0.00684	485 335	50.68
20–24	95 252	0.02075	471 317	38.07	20–24	96 734	0.00801	481 733	46.01
25–29	93 275	0.04251	456 462	33.82	25–29	95 959	0.01295	476 691	41.36
30–34	89 310	0.05130	435 097	30.21	30–34	94 717	0.01245	470 636	36.87
35–39	84 729	0.05672	411 629	26.71	35–39	93 537	0.02376	462 132	32.31
40–44	79 923	0.05954	387 718	23.17	40–44	91 315	0.02772	450 248	28.03
45–49	75 164	0.09102	358 718	19.47	45–49	88 784	0.05752	431 152	23.76
50–54	68 323	0.09894	324 715	16.17	50–54	83 677	0.06288	405 231	20.06
55–59	61 563	0.18816	278 857	12.67	55–59	78 415	0.12408	367 753	16.23
60–64	49 980	0.31245	210 858	10.03	60–64	68 686	0.19238	310 396	13.18
65–69	34 364	0.34705	142 003	8.46	65–69	55 472	0.14363	257 443	10.72
70–74	22 438	0.37968	90 890	6.62	70–74	47 505	0.34191	196 918	7.10
75 and over	13 918	1.00000	57 672	4.14	75 and over	31 262	1.00000	140 525	4.50

l_x number of persons at exact age x

q_x proportion dying between exact age x and exact age $x + n$, where n is the age interval

L_x number of persons years lived within the age interval x to $x + n$

e^o_x expectation of life at exact age x

7.6 EXPERIMENTAL LIFE TABLE OF INDIGENOUS PEOPLE, 1997–1999—Victoria

Age	l_x	q_x	L_x	e^o_x	Age	l_x	q_x	L_x	e^o_x
Males					Females				
0	100 000	0.02442	97 851	56.08	0	100 000	0.01957	98 278	65.22
1–4	97 558	0.00552	388 817	56.48	1–4	98 043	0.00278	391 480	65.52
5–9	97 019	0.00204	484 603	52.78	5–9	97 770	0.00205	488 350	61.70
10–14	96 822	0.00174	483 687	47.89	10–14	97 570	0.00248	487 243	56.82
15–19	96 653	0.02511	477 199	42.97	15–19	97 327	0.00289	485 934	51.95
20–24	94 226	0.02702	464 767	39.01	20–24	97 046	0.00323	484 448	47.10
25–29	91 680	0.02735	452 133	35.02	25–29	96 733	0.01519	479 991	42.24
30–34	89 173	0.05333	433 974	30.94	30–34	95 263	0.01893	471 807	37.85
35–39	84 417	0.05220	411 069	27.54	35–39	93 459	0.02678	461 041	33.54
40–44	80 011	0.04400	391 251	23.92	40–44	90 957	0.01369	451 671	29.39
45–49	76 490	0.08079	367 001	19.90	45–49	89 712	0.03150	441 493	24.76
50–54	70 311	0.12920	328 843	16.43	50–54	86 886	0.06270	420 810	20.49
55–59	61 227	0.15821	281 916	13.50	55–59	81 438	0.09244	388 371	16.69
60–64	51 540	0.22382	228 860	10.57	60–64	73 910	0.20873	330 983	13.14
65–69	40 004	0.33750	166 268	7.89	65–69	58 483	0.13189	273 133	10.94
70–74	26 503	0.52427	97 778	5.64	70–74	50 770	0.32836	212 173	7.22
75 and over	12 608	1.00000	51 702	4.10	75 and over	34 099	1.00000	154 562	4.53

l_x number of persons at exact age x

q_x proportion dying between exact age $x + n$, where n is the age interval

L_x number of person years lived within the age interval x to $x + n$

e^o_x expectation of life at exact age x

7.7 EXPERIMENTAL LIFE TABLE OF INDIGENOUS PEOPLE, 1997–1999—Queensland

Age	l_x	q_x	L_x	e^o_x	Age	l_x	q_x	L_x	e^o_x
Males					Females				
0	100 000	0.02442	97 851	55.88	0	100 000	0.01957	98 278	62.48
1–4	97 558	0.00455	389 081	56.28	1–4	98 043	0.00357	391 264	62.73
5–9	97 114	0.00329	484 773	52.53	5–9	97 693	0.00227	487 908	58.95
10–14	96 795	0.00258	483 350	47.69	10–14	97 471	0.00221	486 815	54.08
15–19	96 545	0.01661	478 718	42.81	15–19	97 255	0.00502	485 055	49.19
20–24	94 942	0.02827	468 000	38.49	20–24	96 767	0.00796	481 908	44.43
25–29	92 258	0.02812	454 805	34.54	25–29	95 996	0.01611	476 117	39.76
30–34	89 664	0.03201	441 145	30.47	30–34	94 450	0.01573	468 536	35.37
35–39	86 794	0.04724	423 721	26.39	35–39	92 964	0.02141	459 845	30.90
40–44	82 694	0.07695	397 563	22.58	40–44	90 974	0.04269	445 158	26.52
45–49	76 331	0.09975	362 620	19.25	45–49	87 090	0.05323	423 858	22.59
50–54	68 717	0.14545	318 597	16.11	50–54	82 454	0.08051	395 673	18.72
55–59	58 722	0.18340	266 685	13.42	55–59	75 815	0.14838	350 954	15.14
60–64	47 952	0.21103	214 463	10.87	60–64	64 566	0.20771	289 303	12.34
65–69	37 833	0.34530	156 506	8.11	65–69	51 155	0.22724	226 714	9.92
70–74	24 769	0.46065	95 321	6.07	70–74	39 531	0.33411	164 635	7.11
75 and over	13 359	1.00000	55 117	4.13	75 and over	26 323	1.00000	116 357	4.42

l_x number of persons at exact age x

q_x proportion dying between exact age $x + n$, where n is the age interval

L_x number of person years lived within the age interval x to $x + n$

e^o_x expectation of life at exact age x

7.8 EXPERIMENTAL LIFE TABLE OF INDIGENOUS PEOPLE, 1997–1999—South Australia

Age	l_x	q_x	L_x	e^o_x	Age	l_x	q_x	L_x	e^o_x
Males					Females				
0	100 000	0.02442	97 851	54.41	0	100 000	0.01957	98 278	62.50
1–4	97 558	0.00344	389 380	54.76	1–4	98 043	0.00342	391 304	62.74
5–9	97 222	0.00334	485 299	50.95	5–9	97 707	0.00173	488 114	58.95
10–14	96 898	0.00174	484 066	46.11	10–14	97 538	0.00388	486 747	54.05
15–19	96 729	0.02805	476 861	41.19	15–19	97 160	0.01129	483 060	49.25
20–24	94 016	0.01617	466 276	37.30	20–24	96 064	0.00252	479 713	44.78
25–29	92 495	0.04201	452 760	32.88	25–29	95 822	0.01683	475 077	39.89
30–34	88 609	0.06959	427 631	29.21	30–34	94 209	0.01563	467 364	35.53
35–39	82 443	0.05841	400 177	26.21	35–39	92 736	0.04451	453 364	31.05
40–44	77 628	0.09308	370 073	22.68	40–44	88 609	0.03437	435 432	27.39
45–49	70 402	0.08730	336 645	19.75	45–49	85 564	0.09976	406 479	23.27
50–54	64 256	0.15379	296 575	16.40	50–54	77 028	0.08921	367 961	20.57
55–59	54 374	0.16451	249 507	13.92	55–59	70 156	0.07024	338 462	17.34
60–64	45 429	0.23188	200 809	11.17	60–64	65 229	0.15259	301 260	13.46
65–69	34 895	0.28242	149 836	8.79	65–69	55 275	0.17337	252 420	10.44
70–74	25 040	0.43434	98 009	6.26	70–74	45 693	0.34048	189 569	7.10
75 and over	14 164	1.00000	58 797	4.15	75 and over	30 135	1.00000	134 977	4.48

l_x number of persons at exact age x

q_x proportion dying between exact age x and exact age $x + n$, where n is the age interval

L_x number of person years lived within the age interval x to $x + n$

e^o_x expectation of life at exact age x

7.9 EXPERIMENTAL LIFE TABLE OF INDIGENOUS PEOPLE, 1997–1999—Western Australia

Age	l_x	q_x	L_x	e^o_x	Age	l_x	q_x	L_x	e^o_x
Males					Females				
0	100 000	0.02442	97 851	54.92	0	100 000	0.01957	98 278	62.83
1–4	97 558	0.00592	388 707	55.29	1–4	98 043	0.00126	391 895	63.08
5–9	96 980	0.00293	484 191	51.62	5–9	97 920	0.00062	489 447	59.16
10–14	96 696	0.00390	482 538	46.76	10–14	97 859	0.00512	488 041	54.20
15–19	96 319	0.01568	477 820	41.93	15–19	97 357	0.00642	485 226	49.46
20–24	94 809	0.03107	466 681	37.56	20–24	96 733	0.01254	480 631	44.77
25–29	91 864	0.02847	452 779	33.69	25–29	95 519	0.01138	474 880	40.30
30–34	89 248	0.04823	435 479	29.60	30–34	94 433	0.01677	468 206	35.74
35–39	84 943	0.06178	411 598	25.97	35–39	92 850	0.02633	458 136	31.30
40–44	79 696	0.08521	381 500	22.52	40–44	90 405	0.04240	442 441	27.08
45–49	72 904	0.10225	345 885	19.38	45–49	86 572	0.04412	423 310	23.17
50–54	65 450	0.12836	306 245	16.31	50–54	82 752	0.09310	394 501	19.13
55–59	57 048	0.18810	258 414	13.34	55–59	75 048	0.12244	352 270	15.83
60–64	46 317	0.30106	196 726	10.85	60–64	65 860	0.18606	298 663	12.69
65–69	32 373	0.25724	141 046	9.45	65–69	53 606	0.25619	233 695	10.02
70–74	24 045	0.34943	99 222	6.86	70–74	39 872	0.26589	172 857	7.61
75 and over	15 643	1.00000	65 613	4.19	75 and over	29 270	1.00000	130 734	4.47

l_x number of persons at exact age x

q_x proportion dying between exact age x and exact age $x + n$, where n is the age interval

L_x number of person years lived within the age interval x to $x + n$

e^o_x expectation of life at exact age x

7.10 EXPERIMENTAL LIFE TABLE OF INDIGENOUS PEOPLE, 1997–1999—Northern Territory

Age	l_x	q_x	L_x	e^o_x	Age	l_x	q_x	L_x	e^o_x
Males					Females				
0	100 000	0.02442	97 851	56.25	0	100 000	0.01957	98 278	61.38
1–4	97 558	0.00353	389 357	56.65	1–4	98 043	0.00552	390 733	61.60
5–9	97 213	0.00352	485 211	52.85	5–9	97 502	0.00283	486 819	57.94
10–14	96 871	0.00293	483 646	48.03	10–14	97 226	0.00436	485 068	53.10
15–19	96 588	0.01377	479 613	43.16	15–19	96 802	0.00922	481 778	48.32
20–24	95 258	0.02121	471 236	38.73	20–24	95 909	0.00866	477 471	43.74
25–29	93 237	0.02631	460 052	34.51	25–29	95 079	0.01229	472 472	39.10
30–34	90 784	0.04059	444 708	30.38	30–34	93 910	0.02499	463 682	34.56
35–39	87 099	0.06668	420 978	26.56	35–39	91 563	0.03472	449 866	30.38
40–44	81 292	0.07732	390 745	23.28	40–44	88 384	0.05407	429 971	26.38
45–49	75 006	0.11627	353 229	20.02	45–49	83 605	0.08965	399 288	22.75
50–54	66 285	0.13093	309 730	17.32	50–54	76 110	0.07906	365 508	19.74
55–59	57 606	0.13135	269 115	14.56	55–59	70 093	0.10292	332 430	16.22
60–64	50 040	0.23179	221 201	11.38	60–64	62 879	0.16595	288 308	12.80
65–69	38 441	0.27968	165 327	9.06	65–69	52 444	0.22571	232 628	9.85
70–74	27 690	0.38978	111 467	6.61	70–74	40 607	0.35154	167 347	6.99
75 and over	16 897	1.00000	71 437	4.23	75 and over	26 332	1.00000	116 399	4.42

l_x number of persons at exact age x

q_x proportion dying between exact age x and exact age $x + n$, where n is the age interval

L_x number of person years lived within the age interval x to $x + n$

e^o_x expectation of life at exact age x

EXPLANATORY NOTES

INTRODUCTION

1 The registration of deaths is the responsibility of the individual State and Territory Registrars and is based on information supplied by a relative or other person acquainted with the deceased, or an official of the institution where the death occurred and on information supplied by a medical practitioner as to the cause of death. This information is supplied to the Australian Bureau of Statistics (ABS) by individual Registrars for compilation into the aggregate statistics in this publication.

2 In the main, statistics in this publication refer to deaths registered by the State and Territory Registrars during the calendar year shown. There is usually an interval between the occurrence and registration of a death and, as a result of delays in registration, some deaths occurring in one year are not registered until the following year or even later.

DEATHS REGISTERED IN THE SAME YEAR AS THEY OCCURRED

.....

<i>Year</i>	<i>%</i>	<i>Year</i>	<i>%</i>
.....		
1988	92.9	1994	95.6
1989	93.8	1995	95.2
1990	92.8	1996	95.2
1991	93.6	1997	95.6
1992	94.3	1998	96.0
1993	94.8	1999	95.8

.....

3 For deaths data, cell values less than three have been randomly allocated a value of zero or three to assist in the preservation of confidentiality of information.

STATES AND TERRITORIES

4 Statistics for States and Territories have been compiled and presented in respect of the State or Territory of usual residence of the deceased, regardless of where in Australia the death occurred and was registered.

5 Table 2.2 shows the number of deaths cross-classified by State or Territory of usual residence and State or Territory of registration.

STATES AND TERRITORIES *continued*

6 In 1999 there were 390 overseas usual residents deaths registered in Australia. These have been included in this publication and classified according to the State or Territory in which the death was registered. Australian residents who die overseas are not included, these deaths are registered in the country in which the death occurred.

Deaths of overseas visitors

<i>State or Territory of registration</i>	1994	1995	1996	1997	1998	1999
New South Wales	123	108	135	130	120	145
Victoria	50	52	61	55	49	64
Queensland	94	92	106	98	91	90
South Australia	19	19	22	16	21	14
Western Australia	43	48	48	55	61	50
Tasmania	3	4	4	4	4	7
Northern Territory	13	—	15	11	17	16
Australian Capital Territory	7	6	2	6	8	4
Other Territories	—	—	—	—	—	—
Australia	352	329	393	375	371	390

7 Following the 1992 amendments to the Acts Interpretation Act to include the Indian Ocean Territories of Christmas Island and Cocos (Keeling) Islands as part of the geography of Australia, population estimates commencing with September quarter 1993 include estimates for these two Territories. To reflect this change, another category of the State and Territory level has been created, known as Other Territories. Other Territories include Jervis Bay Territory, previously included with the Australian Capital Territory, as well as Christmas Island and the Cocos (Keeling) Islands, previously excluded from population estimates for Australia. Before 1997, cause of death data do not include deaths of persons usually resident in Other Territories. From 1997, cause of death data for residents of Other Territories are included in the total for Australia.

EXCLUSIONS

8 Figures in this publication do not include fetal deaths (stillbirths). Statistics on fetal deaths are given in *Causes of Death, Australia* (Cat. no. 3303.0).

9 Deaths of Australian residents which took place outside Australia are not included in the statistics.

CAUSES OF DEATH

10 For deaths registered in 1999, the 10th revision of the World Health Organisation's International Classification of Diseases (ICD-10) was introduced for the coding of causes of death. Causes of death descriptions and corresponding codes used in this publication relate to particular causes or groups of causes as classified in ICD-10. The introduction of ICD-10 has broken the underlying cause of death series, particularly at the more detailed level of classification. For information on the differences between ICD-9 and ICD-10, please refer to *Causes of Death, Australia* (Cat. no. 3303.0).

Deaths registered prior to 1999 are coded on the 9th version of the World Health Organisation's International Classification of Diseases (ICD-9). For cause of death tables, time-series data has been included up to 1998 on ICD-9 and new tables have been constructed commencing from 1999 on ICD-10.

The time-series summary table (table 3.2) includes causes of death data. The 1999 data is coded to ICD-10 and is not directly comparable with previous years presented in the table. The 1999 data in this table relates to:

Malignant neoplasms (C00–C99)
 Ischaemic heart diseases (I20–I25)
 Cerebrovascular diseases (I60–I69)
 Chronic lower respiratory diseases (J40–J47)
 Accidents (V01–X59)
 from the ICD-10 classification.

AUSTRALIAN LIFE TABLES

11 The 1997–1999 life tables are produced by the ABS. The tables differ from those published prior to the 1995 edition of this publication in a number of important respects. Firstly, they are based on three years of population and deaths data. This is designed to reduce the impact of year-to-year statistical variations, particularly at younger ages where there is a small number of deaths and at very old ages where the population at risk is small. Secondly, the population and deaths data are based on Australian residents who are physically present in Australia over the three-year period i.e. Australian residents temporarily overseas are excluded. Thirdly, they have been actuarially graduated on the same principles as those used for the quinquennial Australian life tables prepared by the Australian Government Actuary. Life tables for States and Territories are produced on the same principles as these tables and are available on request or in the *Demography, State* publications (Cat. nos 3311.1–8).

TIME SERIES

12 Time series data from 1901 to 1995 is available in the 1995 issue of *Deaths, Australia* (Cat. no. 3302.0) and in *Australian Demographic Trends, 1997* (Cat. no. 3102.0).

13 ABS publications draw extensively on information provided freely by individuals, businesses, governments and other organisations. Their continued cooperation is very much appreciated: without it, the wide range of statistics published by the ABS would not be available. Information received by the ABS is treated in strict confidence as required by the *Census and Statistics Act 1905*.

RELATED PUBLICATIONS

14 Other ABS publications which may be of interest to users include:
Australian Demographic Statistics (Cat. no. 3101.0) — issued quarterly
Australian Demographic Trends (Cat. no. 3102.0) — issued irregularly
Births, Australia (Cat. no. 3301.0) — issued annually
Causes of Death, Australia (Cat. no. 3303.0) — issued annually
Perinatal Deaths, Australia (Cat. no. 3304.0) — issued annually to 1993
Population Projections, Australia 1999–2101 (Cat. no. 3222.0)
Experimental Projections of the Aboriginal and Torres Strait Islander Population (Cat. no. 3231.0) — issued irregularly.

15 A compendium of all demographic data for each State and Territory has been released in State or Territory specific publications, *Demography, State* (Cat. nos 3311.1–8). These publications are released each year for each State or Territory and contain a variety of demographic data.

16 From 1994 detailed State and Territory data for deaths and causes of death are available in *Causes of Death, Australia* (Cat. no. 3301.0). For the years 1990 to 1993 inclusive, additional data on deaths for each State are available in *Deaths* (Cat. nos 3312.1–6).

17 Current publications produced by the ABS are listed in the *Catalogue of Publications and Products* (Cat. no. 1101.0). The ABS also issues, on Tuesdays and Fridays, a *Release Advice* (Cat. no. 1105.0) which lists publications to be released in the next few days. Both are available from any ABS office.

18 As well as the statistics included in this and related publications, additional information is available from the ABS Website at <http://www.abs.gov.au> and accessing Themes/Demography.

ADDITIONAL STATISTICS AVAILABLE

19 The ABS can also make available information which is not published. The following table lists the characteristics processed by the ABS for deaths registered. A charge is made for providing unpublished information.

CHARACTERISTICS OF DEATH REGISTRATIONS

Characteristic(a)	Notes on coverage and quality
Related to the death	
Date of death	Day, month and year
Date of registration	Month and year available for all States
Cause of death	Multiple cause of death introduced in 1997
State of registration	
Usual residence at death	Available for statistical local area
Related to the person	
Age	
Sex	
Date of birth	NSW, NT, ACT, SA and WA.
Marital status	
Occupation	Poor quality
Date of marriage	WA and NT only
Age at marriage	Not available in Vic.; age at last marriage for Tas. For other States is either first or subsequent marriage
Number of children	
Country of birth	
Duration of residence in Australia	Relates to overseas-born population
Indigenous status	Variable quality

(a) State or Territory of registration, not of usual residence. Available nationally unless otherwise stated.

APPENDIX 1

INDIGENOUS LIFE TABLES

METHOD

Experimental Indigenous abridged life tables were produced for the periods 1990–1992, 1995–1997 and 1997–1999. During these periods, only South Australia, Western Australia and the Northern Territory had a relatively high coverage of Indigenous deaths. For this reason experimental Indigenous life tables for these three States and Territory were produced for all three periods. Experimental life tables were also produced for New South Wales, Victoria and Queensland but only for 1997–1999 as the coverage of Indigenous deaths has improved considerably for Victoria and Queensland in 1997–1999 and for New South Wales in 1998–1999. Because of the small number of registered Indigenous deaths and/or very low coverage, Indigenous life tables were not produced for Tasmania and the Australian Capital Territory. Experimental Indigenous life tables for all of Australia were produced only for the period 1997–1999. Indigenous deaths registered in Tasmania and the Australian Capital Territory were excluded from the Australian tables. This exclusion would have only a minimal effect on the Australia level Indigenous life expectancy.

The 1990–1992, 1995–1997 and 1997–1999 life tables used mortality rates based on an average annual number of Indigenous deaths registered in 1990–1992, 1995–1997 and 1997–1999 respectively. Deaths were averaged over the three-year periods to smooth out the year to year irregularities in the number of registered deaths in many areas and age groups. The only exception was the New South Wales life tables which were based on the average deaths registered only in 1998–1999.

Experimental estimated resident Indigenous population (ERP) at June 1991 (both 1991 and 1996 Census based estimates), experimental estimated resident Indigenous population at June 1996 and experimental projected resident Indigenous population at June 1998 were used as mid-year populations to calculate mortality rates for 1990–1992, 1995–1997 and 1997–1999 respectively.

Adjustment

Two sets of experimental Indigenous life tables were produced. One set was based on the number of registered deaths which were not adjusted for under-coverage. There is under-coverage of Indigenous deaths to some degree in all States and Territories. To compensate for under-coverage, the other set was produced after inflating the number of registered deaths in the State or Territory by the respective adjustment factor. This is the set published in section 7 of this publication.

The ABS calculates, for each State and Territory and Australia, the coverage of Indigenous deaths by dividing the number of deaths registered by the number of deaths projected from the 1996 and 1991 Census-based experimental estimates. The projected deaths are derived using mortality levels based on the 1991–1996 experimental Indigenous life tables. The 1996 Census-based (low series) coverage estimates were used to obtain an average coverage of Indigenous deaths for the periods 1990–1992, 1995–1997 and 1997–1999. The reciprocal of the average coverage was then used as an adjustment factor to obtain adjusted deaths. No separate adjustment factor

ADJUSTMENT *continued*

was derived for Australia, instead the number of adjusted deaths in New South Wales, Victoria, Queensland, South Australia, Western Australia and the Northern Territory were combined together to construct life tables for Australia.

RESULTS

At the national level the life expectancy at birth in the period 1997–1999 was estimated to be about 55.6 years for Indigenous males. This compares to the life expectancy of Indigenous males of 56.9 years previously estimated for 1991–1996, a decrease of 1.3 years. The life expectancy at birth of Indigenous females in the 1997–1999 period was estimated to be 63.0 years, 1.3 years more than that in 1991–1996. There are several possible explanations for the apparent decrease in Indigenous male life expectancy. It could be due to improved recording of Indigenous deaths, particularly male deaths, including the introduction of a question on Indigenous status on the Queensland death registration forms in 1996. It could also be due to the differences in the method used. The previous Indigenous life tables used the Preston-Hill method to estimate the coverage of Indigenous deaths registered in the 1991–1996 intercensal period. The present analysis used coverage estimates which were derived by dividing the number of deaths registered by the number of deaths projected from the 1996 Census-based experimental projections. For these reasons, comparison of life expectancy estimates presented in this publication with estimates from other sources should only be undertaken with extreme caution. The lower male life expectancy in 1997–1999 than in 1991–1996 does not necessarily mean that the Indigenous male mortality has increased during this period.

RESULTS *continued*

EXPERIMENTAL ESTIMATES OF LIFE EXPECTANCY AT BIRTH, Indigenous

	NSW(a)	Vic.	Qld	SA	WA	NT	Aust.(b)
OBSERVED LIFE EXPECTANCY							
MALES							
1990–1992(c)	n.a.	n.a.	n.a.	58.0	57.8	55.4	n.a.
1990–1992(d)	n.a.	n.a.	n.a.	60.0	59.4	56.5	n.a.
1995–1997	n.a.	n.a.	n.a.	60.1	59.8	57.6	n.a.
1997–1999	65.8	64.5	62.9	61.6	60.0	57.8	62.5
FEMALES							
1990–1992(c)	n.a.	n.a.	n.a.	64.2	62.4	59.3	n.a.
1990–1992(d)	n.a.	n.a.	n.a.	65.8	64.6	60.9	n.a.
1995–1997	n.a.	n.a.	n.a.	68.4	65.6	63.3	n.a.
1997–1999	71.4	71.6	68.5	68.0	66.6	62.4	68.2
ADJUSTED LIFE EXPECTANCY							
MALES							
1990–1992(c)	n.a.	n.a.	n.a.	51.2	53.4	54.1	n.a.
1990–1992(d)	n.a.	n.a.	n.a.	52.5	55.0	54.9	n.a.
1995–1997	n.a.	n.a.	n.a.	53.7	55.7	55.5	n.a.
1997–1999	55.6	56.1	55.9	54.4	54.9	56.3	55.6
FEMALES							
1990–1992(c)	n.a.	n.a.	n.a.	57.7	58.7	58.3	n.a.
1990–1992(d)	n.a.	n.a.	n.a.	59.3	60.9	59.7	n.a.
1995–1997	n.a.	n.a.	n.a.	62.8	62.3	61.5	n.a.
1997–1999	64.0	65.2	62.5	62.5	62.8	61.4	63.0

n.a. not available

(a) Based on deaths for 1998–1999.

(b) Excludes Tasmania and the Australian Capital Territory.

(c) Derived using the experimental Indigenous ERP at June 1991 (1991 Census based) as the mid-year population.

(d) Derived using the experimental Indigenous ERP at June 1991 (1996 Census based) as the mid-year population.

The observed life expectancies are higher than the adjusted life expectancies in all States and Territory, for both sexes. The observed life expectancies are based on the actual number of registered deaths. As Indigenous deaths are under-registered to some extent in all States/Territories, the observed life expectancies are over-estimates of the true life expectancies. The adjusted life expectancies, on the other hand, are based on the number of deaths which are obtained after inflating the observed number of deaths by an adjustment factor and hence are expected to be closer to reality than the observed life expectancies.

GLOSSARY

Age-specific death rate	Age-specific death rates are the number of deaths registered (or occurred) during the calendar year at a specified age per 1,000 of the estimated resident population of the same age at mid-point of the year (30 June). Pro rata adjustment is made in respect of deaths for which the age of the deceased is not given.
Country of birth	<p>The classification of countries is the Standard Australian Classification of Countries (SACC). For more detailed information refer to the Standard Australian Classification of Countries (SACC) (Cat. no. 1269.0).</p> <p>This classification replaces the Australian Standard Classification of Countries for Social Statistics (ASCCSS).</p>
Crude death rate	The crude death rate is the number of deaths registered during the calendar year per 1,000 estimated resident population at 30 June. For years prior to 1992, the crude death rate was based on the mean estimated resident population for the calendar year.
Death	For the purposes of the Deaths and Causes of Death collections conducted by the ABS, a death refers to any death which occurs in, or en route to Australia and is registered with a State or Territory Registry of Births, Deaths and Marriages.
Estimated resident population	<p>Estimated resident population (ERP) are estimates of the Australian population obtained by adding to the estimated population at the beginning of each period the components of natural increase (on a usual residence basis) and net overseas migration. For the States and Territories, account is also taken of estimated interstate movements involving a change of usual residence.</p> <p>Estimates of the resident population are based on adjusted (for underenumeration) census counts by place of usual residence, to which are added the number of Australian residents estimated to have been temporarily overseas at the time of the Census. Overseas visitors in Australia are excluded from this calculation.</p> <p>After each census, estimates for the preceding intercensal period are revised by incorporating an additional adjustment (intercensal discrepancy) to ensure that the total intercensal increase agrees with the difference between the ERPs at the two respective census dates.</p> <p>The concept of ERP links people to a place of usual residence within Australia. Usual residence is that place where each person has lived or intends to live for six months or more from the reference date for data collection.</p>
Indigenous status	Persons who identify as being of Aboriginal or Torres Strait Islander origin.
Indigenous death	The death of a person who is identified as being of Aboriginal or Torres Strait Islander origin on the death information form.
Infant death	An infant death is the death of a live-born child who dies before reaching his/her first birthday.

Infant mortality rate	The number of deaths of children under one year of age in a calendar year per 1,000 live births in the same calendar year.
Intercensal discrepancy	Intercensal discrepancy is the difference between two estimates of a census year population, the first based on the latest census and the second arrived at by updating the previous census date estimate with intercensal components of population change which take account of information available from the latest census. It is caused by errors in the start and/or finish population estimates and/or in estimates of births, deaths or migration in the intervening period which cannot be attributed to a particular source.
Life expectancy	Life expectancy refers to the average number of additional years a person of a given age and sex might expect to live if the age-specific death rates of the given period continued throughout his/her lifetime.
Life table death rate	The life table death rate represents the annual number of deaths (per 1,000 population) that would occur based on the death rates and population structure of the life table.
Marital status	Two separate concepts are measured by the Australian Bureau of Statistics. These are registered marital status and social marital status. They have different personal characteristics and are independent variables with separate classifications. Marital status relates to registered marital status which refers to formally registered marriages or divorces for which the partners hold a certificate. Four categories of marital status are identified: never married, married, widowed and divorced.
Median value	For any distribution the median value (age, duration, interval) is that value which divides the relevant population into two equal parts, half falling below the value, and half exceeding it. Where the value for a particular record has not been stated, that record is excluded from the calculation.
Natural Increase	Excess of births over deaths.
Neonatal death	For neonatal deaths a birthweight and period of gestation criterion apply: <ul style="list-style-type: none"> ▪ A neonatal death is the death within 28 days of birth of a child weighing at least 500 grams at delivery (or of at least 22 weeks gestation, if birthweight was unavailable) who after delivery, breathes or shows any evidence of life such as a heartbeat. Applies to data collected prior to 1997. ▪ A neonatal death is the death within 28 days of birth of a child weighing at least 400 grams at delivery (or of at least 20 weeks gestation, if birthweight was unavailable) who after delivery, breathes or shows any evidence of life such as a heartbeat. Applies to data collected from 1997 onwards. <p>Wherever used, the definition adopted is indicated.</p>
Sex ratio	The sex ratio relates to the number of males per 100 females. The sex ratio is defined for total population, at birth, at death and among age groups by appropriately selecting the numerator and denominator of the ratio.

Standardised death rate (SDR) 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. 1991). The current standard population is all persons in the 1991 Australian population. They are expressed per 1,000 or 100,000 persons. There are two methods of calculating standardised death rates:

- 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.
- 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.

Wherever used, the definition adopted is indicated.

Standardised mortality ratio (SMR) 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*).

State or Territory of registration State or Territory of registration refers to the State or Territory in which the event was registered.

State or Territory of usual residence Refers to the State or Territory of usual residence of the population in estimated resident population and to the State or Territory of usual residence of the deceased.

Total fertility rate The sum of age-specific fertility rates (live births at each age of mother per female population of that age). It represents the number of children a woman would bear during her lifetime if she experienced current age-specific fertility rates at each age of her reproductive life.

Year of occurrence Data presented on year of occurrence basis relate to the date the death occurred.

Year of registration Data presented on year of registration basis relate to the date the death was registered.

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