Australian Bureau of Statistics

2002

3302.0

DEATHS

AUSTRALIA

EMBARGO: 11:30AM (CANBERRA TIME) TUES 2 DEC 2003

CONTENTS

INQUIRIES

- For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070, or Jacqui Cristiano on Canberra (02) 6252 5117.

NOTES

ABOUT THIS ISSUE

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

CHANGES IN THIS ISSUE

The chapter and tables on Indigenous deaths have been reformatted into the one chapter in this issue (Chapter 7).

Experimental life tables for Indigenous people have not been included in this publication. Investigation of previously published results and those produced from more recently available deaths and population counts is being undertaken with a view to releasing the results in the new year. As a result, life expectancy at birth estimates for Indigenous people and deaths registration coverage estimates (which depend on the availability of such life tables) have not been included.

Following a data quality investigation, death statistics for Indigenous, non-Indigenous and not stated Indigenous status categories have been revised for Western Australia for the 2001 year of registration. The total number of deaths for Western Australia were not affected.

Deaths by year of occurrence are presented in Chapter 6.

Data for 1997–2002 cause of death are coded to ICD-10 (see Explanatory Notes 21–26).

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. With the exception of tables 5.19 and 5.20, small values have been randomised to protect confidentiality. No reliance should be placed on statistics with small values.

DATA IN THIS PUBLICATION

As there is undercoverage of Indigenous deaths to some extent in most states and territories, the measures of Indigenous mortality presented here are likely to be conservative estimates. Fluctuations in the level of Indigenous mortality over time partly reflect changing levels of coverage of Indigenous deaths. Given the volatility in measures of Indigenous mortality caution should be exercised in assessing trends in Indigenous mortality over time.

Dennis Trewin
Australian Statistician

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CHAPTER 1 MAIN FEATURES

MORTALITY CONTINUES TO DECLINE

- The Australian death rate changed little in 2002, compared to the last two years. The standardised death rate in 2002 (6.7) was up by 1.5% since 2001 (6.6), down 1.5% (6.8) since 2000 and down 35% (10.3) since 1982. There were 133,700 deaths registered in Australia in 2002, approximately 5,200 (4.0%) more than the number registered in 2001 (128,500).
- Over the past 20 years there has been a sustained decline in the death rates for all states and territories. The highest age-standardised death rate in 2002 was in the Northern Territory and the lowest was in the Australian Capital Territory.

LIFE EXPECTANCY CONTINUES TO INCREASE

- Life expectancy at birth continued to increase, reflecting the general decrease in death rates. A boy born in 2000–2002 could expect to live 77.4 years, while a girl could expect to live 82.6 years. Since 1982, life expectancy at birth has increased by six years for males and four years for females.
- Internationally, Australia's male life expectancy at birth ranks below Japan, Sweden and Hong Kong (each 78 years), similar to that for Switzerland and Canada (each 77 years), and above that for France, Greece, New Zealand and Spain (each 76 years), the United Kingdom and the United States of America (75 and 74 years respectively).
- Australia's life expectancy at birth for females was similar to that for France, Spain and Switzerland (each 83 years). It was behind Japan and Hong Kong (each 85 years), and above Canada and Sweden (each 82 years), Greece and New Zealand (each 81 years), the United Kingdom and the United States of America (each 80 years).
- Male life expectancy at birth was highest in the Australian Capital Territory (79.2 years), while female life expectancy was highest in the Australian Capital Territory (83.3 years), closely followed by Western Australia (82.9 years). The lowest life expectancy was in the Northern Territory where a boy born in 2000–2002 could expect to live an average of 71.3 years, and a girl, 76.7 years.
- In 2000–2002, the life expectancy at birth for males and females varied across the regions of Australia by up to 11 years. Male life expectancy at birth was highest in Canberra (79.2 years) followed by Outer Adelaide, Melbourne, Moreton (Queensland) and Perth (each 78.4 years), while female life expectancy was highest at 83.4 years in Perth, followed by Moreton (Queensland) and Canberra (each 83.3 years).
- Male life expectancy was lowest in the Balance of the Northern Territory (68.1 years) followed by the Kimberley (71.8 years), and North-West Queensland (72.3 years). Female life expectancy was lowest in the Balance of the Northern Territory (73.6 years), North-West Queensland (77.6 years) and the Kimberley (78.0 years).

VARIATIONS IN MORTALITY

- The 2002 infant mortality rate was 5.0 deaths per 1,000 live births, a decrease of 5.7% from 2001, and a decrease of 51.5% since 1982. In 2002, over one-third (36.3%) of all infant deaths occurred within one day of birth.
- For those aged 15 years and over, males and females who had never married had standardised death rates of almost twice those of their married counterparts.

VARIATIONS IN MORTALITY *continued*

- Of all men whose deaths were registered during 2002, 55.2% were in a registered marriage at the time of death, while 19.5% were widowed and 14.6% were never married. In contrast, of all women whose deaths were registered during 2002, 57.4% were widows at the time of death, with a further 26.1% being in a registered marriage and 8.9% never married. This difference is a consequence of the greater longevity of women.
- The median age at death in 2002 was 76.2 years for males and 82.2 years for females, an increase of 6.2 years and 5.0 years respectively on the median age at death in 1982. This reflects the ageing of the population, as well as an increase in the survival of males and females over the period.
- Between 1982 and 2002, the risk of dying has declined for people of all age groups. The largest declines in male age specific death rates occurred in the 5–9 years age group (down 75%), followed by those aged 1–4 years (down 57%), infants (down 53%) and the 10–14 years age group (down 50%). Female age specific death rates also declined most substantially in the 1–4 years age group (down 60%) and for infants (down 49%).

CAUSES OF DEATH

- During the last decade, Ischaemic heart diseases (IHD) and Malignant neoplasms (cancer) remained the two leading causes of death. In recent years cancer has overtaken IHD as the leading cause of death for both men and women. This has been the result of the long-term downward trend in the standardised death rate for IHD, declining by 58.1% for males and 53.3% for females from 1982 to 2002. Over the same period the standardised death rate for Malignant neoplasms declined by just 13.6% for males and 6.8% for females.
- In 2002, Malignant neoplasms were the leading cause of death, accounting for 37,600 deaths or 28.1% of all deaths. IHD was the second leading cause of death, contributing 26,100 deaths or 19.5% of all deaths. Cerebrovascular diseases (stroke) contributed 9.4% of all deaths.

INDIGENOUS MORTALITY

- There were 2,140 deaths registered in 2002 where the deceased person was identified as being of Aboriginal, Torres Strait Islander or both origins (Indigenous).
- The Indigenous infant mortality rate was higher than the total infant mortality rate for the states and territory presented. In 2000–2002 the highest Indigenous infant mortality rate was experienced in the Northern Territory (18.1), while New South Wales (9.5) experienced the lowest Indigenous infant mortality rate.
- The median age at death among Indigenous males in 2002 was highest in New South Wales (56.3 years), while the lowest median age at death for Indigenous males was in the Northern Territory (47.1 years).
- The median age at death among Indigenous females in 2002 was highest in New South Wales (61.9 years), while the lowest median age at death for Indigenous males was in the Northern Territory (50.0 years).

CHAPTER 2 SUMMARY OF FINDINGS

DECLINING DEATH RATES

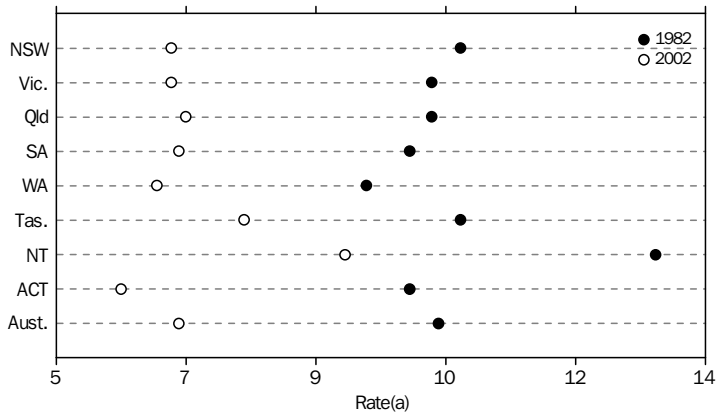
In 2002, 133,700 deaths (68,900 males and 64,800 females) were registered in Australia, approximately 5,200 more than were registered in 2001 (128,500). This represents a 4.0% increase in deaths. Since 1982, the number of deaths has increased by an average of 0.8% per year. The steady increase in the 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, with deaths projected to outnumber births sometime in the 2030s (Series B, *Population Projections, Australia, 2002 to 2101*, cat. no. 3222.0).

Despite the ageing of the population over the last 20 years, deaths rates have continued to decline. The crude death rate (CDR) fell from 7.6 deaths per 1,000 population in 1982 to 6.8 deaths per 1,000 in 2002. The fall in CDR, against the background of an older population, indicates the considerable decline in age-specific death rates (ASDR) over the period. The standardised death rate (SDR) (which eliminates the effect of the changing age structure of the population) was 6.7 deaths per 1,000 population in 2002, up by 1.5% since 2001 (6.6) but down by 1.5% (6.8) on 2000 and down by 35% since 1982 (10.3). Standardised death rates have been revised using the 2001 standard population.

States and territories

The SDR for the Northern Territory remained much higher than other state and territory SDRs, with 9.0 deaths per 1,000 standard population in 2002; a decrease of 4.3% on the 2001 SDR (9.4) and a decrease of 32.3% on the 1982 SDR (13.3). For the remaining states and territories there has been a sustained decline in SDRs for the past 20 years, with SDRs decreasing by an average of 34%. In 2002, Tasmania followed the Northern Territory with the second highest SDR (7.6) while the lowest SDR was recorded in the Australian Capital Territory at 5.9 deaths per 1,000 standard population. This was followed by Western Australia (6.4), New South Wales and Victoria (each 6.6).

2.1 STATE AND TERRITORY DEATH RATES(a)



(a) Standardised death rates per 1,000 population. Standardised to the 2001 Australian total population.

YEAR OF OCCURRENCE

This majority of this publication contains deaths data on a year of registration basis, except where otherwise stated. An alternative is to publish death statistics according to the year of occurrence, that is the year that the death occurred, irrespective of the year the death was registered. A new feature of the publication this year is Chapter 6, which presents deaths by year of occurrence.

INTERNATIONAL COMPARISON

Life expectancy

According to the 2003 Population Reference Bureau (PRB) world population data sheet, global life expectancy at birth in 2000–2002 was estimated to be 67 years (males and females combined), a gain of more than 20 years of life from 1950 when a newborn infant could expect to live for 45 years. According to the Australian life tables, 2000–2002 (table 5.29 and 5.30) life expectancy at birth of 77.4 years for males and 82.6 years for females are among the highest in the world.

Based on a selection of countries, Australia's male life expectancy at birth ranks below that for Japan, Sweden and Hong Kong (each 78 years), similar to Switzerland and Canada (each 77 years), and was above that for France, Greece, New Zealand and Spain (each 76 years), the United Kingdom and the United States of America (75 and 74 years respectively). Australia's life expectancy at birth for females was similar to that for France, Spain and Switzerland (each 83 years). It was behind Japan and Hong Kong (each 85 years), was above Canada and Sweden (each 82 years), Greece and New Zealand (each 81 years), the United Kingdom and the United States of America (each 80 years).

The world's most populous country, China, is estimated to have a life expectancy at birth of 69 years for males and 73 years for females (PRB, 2003).

Infant mortality rate

The 2003 Population Reference Bureau world population data sheet estimated the global infant mortality rate (IMR) to be 55 infant deaths per 1,000 live births. Australia's 2002 IMR of 5.0 (table 5.24) infant deaths per 1,000 live births was among the lowest in the world, similar to Belgium, Canada, and New Zealand (each 5.3). Singapore had one of the lowest IMRs, at 2.5 infant deaths per 1,000 live births, followed by Hong Kong (2.6), Japan (3.0) and Finland (3.2).

In contrast, the world's highest IMRs were for regions in the Sub-Saharan Africa where the estimated IMR for Middle Africa and Eastern Africa were 104 and 102 infant deaths per 1,000 live births respectively. Most infant deaths in Africa are from infectious and parasitic diseases (including Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome) (HIV/AIDS)) and from nutritional deficiencies.

AGE AT DEATH

The median age at death in 2002 was 76.2 years for males and 82.2 years for females, an increase of six years and five years respectively on the median age at death in 1982. This reflects the ageing of the population, as well as an increase in the survival of males and females over the period.

The median age at death in the Northern Territory was over 23 years less than the median age nationally. This is the result of a young population, in combination with the

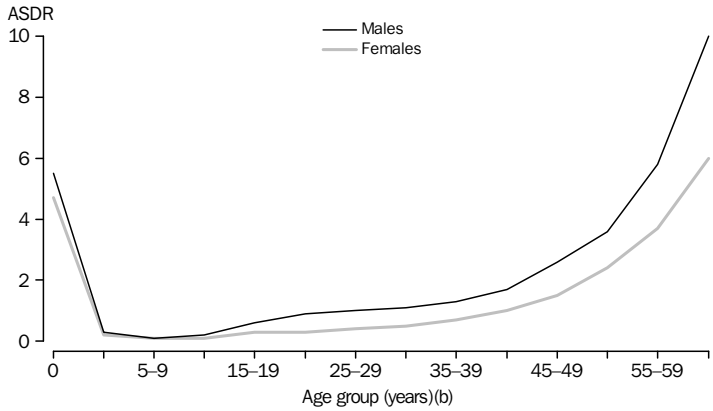
AGE AT DEATH *continued*

high mortality of the Indigenous population, which comprises approximately 29% of the Territory's total population. South Australia had the highest median ages at death with 77.2 years for males and 82.7 years for females, reflecting the older population of South Australia compared to other states and territories.

From the relatively high rates of death in infancy, death rates sharply decline through childhood. The lowest age-specific death rates (ASDRs) were experienced by males aged 5–9 years and females aged 5–9 and 10–14 years, with an ASDR of 0.1 for male deaths and 0.1 female deaths respectively per 1,000 population. ASDR begin to increase after age 15 years, for both males and females.

Males aged 15–19 years had an ASDR of 0.6 deaths per 1,000 male population, while the ASDR for females, aged 15–19 years, was 0.3 deaths per 1,000 females. The male ASDR further increased at age 20–24 years but then leveled off somewhat until after age 40 years where it increased steadily throughout the older age groups. The ASDR for females aged 15–19, 20–24 and 25–29 years remained low and relatively constant. Steady increase in the female ASDR was evident after age 30 years, and continued throughout the remaining age groups.

2.2 MALE AND FEMALE AGE-SPECIFIC DEATH RATES(a), Ages 0 to 64 years



(a) Per 1,000 males and females respectively.

(b) Age groups are 0, 1–4, and then five-year age groups to 60–64 years.

Between 1982 and 2002, the risk of dying has declined for people of all age groups. The largest declines in male age specific death rates occurred in the 5–9 years age group (down 75%), followed by those aged 1–4 years (down 57%), infants (down 53%) and the 10–14 years age group (down 50%). Female age specific death rates also declined most substantially in the 1–4 years age group (down 60%) and for infants (down 49%).

SEX

Male deaths (68,900) outnumbered female deaths (64,800) registered in 2002, giving a sex ratio of 106 male deaths for every 100 female deaths. This ratio has decreased from 123 male deaths per 100 female deaths in 1982. Since 1982, male deaths have increased by 8.8% while female deaths have increased by 25.9%, due primarily to the greater improvement in male mortality, relative to female mortality, at the older ages.

Although male mortality levels remain higher than females, in the last 20 years the gap has narrowed. In 1982, males had an SDR of 13.4 deaths per 1,000 standard population, 67.5% higher than the female SDR of 8.0 deaths per 1,000 standard population. By 2002, the male SDR was 8.2 deaths per 1,000 standard population, 49.1% higher than the female rate of 5.5 deaths per 1,000 standard population. Over the same period the difference in male and female life expectancy at birth has narrowed, from 7 years in 1982 (life expectancy at birth of 71.3 years for males and 78.3 years for females) to 5 years in 2002 (life expectancy at birth of 77.4 years for males and 82.6 years for females).

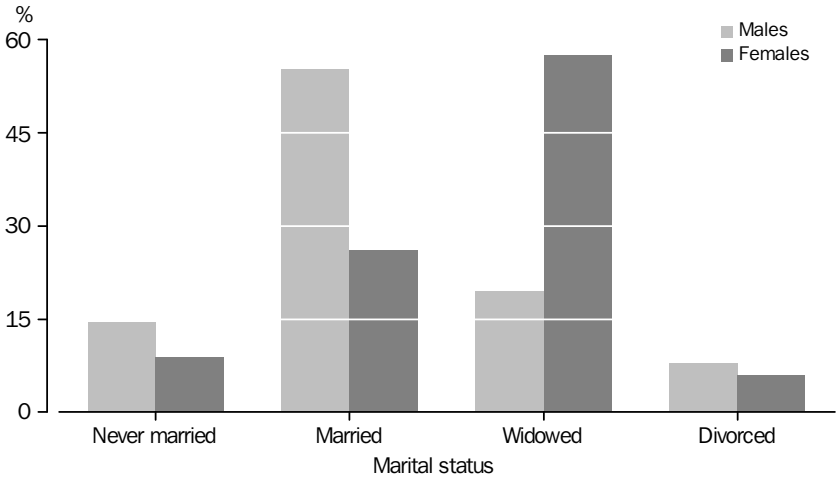
Male death rates were higher than female death rates across all states and territories in 2002. The difference was greatest in South Australia where the male SDR (8.3 deaths per 1,000 standard population) was 53.7% higher than the female SDR (5.4 deaths per 1,000 standard population). The Australian Capital Territory recorded the smallest difference where the male SDR (7.0 deaths per 1,000 standard population) was 34.6% higher than the female SDR (5.2 deaths per 1,000 standard population). The Northern Territory recorded the highest death rates for both males and females. For males in the Northern Territory the SDR was 29.3% higher (10.6 deaths per 1,000 standard population) than for total males in Australia (8.2 deaths per 1,000 standard population). For Northern Territory females the SDR (7.4 deaths per 1,000 standard population) was 34.5% higher than for total females in Australia (5.5 deaths per 1,000 standard population). It should also be noted that the Northern Territory had a sex ratio at death of 161, the highest across all states and territories.

MARITAL STATUS

Of all men whose deaths were registered during 2002, 55.2% were in a registered marriage at the time of death, while 19.5% were widowed and 14.6% were never married. In contrast, of all women whose deaths were registered during 2002, 57.4% were widows at the time of death, with a further 26.1% being in a registered marriage and 8.9% never married. This difference is a consequence of the greater longevity of women.

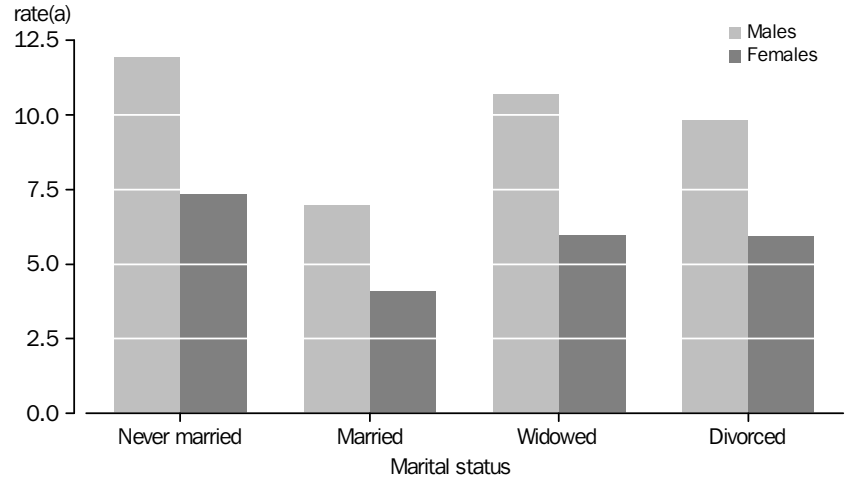
MARITAL STATUS *continued*

2.3 DEATHS BY REGISTERED MARITAL STATUS—2002



As estimated resident population (ERP) for 2002 by marital status are not yet available, the standardised death rates by marital status for 2001 (calculated using 2001 deaths data and 2001 marital status ERP data) showed that males and females who had never married had death rates almost twice those of their married counterparts. Both men and women who were widowed had similar death rates to those who were divorced.

2.4 STANDARDISED DEATH RATES(a) BY REGISTERED MARITAL STATUS—2001



(a) Standardised deaths rates for persons aged 15 years and over per 1,000 population. Standardised to the 2001 Australian total population.

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 registered marriage is far from universal, selectivity is likely to be an important factor.

COUNTRY OF BIRTH

Australia's population born overseas accounted for 29.4% of deaths registered in 2002, despite making up only 23.1% of the resident population in 2001 (2002 ERP by country of birth is not yet available). 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 2001 was 45 years compared to 31 years for the Australian-born population. As ERP for 2002 by country of birth are not yet available, crude death rates and indirect standardised death rates have been calculated using 2001 deaths data and 2001 country of birth ERP.

Migrants generally have lower death rates than the Australian-born population, after adjusting for the older age structure of the overseas-born population. This is true for nearly all migrant groups. Residents born in the Philippines had the lowest indirect standardised death rate (ISDR) in 2001, just over half that of the total population.

UNDERLYING CAUSE OF DEATH

Using broad ICD-10 chapter headings, Chapter IX, Diseases of the circulatory system (I00–I99), which includes the major subcategory of all heart diseases (I05–I09, I11, I13, I20–I25, I26, I27, I30–I52) and the minor subcategories of Ischaemic heart diseases (IHD) and Cerebrovascular diseases (stroke), accounted for 37.6% of all deaths in Australia in 2002. Chapter II, Neoplasms (C00–D48), which includes the subcategory of Malignant neoplasms, contributed 28.7% of all deaths.

In 2002, as in previous years, Malignant neoplasms (cancer) (C00–C97) dominated the subcategories of underlying cause of death, with 37,600 deaths accounting for 28.1% of all deaths. This was followed closely by all heart diseases (I05–I09, I11, I13, I20–I25, I26, I27, I30–I52) with 34,200 deaths or 25.6% of all deaths. IHD accounted for 76.3% of all deaths within the all heart diseases subcategory, or 26,100 deaths.

During the last decade, IHD and cancer remained the two leading causes of death. In recent years cancer has overtaken IHD as the leading cause of death for both men and women. This has been the result of the long-term downward trend in the standardised death rate for IHD, declining by 58.1% for males and 53.3% for females from 1982 to 2002. Over the same period the standardised death rate for Malignant neoplasms declined by just 13.6% for males and 6.8% for females.

UNDERLYING CAUSE OF DEATH *continued*

2.5 UNDERLYING CAUSE OF DEATH—2001–02

	MALES		FEMALES	
Cause of death and ICD code	*2001*	*2002*	*2001*	*2002*
All causes	**66 835**	**68 885**	**61 709**	**64 822**
Chapter II Neoplasms (C00–D48)	21 126	21 459	16 371	16 967
Malignant neoplasms (C00–C97)	20 753	21 041	15 997	16 581
Digestive organs (C15–C26)	5 918	5 759	4 462	4 624
Trachea, bronchus and lung (C33, C34)	4 642	4 760	2 396	2 543
Breast (C50)	27	18	2 585	2 698
Prostate (C61)	2 711	2 852	..	..
Chapter IV Endocrine, nutritional and metabolic diseases (E00–E90)	2 223	2 383	2 091	2 283
Diabetes mellitus (E10–E14)	1 639	1 771	1 439	1 558
Chapter IX Diseases of the circulatory system (I00–I99)	23 602	23 988	25 724	26 306
All heart disease (I05–I09, I11, I13, I20–I25, I26, I27, I30–I52)	17 027	17 278	16 620	16 895
Ischaemic heart diseases (I20–I25)	13 906	13 855	12 328	12 208
Pulmonary heart disease and diseases of pulmonary circulation and other forms of heart disease (I26–I52)	2 824	3 117	3 747	4 023
Cerebrovascular diseases (I60–I69)	4 852	4 969	7 294	7 564
Chapter X Diseases of the respiratory system (J00–J99)	5 725	6 169	4 901	5 499
Chronic lower respiratory diseases (J40–J47)	3 419	3 567	2 497	2 689
Chapter XX External causes of morbidity and mortality (V01–Y98)	5 446	5 271	2 430	2 549
Accidents (V01–X59)	3 155	3 099	1 685	1 807
Transport accidents (V01–V99)	1 495	1 403	509	504
Intentional self-harm (X60–X84)	1 935	1 817	519	503

Source: Causes of Death, Australia, 2002 (cat. no. 3303.0).

For males, Malignant neoplasms accounted for 21,000 (30.5%) of all male deaths in 2002. Of these, cancer of the digestive organs (which includes cancer of the oesophagus, colon, stomach or pancreas) was the major cause of death for males, accounting for 8.4% of all male deaths, followed by cancer of the trachea, bronchus and lung (6.9%) and prostate cancer (4.1%).

For females, Malignant neoplasms represented 25.6% of all female deaths or 16,600 deaths. Cancer of the digestive organs was also the most frequent subcategory of underlying cause of all female deaths (7.1%), followed by breast cancer (4.2%) and cancer of the trachea, bronchus and lung (3.9%).

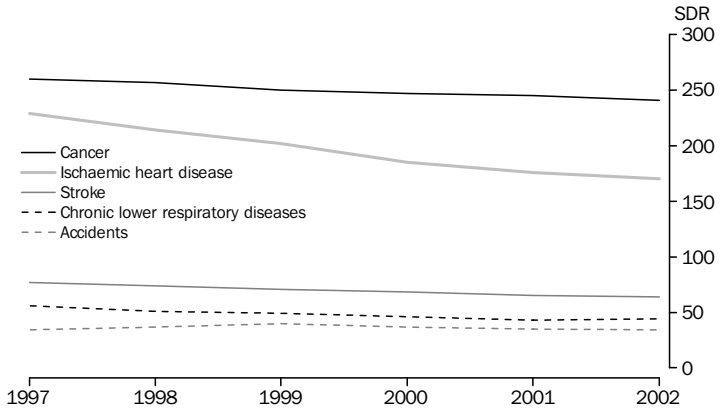
IHD was the second leading cause of death, contributing 26,100 deaths, or 19.5% of all deaths in Australia in 2002. For males, IHD had an SDR of 170 deaths per 100,000 population and accounted for 13,900 deaths, which was 20.1% of all male deaths. For females, IHD had an SDR of 98 deaths per 100,000 population and accounted for 12,200 deaths, which was 18.8% of all female deaths in Australia.

Cerebrovascular disease (stroke) was the third leading cause of death contributing 9.4% of all deaths. For males the death rate for stroke was 64, compared to 60 for females. Stroke deaths have undergone a decline similar to that of IHD, with the death rate declining by 55.2% for males and 55.2% for females since 1982.

UNDERLYING CAUSE OF DEATH *continued*

While the total number of deaths registered in 2002 (133,700) was 8.1% higher than the number registered in 1992 (123,700), the SDR for all causes of death over the same ten year period had decreased by 22.5% for males and 18.4% for females. This decrease is consistent with the continual improvement of male and female life expectancy in Australia.

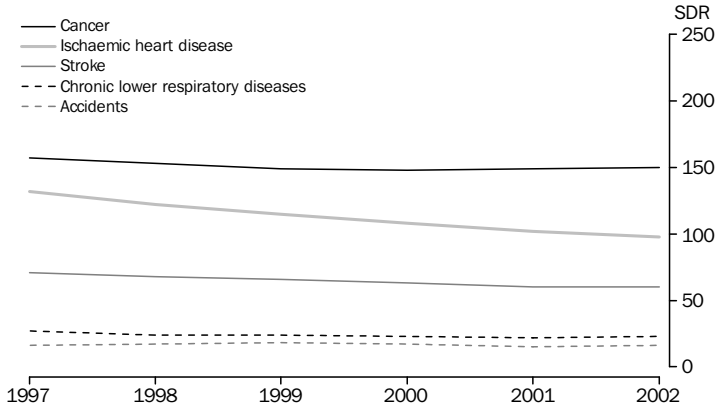
2.6 CAUSES OF DEATH, Standardised death rates(a)(b)—Males



(a) Per 100,000 population. Standardised to the 2001 Australian total population.

(b) 1997–2002 data are coded to ICD-10. Prior to 1997 data are coded to ICD-9. The SDR for chronic lower respiratory diseases prior to 1997 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).

2.7 CAUSES OF DEATH, Standardised death rates (a)(b)—Females



(a) Per 100,000 population. Standardised to the 2001 Australian total population.

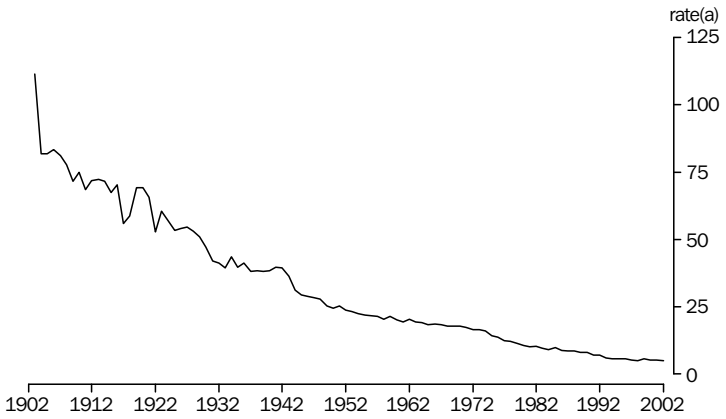
(b) 1997–2002 data are coded to ICD-10. Prior to 1997 data are coded to ICD-9. The SDR for chronic lower respiratory diseases prior to 1997 is the SDR for the group of diseases in ICD-9 under the heading of chronic obstructive pulmonary disease and conditions (including asthma, emphysema, bronchitis) (490–496).

INFANT DEATHS

In 2002, 1,260 infant deaths (deaths of children less than one year of age) were registered in Australia. The number of infant deaths registered in 2002 was 31.4% lower than the number registered in 1992 (1,840), and 49.1% lower than in 1982 (2,500). The infant mortality rate (IMR) of 5.0 infant deaths per 1,000 live births in 2002 was a 5.7% decrease on the IMR in 2001 (5.3). The 2002 IMR was 28.6% lower than the IMR in 1992 (7.0 deaths per 1,000 live births), and 51.5% lower than in 1982 (10.3 deaths per 1,000 live births), supporting the long-term decline of infant deaths.

Australia's infant mortality has declined by 95% in the last 100 years. In 1902, over 1 in 10 infants born did not survive to their first birthday (IMR of 107.1). In 2002, only 1 in 200 infants born will not survive their first year of life (IMR of 5.0). 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).

2.8 INFANT MORTALITY RATE(a)—1902–2002



(a) Per 1,000 live births.

States and territories

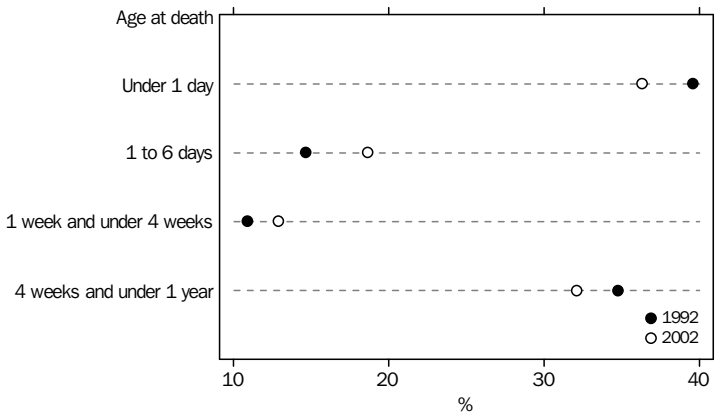
The Australian Capital Territory had the lowest IMR, 3.4 in 2002, followed by Western Australia with an IMR of 4.3. The Northern Territory IMR of 11.3 was the highest of the states and territories, with Tasmania, Queensland and South Australia also registering IMRs above the national level. Compared to 1992, the largest decrease in the IMR (46%, from 6.3 to 3.4) occurred in the Australian Capital Territory, while the smallest decrease occurred in Tasmania (declining 6% from 6.6 to 6.2).

Infant age at death

In 2002, 36.3% of all infant deaths occurred within the first day of birth, with a further 31.6% of all infant deaths occurring in the remainder of the neonatal period (first four weeks of life). Between 1992 and 2002, declines in infant deaths have not been uniform across the different neonatal periods. Deaths that occurred under one day of age experienced the greatest decline over the ten-year period (37.1% decline), followed by post neonatal deaths (deaths of infants aged over four weeks and under one year) (36.7% decline), late neonatal (one week and under four weeks) (18.9% decline), and early neonatal deaths (one day to six days) (12.9% decline).

Infant age at death *continued*

2.9 PROPORTION OF INFANT DEATHS BY AGE AT DEATH



Sex

Over the last 20 years male infant deaths have consistently outnumbered female infant deaths. In 2002, male infant deaths (700) outnumbered female infant deaths (570) by 23.7%. In the last twenty years the male IMR has been consistently higher than the female IMR (by between 23% and 40%), reflecting the greater vulnerability of male infants (Waldron 1983).

LIFE EXPECTANCY

In 2000–2002 life expectancy at birth was 77.4 years for males and 82.6 years for females, an increase of 0.4 years for males and 0.2 years for females over the 1999–2001 life expectancies at birth. Male life expectancy at birth was highest in the Australian Capital Territory (79.2 years), while female life expectancy at birth was highest in the Australian Capital Territory (83.3 years) and Western Australia (82.9 years). The lowest life expectancy at birth was in the Northern Territory where a boy born in 2000–2002 could expect to live an average of 71.3 years, and a girl, 76.7 years.

Since 1982, life expectancy at birth has increased by six years for males and four years for females. Mortality projections have calculated that by the year 2050–51 life expectancy at birth could be around 84.2 years for males and 87.7 years for females (using the medium assumption which assumes a declining improvement in life expectancy). This assumption is based on the average annual increase from 1970–2001 for male and female life expectancy at birth, of 0.30 years and 0.25 years respectively continuing until 2005–06 and then gradually declining over time. For further information on mortality projections please see *Population Projections, Australia, 2002 to 2101* (cat. no. 3222.0).

Regional life expectancy

In 2000–2002, the life expectancy at birth for males and females varied across the regions of Australia by up to 11 years. Male life expectancy at birth was highest in Canberra (79.2 years) followed by Outer Adelaide, Melbourne, Moreton (Queensland) and Perth (each 78.4 years), while female life expectancy was highest at 83.4 years in Perth, followed by Moreton (Queensland) and Canberra (each 83.3 years).

Male life expectancy was lowest in the Balance of the Northern Territory (68.1 years) followed by the Kimberley (71.8 years), and North-West Queensland (72.3 years). Female life expectancy was lowest in the Balance of the Northern Territory (73.6 years), North-West Queensland (77.6 years) and the Kimberley (78.0 years).

Australia's more rural and remote populations tend to have higher mortality rates and consequently lower life expectancy (Australian Institute of Health and Welfare (AIHW), 1998) than populations living in either a capital city or urbanised area. Where there is a higher proportion of Indigenous people living in these rural and remote areas there is an additional impact upon mortality rates and life expectancy (AIHW, 1998).

The Statistical Divisions (SD) that experienced lower life expectancy at birth are primarily located in rural and remote areas. The Kimberley, which incorporates the Statistical Local Area (SLA) of Broome, and the SD of North-West (Queensland), which includes the SLAs of Mount Isa and Cloncurry are examples of SDs with low life expectancy at birth.

Outside the capital cities the more urbanised SDs tended to have higher life expectancies at birth. Examples of these SDs are Moreton (Queensland), which incorporates the Gold and Sunshine Coast Statistical Subdivisions (SSD), Richmond-Tweed SD (New South Wales), which includes the SLAs of Ballina and Lismore, and the SD of Barwon (Victoria), which includes the SSD of the Greater Geelong City Part A and the SLA of Queenscliffe.

CHAPTER 3 FEATURE ARTICLE—MORTALITY BY REMOTENESS AREAS

INTRODUCTION

According to the Australian Institute of Health and Welfare (AIHW), the health of populations living in rural and remote areas of Australia is commonly perceived as being poorer than those living in capital cities and other metropolitan areas. Numerous reasons are cited for this difference in health status, including availability and access to medical services and exposure to different health risks (AIHWs rural health web site, 2003).

Various mortality measures, such as life expectancy, standardised death rates and infant mortality rates are often used as indicators of the health of a population group. This article will investigate the impact that remoteness has upon mortality by investigating various mortality measures.

REMOTENESS DEFINED

Many statistics and administrative data users have expressed a need for a standard classification to define the urban/rural dichotomy. Often terms like metropolitan, urban, regional, rural and remote mean different things to different people and can be undefined or have conflicting meanings in different applications.

In 2001, the ABS developed a remoteness classification based on the Accessibility/Remoteness Index of Australia (ARIA). The ARIA value ranges between 0 and 15 and is determined for each Census Collection District (CD) in Australia. The value is determined according to the road distance from any point within the CD to the nearest town (a service centre). Service centres are defined according to the access provided to goods, services and opportunity for social interaction. The population size of the service centre is used as a proxy for the availability of a range of services and road distance is used as a proxy for the degree of remoteness from those services.

Service groupings used in the analysis of service availability are; education (including preschool, primary, secondary, university and TAFE), health (including hospitals, general medical, nursing homes and other health services) and other services (including police, financial, postal, waste disposal, government services, retail, wholesale, manufacturing, accommodation, religious, entertainment and recreational).

The purpose of the structure is to classify CDs which share common characteristics of remoteness into broad geographical regions called remoteness areas, of which there are six in this structure. The categories are:

- Major Cities of Australia: CDs with an average Accessibility/Remoteness Index of Australia (ARIA) index value of 0 to 0.2
- Inner Regional Australia: CDs with an average ARIA index value greater than 0.2 and less than or equal to 2.4
- Outer Regional Australia: CDs with an average ARIA index value greater than 2.4 and less than or equal to 5.92
- Remote Australia: CDs with an average ARIA index value greater than 5.92 and less than or equal to 10.53

REMOTENESS DEFINED *continued*

- Very Remote Australia: CDs with an average ARIA index value greater than 10.53
- Migratory: composed of off-shore, shipping and migratory CDs.

More information about the measure of remoteness can be found in the ASGC 2001 and the *Information Papers: ABS Views on Remoteness, 2001* (cat. no. 1244.0) and *Outcomes of ABS Views on Remoteness Consultations, Australia, 2001* (cat. no. 1244.0.00.001).

POPULATION DISTRIBUTION BY REMOTENESS

Table 3.1 presents Estimated Resident Population (ERP) for the total Australian population and the Indigenous population by remoteness classification. At 30 June 2001, 66.3% of the total population resided in the Major Cities of Australia, 20.7% lived in Inner Regional Australia, 10.4% in Outer Regional Australia, 1.7% in Remote Australia and 0.9% in Very Remote Australia.

For the Indigenous population, 30.2% lived in the Major Cities of Australia in June 2001, compared to 67.2% of the non-Indigenous population. For Remote or Very Remote Australia, 26.5% of the Indigenous population lived in these areas compared to only 2% of the non-Indigenous population.

There are differences in the age structure of the population across different remoteness areas (see table 3.2). For example, the Very Remote area of Australia has a larger proportion of the population in the younger age groups and fewer in the older ages, when compared to the proportions of the population living in the Major Cities.

The median age of the population rises as one moves from the Major Cities area (34.4 years for males and 36.0 years for females) to the Outer Regional area (36.3 years for males and 36.8 years for females). The Remote and Very Remote areas have younger populations. The Major Cities area had a sex ratio of 97 males for every 100 females, which rises through the remoteness scale to 113 in the Very Remote area.

3.1 ESTIMATED RESIDENT POPULATION BY REMOTENESS STRUCTURE—30 June 2001

Remoteness area	*Indigenous population* '000	*Proportion of Indigenous population* %	*Non–Indigenous population* '000	*Proportion of Non–Indigenous population* %	*Total Australian population* '000	*Proportion of total Australian population* %
Major Cities	138 494	30.2	12 732 492	67.2	12 870 986	66.3
Inner Regional	92 988	20.3	3 932 907	20.7	4 025 895	20.7
Outer Regional	105 875	23.1	1 907 688	10.1	2 013 563	10.4
Remote	40 161	8.8	284 160	1.5	324 321	1.7
Very Remote	81 002	17.7	97 473	0.5	178 475	0.9
Total	**458 520**	**100.0**	**18 954 720**	**100.0**	**19 413 240**	**100.0**

Source: *Census of Population and Housing: Population Growth and Distribution, Australia, 2001* (cat. no. 2035.0).

POPULATION DISTRIBUTION BY REMOTENESS *continued*

3.2 ESTIMATED RESIDENT POPULATION BY REMOTENESS STRUCTURE, Age, Sex—30 June 2001

	MAJOR CITIES.....		INNER REGIONAL..		OUTER REGIONAL..		REMOTE.....		VERY REMOTE.....	
Age group (years)	*Males*	*Females*	*Males*	*Females*	*Males*	*Females*	*Males*	*Females*	*Males*	*Females*
0–4	424 385	404 371	137 267	130 003	73 003	69 230	13 917	12 918	8 927	8 336
5–9	435 882	414 153	154 662	146 589	80 113	75 256	14 262	13 500	8 871	8 376
10–14	431 462	412 927	160 316	152 271	80 534	75 800	13 019	12 003	7 752	7 093
15–19	453 165	441 541	149 027	142 019	70 964	63 775	10 288	8 753	7 224	5 989
20–24	473 837	468 622	112 561	106 017	56 324	51 619	10 368	8 792	7 686	6 586
25–29	501 753	507 866	114 294	116 134	63 293	62 556	12 931	11 991	8 639	7 624
30–34	508 032	516 347	126 668	133 142	69 866	69 978	14 030	13 004	8 323	7 225
35–39	501 025	504 950	141 558	150 292	76 576	76 037	14 377	12 832	7 898	6 659
40–44	480 541	492 328	152 787	157 342	80 072	77 395	14 116	12 109	6 920	5 647
45–49	438 079	454 657	143 818	143 991	74 515	69 656	12 349	10 372	6 294	4 863
50–54	424 817	432 642	138 492	135 790	72 122	65 927	11 731	9 644	5 378	4 234
55–59	328 728	321 765	112 529	110 242	58 406	53 553	9 165	7 357	4 060	2 994
60–64	257 753	260 113	95 626	94 924	50 354	45 287	7 115	5 512	3 134	2 206
65–69	207 763	222 623	80 415	82 004	40 263	36 417	5 186	4 324	1 963	1 555
70–74	189 411	219 373	73 791	77 554	34 650	33 329	4 283	3 420	1 419	1 150
75–79	146 237	196 057	53 897	65 676	23 819	26 864	2 566	2 603	837	800
80–84	83 831	135 823	29 844	45 270	12 742	18 425	1 363	1 719	470	563
85 and over	53 477	124 650	18 806	40 277	8 383	16 460	918	1 484	338	442
Total	**6 340 178**	**6 530 808**	**1 996 358**	**2 029 537**	**1 025 999**	**987 564**	**171 984**	**152 337**	**96 133**	**82 342**
Median Age	34.4	36.0	36.7	38.1	36.3	36.8	34.0	33.1	29.4	28.2

Source: *Census of Population and Housing: Population Growth and Distribution, Australia, 2001* (cat. no. 2035.0).

MORTALITY BY REMOTENESS AREA

Looking at various measures of mortality it is possible to highlight some of the differences in the mortality experiences of people across remoteness areas.

Crude death rate

The simplest mortality measure to calculate is the crude death rate (CDR). Using the average number of deaths per year for the 2000–2002 period, the CDR (that is, the number of deaths registered during the calendar year per 1,000 estimated resident population) was 7.0 for males and 6.4 for females for Australia (see table 3.3). Both males and females living in the remoteness area of Inner Regional and Outer Regional experienced the highest crude death rates, while those living in Remote and Very Remote areas experienced the lowest crude death rates.

The crude death rate only allows comparisons between populations but it does not make allowances for differences in the age structure of the populations. It is therefore important to adjust for the effect of age before meaningful comparisons can be made. This is done by using the indirect standardised death rate (ISDR) and the standardised mortality ratio (SMR).

MORTALITY BY REMOTENESS AREA *continued*

3.3 MORTALITY MEASURES BY REMOTENESS—2000–2002

Remoteness area	*ERP 2001(a)*	*Deaths(b)*	*Crude death rate*	*SMR*	*ISDR*	*Life expectancy at birth (years)*
			MALES			
Major Cities	6 342 330	41 730	6.6	121	8.0	78.1
Inner Regional	1 996 430	15 823	7.9	130	8.6	77.0
Outer Regional	1 024 853	7 953	7.8	138	9.2	76.3
Remote	171 579	1 064	6.2	147	9.8	75.3
Very Remote	95 461	594	6.2	201	13.3	71.6
Australia	**9 630 652**	**67 164**	**7.0**	**126**	**8.3**	**77.4**
			FEMALES			
Major Cities	6 526 035	40 855	6.3	81	5.4	83.0
Inner Regional	2 031 646	14 147	7.0	85	5.6	82.4
Outer Regional	989 056	6 378	6.4	87	5.8	82.0
Remote	152 794	735	4.8	94	6.3	80.6
Very Remote	83 057	388	4.7	136	9.0	76.5
Australia	**9 782 588**	**62 503**	**6.4**	**83**	**5.5**	**82.6**

(a) Due to deaths data being coded only to Statistical Local Area (SLA) level, the remoteness area ERPs for this analysis have been built from SLA ERP and not from Census Collection District ERPs.

(b) Average number of deaths per year for the period 2000–2002.

Indirect standardised death rates

Controlling for the varying age structures of the population, ISDR show a gradient in mortality which reveals lowest mortality in the Major Cities area (8.0 for males and 5.4 for females) to highest mortality in the Very Remote area (13.3 for males and 9.0 for females).

Standardised mortality ratio

The SMR provides a relative assessment of the health status of a particular population by comparing the actual number of deaths for that population with the expected number of deaths that would have occurred if that population had experienced the same age-specific mortality as experienced by the reference population. For this article, the reference population was total Australian persons. The expected number of deaths were calculated by applying the age-specific death rates of the Australian population to the relevant remoteness area population. A SMR of greater than 100 indicated there were more observed deaths than expected, while a ratio of less than 100 indicated there were fewer observed deaths than expected.

Table 3.3 showed that for males in 2000–2002, more deaths occurred than were expected for all remoteness areas. The highest male SMR was in the Very Remote area (201), where double the number of deaths occurred than was expected. The SMRs for females in 2000–2002 showed less deaths occurred than were expected for all remoteness areas, with the exception of the Very Remote area. In the Very Remote area the SMR was 136, indicating that 136 deaths occurred for 100 expected deaths. The Australian SMRs for males and females (126 and 83 respectively) is reflective of the fact that for the total population, more male deaths occur each year than female deaths.

Life expectancy at birth

Life expectancy at birth is considered an important indicator of the health of a population, for example the higher the life expectancy the better the health experience of the population. Australia as a whole has a life expectancy at birth of 77.6 years for males and 82.6 years for females. However, looking at life expectancy at birth by remoteness areas there is greater variation. Life expectancy at birth was lowest in the Very Remote area for both males (71.6 years) and females (76.5 years). This was over six years lower than the life expectancy at birth for Major Cities (78.1 years and 83.0 years for males and females respectively), which recorded the highest life expectancy at birth for all remoteness areas.

Age-specific death rates

As mentioned previously, the Very Remote area of Australia had larger proportions of their population in the younger age groups and fewer in the older ages, when compared to the proportions of the population living in the other remoteness areas. Age-specific death rates (the number of deaths at a specified age per 1,000 of the estimated resident population of the same age) can be used to reveal even more about the mortality experience of people living in various remoteness areas.

Moving from the Major Cities area through each remoteness area, the age-specific death rates (ASDR) progressively increase, culminating with the highest ASDRs in the Very Remote area (table 3.4). The largest difference was for the age group 15–19 years, where the ASDRs for the Very Remote area were over four times greater than those for the same age group in the Major Cities in 2000–2002. The ASDRs for those aged between 20–44 years living in the Very Remote area was over three times higher than those of the same age living in the Major Cities.

3.4 AGE-SPECIFIC DEATH RATES(a) BY REMOTENESS—2000–2002

Age (years)	*Major Cities*	*Inner Regional*	*Outer Regional*	*Remote*	*Very Remote*	*Australia*
0	4.7	5.2	5.9	7.2	12.1	5.1
1–4	0.2	0.3	0.3	0.5	0.8	0.3
5–9	0.1	0.1	0.1	0.2	0.2	0.1
10–14	0.1	0.2	0.2	0.2	0.3	0.1
15–19	0.4	0.6	0.7	1.2	1.6	0.5
20–24	0.6	0.8	0.8	1.3	2.0	0.7
25–29	0.7	0.9	0.9	1.1	2.5	0.7
30–34	0.7	1.0	1.0	1.5	2.8	0.8
35–39	0.9	1.1	1.2	1.4	3.2	1.0
40–44	1.3	1.4	1.6	2.0	4.5	1.4
45–49	1.9	2.1	2.3	3.0	4.7	2.0
50–54	2.8	3.1	3.4	3.9	6.1	3.0
55–59	4.7	5.2	5.8	6.1	9.8	5.0
60–64	7.5	8.1	9.0	10.5	16.5	8.0
65–69	12.8	13.5	15.3	16.7	25.8	13.4
70–74	21.9	23.2	24.6	25.9	34.3	22.6
75–79	36.9	38.4	40.7	42.2	42.7	37.7
80–84	62.7	66.8	70.7	70.0	66.8	64.5
85 and over	141.5	145.7	145.8	144.0	110.1	142.7

(a) Per 1,000 population.

Infant mortality rates

It is possible to ascertain an infant mortality rates from the ASDRs in table 3.4. For 2000–02, the infant mortality rate (IMR) for total Australia was 5.1. Across remoteness areas the IMRs ranged from Major cities (4.7), Inner Regional (5.2), Outer Regional (5.9), Remote (7.2) and Very Remote (12.1).

UNDERLYING CAUSE OF DEATH BY REMOTENESS

Data on cause of death recorded and published by the ABS is commonly based on the underlying cause of death, which is the disease or injury which initiated the train of morbid events leading directly to the death.

Malignant neoplasms (cancer) were the leading underlying cause of death in Australia during 2002, responsible for 28.1% of all deaths. The SMR for cancer remained relatively stable across all remoteness areas, with Outer Regional recording the highest SMR (106) and Major Cities the lowest (99). More variation was apparent when specific cancer types were analysed.

Cancer of the breast (C50), prostate and colon were the only underlying cause of death where the Very Remote area had fewer deaths than expected for all causes analysed. The SMR for breast cancer in the Very Remote area was 82, compared to a SMR of 102 in the Inner Regional area where it was highest. The SMR for prostate cancer was 75 in the Very Remote area, compared to 117 in the Outer Regional area where it was highest and colon cancer had a SMR of 59 in the Very Remote area, compared to the SMR of 113 in the Outer Regional area. While less deaths occurred than were expected from these cancers in the Very Remote area, more deaths than expected occurred from cancer of the trachea, bronchus and lung (C33 C34) (SMR of 131). Cancer of the trachea, bronchus and lung (C33 C34) was lowest in the Major Cities area (SMR of 98).

In 2002, Ischaemic heart diseases (I20-I25) were the second leading cause of death, accounting for 19.5% of all deaths. The lowest SMR for Ischaemic heart diseases were in the Major Cities area (SMR of 97), while the highest SMR was in the Very Remote area (SMR of 144).

For the underlying causes of Diabetes mellitus (E10-E14), Accidental drowning and submersion (W65–W74) and Transport accidents (V01-V99), the SMRs in the Very Remote area were four times higher than the SMRs in the Major Cities. AIHW (1998) stated for Diabetes mellitus, the difference between those living in remote areas to other areas could be influenced by factors including access to and quality of health care services availability of adequate management care plans and appropriate diets.

For Transport accidents (V01-V99), the SMRs almost double from Major Cities (73) to Inner Regional (139), after which they continued to increase until the Very Remote area (276). According to AIHW (1998) people living in rural and remote zones are more exposed to the hazards associated with long-distance, high speed road travel than those in metropolitan zones. This, combined with the remoteness of medical treatment, may result in more fatalities.

Finally, it is important to note that the SMR for Intentional self-harm (X60-X84) was also much higher in the Very Remote area (230) compared to the Major Cities area (90).

UNDERLYING CAUSE OF DEATH BY REMOTENESS *continued*

3.5 UNDERLYING CAUSE OF DEATH(a) BY REMOTENESS—2000–2002

Cause of death	*Major Cities*	*Inner Regional*	*Outer Regional*	*Remote*	*Very Remote*
	NUMBER OF DEATHS				
Chapter II Neoplasms (C00-D48)	23 908	8 658	4 137	471	187
Malignant neoplasms (C00-C97)	23 402	8 488	4 062	461	183
Malignant neoplasms of digestive organs (C15-C26)	6 555	2 396	1 125	129	48
Trachea bronchus and lung (C33 C34)	4 465	1 632	824	96	45
Malignant neoplasm of breast (C50)	1 735	587	257	28	10
Malignant neoplasm of prostate	1 650	702	344	35	9
Malignant neoplasm of colon	2 054	832	393	37	9
Chapter IV Endocrine nutritional and metabolic diseases (E00-E90)	2 711	957	546	85	66
Diabetes mellitus (E10-E14)	1 893	695	415	69	55
Chapter IX Diseases of the circulatory system (I00-I99)	31 542	11 721	5 420	621	282
Ischaemic heart diseases (I20-I25)	16 607	6 218	2 852	331	153
Cerebrovascular diseases (I60-I69)	8 086	2 806	1 226	127	47
Chapter X Diseases of the respiratory system (J00-J99)	7 146	2 463	1 190	157	90
Chronic lower respiratory diseases (J40-J47)	3 699	1 450	731	98	58
Chapter XX External causes of morbidity and mortality (V01-Y98)	4 626	1 828	984	182	158
Transport accidents (V01-V99)	962	553	289	62	50
Falls (W00-W19)	402	126	62	7	3
Accidental drowning and submersion (W65-W74)	128	50	31	6	8
Intentional self-harm (X60-X84)	1 442	526	288	51	50
	STANDARDISED MORTALITY RATIOS				
Chapter II Neoplasms (C00-D48)	99	102	106	101	104
Malignant neoplasms (C00-C97)	99	102	106	101	104
Malignant neoplasms of digestive organs (C15-C26)	99	103	105	102	99
Trachea bronchus and lung (C33 C34)	98	101	109	106	131
Malignant neoplasm of breast (C50)	101	102	98	91	82
Malignant neoplasm of prostate	94	110	117	106	75
Malignant neoplasm of colon	95	110	113	91	59
Chapter IV Endocrine nutritional and metabolic diseases (E00-E90)	95	97	122	165	338
Diabetes mellitus (E10-E14)	93	98	129	190	413
Chapter IX Diseases of the circulatory system (I00-I99)	97	105	108	114	145
Ischaemic heart diseases (I20-I25)	97	105	107	112	144
Cerebrovascular diseases (I60-I69)	100	101	101	99	106
Chapter X Diseases of the respiratory system (J00-J99)	99	98	106	128	202
Chronic lower respiratory diseases (J40-J47)	94	105	118	141	232
Chapter XX External causes of morbidity and mortality (V01-Y98)	87	113	123	149	247
Transport accidents (V01-V99)	73	139	146	193	276
Falls (W00-W19)	100	94	100	96	103
Accidental drowning and submersion (W65-W74)	80	102	123	146	323
Intentional self-harm (X60-X84)	90	111	119	128	230

(a) Underlying cause of death is classified according to the International Classification of Diseases, Version 10 (ICD-10).

EXPLAINING THE DIFFERENCES

The mortality experience of a population is a good indicator of the general health of that population. The AIHW publication, *Health in rural and remote Australia* (1998), stated the health of a population is determined from a complex interaction between social, economic, environmental, and lifestyle factors. Factors associated with living in rural and remote Australia also indirectly affect health status, such as ethnicity, employment, the industry base or rural communities, demographic factors, geography, climate, access to information and attitudes to health, illness and disability (AIHW 1998).

EXPLAINING THE DIFFERENCES *continued*

It is widely accepted that people living in remote areas have poorer health outcomes than people living in more urban surroundings. According to a report presented at the Australian Health Ministers' Conference in September 2002, *Improving Rural Health* (available on the Department of Health and Ageing web site), the rural Australian's health status and access to health and aged care services continues to be poorer than that of their urban counterparts. The report specified factors such as distance, lack of transport, an appropriate work-force (both in skill and number), health and aged care infrastructure and government funding as all have an influence on the health experience of those living in remote Australia.

The AIHW (2003) *Rural, regional and remote health: a study on mortality* report, cited access to health services, the higher risks associated with some occupations and country driving as reasons likely to contribute to higher death rates outside Major Cities. Strong influences on health outcomes in areas outside of the Major Cities area are also likely to result from higher rates of smoking, physical inactivity, risky alcohol consumption and poorer nutrition, and lower rates of employment, income and education.

Improving Rural Health continued, stating that the single biggest contributor to the differential in rural and urban health status in Australia is poor Indigenous health status, due to higher numbers of the Indigenous population living in remote areas and the very poor state of Indigenous health in general. Currently, the Indigenous population represents 45.4% of the total population living in Very Remote Australia and 12.4% of the total population living in Remote Australia.

There are approximately 2,140 Indigenous deaths registered in Australia each year. Various measures of mortality highlight the differences between the mortality levels of Indigenous Australians and the total Australian population. For example, the Indigenous infant mortality rate has declined but is still above figures for the total population (see table 7.12, p. 96).

The high proportion of Indigenous people living in Remote or Very Remote areas of Australia, teamed with their mortality experiences, predisposes remote areas to having worse mortality than non-remote areas. There are many possible explanations for the differences in the mortality experience of people living in different remoteness areas. According to Britt et. al. (2001), there are differences between the 'bush' and metropolitan areas. These differences stem from patient well being, reason for encounter and risk factors.

A recent study by Coory (2003) questioned whether the mortality excess in remote areas of Australia can be explained by remoteness or by Indigenous status, when using neonatal mortality in Queensland. Coory concluded that 'an apparent excess of neonatal mortality in remote areas of Queensland is masking what is almost solely an Indigenous health issue'. Coory continued, it should not be assumed that an excess of a particular health problem in remote areas necessarily reflects equal disadvantage for all Australians living there.

CHAPTER 4 FEATURE ARTICLE—DEATH OF OVERSEAS VISITORS TO AUSTRALIA

INTRODUCTION

In recent times the global tourism industry has been operating in an uncertain environment. Events like the September 11, 2001, terrorist attacks in the United States of America, the Bali bombing, the Iraqi conflict and more recently the emergence of Severe Acute Respiratory Syndrome (SARS) have all contributed to the international downturn of the tourism industry (Australian Tourist Commission, 2003). According to the World Tourism Organisation (WTO) Secretary-General Mr Francesco Frangialli 'Since September 11, 2001, we have been experiencing the most serious crisis in the history of world tourism'.

Safety is an increasingly important factor for international visitors when deciding where to travel, according to the Department of Industry, Tourism and Resources (2003). Australia is a safe destination by world standards. Australia has high standards in public health, clean drinking water, low levels of infectious diseases, and a well equipped and coordinated medical system (Wilkes & Oldenburg 1995).

Since 2000, there has been an average of over five million short-term visitor arrivals to Australia per year. Short-term arrivals comprise overseas visitors whose intended stay in Australia is less than 12 months. In 2002, 360 people died in Australia whose place of usual residence was overseas. This represents just 0.01% of all short-term visitors to Australia. This article focuses on the incidents of death of overseas visitors to Australia.

DEATH OF OVERSEAS VISITORS TO AUSTRALIA

In Australian death registrations, all deaths occurring in Australia are reported irrespective of the usual residence of the deceased. The death of an overseas visitor to Australia is recorded by a unique code. The number of deaths of overseas visitors comprise those deaths where the usual residence of the deceased was reported as overseas on the death records.

There have been some high profile incidents of deaths of international visitors to Australia. Examples include the death of two British and three German travellers, in the New South Wales backpacker murders in the early 1990s, a number of overseas visitors were among the 35 people murdered at Port Arthur, Tasmania in 1996, and the death of 13 young foreign nationals and three Australians in a fire in Childers, Queensland in June 2000. These higher profile deaths are more the exception than the rule. With the exclusion of the Childers fire, there were only 10 deaths of overseas visitors to Australia due to assault during the six-year period of 1997–2002.

Table 4.1 details the number of deaths of overseas visitors to Australia by the state of registration. In 2002, New South Wales (140) and Queensland (90) experienced the largest number of deaths registrations for overseas visitors. This reflects that in 2002 both New South Wales and Queensland were the main states of stay for short-term visitors to Australia, with 40% and 28% of all short-term visitors respectively. The least number of overseas deaths were registered in the Northern Territory (13).

DEATH OF OVERSEAS VISITORS TO AUSTRALIA *continued*

4.1 DEATH OF OVERSEAS VISITORS TO AUSTRALIA—1997–2002

State of registration	1997 no.	1998 no.	1999 no.	2000 no.	2001 no.	2002 no.
New South Wales	130	120	145	127	114	139
Victoria	55	49	64	55	51	50
Queensland	98	91	90	110	107	92
South Australia	16	21	14	17	12	18
Western Australia	55	61	50	41	50	47
Tasmania	4	4	7	7	11	—
Northern Territory	11	17	16	17	18	13
Australian Capital Territory	6	8	4	3	6	—
Total	**375**	**371**	**390**	**377**	**369**	**363**

AGE AND SEX

The majority of the deaths of overseas visitors to Australia in 2002 occurred to males, giving a sex ratio of male deaths outnumbering female deaths by almost two to one (193 male deaths to every 100 female deaths). As a comparison, the total population sex ratio for deaths registered in 2002 was 106.

4.2 AGE AT DEATH FOR OVERSEAS VISITORS—1994–2002

	MALES			FEMALES		
Age (years)	*1994–1996*	*1997–1999*	*2000–2002*	*1994–1996*	*1997–1999*	*2000–2002*
0	8	7	5	5	10	7
1–4	4	8	4	5	—	5
5–9	4	6	4	—	4	—
10–14	—	3	4	5	3	—
15–19	10	14	15	5	13	6
20–24	33	47	56	17	19	27
25–29	34	38	54	14	20	24
30–34	26	24	35	16	13	6
35–39	20	24	26	11	15	7
40–44	33	25	28	11	18	8
45–49	38	41	41	23	14	19
50–54	47	41	46	14	19	22
55–59	64	63	55	19	23	23
60–64	66	78	68	43	43	38
65–69	92	95	69	47	48	43
70–74	79	83	71	60	57	39
75–79	64	68	82	37	44	47
80–84	38	38	45	40	27	39
85 and over	20	22	23	19	20	14
Total(a)	**682**	**725**	**731**	**392**	**411**	**378**

(a) Total includes age not stated.

AGE AND SEX *continued*

The median age at death has remained consistent since 1997 for both males and females. In 2002, the median age at death for overseas visitors to Australia was 59.0 years for males and 64.5 years for females, despite there being a younger age profile for overseas visitors. The median age of short-term visitors to Australia were 38.7 years for males and 36.0 years for females in 2002.

CAUSE OF DEATH

An analysis of the underlying cause of death of overseas visitors to Australia shows 41% of all deaths registered in 2002 were caused by diseases of the circulatory system, which include Ischaemic heart diseases and Cerebrovascular diseases (stroke), 28.9% of deaths in 2002 were the result of external causes of morbidity and mortality, such as Transport accidents, Accidental drowning and submersion, and Intentional self-harm, and 15.4% of deaths were due to Malignant neoplasms (cancer).

4.3 UNDERLYING CAUSE OF DEATH(a)—1997–2002

Cause of death	*1997* no.	*1998* no.	*1999* no.	*2000* no.	*2001* no.	*2002* no.
MALES						
Malignant neoplasms (C00-C97)	26	29	34	38	31	31
Diseases of the circulatory system (I00-I99)	122	111	117	90	102	103
Ischaemic heart diseases (I20-I25)	92	79	86	61	69	72
Cerebrovascular diseases (I60-I69)	10	11	11	12	22	14
Diseases of the respiratory system (J00-J99)	6	5	8	8	12	4
External causes of morbidity and mortality (V01-Y98)	51	69	57	72	70	68
Transport accidents (V01-V99)	22	35	27	33	36	32
Falls (W00-W19)	4	3	6	6	5	—
Accidental drowning and submersion (W65-W74)	15	18	8	7	16	14
Intentional self-harm (X60-X84)	6	4	6	8	6	8
All other causes	35	25	30	38	34	30
Total	**240**	**239**	**246**	**246**	**249**	**236**
FEMALES						
Malignant neoplasms (C00-C97)	28	26	29	20	24	25
Diseases of the circulatory system (I00-I99)	53	52	54	55	43	46
Ischaemic heart diseases (I20-I25)	32	29	26	32	24	23
Cerebrovascular diseases (I60-I69)	6	10	17	13	10	10
Diseases of the respiratory system (J00-J99)	6	5	6	8	4	4
External causes of morbidity and mortality (V01-Y98)	24	25	27	30	28	37
Transport accidents (V01-V99)	14	14	18	15	18	20
Falls (W00-W19)	—	—	—	—	—	4
Accidental drowning and submersion (W65-W74)	4	4	3	3	—	4
Intentional self-harm (X60-X84)	—	3	—	—	—	—
All other causes	24	24	28	18	21	15
Total	**135**	**132**	**144**	**131**	**120**	**127**

(a) Underlying cause of death is classified according to the International Classification of Diseases, Version 10 (ICD-10).

CAUSE OF DEATH *continued*

It is interesting to note that among the deaths of overseas visitors to Australia in 2002, 28.9% were to external causes of morbidity and mortality. This is considerably higher than the total Australian population where it was 5.9% in 2002. The leading cause of death in this category is Transport accidents which accounted for 49.5% of all deaths of overseas visitors to Australia from external causes.

Accidental drowning and submersion is also within the category of external causes. In the deaths of overseas visitors, drowning represented 5% of the total deaths, while for the total population it accounted for 0.2% of all deaths in 2002.

The underlying cause of death varies considerably according to age. The underlying cause of death for overseas visitors to Australia aged 55 years and over, were mainly from Diseases of the circulatory system and Malignant neoplasms (cancer). The underlying cause of death for those aged under 55 years of age were mainly the result of External causes of morbidity and mortality and Diseases of the circulatory system. It is interesting to note that in 2002, those aged 55 years and over accounted for just 20% of all short-term visitor arrivals, yet those aged 55 years and over contributed 58.1% to the number of overseas visitor deaths recorded in 2002.

4.4 UNDERLYING CAUSE OF DEATH(a) OF OVERSEAS VISITORS BY AGE GROUP—1997–2002

Cause of death	*0–15 years*	*16–24 years*	*25–34 years*	*35–44 years*	*45–54 years*	*Over 55 years*	*Total*
Malignant neoplasms (C00-C97)	11	14	12	17	50	237	341
Diseases of the circulatory system (I00-I99)	3	13	24	29	92	787	948
Ischaemic heart diseases (I20-I25)	—	3	6	13	62	542	625
Cerebrovascular diseases (I60-I69)	—	—	8	10	15	110	146
Diseases of the respiratory system (J00-J99)	—	—	—	5	3	66	76
External causes of morbidity and mortality (V01-Y98)	14	142	147	66	62	126	557
Transport accidents (V01-V99)	9	69	74	35	36	60	283
Falls (W00-W19)	—	9	8	4	0	14	37
Accidental drowning and submersion (W65-W74)	3	25	27	9	12	23	98
Intentional self-harm (X60-X84)	—	14	11	5	3	13	45
Assault (X85-Y09)	—	12	6	3	3	—	22
All other causes	48	26	31	34	36	149	322
Total	**76**	**195**	**214**	**151**	**243**	**1 365**	**2 244**

(a) Underlying cause of death is classified according to the International Classification of Diseases, Version 10 (ICD-10).

COUNTRY OF BIRTH

An analysis of deaths of overseas visitors to Australia by country of birth shows that in 2002 there were more deaths from visitors from the United Kingdom than any other country. The United Kingdom is followed by New Zealand, the United States of America and Japan. These four countries are also the main four source countries for short-term visitor arrivals.

A crude death rate (CDR) can be calculated by dividing the number of deaths of overseas visitors to Australia by the number of short-term visitor arrivals. It should be noted that not all deaths of overseas visitors to Australia are short-term visitors, however, data on duration of residence for deaths of overseas visitors is incomplete with almost 60% of all death records having no duration stated.

COUNTRY OF BIRTH *continued*

Using the CDR it is possible to see that short-term visitors who were born in the Philippines experienced the highest CDR for males (44.9), followed by those born in Italy (17.0) and the United Kingdom (14.3). For females, short-term visitors who were born in Italy had the highest CDR (21.2) in 2002, followed by females born in the Philippines (15.5) and Germany (8.2). Diseases of the circulatory system (I00-I99) were the underlying cause of death for almost two-thirds of the deaths to those born in the Philippines. It should be noted that the CDR does not control for age variations.

4.5 DEATH OF OVERSEAS VISITORS BY COUNTRY OF BIRTH—1997–2002

Country of birth	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*	*Total*	*Short-term visitor arrivals 2002(a)*	*Crude death rate 2002(b)*
MALES									
United Kingdom	59	65	64	49	54	56	347	392 659	14.3
New Zealand	20	23	24	21	26	21	135	325 085	6.5
United States of America	14	22	15	22	13	10	96	215 669	4.6
Japan	10	11	10	12	14	8	65	321 464	2.5
Germany	10	12	7	6	7	10	52	79 877	12.5
Indonesia	13	9	6	7	7	4	46	41 164	9.7
China (excludes SARs and Taiwan Province)	8	7	4	3	13	7	42	131 873	5.3
Philippines	5	5	4	10	6	7	37	15 581	44.9
Malaysia	4	—	3	7	5	6	25	83 261	7.2
Singapore	—	—	5	—	—	3	8	89 313	3.4
Italy	—	3	4	3	—	5	15	29 485	17.0
Canada	—	—	6	—	5	6	17	42 772	14.0
Korea Republic of (South)	—	—	—	3	—	5	8	96 044	5.2
Hong Kong (SAR of China)	—	—	4	—	—	—	4	41 175	—
Thailand	4	—	—	—	—	—	4	30 537	—
Other	85	75	88	100	90	88	526	488 767	18.0
Total	**240**	**239**	**246**	**246**	**249**	**236**	**1 456**	**2 507 703**	**9.4**
FEMALES									
United Kingdom	28	32	31	39	33	27	190	333 373	8.1
New Zealand	25	13	13	8	10	15	84	291 800	5.1
United States of America	5	7	10	7	7	7	43	166 413	4.2
Japan	3	7	9	4	3	4	30	389 591	1.0
Germany	5	4	6	6	5	6	32	73 353	8.2
Indonesia	3	5	4	4	—	—	16	44 361	—
China (excludes SARs and Taiwan Province)	5	—	3	7	3	—	18	96 033	—
Philippines	—	4	4	—	3	3	14	19 392	15.5
Malaysia	—	4	3	3	4	5	19	86 678	5.8
Singapore	—	4	6	—	—	3	13	93 390	3.2
Italy	5	—	—	—	—	4	9	18 863	21.2
Canada	—	—	3	—	—	—	3	40 121	—
Korea Republic of (South)	—	—	—	—	—	—	—	101 617	—
Hong Kong (SAR of China)	—	—	—	—	—	3	3	46 860	6.4
Thailand	3	—	—	—	—	—	3	40 158	—
Other	46	46	50	49	46	43	280	431 959	10.0
Total	**135**	**132**	**144**	**131**	**120**	**127**	**789**	**2 333 490**	**5.4**

(a) Short-term visitor arrivals based on country of birth.

(b) Per 100,000 population.

DEATH BY OCCURRENCE

Analysis of deaths of overseas visitors to Australia by month of occurrence shows that the least amount of deaths occur in the months of May and June, which correspond with the time when Australia tends to receive the least number of short-term visitor arrivals.

During the period 1997–2002, more deaths occurred as a result of Intentional self-harm in the winter months of July and August (six and five deaths respectively). Over the same period, the warmer months of December through to April had more deaths occurring as a result of Accidental drowings and submersions.

4.6 DEATH BY MONTH OF OCCURRENCE(a), External causes—1997–2002

Month of Death	*Intentional self-harm (X60-X84)*	*Transport accidents (V01-V99)*	*Accidental drowning and submersion (W65-W74)*	*Other causes*	*Total causes*
January	4	23	17	182	226
February	3	24	11	172	210
March	4	26	19	176	225
April	3	21	10	153	187
May	3	31	4	133	171
June	4	14	4	128	150
July	6	27	4	135	172
August	5	24	4	146	179
September	4	19	3	119	145
October	3	18	4	134	159
November	4	33	7	147	191
December	3	19	11	176	209
Total	**45**	**279**	**97**	**1 803**	**2 224**

(a) Based on deaths registered to 31 December 2002. Data presented in this table is by month of occurrence for the years 1997–2002.

DEATH OF AUSTRALIANS OVERSEAS

The Department of Foreign Affairs and Trade (DFAT) web site states there are more than one million Australians travelling, working and living overseas at any one time, with Australians making a total of more than three million overseas journeys each year. For an increasing but relatively small number of Australians, assistance is required due to being caught up in civil disorder and unrest, being a victim of injustice or unfair imprisonment, being a victim of an accident or crime, or due to suffering serious illness or death.

According to DFATs 2002–2003 Annual Report 681 Australian travellers died overseas (see table 4.7) in 2002–2003, with death usually the result of illness or accident. The government provides support to the families of Australians who have died overseas.

DEATH OF AUSTRALIANS OVERSEAS *continued*

4.7 DEATH OF AUSTRALIANS OVERSEAS—1997–2002

	1997–1998	*1998–1999*	*1999–2000*	*2000–2001*	*2001–2002*	*2002–2003*
Australian short-term resident departures(a)	3 031 900	3 188 700	3 332 300	3 577 300	3 367 900	3 293 300
Next of kin guided or assisted with disposal of remains in relation to overseas deaths(b)	590	548	604	547	639	681

(a) ABS Overseas Arrivals and Departure data collection, data available on request.

(b) Department of Foreign Affairs and Trade, *Annual Report 2002–2003*.

Recently, there have been some high profile incidents resulting in the death of Australians who were overseas at the time. These include the Swiss canyoning tragedy in Interlaken, Switzerland in July, 1999 in which 14 Australians died, the September 11, 2001 terrorist attacks in the United States of America, where ten Australians lost their lives and more recently the bombing in Bali, where the attack claimed 88 Australian lives.

The death of an Australian citizen who is overseas at the time of death is not included in the death statistics of Australia. They are included in the death statistics of the country in which they died. For example, for the majority of the 88 Australians who died in the bombing in Bali, their deaths will be included in the death statistics of Indonesia. However, for more specific information about the deaths which occurred as a result of the Bali bombing please see Explanatory Notes 10–14.

Research conducted by Prociv (1997) investigated the causes of death in Australian citizens who died overseas during the 1992–93 financial year from records on individual cases, obtained from Australian embassies, high commissions and consulates. Prociv states that of the 421 fatalities recorded, deaths of males outnumbered females by almost four to one, with travellers over the age of 55 years accounting for 54.5% of all deaths while accounting for only 16.4% of all travellers. Causes of death included heart disease (146 deaths), accidents, mainly traffic, accounting for 76 deaths, homicides for 16 deaths, drug overdoses for 14 deaths and aircraft fatalities for six deaths.

5.1 DEATHS(a), Selected years

		1982	*1992*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*
		DEATHS							
Total deaths	no.	**114 771**	**123 660**	**129 350**	**127 202**	**128 102**	**128 291**	**128 544**	**133 707**
Males	no.	63 295	66 115	67 752	67 073	67 227	66 817	66 835	68 885
Females	no.	51 476	57 545	61 598	60 129	60 875	61 474	61 709	64 822
Sex ratio		123.0	114.9	110.0	111.5	110.4	108.7	108.3	106.3
Standardised death rates(b)	rate	*10.3*	*8.4*	*7.6*	*7.2*	*7.1*	*6.8*	*6.6*	*6.7*
Males	rate	13.4	10.6	9.5	9.1	8.9	8.5	8.2	8.2
Females	rate	8.0	6.7	6.1	5.8	5.7	5.5	5.4	5.5
Crude death rates	rate	*7.6*	*7.1*	*7.0*	*6.8*	*6.8*	*6.7*	*6.6*	*6.8*
Males	rate	8.4	7.6	7.4	7.2	7.2	7.0	6.9	7.1
Females	rate	6.8	6.6	6.6	6.4	6.4	6.4	6.3	6.6
Median age at death	years	*73.0*	*75.9*	*77.2*	*77.4*	*77.8*	*78.2*	*78.5*	*79.1*
Males	years	70.0	72.6	74.2	74.5	74.8	75.3	75.5	76.2
Females	years	77.2	79.3	81.0	81.0	81.4	81.7	81.8	82.2
Age-specific death rates									
Age group (years)									
Males									
0	rate	11.8	8.1	5.7	5.5	6.3	5.6	5.8	5.5
1–4	rate	0.7	0.4	0.4	0.4	0.3	0.3	0.3	0.3
5–14	rate	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2
15–24	rate	1.4	1.0	1.1	1.0	1.0	0.9	0.8	0.8
25–34	rate	1.4	1.3	1.3	1.4	1.4	1.3	1.1	1.1
35–44	rate	2.0	1.7	1.7	1.7	1.6	1.7	1.5	1.5
45–54	rate	6.0	3.9	3.4	3.2	3.2	3.1	3.1	3.1
55–64	rate	15.9	11.9	9.6	9.0	8.5	8.0	8.1	7.6
65–74	rate	41.0	31.3	27.3	26.1	25.3	23.8	22.8	22.2
75–84	rate	96.5	79.9	70.5	67.3	64.6	62.8	60.2	60.6
85 and over	rate	216.0	182.3	174.2	167.4	166.3	164.0	160.4	167.4
Females									
0	rate	9.2	6.1	4.8	4.5	4.9	4.6	4.5	4.7
1–4	rate	0.5	0.4	0.2	0.3	0.3	0.2	0.2	0.2
5–14	rate	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15–24	rate	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3
25–34	rate	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4
35–44	rate	1.1	0.9	0.9	0.9	0.9	0.9	0.9	0.8
45–54	rate	3.4	2.4	2.1	2.1	2.0	2.0	1.9	2.0
55–64	rate	8.0	6.4	5.5	5.1	4.9	4.8	4.7	4.7
65–74	rate	20.4	16.8	15.1	14.2	13.7	13.4	13.1	12.8
75–84	rate	58.6	49.7	44.6	42.6	41.2	39.2	38.4	39.5
85 and over	rate	170.4	149.6	144.4	135.5	135.1	135.1	130.5	135.4

(a) See Glossary for definitions of terms used.

(b) Standardised death rates have been revised using the 2001 standard population.

5.1 DEATHS, Selected years *continued*

		1982	*1992*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*
		DEATHS							
Expectation of life(a)									
Age group (years)									
Males									
Age 0	years	71.3	74.5	75.6	75.9	76.2	76.6	77.0	77.4
Age 1	years	71.1	74.1	75.0	75.3	75.7	76.0	76.5	76.8
Age 25	years	48.3	50.9	51.8	52.1	52.5	52.8	53.2	53.5
Age 45	years	29.5	32.1	33.1	33.4	33.8	34.1	34.5	34.7
Age 65	years	21.0	15.4	16.1	16.3	16.6	16.8	17.2	17.4
Age 85	years	4.7	5.1	5.3	5.4	5.5	5.5	5.6	5.6
Females									
Age 0	years	78.3	80.4	81.3	81.5	81.8	82.0	82.4	82.6
Age 1	years	78.0	79.9	80.7	80.9	81.2	81.4	81.8	82.0
Age 25	years	54.5	56.4	57.1	57.3	57.6	57.8	58.2	58.3
Age 45	years	35.2	37.0	37.7	38.0	38.2	38.5	38.8	38.9
Age 65	years	18.0	19.2	19.8	20.0	20.2	20.4	20.7	20.8
Age 85	years	5.8	6.3	6.4	6.5	6.6	6.6	6.8	6.8
Leading causes of death (SDR)(b)(c)									
Males									
Malignant neoplasms (C00–C97)	rate	279	278	260	257	250	247	245	241
Ischaemic heart diseases (I20–I25)	rate	406	284	229	214	202	185	176	170
Cerebrovascular diseases (I60–I69)	rate	143	89	77	74	71	68	65	64
Chronic lower respiratory diseases (J40–J47)	rate	98	74	56	51	49	46	43	44
Accidents (V01–X59)	rate	63	39	34	37	40	37	35	34
Females									
Malignant neoplasms (C00–C97)	rate	161	162	157	153	149	148	149	150
Ischaemic heart diseases (I20–I25)	rate	210	167	132	122	115	108	102	98
Cerebrovascular diseases (I60–I69)	rate	134	83	71	68	66	63	60	60
Chronic lower respiratory diseases (J40–J47)	rate	21	29	27	24	24	23	22	23
Accidents (V01–X59)	rate	26	18	16	17	18	17	15	16
		INFANT DEATHS							
Total Infant deaths	no.	**2 482**	**1 843**	**1 341**	**1 252**	**1 408**	**1 290**	**1 309**	**1 264**
Males	no.	1 425	1 073	744	706	812	725	751	699
Females	no.	1 057	770	597	546	596	565	558	565
Infant mortality rates	rate	*10.3*	*7.0*	*5.3*	*5.0*	*5.7*	*5.2*	*5.3*	*5.0*
Males	rate	11.6	7.9	5.8	5.5	6.4	5.7	5.9	5.4
Females	rate	9.1	6.0	4.9	4.5	4.9	4.7	4.6	4.6
Age at death									
Males									
Under 1 day	no.	524	415	262	228	293	282	272	256
1 day and under 1 week	no.	235	160	132	132	148	104	139	120
1 week and under 4 weeks	no.	153	121	91	114	112	104	115	90
4 weeks and under 1 year	no.	513	377	259	232	259	235	225	233
Females									
Under 1 day	no.	381	315	239	198	233	227	240	203
1 day and under 1 week	no.	188	111	94	83	77	84	81	116
1 week and under 4 weeks	no.	128	80	81	87	90	65	70	73
4 weeks and under 1 year	no.	360	264	183	178	196	189	167	173

(a) Prior to 1995, expectation of life has been based on annual life tables calculated by the ABS. From 1995 onwards, expectation of life has been calculated using data for the three years ending in the year in the table heading.

(b) Data prior to 1997 is on ICD-9 refer to Explanatory Notes 21–26.

(c) Per 100,000 population. Standardised death rates have been revised using the 2001 standard population.

5.2 DEATHS, States and territories—2002

		NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.(a)
					DEATHS					
Total deaths	no.	**46 384**	**33 772**	**23 968**	**11 987**	**11 326**	**3 979**	**911**	**1 373**	**133 707**
Males	no.	23 953	17 158	12 576	6 100	5 836	2 034	562	661	68 885
Females	no.	22 431	16 614	11 392	5 887	5 490	1 945	349	712	64 822
Sex ratio	ratio	106.8	103.3	110.4	103.6	106.3	104.6	161.0	92.8	106.3
Standardised death rates(b)	rate	*6.6*	*6.6*	*6.8*	*6.7*	*6.4*	*7.6*	*9.0*	*5.9*	*6.7*
Males	rate	8.3	8.2	8.3	8.3	7.8	9.4	10.6	7.0	8.2
Females	rate	5.4	5.4	5.6	5.4	5.3	6.2	7.4	5.2	5.5
Crude death rates	rate	*7.0*	*7.0*	*6.5*	*7.9*	*5.9*	*8.4*	*4.6*	*4.3*	*6.8*
Males	rate	7.3	7.2	6.8	8.1	6.1	8.7	5.4	4.2	7.1
Females	rate	6.7	6.7	6.1	7.7	5.7	8.1	3.7	4.4	6.6
Median age at death	years	*79.1*	*79.6*	*78.6*	*80.0*	*78.5*	*78.7*	*55.8*	*78.9*	*79.1*
Males	years	76.2	76.8	75.6	77.2	75.4	76.2	55.9	76.4	76.2
Females	years	82.2	82.5	81.9	82.7	81.8	81.9	55.8	81.5	82.2
Age-specific death rates										
Age group (years)										
Males										
0	rate	5.0	5.8	6.3	5.6	3.8	7.4	11.9	4.5	5.5
1–4	rate	0.3	0.3	0.3	0.2	0.4	0.4	0.6	0.2	0.3
5–14	rate	0.1	0.2	0.1	0.1	0.2	0.3	0.2	0.1	0.2
15–24	rate	0.7	0.7	0.9	0.8	0.8	0.8	1.7	0.5	0.8
25–34	rate	1.1	1.0	1.2	1.1	1.2	1.3	3.2	0.6	1.1
35–44	rate	1.5	1.3	1.5	1.6	1.3	1.6	3.5	1.2	1.5
45–54	rate	3.3	2.9	3.1	3.1	3.0	3.2	6.8	2.4	3.1
55–64	rate	7.7	7.3	8.2	7.8	6.7	8.9	12.9	4.6	7.6
65–74	rate	22.5	22.5	21.5	22.1	21.5	26.2	30.3	14.4	22.2
75–84	rate	61.4	60.1	60.1	61.2	58.5	66.6	66.5	54.8	60.6
85 and over	rate	163.3	171.1	167.5	174.5	156.7	196.2	130.1	175.9	167.4
Females										
0	rate	4.5	4.3	5.3	4.7	4.8	5.2	11.1	2.6	4.7
1–4	rate	0.1	0.2	0.2	0.3	0.2	0.1	1.3	0.2	0.2
5–14	rate	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.1	0.1
15–24	rate	0.3	0.2	0.3	0.3	0.3	0.3	1.4	0.3	0.3
25–34	rate	0.4	0.4	0.5	0.4	0.5	0.6	1.6	0.3	0.4
35–44	rate	0.8	0.8	0.8	1.0	0.9	1.2	2.5	0.7	0.8
45–54	rate	1.9	1.9	2.1	2.3	1.9	2.4	3.9	1.5	2.0
55–64	rate	5.0	4.5	4.6	4.6	4.6	6.1	7.4	3.4	4.7
65–74	rate	13.1	12.5	13.0	12.2	12.1	14.6	21.4	11.1	12.8
75–84	rate	38.9	39.3	40.6	38.5	38.2	46.5	47.6	43.6	39.5
85 and over	rate	132.3	137.9	139.1	134.2	133.0	142.7	111.4	130.1	135.4

(a) Includes Other Territories.

(b) Standardised death rates have been revised using the 2001 standard population.

5.2 DEATHS, States and territories—2002 *continued*

		NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.(a)*
		DEATHS								
Expectation of life(b)										
Age group (years)										
Males										
Age 0	years	77.3	77.8	77.2	77.3	77.9	76.5	71.3	79.2	77.4
Age 1	years	76.8	77.3	76.7	76.7	77.2	76.0	71.2	78.6	76.8
Age 25	years	53.4	53.9	53.4	53.3	54.0	52.7	48.5	55.2	53.5
Age 45	years	34.6	35.0	34.7	34.6	35.1	33.8	31.2	36.2	34.7
Age 65	years	17.3	17.5	17.4	17.3	17.6	16.7	15.5	18.2	17.4
Age 85	years	5.6	5.6	5.7	5.5	5.7	5.3	5.3	5.8	5.6
Females										
Age 0	years	82.6	82.8	82.4	82.6	82.9	81.3	76.7	83.3	82.6
Age 1	years	82.0	82.2	81.9	81.9	82.3	80.7	76.4	82.6	82.0
Age 25	years	58.3	58.5	58.3	58.3	58.7	57.1	53.3	58.9	58.3
Age 45	years	38.9	39.1	38.9	38.9	39.3	37.7	34.9	39.3	38.9
Age 65	years	20.8	20.9	20.8	20.9	21.2	20.0	18.3	21.0	20.8
Age 85	years	6.9	6.8	6.8	6.8	7.0	6.6	6.4	6.9	6.8
Leading causes of death (SDR)(c)										
Males										
Malignant neoplasms (C00–C97)	rate	233	248	242	237	244	296	245	212	241
Ischaemic heart diseases (I20–I25)	rate	171	164	181	175	150	185	168	144	170
Cerebrovascular diseases (I60–I69)	rate	69	60	63	65	55	71	67	61	64
Chronic lower respiratory diseases (J40–J47)	rate	41	44	49	42	41	58	103	32	44
Accidents (V01–X59)	rate	35	31	37	31	32	35	75	27	34
Females										
Malignant neoplasms (C00–C97)	rate	146	154	150	155	146	174	143	147	150
Ischaemic heart diseases (I20–I25)	rate	96	93	114	94	91	113	121	73	98
Cerebrovascular diseases (I60–I69)	rate	64	54	67	55	50	67	45	64	60
Chronic lower respiratory diseases (J40–J47)	rate	23	23	23	19	22	31	42	30	23
Accidents (V01–X59)	rate	15	14	18	14	18	24	32	20	16

(a) Includes Other Territories.

(b) Expectation of life was calculated over the three-year period 2000–2002.

(c) Per 100,000 population. Standardised death rates have been revised using the 2001 standard population.

5.2 DEATHS, States and territories—2002 *continued*

		NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.(a)*
		INFANT DEATHS								
Total Infant deaths	no.	**397**	**305**	**277**	**90**	**102**	**37**	**42**	**14**	**1 264**
Males	no.	214	180	155	50	46	22	23	9	699
Females	no.	183	125	122	40	56	15	19	5	565
Infant mortality rates	rate	*4.6*	*5.0*	*5.8*	*5.1*	*4.3*	*6.2*	*11.3*	*3.4*	*5.0*
Males	rate	4.8	5.7	6.3	5.5	3.8	7.3	12.0	4.3	5.4
Females	rate	4.3	4.2	5.2	4.6	4.9	5.0	10.5	2.5	4.6
Age at death										
Males										
Under 1 day	no.	74	71	52	22	13	11	9	4	256
1 day and under 1 week	no.	49	27	21	6	7	4	3	3	120
1 week and under 4 weeks	no.	22	31	22	5	7	—	3	—	90
4 weeks and under 1 year	no.	69	51	60	17	19	6	9	3	233
Females										
Under 1 day	no.	68	50	49	16	11	5	4	—	203
1 day and under 1 week	no.	43	29	21	5	11	—	4	3	116
1 week and under 4 weeks	no.	16	14	21	5	9	4	—	—	73
4 weeks and under 1 year	no.	56	32	31	14	25	5	9	3	173

(a) Includes Other Territories.

5.3 DEATHS REGISTERED, States and territories, Selected years

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.(a)
					MALES				
1982	23 086	16 554	10 446	5 757	4 719	1 896	366	471	63 295
1987	22 611	16 714	10 522	5 754	5 058	1 968	450	534	63 611
1992	23 969	16 816	11 174	5 812	5 352	1 939	475	578	66 115
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
2000	23 445	16 368	12 023	6 121	5 718	1 926	571	642	66 817
2001	23 192	16 437	12 252	6 023	5 697	1 952	550	729	66 835
2002	23 953	17 158	12 576	6 100	5 836	2 034	562	661	68 885
					FEMALES				
1982	19 441	14 140	7 564	4 691	3 482	1 548	196	414	51 476
1987	19 578	14 835	8 339	4 777	3 822	1 669	226	464	53 710
1992	20 832	15 135	9 322	5 113	4 546	1 800	301	496	57 545
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
2000	21 964	15 650	10 402	5 722	4 950	1 785	338	658	61 474
2001	21 360	15 858	10 604	5 868	5 082	1 924	322	690	61 709
2002	22 431	16 614	11 392	5 887	5 490	1 945	349	712	64 822
					PERSONS				
1982	42 527	30 694	18 010	10 448	8 201	3 444	562	885	114 771
1987	42 189	31 549	18 861	10 531	8 880	3 637	676	998	117 321
1992	44 801	31 951	20 496	10 925	9 898	3 739	776	1 074	123 660
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
2000	45 409	32 018	22 425	11 843	10 668	3 711	909	1 300	128 291
2001	44 552	32 295	22 856	11 891	10 779	3 876	872	1 419	128 544
2002	46 384	33 772	23 968	11 987	11 326	3 979	911	1 373	133 707

(a) Includes Other Territories.

5.4 STANDARDISED DEATH RATES(a), States and territories, Selected years

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.(b)
					MALES				
1982	13.7	13.4	13.4	13.0	12.2	13.8	15.8	11.8	13.4
1987	11.7	11.7	11.7	11.4	10.9	12.6	15.7	10.2	11.7
1992	11.0	10.5	10.5	10.2	9.9	11.2	14.4	9.0	10.6
1997	9.6	9.5	9.3	9.4	9.2	10.4	13.4	8.5	9.5
1998	9.2	8.8	9.3	9.2	8.9	9.7	10.9	7.9	9.1
1999	9.0	8.6	9.0	8.6	8.7	9.8	10.7	7.9	8.9
2000	8.6	8.3	8.6	8.8	8.3	9.3	12.0	7.2	8.5
2001	8.2	8.0	8.3	8.4	7.9	9.2	11.0	7.6	8.2
2002	8.3	8.2	8.3	8.3	7.8	9.4	10.6	7.0	8.2
					FEMALES				
1982	8.3	8.0	7.7	7.6	7.1	8.4	10.8	8.4	8.0
1987	7.3	7.3	7.1	6.7	6.3	8.0	9.1	7.1	7.1
1992	6.8	6.6	6.7	6.3	6.3	7.5	11.0	6.0	6.7
1997	6.1	6.1	5.9	5.9	5.8	6.8	9.6	6.4	6.1
1998	5.8	5.8	5.8	5.8	5.5	6.2	9.1	5.7	5.8
1999	5.7	5.5	5.9	5.4	5.5	6.4	8.9	5.5	5.7
2000	5.6	5.4	5.5	5.5	5.2	6.0	7.9	5.3	5.5
2001	5.3	5.3	5.4	5.5	5.1	6.3	7.8	5.3	5.4
2002	5.4	5.4	5.6	5.4	5.3	6.2	7.4	5.2	5.5
					PERSONS				
1982	10.6	10.2	10.2	9.9	9.3	10.6	13.3	9.9	10.3
1987	9.1	9.2	9.1	8.7	8.3	10.0	12.4	8.4	9.1
1992	8.6	8.3	8.3	7.9	7.9	9.1	12.7	7.2	8.4
1997	7.6	7.6	7.5	7.4	7.3	8.3	11.5	7.3	7.6
1998	7.3	7.1	7.3	7.3	7.0	7.7	10.1	6.6	7.2
1999	7.1	6.8	7.3	6.8	6.9	7.8	9.9	6.5	7.1
2000	6.9	6.7	6.9	6.9	6.5	7.5	10.0	6.1	6.8
2001	6.6	6.5	6.7	6.8	6.3	7.6	9.4	6.3	6.6
2002	6.6	6.6	6.8	6.7	6.4	7.6	9.0	5.9	6.7

(a) Revised using the 2001 standard population.

(b) Includes Other Territories.

5.5 MORTALITY INDICATORS, 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							
Crude death rate													
Reference year	year	2002	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
Infant mortality rate													
Reference year	year	2002	1997	1997	na	na	1994	1998	1998	na	na	1997	1996
Infant mortality rate	rate	5.4	6.0	5.4	na	na	7.2	3.8	8.8	na	na	6.4	8.0
Expectation of life													
Reference	years	2000–2002	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	77.4	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	76.8	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	53.5	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	34.7	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	17.4	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	5.6	5.9	4.8	5.1	5.7	4.9	5.3	4.8	3.6	5.1	5.0	5.3
Age-specific death rates(b)													
Reference year	year	2002	1995	1996	1997	1997	1994	1997	1997	1995	1996	1997	1995
0	rate	5.5	6.6	5.7	6.8	3.6	7.1	3.9	11.2	3.3	na	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	(c)1.9	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	0.6	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	0.9	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	1.0	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	1.1	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	1.3	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	1.7	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	2.6	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	3.6	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	5.8	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	10.0	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	16.5	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	28.8	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	48.8	59.3	67.0	55.9	50.5	63.5	50.1	(d)119.0	92.4	64.0	67.9	60.4
80–84	rate	80.8	94.8	115.2	103.4	76.8	100.3	86.5	na	(e)269.1	104.8	110.3	96.3
85 and over	rate	167.4	171.8	201.1	na	123.3	183.2	na	na	na	203.6	na	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, 1999 (*for all countries apart from Australia).

5.5 MORTALITY INDICATORS, 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							
Crude death rate													
Reference year	year	2002	1995	1996	1997	1997	1994	1997	1997	1995	1996	1997	1995
Crude death rate	rate	6.6	6.6	11.3	8.9	4.2	9.2	8.1	3.8	4.7	7.5	11.0	8.5
Infant mortality rate													
Reference year	year	2002	1997	1997	na	na	1994	1998	1998	na	na	1997	1996
Infant mortality rate	rate	4.6	5.0	4.3	na	na	5.9	3.4	7.3	na	na	5.3	6.6
Expectation of life													
Reference period	year	2000–2002	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	82.6	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	82.0	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	58.3	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	38.9	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	20.8	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	6.8	7.3	5.8	5.3	7.2	6.2	6.7	4.9	5.0	6.6	6.6	6.8
Age-specific death rates(b)													
Reference year	year	2002	1995	1996	1997	1997	1994	1997	1997	1995	1996	1997	1995
0	rate	4.7	5.5	4.4	6.2	3.3	5.8	3.4	8.6	2.6	na	5.2	6.9
1–4	rate	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.7	0.7	(c)1.7	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	0.3	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	0.5	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	1.0	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	1.5	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	2.4	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	3.7	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	6.0	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	9.6	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	16.2	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	28.9	33.5	39.3	38.7	30.4	36.8	24.9	(d)98.8	54.9	39.2	42.2	38.2
80–84	rate	54.2	59.0	76.7	85.6	51.0	66.5	48.2	na	(e)223.5	71.2	73.1	63.6
85 and over	rate	135.4	136.4	166.6	na	109.9	155.6	na	na	na	157.4	na	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, 1999 (for all countries apart from Australia).

5.6 DEATHS, Regional patterns of mortality—2002

Statistical Division	Deaths 2002(a)	Estimated resident population(b)	Crude death rate(c)	Indirect standardised death rate(d)	Life expectancy at birth male(e)	Life expectancy at birth female(e)	SEIFA index of advantage/ disadvantage(f)
	no.	no.	rate	rate	years	years	index
New South Wales							
Sydney	26 130	4 170 927	6.2	6.4	78.2	83.0	1 051
Hunter	4 837	595 030	8.1	7.1	76.6	82.1	961
Illawarra	3 076	405 007	7.4	6.8	77.2	82.9	978
Richmond-Tweed	1 843	219 034	8.1	6.3	77.5	82.8	939
Mid-North Coast	2 582	284 513	9.0	6.8	76.3	82.3	923
Northern	1 465	180 449	8.1	7.6	75.5	81.7	946
North-Western	892	119 624	7.7	8.0	75.3	80.4	940
Central West	1 427	178 586	7.9	7.3	76.2	82.0	954
South-Eastern	1 589	195 898	7.8	7.1	76.6	82.1	979
Murrumbidgee	1 125	153 045	7.3	7.2	76.5	82.4	956
Murray	950	114 064	8.0	7.1	76.7	82.1	959
Far West	243	24 178	10.0	8.1	74.9	80.0	909
Total(g)	46 384	6 640 355	6.9	6.7	77.3	82.6	1 015
Victoria							
Melbourne	22 465	3 524 103	6.3	6.4	78.4	83.1	1 032
Barwon	2 070	259 549	7.8	6.7	77.5	82.5	975
Western District	909	100 894	8.9	7.3	76.2	81.7	956
Central Highlands	1 240	143 179	8.0	7.3	76.8	81.9	964
Wimmera	531	51 364	10.2	7.1	76.6	81.6	950
Mallee	770	91 170	7.9	6.9	76.9	82.4	937
Loddon	1 381	169 088	7.9	7.0	76.7	82.2	966
Goulburn	1 511	196 545	7.5	6.8	77.1	82.8	950
Ovens-Murray	723	94 264	7.5	7.0	77.2	82.2	972
East Gippsland	766	81 178	9.0	7.6	76.2	81.7	946
Gippsland	1 327	161 204	8.1	7.3	76.3	82.5	948
Total(g)	33 772	4 872 538	6.8	6.6	77.8	82.8	1 012
Queensland							
Brisbane	10 162	1 689 100	6.0	6.6	77.9	82.7	1 015
Moreton	5 133	747 364	6.8	6.2	78.4	83.3	972
Wide Bay-Burnett	2 096	239 746	8.1	6.9	76.8	82.2	904
Darling Downs	1 610	212 942	7.4	7.1	77.0	81.9	952
South-West	200	26 987	7.0	8.7	74.5	81.5	946
Fitzroy	1 054	183 515	5.8	7.1	76.3	81.8	961
Central West	89	12 550	7.1	8.5	np	np	959
Mackay	781	139 647	5.6	7.3	76.4	82.4	956
Northern	1 199	193 964	6.0	7.7	76.1	81.7	977
Far North	1 338	227 309	5.8	7.7	75.3	81.1	968
North-West	185	34 051	5.3	10.5	72.3	77.6	978
Total(g)	23 968	3 707 175	6.4	6.8	77.2	82.4	985

(a) Deaths recoded to 2002 Statistical Division (SD) boundaries.

(b) 30 June 2002 preliminary.

(c) Per 1,000 population. Average crude death rate 2000–2002.

(d) Per 1,000 population. Average indirect standardised death rate 2000–2002.

(e) 2000–2002, see Explanatory Notes 33–34.

(f) Socio-economic Indexes for Areas as defined from the 2001 Census of Population and Housing. SEIFA indexes are based on population weighted averages at the Census Collection District level, see Explanatory Notes 35–37.

(g) Includes not stated, no fixed abode and overseas residents. State and territory life expectancy at birth are from table 5.2. See Explanatory Notes 27–32.

5.6 DEATHS, Regional patterns of mortality—2002 *continued*

Statistical Division	Deaths 2002(a)	Estimated resident population(b)	Crude death rate(c)	Indirect standardised death rate(d)	Life expectancy at birth male(e)	Life expectancy at birth female(e)	SEIFA index of advantage/ disadvantage(f)
	no.	no.	rate	rate	years	years	index
South Australia							
Adelaide	8 753	1 114 285	7.8	6.6	77.8	82.7	991
Outer Adelaide	814	116 312	6.9	6.2	78.4	82.9	964
Yorke and Lower North	505	44 542	11.0	7.7	76.2	81.3	913
Murray Lands	540	68 634	8.4	7.4	75.7	81.6	904
South-East	449	62 780	7.1	7.0	76.3	82.7	934
Eyre	277	34 215	7.9	7.3	76.2	81.2	935
Northern	625	79 474	7.8	8.1	74.7	80.9	922
Total(g)	11 987	1 520 242	7.9	6.8	77.3	82.6	976
Western Australia							
Perth	8 275	1 413 651	5.7	6.2	78.4	83.4	1 024
South-West	1 301	198 968	6.3	6.4	78.0	83.2	948
Lower Great Southern	386	53 794	6.7	6.6	77.2	82.8	948
Upper Great Southern	116	18 723	7.1	7.2	np	np	948
Midlands	324	53 559	5.8	6.5	77.2	82.5	943
South-Eastern	270	54 855	4.8	8.9	74.2	79.8	986
Central	357	60 626	5.6	7.5	76.4	81.5	947
Pilbara	104	39 441	2.5	8.6	np	np	1 040
Kimberley	133	33 705	4.5	11.1	71.8	78.0	973
Total(g)	11 326	1 927 322	5.7	6.4	77.9	82.9	1 007
Tasmania							
Greater Hobart	1 663	198 026	8.0	7.3	76.6	81.7	985
Southern	267	34 687	6.9	7.4	75.8	80.6	899
Northern	1 143	133 595	8.6	7.7	76.1	80.8	938
Mersey-Lyell	897	106 417	8.2	7.8	75.6	81.0	907
Total(g)	3 979	472 725	8.2	7.5	76.5	81.3	948
Northern Territory							
Darwin	371	107 373	3.4	8.5	74.2	79.9	1 045
Northern Territory - Bal	515	90 640	5.5	15.6	68.1	73.6	985
Total(g)	911	198 013	4.6	11.9	71.3	76.7	1 018
Australian Capital Territory							
Canberra	1 369	321 441	4.3	6.0	79.2	83.3	1 122
Total(g)	1 373	321 819	4.3	6.0	79.2	83.3	1 122
Australia	**133 700**	**19 660 189**	**6.7**	**6.7**	**77.4**	**82.6**	**1 005**

(a) Deaths recoded to 2002 Statistical Division boundaries.

(b) 30 June 2002 preliminary.

(c) Per 1,000 population. Average crude death rate 2000–2002.

(d) Per 1,000 population. Average indirect standardised death rate 2000–2002.

(e) 2000–2002, see Explanatory Notes 33–34.

(f) Socio-economic Indexes for Areas as defined from the 2001 Census of Population and Housing. SEIFA indexes are based on population weighted averages at the Census Collection District level, see Explanatory Notes 35–37.

(g) Includes not stated, no fixed abode or overseas residents. State and territory life expectancy at birth are from table 5.2. See Explanatory Notes 27–32.

5.7 STATE OR TERRITORY OF USUAL RESIDENCE, State or territory of registration—2002

State or territory of usual residence	STATE OR TERRITORY OF REGISTRATION								
	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
New South Wales	45 479	214	391	35	15	5	5	240	46 384
Victoria	174	33 461	66	39	13	10	5	4	33 772
Queensland	208	32	23 694	8	9	6	9	3	23 968
South Australia	15	33	13	11 907	7	—	11	—	11 987
Western Australia	9	16	7	5	11 275	3	11	—	11 326
Tasmania	6	14	9	—	—	3 948	—	—	3 979
Northern Territory	3	—	6	32	4	—	865	—	911
Australian Capital Territory	43	5	10	—	—	—	—	1 315	1 373
Australia(a)	**45 939**	**33 777**	**24 196**	**12 028**	**11 327**	**3 971**	**906**	**1 563**	**133 707**

(a) Includes Other Territories.

5.8 DEATHS REGISTERED IN 2002, Year of occurrence(a), Selected years

Year of occurrence	STATE OR TERRITORY OF REGISTRATION								
	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
1996 and before	11	7	6	—	—	—	—	35	64
1997	—	—	3	—	—	—	—	—	—
1998	—	—	—	—	—	—	—	—	—
1999	—	—	9	8	—	—	—	—	22
2000	4	22	14	9	3	3	—	—	53
2001	1 786	1 405	1 517	634	486	179	81	76	6 164
2002	44 135	32 341	22 647	11 376	10 835	3 787	822	1 452	127 395
Total(b)	**45 939**	**33 777**	**24 196**	**12 028**	**11 327**	**3 971**	**906**	**1 563**	**133 707**

(a) See Chapter 6 for more data provided on a year of occurrence basis.

(b) Includes not available year of occurrence.

5.9 DEATHS, Age, Selected years

Age group (years)	*1982*	*1987*	*1992*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*
				MALES					
0	1 425	1 235	1 073	744	706	812	725	751	699
1–4	313	255	220	206	199	164	156	147	163
5–9	223	136	128	99	102	95	100	98	99
10–14	263	190	127	133	126	112	121	114	112
15–19	827	735	547	572	506	547	501	457	439
20–24	1 084	999	865	857	870	841	700	665	619
25–29	893	908	889	938	992	1 027	920	759	721
30–34	812	815	982	950	1 067	976	932	882	845
35–39	859	976	990	1 078	1 137	1 066	1 117	1 014	943
40–44	1 090	1 153	1 310	1 321	1 311	1 302	1 342	1 266	1 263
45–49	1 728	1 563	1 673	1 718	1 628	1 664	1 619	1 692	1 794
50–54	2 954	2 347	2 268	2 416	2 354	2 386	2 417	2 357	2 360
55–59	4 742	4 128	3 236	3 044	3 054	3 102	3 055	3 235	3 190
60–64	6 069	6 116	5 511	4 581	4 351	4 166	4 082	4 280	4 265
65–69	8 338	7 770	8 138	7 078	6 677	6 305	5 922	5 745	5 679
70–74	9 531	9 648	9 509	9 818	9 590	9 573	9 120	8 825	8 747
75–79	9 162	9 828	10 780	10 583	10 754	11 167	11 233	11 083	11 391
80–84	6 823	7 834	9 232	10 476	10 221	9 809	10 028	10 312	11 072
85–89	3 891	4 686	5 750	7 193	7 357	7 806	8 061	8 406	8 915
90–94	1 804	1 781	2 298	3 100	3 235	3 425	3 688	3 707	4 329
95–99	415	430	510	735	758	786	855	921	1 058
100 and over	35	61	72	105	71	87	105	106	131
Not stated	14	17	7	7	7	9	18	13	51
Total	**63 295**	**63 611**	**66 115**	**67 752**	**67 073**	**67 227**	**66 817**	**66 835**	**68 885**
				FEMALES					
0	1 057	881	770	597	546	596	565	558	565
1–4	226	156	178	121	148	129	112	112	97
5–9	108	102	97	86	61	72	74	65	73
10–14	121	89	81	81	87	89	78	66	74
15–19	263	291	216	221	237	215	216	158	186
20–24	306	315	302	284	258	269	247	230	196
25–29	330	333	294	320	308	315	324	255	259
30–34	327	353	406	431	374	406	374	351	367
35–39	439	500	496	553	574	531	570	524	497
40–44	629	672	725	746	760	787	738	788	761
45–49	910	882	980	1 072	1 059	1 085	1 060	1 023	1 065
50–54	1 583	1 295	1 320	1 457	1 507	1 390	1 484	1 537	1 591
55–59	2 320	2 012	1 807	1 813	1 715	1 727	1 874	1 889	2 002
60–64	3 340	3 159	2 840	2 484	2 420	2 377	2 294	2 321	2 504
65–69	4 646	4 392	4 471	3 990	3 633	3 440	3 441	3 301	3 404
70–74	6 038	6 399	6 353	6 294	5 994	5 879	5 637	5 634	5 399
75–79	7 265	8 145	8 710	8 304	8 427	8 567	8 330	8 304	8 502
80–84	8 325	8 938	10 196	11 174	10 785	10 561	10 390	10 676	11 461
85–89	7 359	7 847	9 102	11 183	10 886	11 641	12 056	12 000	12 710
90–94	4 397	4 854	5 652	7 142	7 106	7 563	8 061	8 310	9 078
95–99	1 291	1 775	2 140	2 696	2 698	2 706	2 942	3 008	3 309
100 and over	196	314	407	545	545	528	605	596	690
Not stated	—	6	—	4	—	—	3	3	32
Total	**51 476**	**53 710**	**57 545**	**61 598**	**60 129**	**60 875**	**61 474**	**61 709**	**64 822**

5.10 AGE-SPECIFIC DEATH RATES(a), Selected years

Age group (years)	*1982*	*1987*	*1992*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*
				MALES					
0	11.8	10.0	8.1	5.7	5.5	6.3	5.6	5.8	5.5
1–4	0.7	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3
5–9	0.4	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1
10–14	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
15–19	1.3	1.0	0.8	0.9	0.8	0.8	0.7	0.7	0.6
20–24	1.6	1.5	1.2	1.2	1.3	1.3	1.1	1.0	0.9
25–29	1.4	1.3	1.3	1.3	1.4	1.4	1.3	1.1	1.0
30–34	1.3	1.3	1.4	1.3	1.5	1.4	1.3	1.2	1.1
35–39	1.6	1.5	1.5	1.5	1.5	1.4	1.5	1.4	1.3
40–44	2.5	2.1	2.0	1.9	1.9	1.8	1.9	1.7	1.7
45–49	4.5	3.5	3.0	2.6	2.5	2.5	2.4	2.5	2.6
50–54	7.5	6.1	5.1	4.3	4.0	3.9	3.8	3.6	3.6
55–59	12.7	10.9	8.6	7.0	6.8	6.6	6.2	6.3	5.8
60–64	19.9	17.2	15.2	12.7	11.7	10.8	10.2	10.3	10.0
65–69	33.0	27.9	25.0	21.0	19.9	18.9	17.8	17.1	16.5
70–74	51.9	45.3	39.8	34.8	33.3	32.5	30.5	29.1	28.8
75–79	82.7	71.4	66.5	55.7	53.6	52.6	51.2	48.8	48.8
80–84	124.4	111.4	104.5	96.4	92.3	87.1	84.3	80.4	80.8
85 and over	216.0	192.0	182.3	174.2	167.4	166.3	164.0	160.4	167.4
				FEMALES					
0	9.2	7.5	6.1	4.8	4.5	4.9	4.6	4.5	4.7
1–4	0.5	0.3	0.4	0.2	0.3	0.3	0.2	0.2	0.2
5–9	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1
10–14	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15–19	0.4	0.4	0.3	0.4	0.4	0.3	0.3	0.2	0.3
20–24	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.3
25–29	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4
30–34	0.5	0.5	0.6	0.6	0.5	0.6	0.5	0.5	0.5
35–39	0.8	0.8	0.7	0.7	0.8	0.7	0.8	0.7	0.7
40–44	1.5	1.3	1.1	1.1	1.1	1.1	1.0	1.1	1.0
45–49	2.5	2.1	1.8	1.7	1.6	1.6	1.6	1.5	1.5
50–54	4.2	3.5	3.1	2.7	2.6	2.3	2.4	2.4	2.4
55–59	6.2	5.5	4.9	4.3	4.0	3.8	4.0	3.8	3.7
60–64	10.1	8.6	7.8	6.8	6.5	6.2	5.8	5.7	6.0
65–69	16.0	13.9	12.7	11.3	10.4	9.9	10.0	9.5	9.6
70–74	25.7	24.0	21.7	19.2	18.1	17.6	16.9	16.8	16.2
75–79	45.1	41.0	38.0	32.4	31.4	30.5	29.0	28.4	28.9
80–84	79.3	72.2	67.3	62.1	59.2	57.7	54.7	52.9	54.2
85 and over	170.4	152.2	149.6	144.4	135.5	135.1	135.1	130.5	135.4

(a) Per 1,000 population.

5.11 DEATHS, Age, States and territories—2002

Age group (years)	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.(a)
				MALES					
0	214	180	155	50	46	22	23	9	699
1–4	55	37	33	8	19	5	4	—	163
5–9	31	26	18	6	12	5	—	—	99
10–14	36	31	21	5	11	4	3	—	112
15–19	128	98	100	36	46	13	10	7	439
20–24	199	134	145	43	65	11	17	5	619
25–29	225	166	145	47	81	19	31	7	721
30–34	286	178	168	67	90	18	30	8	845
35–39	335	209	184	80	69	23	31	11	943
40–44	446	280	240	100	118	32	30	17	1 263
45–49	649	415	331	119	167	42	49	22	1 794
50–54	821	508	448	203	237	65	45	33	2 360
55–59	1 088	739	640	289	254	105	50	25	3 190
60–64	1 462	990	903	317	375	122	53	42	4 265
65–69	2 002	1 393	1 052	485	484	171	46	45	5 679
70–74	3 096	2 283	1 483	736	760	280	44	65	8 747
75–79	3 980	2 859	2 043	1 069	926	366	36	111	11 391
80–84	4 028	2 779	1 916	1 040	887	281	28	113	11 072
85–89	3 056	2 306	1 557	898	724	278	15	81	8 915
90–94	1 414	1 226	791	402	317	126	12	41	4 329
95–99	350	287	182	84	98	39	4	14	1 058
100 and over	42	31	21	16	14	5	3	3	131
Not stated	10	3	—	—	36	—	—	—	51
Total	**23 953**	**17 158**	**12 576**	**6 100**	**5 836**	**2 034**	**562**	**661**	**68 885**
				FEMALES					
0	183	125	122	40	56	15	19	5	565
1–4	25	21	20	10	9	—	9	—	97
5–9	26	19	15	3	6	—	—	3	73
10–14	19	18	16	5	10	3	—	3	74
15–19	58	35	41	17	19	3	10	3	186
20–24	52	39	45	12	27	6	11	4	196
25–29	74	63	58	17	30	5	9	3	259
30–34	114	84	68	24	40	12	20	5	367
35–39	155	115	85	44	55	19	19	5	497
40–44	237	182	143	68	73	25	20	13	761
45–49	320	254	210	97	109	36	24	15	1 065
50–54	529	372	310	146	145	46	23	20	1 591
55–59	706	471	374	165	176	65	24	21	2 002
60–64	903	584	447	202	231	87	20	29	2 504
65–69	1 226	843	593	291	282	105	23	41	3 404
70–74	1 927	1 367	972	444	451	161	27	50	5 399
75–79	2 957	2 204	1 477	756	707	274	31	96	8 502
80–84	4 025	2 944	2 007	1 093	870	351	19	151	11 461
85–89	4 378	3 384	2 168	1 209	1 019	388	27	137	12 710
90–94	3 124	2 387	1 564	863	812	245	7	76	9 078
95–99	1 152	909	539	314	284	84	3	25	3 309
100 and over	239	192	118	67	53	13	—	8	690
Not stated	3	—	—	—	26	3	—	—	32
Total	**22 431**	**16 614**	**11 392**	**5 887**	**5 490**	**1 945**	**349**	**712**	**64 822**

(a) Includes Other Territories.

5.12 AGE-SPECIFIC DEATH RATES(a), States and territories—2002

Age group (years)	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.(b)
				MALES					
0	5.0	5.8	6.3	5.6	3.8	7.4	11.9	4.5	5.5
1–4	0.3	0.3	0.3	0.2	0.4	0.4	0.6	0.2	0.3
5–9	0.1	0.2	0.1	0.1	0.2	0.3	0.0	0.1	0.1
10–14	0.2	0.2	0.2	0.1	0.2	0.2	0.4	0.1	0.2
15–19	0.6	0.6	0.7	0.7	0.6	0.8	1.3	0.6	0.6
20–24	0.9	0.8	1.1	0.9	1.0	0.8	2.0	0.4	0.9
25–29	1.0	1.0	1.1	0.9	1.2	1.4	3.3	0.5	1.0
30–34	1.1	0.9	1.2	1.2	1.2	1.2	3.2	0.6	1.1
35–39	1.3	1.1	1.4	1.4	0.9	1.4	3.5	0.9	1.3
40–44	1.8	1.5	1.7	1.7	1.6	1.8	3.6	1.4	1.7
45–49	2.8	2.5	2.6	2.2	2.4	2.5	6.9	1.9	2.6
50–54	3.8	3.2	3.6	3.9	3.6	4.0	6.8	3.0	3.6
55–59	5.9	5.6	6.0	6.6	4.8	7.5	10.6	2.8	5.8
60–64	10.1	9.4	11.0	9.3	9.2	10.7	16.1	7.1	10.0
65–69	16.8	16.2	16.5	16.8	15.5	18.7	26.5	10.8	16.5
70–74	29.0	29.7	27.3	27.7	28.5	34.8	35.6	18.9	28.8
75–79	48.6	48.2	49.6	49.5	46.6	58.8	53.5	42.8	48.8
80–84	82.8	80.6	77.7	80.9	79.8	80.5	96.9	75.6	80.8
85 and over	163.3	171.1	167.5	174.5	156.7	196.2	130.1	175.9	167.4
				FEMALES					
0	4.5	4.3	5.3	4.7	4.8	5.2	11.1	2.6	4.7
1–4	0.1	0.2	0.2	0.3	0.2	0.1	1.3	0.2	0.2
5–9	0.1	0.1	0.1	0.1	0.1	0.0	0.2	0.2	0.1
10–14	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.1	0.1
15–19	0.3	0.2	0.3	0.3	0.3	0.2	1.4	0.3	0.3
20–24	0.2	0.2	0.4	0.3	0.4	0.4	1.5	0.3	0.3
25–29	0.3	0.4	0.4	0.4	0.5	0.4	1.1	0.2	0.4
30–34	0.4	0.4	0.5	0.4	0.5	0.7	2.2	0.4	0.5
35–39	0.6	0.6	0.6	0.8	0.7	1.1	2.4	0.4	0.7
40–44	0.9	1.0	1.0	1.2	1.0	1.3	2.7	1.0	1.0
45–49	1.4	1.5	1.6	1.8	1.5	2.1	3.7	1.2	1.5
50–54	2.5	2.3	2.5	2.8	2.3	2.8	4.1	1.7	2.4
55–59	3.9	3.6	3.7	3.7	3.5	4.7	6.6	2.4	3.7
60–64	6.3	5.6	5.7	5.8	5.9	7.7	8.6	5.0	6.0
65–69	9.9	9.3	9.5	9.6	8.8	11.1	16.9	9.2	9.6
70–74	16.4	16.0	16.9	14.9	15.8	18.3	27.7	13.4	16.2
75–79	28.4	28.6	29.8	27.2	29.3	35.6	49.2	28.2	28.9
80–84	53.4	54.4	55.6	54.3	50.6	61.1	45.2	66.6	54.2
85 and over	132.3	137.9	139.1	134.2	133.0	142.7	111.4	130.1	135.4

(a) Per 1,000 population.

(b) Includes Other Territories.

5.13 DEATHS, Age, Marital status—2002

	MALES						FEMALES					
Age group (years)	Never married	Married	Widowed	Divorced	Not stated(a)	Total	Never married	Married	Widowed	Divorced	Not stated(a)	Total
0	699	—	—	—	—	699	565	—	—	—	—	565
1–4	163	—	—	—	—	163	97	—	—	—	—	97
5–9	99	—	—	—	—	99	73	—	—	—	—	73
10–14	97	—	—	—	15	112	66	—	—	—	8	74
15–19	344	3	—	—	93	439	156	—	—	—	29	186
20–24	558	24	—	—	35	619	171	14	—	—	10	196
25–29	574	90	—	5	52	721	174	56	3	7	20	259
30–34	532	205	—	38	68	845	185	125	—	32	25	367
35–39	443	330	3	91	76	943	147	232	7	75	36	497
40–44	481	495	14	187	86	1 263	171	417	8	131	34	761
45–49	527	815	25	324	103	1 794	184	608	31	192	50	1 065
50–54	472	1 272	31	453	132	2 360	187	988	64	289	63	1 591
55–59	510	1 921	86	525	148	3 190	192	1 207	211	330	62	2 002
60–64	562	2 662	200	667	174	4 265	205	1 513	403	330	53	2 504
65–69	640	3 753	423	703	160	5 679	213	1 829	888	399	75	3 404
70–74	894	5 842	1 017	773	221	8 747	295	2 425	2 088	487	104	5 399
75–79	934	7 432	2 116	689	220	11 391	449	2 922	4 478	561	92	8 502
80–84	742	6 699	2 955	515	161	11 072	600	2 527	7 781	447	106	11 461
85–89	503	4 536	3 476	271	129	8 915	728	1 456	10 030	384	112	12 710
90–94	232	1 646	2 304	107	40	4 329	598	516	7 715	187	62	9 078
95–99	52	257	709	25	15	1 058	269	85	2 877	47	31	3 309
100 and over	8	21	98	4	—	131	69	7	601	7	6	690
Not stated	12	7	5	—	27	51	7	3	8	—	14	32
Total	**10 078**	**38 009**	**13 464**	**5 379**	**1 955**	**68 885**	**5 801**	**16 931**	**37 193**	**3 905**	**992**	**64 822**

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

5.14 AGE-SPECIFIC DEATH RATES(a), Marital status—2001(b)

	MALES					*FEMALES*				
Age group (years)	*Never married*	*Married*	*Widowed*	*Divorced*	*Total(c)*	*Never married*	*Married*	*Widowed*	*Divorced*	*Total(c)*
0	5.8	—	—	—	5.8	4.5	—	—	—	4.5
1–4	0.3	—	—	—	0.3	0.2	—	—	—	0.2
5–9	0.1	—	—	—	0.1	0.1	—	—	—	0.1
10–14	0.2	—	—	—	0.2	0.1	—	—	—	0.1
15–19	0.7	2.0	—	—	0.7	0.2	0.4	—	—	0.2
20–24	1.0	0.3	—	—	1.0	0.4	0.3	—	—	0.4
25–29	1.3	0.5	—	1.0	1.1	0.5	0.2	1.6	0.6	0.4
30–34	1.9	0.6	1.2	1.7	1.2	0.8	0.3	0.7	0.6	0.5
35–39	2.7	0.8	4.3	2.0	1.4	1.3	0.5	1.0	0.9	0.7
40–44	3.7	1.1	2.8	2.7	1.7	2.1	0.8	1.2	1.3	1.1
45–49	5.3	1.8	3.8	4.0	2.5	3.3	1.2	2.4	1.8	1.5
50–54	8.3	2.8	6.1	4.9	3.6	4.9	2.1	3.1	2.8	2.4
55–59	14.3	5.0	10.9	9.4	6.3	7.4	3.4	4.7	4.6	3.8
60–64	22.2	8.6	14.9	15.3	10.3	12.9	4.9	6.9	6.9	5.7
65–69	33.5	14.5	24.6	25.5	17.1	16.8	8.1	11.5	12.3	9.5
70–74	46.9	25.4	40.1	40.1	29.1	22.0	13.6	20.4	21.0	16.8
75–79	72.5	43.0	63.7	63.6	48.8	38.9	23.1	31.8	30.5	28.4
80–84	104.5	71.9	97.2	93.6	80.4	60.7	42.4	56.0	64.3	52.9
85 and over	140.6	140.3	191.6	147.4	160.4	144.0	90.3	135.4	132.7	130.5

(a) Per 1,000 population.

(b) As ERP by marital status for 2002 are not yet available, age-specific death rates by marital status have been calculated using 2001 marital status ERP and 2001 deaths data.

(c) Not stated marital status (which includes de facto) has been pro-rated into the other marital status categories.

5.15 DEATHS, Selected countries of birth, Males(a)—2002

		Australia	*China*	*Germany*	*Greece*	*India*	*Indonesia*	*Italy*
Deaths								
2001	no.	45 873	413	698	731	287	96	2 104
2002	no.	47 260	447	705	742	325	85	2 276
Population(b)	'000	7 395.8	74.6	57.3	67.1	54.9	24.5	125.7
Crude death rate(c)	rate	6.2	5.5	12.2	10.9	5.2	3.9	16.7
Median age at death	years	76.1	76.6	72.6	73.9	76.3	77.2	76.9
Age at death (years)								
0	no.	693	—	—	—	—	—	—
1–4	no.	156	—	—	—	—	—	—
5–14	no.	199	—	—	—	3	—	—
15–24	no.	903	3	—	—	3	—	—
25–34	no.	1 310	3	3	—	3	—	3
35–44	no.	1 690	12	9	9	14	—	15
45–54	no.	2 921	26	56	26	14	6	52
55–64	no.	4 895	38	140	100	35	14	189
65–74	no.	9 424	113	217	260	80	17	696
75–84	no.	15 038	156	192	233	107	29	840
85 and over	no.	10 011	94	86	113	69	16	480
Not stated	no.	20	—	3	—	—	—	3
Total	*no.*	*47 260*	*447*	*705*	*742*	*325*	*85*	*2 276*
Leading causes of death (ISDR) 2001(d)								
Malignant neoplasms (C00–C97)	rate	235	172	234	185	144	119	211
Ischaemic heart diseases (I20–I25)	rate	173	83	182	126	159	188	134
Cerebrovascular diseases (I60–I69)	rate	61	68	69	47	65	88	52
Chronic lower respiratory diseases (J40–J47)	rate	43	18	22	17	20	40	23
Accidents (V01–X59)	rate	35	34	59	28	22	20	28
Total causes	*rate*	*802*	*541*	*800*	*594*	*626*	*626*	*679*

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

(b) Estimated male resident population by country of birth, June 2001 final.

(c) Crude death rate per 1,000 male estimated resident population by country of birth, June 2001 final. As ERP by country of birth for 2002 are not yet available, crude death rates have been calculated using 2001 deaths data and country of birth ERP, June 2001 final.

(d) ISDR per 100,000 population. Standardised using age-specific death rates for the 1999 Australian population, for comparability with *Deaths, Australia, 1999, 2000 and 2001* (cat. no. 3302.0). See Explanatory Note 21.

5.15 DEATHS, Selected countries of birth, Males(a)—2002 *continued*

		Lebanon	*Netherlands*	*New Zealand*	*Philippines*	*United Kingdom*	*United States of America*	*Viet Nam*	*Total overseas-born(e)*
Deaths									
2001	no.	209	768	863	107	7 333	162	228	20 962
2002	no.	232	742	919	89	7 568	162	206	21 625
Population(b)	'000	41.8	47.4	201.3	39.0	568.4	30.3	82.9	2 234.8
Crude death rate(c)	rate	5.0	16.2	4.3	2.7	12.9	5.3	2.7	9.4
Median age at death	years	71.5	77.6	68.3	74.9	78.2	76.3	63.0	76.5
Age at death (years)									
0	no.	—	—	—	—	—	—	—	6
1–4	no.	—	—	4	—	—	—	—	7
5–14	no.	—	—	4	—	—	—	—	12
15–24	no.	—	—	17	4	22	6	10	155
25–34	no.	3	3	45	5	41	4	18	256
35–44	no.	12	6	91	3	144	6	22	516
45–54	no.	27	28	122	12	332	18	33	1 233
55–64	no.	44	69	132	5	834	23	26	2 560
65–74	no.	62	197	155	16	1 589	18	42	5 002
75–84	no.	52	299	210	31	2 722	60	43	7 425
85 and over	no.	31	140	139	13	1 883	27	12	4 422
Not stated	no.	—	—	—	—	—	—	—	31
Total	*no.*	*232*	*742*	*919*	*89*	*7 568*	*162*	*206*	*21 625*
Leading causes of death (ISDR) 2001(d)									
Malignant neoplasms (C00–C97)	rate	161	255	216	196	231	165	163	224
Ischaemic heart diseases (I20–25)	rate	157	152	157	136	154	155	34	161
Cerebrovascular diseases (I60–I69)	rate	64	62	55	89	53	86	63	62
Chronic lower respiratory diseases (J40–J47)	rate	27	42	30	21	41	46	13	34
Accidents (V01–X59)	rate	30	36	42	11	30	50	35	34
Total causes	*rate*	*673*	*784*	*760*	*615*	*749*	*718*	*513*	*761*

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

(b) Estimated male resident population by country of birth, June 2001 final.

(c) Crude death rate per 1,000 male estimated resident population by country of birth, June 2001 final. As ERP by country of birth for 2002 are not yet available, crude death rates have been calculated using 2001 deaths data and country of birth ERP, June 2001 final.

(d) ISDR per 100,000 population. Standardised using age-specific death rates for the 1999 Australian population, for comparability with *Deaths, Australia, 1999, 2000 and 2001* (cat. no. 3302.0). See Explanatory Note 21.

(e) Includes not stated, at sea, not elsewhere classified, not applicable and inadequately described.

5.16 DEATHS, Selected countries of birth, Females(a)—2002

		Australia	*China*	*Germany*	*Greece*	*India*	*Indonesia*	*Italy*
Deaths								
2001	no.	45 148	373	660	479	264	69	1 339
2002	no.	47 134	394	729	538	279	65	1 434
Population(b)	'000	7 535.3	82.4	60.3	65.4	48.6	27.3	112.7
Crude death rate(c)	rate	6.0	4.5	11.0	7.3	5.4	2.5	11.9
Median age at death	years	82.4	82.5	79.1	79.9	81.5	78.5	80.7
Age at death (years)								
0	no.	561	—	—	—	—	—	—
1–4	no.	96	—	—	—	—	—	—
5–14	no.	134	—	—	—	—	—	—
15–24	no.	320	—	3	—	—	—	—
25–34	no.	513	3	3	—	—	—	—
35–44	no.	994	8	5	5	4	—	—
45–54	no.	1 864	18	35	18	13	6	33
55–64	no.	3 142	23	58	65	8	6	110
65–74	no.	6 154	57	134	104	47	13	298
75–84	no.	14 329	129	299	148	101	23	461
85 and over	no.	19 008	155	196	196	104	15	530
Not stated	no.	19	—	—	—	—	—	—
Total	*no.*	*47 134*	*394*	*729*	*538*	*279*	*65*	*1 434*
Leading causes of death (ISDR) 2001(d)								
Malignant neoplasms (C00–C97)	rate	144	107	159	102	119	60	111
Ischaemic heart diseases (I20–I25)	rate	103	59	95	64	90	68	79
Cerebrovascular diseases (I60–I69)	rate	58	45	45	42	58	59	48
Chronic lower respiratory diseases (J40–J47)	rate	23	10	16	6	10	12	5
Accidents (V01–X59)	rate	15	19	18	14	9	11	22
Total causes	*rate*	*528*	*367*	*500*	*378*	*454*	*391*	*422*

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

(b) Estimated female resident population by country of birth, June 2001 final.

(c) Crude death rate per 1,000 male estimated resident population by country of birth, June 2001 final. As ERP by country of birth for 2002 are not yet available, crude death rates have been calculated using 2001 deaths data and country of birth ERP, June 2001 final.

(d) ISDR per 100,000 population. Standardised using age-specific death rates for the 1999 Australian population, for comparability with *Deaths, Australia, 1999, 2000 and 2001* (cat. no. 3302.0). See Explanatory Note 21.

5.16 DEATHS, Selected countries of birth, Females(a)—2002 *continued*

		Lebanon	*Netherlands*	*New Zealand*	*Philippines*	*United Kingdom*	*United States of America*	*Viet Nam*	*Total overseas-born(e)*
Deaths									
2001	no.	142	516	634	124	6 910	96	150	16 561
2002	no.	132	574	716	142	7 122	121	173	17 688
Population(b)	'000	38.2	43.7	192.8	73.2	558.5	28.7	86.6	2 247.2
Crude death rate(c)	rate	3.7	11.8	3.3	1.7	12.4	3.3	1.7	7.4
Median age at death	years	75.4	81.5	79.4	69.0	84.0	77.1	74.7	81.6
Age at death (years)									
0	no.	—	—	—	—	—	—	—	4
1–4	no.	—	—	—	—	—	—	—	—
5–14	no.	—	—	6	—	3	—	—	13
15–24	no.	—	3	9	3	9	3	—	62
25–34	no.	—	3	12	8	18	3	6	113
35–44	no.	5	—	37	9	63	6	10	264
45–54	no.	11	34	68	25	193	15	22	792
55–64	no.	15	48	74	20	462	16	11	1 364
65–74	no.	32	87	90	22	906	15	38	2 649
75–84	no.	39	198	164	33	2 155	29	48	5 634
85 and over	no.	29	201	255	20	3 312	35	37	6 779
Not stated	no.	—	—	—	—	3	—	—	13
Total	*no.*	*132*	*574*	*716*	*142*	*7 122*	*121*	*173*	*17 688*
Leading causes of death (ISDR) 2001(d)									
Malignant neoplasms (C00–C97)	rate	115	135	148	101	151	178	86	137
Ischaemic heart diseases (I20–I25)	rate	101	91	80	39	99	102	22	94
Cerebrovascular diseases (I60–I69)	rate	80	42	65	31	54	64	48	53
Chronic lower respiratory diseases (J40–J47)	rate	7	14	19	6	24	6	6	16
Accidents (V01–X59)	rate	8	16	17	12	22	15	9	17
Total causes	*rate*	*476*	*458*	*472*	*305*	*531*	*506*	*271*	*492*

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

(b) Estimated female resident population by country of birth, June 2001 final.

(c) Crude death rate per 1,000 male estimated resident population by country of birth, June 2001 final. As ERP by country of birth for 2002 are not yet available, crude death rates have been calculated using 2001 deaths data and country of birth ERP, June 2001 final.

(d) ISDR per 100,000 population. Standardised using age-specific death rates for the 1999 Australian population, for comparability with *Deaths, Australia, 1999, 2000 and 2001* (cat. no. 3302.0). See Explanatory Note 21.

(e) Includes not stated, at sea, not elsewhere classified, not applicable and inadequately described.

5.17 SELECTED COUNTRIES OF BIRTH, Indirect standardised death rates(a)—2001(b)

	LEADING CAUSES OF DEATH						
Birthplace	*Malignant neoplasms* rate	*Ischaemic heart diseases* rate	*Cerebro-vascular diseases* rate	*Chronic lower respiratory diseases* rate	*Accidents* rate	*Total* rate	*Total deaths* no.
Australia	183	130	59	31	25	638	91 021
China	136	69	54	13	26	442	786
Germany	192	129	54	18	36	620	1 358
Greece	144	94	44	11	21	485	1 210
India	130	119	61	14	16	530	551
Indonesia	88	123	72	25	15	500	165
Italy	162	106	49	14	25	549	3 443
Lebanon	139	129	72	17	19	577	351
Netherlands	195	119	51	28	25	610	1 284
New Zealand	181	114	61	24	29	604	1 497
Philippines	129	68	49	10	12	398	231
United Kingdom	189	122	54	32	26	625	14 243
United States of America	171	131	76	29	33	621	258
Viet Nam	121	27	54	9	22	379	378
Total overseas-born(c)	*179*	*123*	*57*	*24*	*25*	*613*	*11 768*
Total Australia	**182**	**128**	**59**	**29**	**25**	**630**	**128 544**

(a) Per 100,000 population. Standardised using age-specific death rates for the 1999 Australian population, for comparability with *Deaths, Australia, 1999* and *2000* (cat. no. 3302.0). See paragraph 21 of the Explanatory Notes.

(b) As ERP by country of birth for 2002 are not yet available, ISDRs by country of birth have been calculated for 2001, using June 2001 final country of birth ERP.

(c) Includes not stated, at sea, not elsewhere classified, not applicable and inadequately described.

5.18 DEATHS, Country of birth, Duration of residence—2002

	DURATION OF RESIDENCE (years)									
Country of birth	*0–4* no.	*5–9* no.	*10–19* no.	*20–29* no.	*30–39* no.	*40 and over* no.	*Not stated* no.	*Not applicable* no.	*Total* no.	*Median duration* years
Oceania and Antarctica										
Australia (incl. ET)(a)	. .	. .	. .	. .	. .	. .	3	94 643	94 645	. .
Fiji	15	21	59	26	8	24	27	. .	180	15.3
New Zealand	159	109	253	251	179	437	247	. .	1 635	24.3
Papua New Guinea	—	4	10	22	15	14	24	. .	90	29.3
Other	41	23	38	23	6	13	46	. .	190	13.1
Total	*216*	*157*	*360*	*322*	*208*	*488*	*346*	*94 643*	*96 740*	*22.9*
North-West Europe										
Austria	3	—	6	9	20	246	22	. .	307	48.0
Denmark	4	—	—	7	26	43	6	. .	89	43.2
France	9	—	10	14	25	39	15	. .	112	34.8
Germany	42	10	38	62	119	1 063	100	. .	1 434	47.8
Ireland	23	3	31	41	125	326	45	. .	594	44.0
Netherlands	35	7	16	28	72	1 092	66	. .	1 316	48.1
Switzerland	—	3	—	10	12	42	10	. .	76	46.3
United Kingdom	555	159	758	1 213	3 235	7 768	1 002	. .	14 690	43.3
Other	12	—	8	15	58	122	22	. .	239	42.3
Total	*683*	*185*	*869*	*1 399*	*3 692*	*10 741*	*1 288*	. .	*18 857*	*45.1*
Southern and Eastern Europe										
Bosnia and Herzegovina	14	24	5	6	22	30	9	. .	110	30.4
Croatia	21	14	11	20	191	263	23	. .	543	40.1
Cyprus	—	3	8	35	23	110	10	. .	190	47.3
Former Yugoslav Republic of Macedonia	6	6	20	32	145	69	14	. .	292	34.0
Greece	16	3	20	65	361	785	30	. .	1 280	42.9
Hungary	5	3	14	13	41	409	39	. .	523	46.1
Italy	84	5	25	81	553	2 819	143	. .	3 710	47.7
Malta	4	—	3	16	97	406	27	. .	552	47.6
Poland	23	9	68	61	73	1 038	78	. .	1 350	52.3
Portugal	3	3	10	17	34	10	5	. .	79	31.3
Romania	6	4	22	10	11	83	5	. .	141	44.7
Russian Federation	13	7	10	15	18	184	35	. .	282	51.7
Spain	3	3	10	5	44	47	9	. .	120	39.2
Yugoslavia, Federal Republic of	17	15	20	28	157	251	43	. .	531	40.9
Other	35	49	77	62	92	1 098	103	. .	1 516	52.4
Total	*249*	*146*	*321*	*466*	*1 862*	*7 602*	*573*	. .	*11 219*	*47.3*
North Africa and the Middle East										
Egypt	9	—	27	24	136	209	19	. .	425	40.9
Iran	—	7	24	18	11	6	4	. .	72	20.3
Israel	3	—	3	3	8	16	—	. .	31	np
Lebanon	5	6	54	72	116	92	19	. .	364	32.3
Syria	—	—	7	9	15	3	4	. .	41	np
Turkey	3	4	20	39	62	41	14	. .	182	31.6
Other	11	25	21	19	33	36	11	. .	156	29.1
Total	*31*	*45*	*156*	*183*	*381*	*403*	*72*	. .	*1 271*	*33.7*

(a) Includes both Other Territories and External Territories. External Territories includes Norfork Island and External Territories not elsewhere classified.

5.18 DEATHS, Country of birth, Duration of residence—2002 *continued*

	DURATION OF RESIDENCE (years)									
Country of birth	*0–4* no.	*5–9* no.	*10–19* no.	*20–29* no.	*30–39* no.	*40 and over* no.	*Not stated* no.	*Not applicable* no.	*Total* no.	*Median duration* years
South-East Asia										
Cambodia	—	3	32	16	—	—	3	. .	54	18.6
Indonesia	13	6	20	20	11	70	10	. .	150	40.2
Laos	—	—	14	17	—	—	—	. .	33	np
Malaysia	26	6	57	44	21	23	20	. .	197	19.8
Philippines	22	28	106	42	13	3	17	. .	231	15.5
Singapore	9	4	14	19	14	17	9	. .	86	27.8
Thailand	3	4	11	8	—	—	3	. .	32	np
Viet Nam	11	22	198	123	4	3	20	. .	379	16.7
Other	10	12	18	27	30	16	4	. .	117	26.8
Total	*94*	*86*	*470*	*316*	*94*	*132*	*87*	. .	*1 279*	*18.5*
North-East Asia										
China (exc. SARs & Taiwan Province)	52	107	257	151	49	162	63	. .	841	18.8
Hong Kong (SAR of China)	4	7	25	13	17	21	9	. .	96	24.6
Japan	10	3	10	8	3	16	16	. .	64	22.3
Korea, Republic of (South)	24	10	29	18	3	—	8	. .	92	13.8
Other	—	—	11	3	3	—	6	. .	26	np
Total	*90*	*127*	*332*	*193*	*73*	*202*	*102*	. .	*1 119*	*18.5*
Southern and Central Asia										
India	50	26	74	100	167	150	37	. .	604	31.6
Pakistan	4	3	7	3	4	9	3	. .	28	26.5
Sri Lanka	15	18	61	40	47	42	10	. .	233	28.0
Other	12	11	20	4	3	4	—	. .	53	11.3
Total	*81*	*56*	*162*	*146*	*220*	*205*	*48*	. .	*918*	*29.7*
Americas										
Argentina	3	—	4	19	9	12	—	. .	47	np
Canada	7	5	14	21	22	76	20	. .	165	41.5
Caribbean	—	—	—	6	4	7	7	. .	26	np
Central America	—	—	22	—	—	3	—	. .	27	np
Chile	—	—	23	38	12	—	7	. .	81	25.2
United States of America	23	9	24	38	53	95	41	. .	283	34.0
Uruguay	—	—	8	23	13	—	5	. .	50	28.3
Other	4	3	9	10	9	7	4	. .	46	np
Total	*39*	*18*	*104*	*155*	*122*	*201*	*86*	. .	*725*	*30.2*
Sub-Saharan Africa										
Kenya	3	—	3	4	5	4	—	. .	19	np
Mauritius	3	3	17	19	39	3	3	. .	84	30.2
South Africa	39	23	69	62	32	95	17	. .	337	22.8
Zimbabwe	6	—	5	6	6	—	3	. .	26	np
Other	17	5	14	12	25	9	5	. .	87	23.0
Total	*65*	*32*	*108*	*103*	*107*	*112*	*26*	. .	*553*	*25.6*
Other and not stated	69	—	8	3	6	36	904	. .	1 026	0.9
Total	**1 617**	**852**	**2 890**	**3 286**	**6 765**	**20 122**	**3 532**	**94 643**	**133 707**	**43.2**

5.19 UNDERLYING CAUSE OF DEATH, Males, Selected years

Cause of death and ICD code	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*
All causes	**67 752**	**67 073**	**67 227**	**66 817**	**66 835**	**68 885**
Chapter I Certain infectious and parasitic diseases (A00–B99)	868	790	842	867	887	952
Septicaemia (A40, A41)	311	342	401	454	442	507
Human Immunodeficiency virus (HIV) disease (B20–B24)(a)	245	166	156	162	134	119
Chapter II Neoplasms (C00–D48)	19 865	20 168	20 283	20 545	21 126	21 459
Malignant neoplasms (C00–C97)	19 489	19 816	19 866	20 153	20 753	21 041
Digestive organs (C15–C26)	5 482	5 432	5 600	5 676	5 918	5 759
Oesophagus (C15)	657	648	641	667	711	684
Stomach (C16)	782	754	754	775	750	762
Colon (C18)	1 855	1 736	1 771	1 753	1 760	1 610
Rectosigmoid junction, rectum, anus and anal canal (C19–C21)	666	741	734	780	855	838
Liver and intrahepatic bile ducts (C22)	440	428	449	510	538	536
Pancreas (C25)	773	809	868	864	950	943
Trachea, bronchus and lung (C33, C34)	4 536	4 714	4 655	4 587	4 642	4 760
Melanoma of skin (C43)	579	623	631	624	686	716
Breast (C50)	19	19	22	19	27	18
Female genital organs (C51–C58)	..	..	..	..	..	..
Ovary (C56)	..	..	..	..	..	..
Male genital organs (C60–C63)	2 480	2 593	2 546	2 700	2 753	2 888
Prostate (C61)	2 446	2 556	2 499	2 663	2 711	2 852
Urinary tract (C64–C68)	1 019	1 045	1 112	1 076	1 162	1 193
Kidney, except renal pelvis (C64)	440	448	482	469	496	518
Bladder (C67)	553	561	587	574	629	644
Brain (C71)	593	563	588	622	631	652
Lymphoid, haematopoietic and related tissue (C81–C96)	1 903	1 906	1 962	2 062	1 997	2 126
Leukaemia (C91–C95)	693	767	768	772	803	843
In situ and benign neoplasms and neoplasms of uncertain or unknown behaviour (D00–D48)	376	352	417	392	373	418
Chapter III Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism (D50–D89)	161	199	195	190	183	181
Chapter IV Endocrine, nutritional and metabolic diseases (E00–E90)	2 008	2 003	2 001	2 141	2 223	2 383
Diabetes mellitus (E10–E14)	1 515	1 481	1 485	1 594	1 639	1 771
Chapter V Mental and behavioural disorders (F00–F99)	1 373	1 409	1 256	1 358	1 073	1 254
Organic, including symptomatic, mental disorders (F00–F09)	592	619	648	668	683	841
Chapter VI Diseases of the nervous system (G00–G99)	1 637	1 735	1 818	1 839	1 894	2 145
Alzheimer's disease (G30)	479	485	493	455	497	565
Chapter VII Diseases of the eye and adnexa (H00–H59)	1	2	—	—	2	1
Chapter VIII Diseases of the ear and mastoid process (H60–H95)	3	5	—	4	3	3
Chapter IX Diseases of the circulatory system (I00–I99)	26 121	25 159	24 824	23 756	23 602	23 988
All heart diseases (I05–I09, I11, I13, I20–I25, I26, I27, I30–I52)	19 316	18 523	18116	17 172	17 027	17 278
Acute rheumatic fever and chronic rheumatic heart diseases (I00–I09)	109	67	84	101	82	83
Hypertensive diseases (I10–I15)	478	432	432	449	443	457
Ischaemic heart diseases (I20–I25)	15 791	15 256	14 865	14 052	13 906	13 855
Acute myocardial infarction (I21)	8 778	8 525	8 028	7 586	7 484	7 474
Pulmonary heart disease and diseases of pulmonary circulation and other forms of heart disease (I26–I52)	3 153	2 977	2 955	2 795	2 824	3 117
Heart failure (I50)	1 133	1 068	989	982	982	1 033
Cerebrovascular diseases (I60–I69)	4 978	4 910	4 894	4 913	4 852	4 969
Diseases of arteries, arterioles and capillaries (I70–I79)	1 523	1 408	1 476	1 321	1 381	1 382
Atherosclerosis (I70)	236	204	229	187	175	175
Aortic aneurysm and dissection (I71)	919	865	882	798	793	836

(a) See paragraphs 25–26 of Explanatory Notes for further information.

Source: Causes of Death, Australia, 2002 (cat. no. 3303.0).

5.19 UNDERLYING CAUSE OF DEATH, Males, Selected years *continued*

Cause of death and ICD code	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*
Chapter X Diseases of the respiratory system (J00–J99)	5 662	5 304	5 296	5 923	5 725	6 169
Influenza and pneumonia (J10–J18)	924	845	765	1 312	1 184	1 353
Chronic lower respiratory diseases (J40–J47)	3 877	3 649	3 609	3 514	3 419	3 567
Emphysema (J43)	522	541	575	490	408	461
Asthma and status asthmaticus (J45, J46)	207	187	160	169	175	158
Chapter XI Diseases of the digestive system (K00–K93)	2 092	2 013	2 111	2 063	2 036	2 217
Diseases of oesophagus, stomach and duodenum (K20–K31)	287	313	313	331	301	285
Gastric and duodenal ulcer (K25–K27)	203	214	215	232	203	189
Diseases of liver (K70–K77)	926	867	863	805	822	918
Chapter XII Diseases of the skin and subcutaneous tissue (L00–L99)	101	96	108	99	106	119
Chapter XIII Diseases of the musculoskeletal system and connective tissue (M00–M99)	248	227	300	279	285	347
Arthropathies and systemic connective tissue disorders (M00–M36)	172	157	208	187	186	208
Chapter XIV Diseases of the genitourinary system (N00–N99)	1 186	1 197	1 232	1 186	1 242	1 333
Renal failure (N17–N19)	776	795	842	802	813	919
Chapter XV Pregnancy, childbirth and the puerperium (O00–O99)	..	..	..	..	..	..
Chapter XVI Certain conditions originating in the perinatal period (P00–P96)	347	333	377	360	395	372
Fetus and newborn affected by maternal factors and by complications of pregnancy, labour and delivery (P00-P04)	169	160	214	177	197	193
Chapter XVII Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)	408	335	392	326	335	316
Congenital malformations of the circulatory system (Q20–Q28)	138	113	133	115	117	125
Chapter XVIII Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00–R99)	245	351	324	364	272	375
Chapter XX External causes of morbidity and mortality (V01–Y98)	5 426	5 747	5 868	5 517	5 446	5 271
Accidents (V01–X59)	2 866	3 163	3 486	3 299	3 155	3 099
Transport accidents (V01–V99)	1 447	1 435	1 441	1 459	1 495	1 403
Falls (W00–W19)	259	270	309	308	354	334
Accidental drowning and submersion (W65–W74)	218	191	203	179	210	176
Intentional self-harm (X60–X84)	2 143	2 150	2 002	1 860	1 935	1 817
Hanging, strangulation and suffocation (X70)	812	1 035	868	807	855	846
Assault (X85–Y09)	215	203	204	197	192	187

Source: Causes of Death, Australia, 2002 (cat. no. 3303.0).

5.20 UNDERLYING CAUSE OF DEATH, Females, Selected years

Cause of death and ICD code	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*
All causes	**61 598**	**60 129**	**60 875**	**61 474**	**61 709**	**64 822**
Chapter I Certain infectious and parasitic diseases (A00–B99)	654	664	761	779	788	838
Septicaemia (A40, A41)	379	410	460	486	531	572
Human Immunodeficiency virus (HIV) disease (B20–B24)(a)	19	10	10	11	14	12
Chapter II Neoplasms (C00–D48)	15 498	15 441	15 573	15 829	16 371	16 967
Malignant neoplasms (C00–C97)	15 173	15 137	15 187	15 475	15 997	16 581
Digestive organs (C15–C26)	4 349	4 310	4 312	4 379	4 462	4 624
Oesophagus (C15)	294	322	299	287	333	323
Stomach (C16)	463	441	447	414	461	457
Colon (C18)	1 678	1 659	1 557	1 665	1 582	1 616
Rectosigmoid junction, rectum, anus and anal canal (C19–C21)	477	504	514	514	548	585
Liver and intrahepatic bile ducts (C22)	205	213	234	227	240	298
Pancreas (C25)	816	801	850	873	859	891
Trachea, bronchus and lung (C33, C34)	2 052	2 028	2 148	2 291	2 396	2 543
Melanoma of skin (C43)	329	343	359	356	383	339
Breast (C50)	2 609	2 557	2 505	2 511	2 585	2 698
Female genital organs (C51–C58)	1 391	1 374	1 300	1 402	1 506	1 527
Ovary (C56)	734	736	737	774	833	852
Male genital organs (C60–C63)	..	..	..	..	..	..
Prostate (C61)	..	..	..	..	..	..
Urinary tract (C64–C68)	593	599	605	579	662	646
Kidney, except renal pelvis (C64)	309	319	320	295	346	321
Bladder (C67)	251	249	252	247	275	282
Brain (C71)	435	439	430	435	448	492
Lymphoid, haematopoietic and related tissue (C81–C96)	1 581	1 621	1 596	1 682	1 663	1 665
Leukaemia (C91–C95)	540	564	578	582	582	581
In situ and benign neoplasms and neoplasms of uncertain or unknown behaviour (D00–D48)	325	304	386	354	374	386
Chapter III Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism (D50–D89)	211	237	255	223	225	247
Chapter IV Endocrine, nutritional and metabolic diseases (E00–E90)	2 088	1 962	2 099	2 016	2 091	2 283
Diabetes mellitus (E10–E14)	1 516	1 396	1 462	1 412	1 439	1 558
Chapter V Mental and behavioural disorders (F00–F99)	1 512	1 463	1 552	1 716	1 631	1 918
Organic, including symptomatic, mental disorders (F00–F09)	1 209	1 179	1 296	1 439	1 454	1 706
Chapter VI Diseases of the nervous system (G00–G99)	2 069	1 982	2 072	2 200	2 310	2 477
Alzheimer's disease (G30)	1 031	982	1 023	1 104	1 110	1 286
Chapter VII Diseases of the eye and adnexa (H00–H59)	1	3	5	1	1	1
Chapter VIII Diseases of the ear and mastoid process (H60–H95)	4	5	6	5	4	3
Chapter IX Diseases of the circulatory system (I00–I99)	27 515	26 628	26 479	25 931	25 724	26 306
All heart diseases (I05–I09, I11, I13, I20–I25, I26, I27, I30–I52)	18 256	17 457	17 229	16 747	16 620	16 895
Acute rheumatic fever and chronic rheumatic heart diseases (I00–I09)	216	149	177	164	160	191
Hypertensive diseases (I10–I15)	745	777	745	753	780	896
Ischaemic heart diseases (I20–I25)	13 666	13 043	12 744	12 469	12 328	12 208
Acute myocardial infarction (I21)	7 744	7 352	7 124	7 030	6 959	6 844
Pulmonary heart disease and diseases of pulmonary circulation and other forms of heart disease (I26–I52)	3 943	3 822	3 896	3 713	3 747	4 023
Heart failure (I50)	1 849	1 727	1 725	1 662	1 630	1 696
Cerebrovascular diseases (I60–I69)	7 425	7 361	7 372	7 387	7 294	7 564
Diseases of arteries, arterioles and capillaries (I70–I79)	1 397	1 312	1 388	1 296	1 244	1 259
Atherosclerosis (I70)	426	373	423	324	282	324
Aortic aneurysm and dissection (I71)	576	536	568	539	545	550

(a) See paragraphs 25–26 of Explanatory Notes for further information.

Source: Causes of Death, Australia, 2002 (cat. no. 3303.0).

5.20 UNDERLYING CAUSE OF DEATH, Females, Selected years *continued*

Cause of death and ICD code	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*
Chapter X Diseases of the respiratory system (J00–J99)	4 687	4 310	4 317	4 984	4 901	5 499
Influenza and pneumonia (J10–J18)	1 320	1 178	1 133	1 625	1 518	1 731
Chronic lower respiratory diseases (J40–J47)	2 668	2 485	2 487	2 448	2 497	2 689
Emphysema (J43)	287	264	312	231	270	282
Asthma and status asthmaticus (J45, J46)	292	294	264	285	247	239
Chapter XI Diseases of the digestive system (K00–K93)	1 966	1 954	2 110	2 078	2 053	2 242
Diseases of oesophagus, stomach and duodenum (K20–K31)	370	340	335	360	333	356
Gastric and duodenal ulcer (K25–K27)	266	241	231	245	237	232
Diseases of liver (K70–K77)	394	378	380	357	374	436
Chapter XII Diseases of the skin and subcutaneous tissue (L00–L99)	139	164	181	153	159	215
Chapter XIII Diseases of the musculoskeletal system and connective tissue (M00–M99)	544	524	562	573	611	668
Arthropathies and systemic connective tissue disorders (M00–M36)	360	371	360	388	375	410
Chapter XIV Diseases of the genitourinary system (N00–N99)	1 402	1 500	1 536	1 506	1 570	1 650
Renal failure (N17–N19)	815	877	919	913	891	1 006
Chapter XV Pregnancy, childbirth and the puerperium (O00–O99)	12	7	11	15	12	12
Chapter XVI Certain conditions originating in the perinatal period (P00–P96)	292	256	264	282	286	303
Fetus and newborn affected by maternal factors and by complications of pregnancy, labour and delivery (P00-P04)	174	125	147	137	189	170
Chapter XVII Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)	337	277	323	284	279	279
Congenital malformations of the circulatory system (Q20–Q28)	116	99	118	97	98	99
Chapter XVIII Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00–R99)	229	284	276	318	263	365
Chapter XX External causes of morbidity and mortality (V01–Y98)	2 438	2 468	2 493	2 581	2 430	2 549
Accidents (V01–X59)	1 631	1 679	1 801	1 839	1 685	1 807
Transport accidents (V01–V99)	591	551	570	556	509	504
Falls (W00–W19)	189	195	211	257	280	295
Accidental drowning and submersion (W65–W74)	61	58	75	50	51	56
Intentional self-harm (X60–X84)	577	533	490	503	519	503
Hanging, strangulation and suffocation (X70)	175	182	160	182	195	199
Assault (X85–Y09)	115	104	96	116	108	104

Source: Causes of Death, Australia, 2002 (cat. no. 3303.0).

5.21 UNDERLYING CAUSE OF DEATH, Standardised death rates(a), Males

Cause of death and ICD code	*1992*	*1997*	*2001*	*2002*
All causes	**1 062.9**	**948.2**	**823.6**	**824.0**
Chapter I Certain infectious and parasitic diseases (A00–B99)	7.8	11.6	10.9	11.3
Septicaemia (A40, A41)	3.8	4.9	5.9	6.4
Human Immunodeficiency virus (HIV) disease (B20–B24)(b)	7.2	2.3	1.4	1.2
Chapter II Neoplasms (C00–D48)	280.7	265.3	250.2	246.5
Malignant neoplasms (C00–C97)	277.9	259.8	245.4	241.3
Digestive organs (C15–C26)	75.2	72.1	69.1	65.2
Oesophagus (C15)	8.1	8.5	8.2	7.7
Stomach (C16)	11.8	10.5	8.9	8.7
Colon (C18)	24.9	24.5	20.8	18.4
Rectosigmoid junction, rectum, anus and anal canal (C19–C21)	10.0	8.8	9.8	9.8
Liver and intrahepatic bile ducts (C22)	4.9	5.6	6.1	6.0
Pancreas (C25)	10.9	10.0	11.0	10.6
Trachea, bronchus and lung (C33, C34)	67.4	58.8	53.5	53.3
Melanoma of skin (C43)	7.6	7.2	7.8	8.0
Breast (C50)	0.3	0.3	0.3	0.2
Female genital organs (C51–C58)	. .	. .	. .	. .
Ovary (C56)	. .	. .	. .	. .
Male genital organs (C60–C63)	42.4	37.2	35.6	35.8
Prostate (C61)	41.8	36.8	35.1	35.5
Urinary tract (C64–C68)	14.7	14.0	14.2	14.1
Kidney, except renal pelvis (C64)	5.9	5.7	5.8	5.9
Bladder (C67)	8.4	7.9	8.0	7.9
Brain (C71)	7.2	7.1	6.8	6.9
Lymphoid, haematopoietic and related tissue (C81–C96)	24.9	25.2	23.6	24.4
Leukaemia (C91–C95)	10.0	9.1	9.5	9.6
In situ and benign neoplasms and neoplasms of uncertain or unknown behaviour (D00–D48)	2.8	5.5	4.8	4.8
Chapter III Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism (D50–D89)	9.3	2.4	2.3	2.3
Chapter IV Endocrine, nutritional and metabolic diseases (E00–E90)	23.9	27.9	27.2	27.2
Diabetes mellitus (E10–E14)	18.8	21.4	20.2	21.2
Chapter V Mental and behavioural disorders (F00–F99)	16.6	19.1	14.2	16.2
Organic, including symptomatic, mental disorders (F00–F09)	11.0	10.3	9.8	11.7
Chapter VI Diseases of the nervous system (G00–G99)	21.5	23.9	23.9	26.0
Alzheimer's disease (G30)	7.1	8.0	7.0	7.5
Chapter VII Diseases of the eye and adnexa (H00–H59)	—	—	—	—
Chapter VIII Diseases of the ear and mastoid process (H60–H95)	—	—	—	—
Chapter IX Diseases of the circulatory system (I00–I99)	464.7	387.7	304.2	298.6
All heart diseases (I05–I09, I11, I13, I20–I25, I26, I27, I30–I52)	340.7	282.7	216.7	216.7
Acute rheumatic fever and chronic rheumatic heart diseases (I00–I09)	1.8	1.5	1.0	1.0
Hypertensive diseases (I10–I15)	6.7	7.3	5.8	5.8
Ischaemic heart diseases (I20–I25)	284.0	228.7	175.8	169.7
Acute myocardial infarction (I21)	182.7	126.8	95.0	91.9
Pulmonary heart disease and diseases of pulmonary circulation and other forms of heart disease (I26–I52)	51.1	48.5	37.2	37.2
Heart failure (I50)	22.5	19.4	28.2	28.2
Cerebrovascular diseases (I60–I69)	88.7	77.2	65.0	63.8
Diseases of arteries, arterioles and capillaries (I70–I79)	30.5	23.1	18.2	17.3
Atherosclerosis (I70)	6.8	4.1	2.5	2.4
Aortic aneurysm and dissection (I71)	15.9	13.1	10.0	10.1

(a) Standardised death rate per 100,000 of the mid-year population. See Glossary for further explanation.

(b) See paragraphs 25–26 of Explanatory Notes for further information.

Source: Causes of Death, Australia, 2002 (cat. no. 3303.0).

5.21 UNDERLYING CAUSE OF DEATH, Standardised death rates(a), Males *continued*

Cause of death and ICD code	*1992*	*1997*	*2001*	*2002*
Chapter X Diseases of the respiratory system (J00–J99)	105.3	84.1	74.2	77.6
Influenza and pneumonia (J10–J18)	19.3	15.4	16.3	18.2
Chronic lower respiratory diseases (J40–J47)	73.6	56.0	43.2	43.6
Emphysema (J43)	10.4	7.4	5.0	5.6
Asthma and status asthmaticus (J45, J46)	4.9	2.7	2.0	1.9
Chapter XI Diseases of the digestive system (K00–K93)	33.0	28.8	24.7	26.0
Diseases of oesophagus, stomach and duodenum (K20–K31)	7.6	4.3	3.9	3.6
Gastric and duodenal ulcer (K25–K27)	6.3	3.0	2.6	2.4
Diseases of liver (K70–K77)	11.7	11.0	8.9	9.7
Chapter XII Diseases of the skin and subcutaneous tissue (L00–L99)	1.1	1.6	1.4	1.5
Chapter XIII Diseases of the musculoskeletal system and connective tissue (M00–M99)	3.8	3.6	3.6	4.3
Arthropathies and systemic connective tissue disorders (M00–M36)	2.6	2.5	2.3	2.5
Chapter XIV Diseases of the genitourinary system (N00–N99)	16.7	19.2	17.0	17.7
Renal failure (N17–N19)	10.1	12.8	11.3	12.2
Chapter XV Pregnancy, childbirth and the puerperium (O00–O99)	. .	. .	. .	. .
Chapter XVI Certain conditions originating in the perinatal period (P00–P96)	4.8	3.4	4.0	3.7
Chapter XVII Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)	4.8	4.4	3.5	3.3
Congenital malformations of the circulatory system (Q20–Q28)	1.7	1.5	1.2	1.3
Chapter XVIII Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00–R99)	4.9	2.9	3.1	4.2
Chapter XX External causes of morbidity and mortality (V01–Y98)	64.0	62.3	59.2	56.6
Accidents (V01–X59)	38.9	34.0	35.0	34.0
Transport accidents (V01–V99)	19.3	15.8	15.7	14.5
Falls (W00–W19)	3.9	3.5	4.4	4.0
Accidental drowning and submersion (W65–W74)	2.4	2.3	2.2	1.8
Intentional self-harm (X60–X84)	21.3	23.6	20.3	18.8
Hanging, strangulation and suffocation (X70)	5.8	8.8	8.9	8.8
Assault (X85–Y09)	2.3	2.3	2.0	1.9

(a) Standardised death rate per 100,000 of the mid-year population. See Glossary for further explanation.

Source: Causes of Death, Australia, 2002 (cat. no. 3303.0).

5.22 UNDERLYING CAUSE OF DEATH, Standardised death rates(a), Females

Cause of death and ICD code	*1992*	*1997*	*2001*	*2002*
All causes	**667.5**	**609.7**	**535.4**	**544.7**
Chapter I Certain infectious and parasitic diseases (A00–B99)	4.6	6.4	6.9	7.1
Septicaemia (A40, A41)	2.7	3.7	4.5	4.7
Human Immunodeficiency virus (HIV) disease (B20–B24)(b)	0.3	0.2	0.1	0.1
Chapter II Neoplasms (C00–D48)	164.1	160.5	151.9	153.5
Malignant neoplasms (C00–C97)	161.6	157.3	148.7	150.3
Digestive organs (C15–C26)	46.3	44.5	40.6	41.1
Oesophagus (C15)	3.0	2.9	3.0	2.8
Stomach (C16)	5.5	4.7	4.2	4.1
Colon (C18)	18.1	17.2	14.4	14.3
Rectosigmoid junction, rectum, anus and anal canal (C19–C21)	5.1	4.9	5.1	5.2
Liver and intrahepatic bile ducts (C22)	1.6	2.1	2.2	2.7
Pancreas (C25)	8.5	8.3	7.8	8.0
Trachea, bronchus and lung (C33, C34)	20.3	21.5	22.7	23.5
Melanoma of skin (C43)	4.1	3.5	3.6	3.1
Breast (C50)	29.4	27.8	24.7	25.1
Female genital organs (C51–C58)	15.2	14.6	14.2	14.1
Ovary (C56)	7.7	7.7	7.9	7.9
Male genital organs (C60–C63)	. .	. .	. .	. .
Prostate (C61)	. .	. .	. .	. .
Urinary tract (C64–C68)	6.3	6.0	6.0	5.6
Kidney, except renal pelvis (C64)	3.5	3.1	3.2	2.9
Bladder (C67)	2.5	2.5	2.4	2.4
Brain (C71)	4.9	4.6	4.4	4.7
Lymphoid, haematopoietic and related tissue (C81–C96)	16.6	16.2	15.2	15.0
Leukaemia (C91–C95)	6.2	5.5	5.4	5.2
In situ and benign neoplasms and neoplasms of uncertain or unknown behaviour (D00–D48)	2.4	3.2	3.2	3.2
Chapter III Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism (D50–D89)	2.8	2.1	2.0	2.1
Chapter IV Endocrine, nutritional and metabolic diseases (E00–E90)	18.6	20.7	18.3	19.3
Diabetes mellitus (E10–E14)	14.6	15.1	12.6	13.2
Chapter V Mental and behavioural disorders (F00–F99)	13.8	14.4	13.1	14.9
Organic, including symptomatic, mental disorders (F00–F09)	12.0	11.3	11.4	12.9
Chapter VI Diseases of the nervous system (G00–G99)	15.9	20.3	19.8	20.5
Alzheimer's disease (G30)	7.1	9.8	8.9	10.0
Chapter VII Diseases of the eye and adnexa (H00–H59)	—	—	—	—
Chapter VIII Diseases of the ear and mastoid process (H60–H95)	—	—	—	—
Chapter IX Diseases of the circulatory system (I00–I99)	322.2	265.3	212.9	209.8
All heart diseases (I05–I09, I11, I13, I20–I25, I26, I27, I30–I52)	215.9	176.4	137.9	135.1
Acute rheumatic fever and chronic rheumatic heart diseases (I00–I09)	2.8	2.2	1.5	1.7
Hypertensive diseases (I10–I15)	7.9	7.2	6.4	7.1
Ischaemic heart diseases (I20–I25)	166.5	132.2	102.5	97.8
Acute myocardial infarction (I21)	106.1	75.1	58.0	55.0
Pulmonary heart disease and diseases of pulmonary circulation and other forms of heart disease (I26–I52)	42.3	37.8	30.9	31.9
Heart failure (I50)	21.7	17.4	25.9	26.0
Cerebrovascular diseases (I60–I69)	82.7	71.2	59.9	59.8
Diseases of arteries, arterioles and capillaries (I70–I79)	18.0	13.4	10.3	10.1
Atherosclerosis (I70)	7.0	4.0	2.2	2.4
Aortic aneurysm and dissection (I71)	6.2	5.6	4.7	4.6

(a) Standardised death rate per 100,000 of the mid-year population. See Glossary for further explanation.

(b) See paragraphs 25–26 of Explanatory Notes for further information.

Source: Causes of Death, Australia, 2002 (cat. no. 3303.0).

5.22 UNDERLYING CAUSE OF DEATH, Standardised death rates(a), Females *continued*

Cause of death and ICD code	*1992*	*1997*	*2001*	*2002*
Chapter X Diseases of the respiratory system (J00–J99)	47.3	46.0	42.2	45.6
Influenza and pneumonia (J10–J18)	11.9	12.5	12.3	13.5
Chronic lower respiratory diseases (J40–J47)	28.5	26.7	22.4	23.3
Emphysema (J43)	3.5	2.9	2.5	2.5
Asthma and status asthmaticus (J45, J46)	5.0	3.0	2.3	2.1
Chapter XI Diseases of the digestive system (K00–K93)	22.1	19.5	17.6	18.7
Diseases of oesophagus, stomach and duodenum (K20–K31)	4.9	3.6	2.8	2.8
Gastric and duodenal ulcer (K25–K27)	4.3	2.6	2.0	1.9
Diseases of liver (K70–K77)	4.1	4.2	3.6	4.1
Chapter XII Diseases of the skin and subcutaneous tissue (L00–L99)	1.1	1.3	1.3	1.7
Chapter XIII Diseases of the musculoskeletal system and connective tissue (M00–M99)	5.8	5.4	5.3	5.6
Arthropathies and systemic connective tissue disorders (M00–M36)	4.4	3.6	3.4	3.5
Chapter XIV Diseases of the genitourinary system (N00–N99)	11.8	13.6	13.0	13.3
Renal failure (N17–N19)	6.4	7.8	7.3	8.0
Chapter XV Pregnancy, childbirth and the puerperium (O00–O99)	0.1	0.1	0.1	0.1
Chapter XVI Certain conditions originating in the perinatal period (P00–P96)	3.9	3.1	3.0	3.2
Chapter XVII Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)	3.8	3.6	2.9	2.9
Congenital malformations of the circulatory system (Q20–Q28)	1.5	1.2	1.0	1.0
Chapter XVIII Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00–R99)	3.8	2.3	2.3	3.2
Chapter XX External causes of morbidity and mortality (V01–Y98)	25.8	25.1	22.8	23.3
Accidents (V01–X59)	18.3	16.5	15.4	16.0
Transport accidents (V01–V99)	8.0	6.3	5.1	5.0
Falls (W00–W19)	1.9	1.8	2.4	2.4
Accidental drowning and submersion (W65–W74)	0.8	0.7	0.5	0.6
Intentional self-harm (X60–X84)	5.4	6.2	5.3	5.0
Hanging, strangulation and suffocation (X70)	1.1	1.9	2.0	2.0
Assault (X85–Y09)	1.4	1.2	1.1	1.1

(a) Standardised death rate per 100,000 of the mid-year population. See Glossary for further explanation.

Source: Causes of Death, Australia, 2002 (cat. no. 3303.0).

5.23 INFANT DEATHS, Age, Selected years

	NEONATAL					POST NEONATAL	TOTAL
	Early neonatal			Late neonatal	Total neonatal		
Selected years	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			
1982	524	235	759	153	912	513	1 425
1987	379	190	569	145	714	521	1 235
1992	415	160	575	121	696	377	1 073
1997	262	132	394	91	485	259	744
1998	228	132	360	114	474	232	706
1999	293	148	441	112	553	259	812
2000	282	104	386	104	490	235	725
2001	272	139	411	115	526	225	751
2002	256	120	376	90	466	233	699
				FEMALES			
1982	381	188	569	128	697	360	1 057
1987	298	140	438	98	536	345	881
1992	315	111	426	80	506	264	770
1997	239	94	333	81	414	183	597
1998	198	83	281	87	368	178	546
1999	233	77	310	90	400	196	596
2000	227	84	311	65	376	189	565
2001	240	81	321	70	391	167	558
2002	203	116	319	73	392	173	565
				PERSONS			
1982	905	423	1 328	281	1 609	873	2 482
1987	677	330	1 007	243	1 250	866	2 116
1992	730	271	1 001	201	1 202	641	1 843
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
2000	509	188	697	169	866	424	1 290
2001	512	220	732	185	917	392	1 309
2002	459	236	695	163	858	406	1 264

5.24 INFANT MORTALITY RATES(a), Age, Selected years

	NEONATAL					POST NEONATAL	TOTAL
	Early neonatal			*Late neonatal*	*Total neonatal*		
Selected years	*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				
1982	4.3	1.9	6.2	1.2	7.4	4.2	11.6
1987	3.0	1.5	4.5	1.2	5.7	4.2	9.9
1992	3.1	1.2	4.2	0.9	5.1	2.8	7.9
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
2000	2.2	0.8	3.0	0.8	3.8	1.8	5.7
2001	2.2	1.1	3.3	0.9	4.2	1.8	5.9
2002	2.0	0.9	2.9	0.7	3.6	1.8	5.4
			FEMALES				
1982	3.3	1.6	4.9	1.1	6.0	3.1	9.1
1987	2.5	1.2	3.7	0.8	4.5	2.9	7.4
1992	2.5	0.9	3.3	0.6	3.9	2.1	6.0
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
2000	1.9	0.7	2.6	0.5	3.1	1.6	4.7
2001	2.0	0.7	2.7	0.6	3.3	1.4	4.6
2002	1.7	0.9	2.6	0.6	3.2	1.4	4.6
			PERSONS				
1982	3.8	1.8	5.5	1.2	6.7	3.6	10.3
1987	2.8	1.4	4.1	1.0	5.1	3.5	8.7
1992	2.8	1.0	3.8	0.8	4.6	2.4	7.0
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
2000	2.0	0.8	2.8	0.7	3.5	1.7	5.2
2001	2.1	0.9	3.0	0.8	3.7	1.6	5.3
2002	1.8	0.9	2.8	0.6	3.4	1.6	5.0

(a) Per 1,000 live births.

5.25 INFANT DEATHS, States and territories, Selected years

Selected years	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.(a)
1982	851	623	425	216	208	59	58	42	2 482
1987	731	498	366	165	196	68	55	37	2 116
1992	688	366	365	117	175	46	58	28	1 843
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
2000	447	268	291	82	109	33	43	17	1 290
2001	449	284	282	79	122	40	41	12	1 309
2002	397	305	277	90	102	37	42	14	1 264

(a) Includes Other Territories.

5.26 INFANT MORTALITY RATES(a), States and territories, Selected years

Selected years	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.(b)
1982	10.1	10.4	10.5	11.3	9.3	8.4	19.9	10.2	10.3
1987	8.5	8.1	9.3	8.6	8.4	10.0	15.6	9.0	8.7
1992	7.4	5.6	7.9	6.1	7.0	6.6	15.5	6.3	7.0
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
2000	5.2	4.5	6.2	4.6	4.3	5.8	11.7	4.2	5.2
2001	5.3	4.8	5.9	4.6	5.1	6.2	10.7	3.0	5.3
2002	4.6	5.0	5.8	5.1	4.3	6.2	11.3	3.4	5.0

(a) Per 1,000 live births.

(b) Includes Other Territories.

5.27 INFANT DEATHS, Age, States and territories—2002

	NEONATAL					POST NEONATAL	TOTAL
	Early neonatal			*Late neonatal*	*Total neonatal*		
	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	74	49	123	22	145	69	214
Victoria	71	27	98	31	129	51	180
Queensland	52	21	73	22	95	60	155
South Australia	22	6	28	5	33	17	50
Western Australia	13	7	20	7	27	19	46
Tasmania	11	4	15	—	16	6	22
Northern Territory	9	3	12	3	14	9	23
Australian Capital Territory	4	3	7	—	7	—	9
Australia(a)	**256**	**120**	**376**	**90**	**466**	**233**	**699**
	FEMALES						
New South Wales	68	43	111	16	127	56	183
Victoria	50	29	79	14	93	32	125
Queensland	49	21	70	21	91	31	122
South Australia	16	5	21	5	26	14	40
Western Australia	11	11	22	9	31	25	56
Tasmania	5	—	6	4	10	5	15
Northern Territory	4	4	8	3	10	9	19
Australian Capital Territory	—	3	—	—	4	3	5
Australia(a)	**203**	**116**	**319**	**73**	**392**	**173**	**565**
	PERSONS						
New South Wales	142	92	234	38	272	125	397
Victoria	121	56	177	45	222	83	305
Queensland	101	42	143	43	186	91	277
South Australia	38	11	49	10	59	31	90
Western Australia	24	18	42	16	58	44	102
Tasmania	16	5	21	5	26	11	37
Northern Territory	13	7	20	4	24	18	42
Australian Capital Territory	4	5	9	—	11	3	14
Australia(a)	**459**	**236**	**695**	**163**	**858**	**406**	**1 264**

(a) Includes Other Territories.

5.28 INFANT MORTALITY RATES(a), Age, States and territories—2002

	NEONATAL					POST NEONATAL	TOTAL
	Early neonatal			*Late neonatal*	*Total neonatal*		
	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	1.6	1.1	2.7	0.4	3.1	1.4	4.6
Victoria	2.0	0.9	2.9	0.7	3.6	1.4	5.0
Queensland	2.1	0.9	3.0	0.9	3.9	1.9	5.8
South Australia	2.2	0.6	2.8	0.6	3.3	1.8	5.1
Western Australia	1.0	0.8	1.8	0.7	2.5	1.9	4.3
Tasmania	2.7	0.8	3.5	0.8	4.3	1.8	6.2
Northern Territory	3.5	1.9	5.4	1.1	6.4	4.8	11.3
Australian Capital Territory	1.0	1.2	2.2	0.0	2.7	0.7	3.4
Australia(b)	**1.8**	**0.9**	**2.8**	**0.6**	**3.4**	**1.6**	**5.0**

(a) Per 1,000 live births.

(b) Includes Other Territories.

5.29 AUSTRALIAN LIFE TABLE, Males—2000–2002

Age	lx	qx	Lx	$e^{o}x$	Age	lx	qx	Lx	$e^{o}x$
0	100 000	0.00563	99 506	77.4	50	94 438	0.00313	94 291	30.1
1	99 437	0.00044	99 414	76.8	51	94 142	0.00339	93 984	29.2
2	99 393	0.00034	99 376	75.9	52	93 822	0.00370	93 651	28.3
3	99 359	0.00024	99 347	74.9	53	93 475	0.00408	93 287	27.4
4	99 335	0.00018	99 326	73.9	54	93 093	0.00452	92 886	26.5
5	99 317	0.00016	99 309	72.9	55	92 672	0.00502	92 444	25.6
6	99 302	0.00014	99 295	71.9	56	92 207	0.00559	91 954	24.8
7	99 288	0.00013	99 281	71.0	57	91 692	0.00621	91 412	23.9
8	99 275	0.00012	99 269	70.0	58	91 123	0.00689	90 814	23.1
9	99 262	0.00012	99 256	69.0	59	90 495	0.00762	90 156	22.2
10	99 250	0.00013	99 244	68.0	60	89 805	0.00843	89 432	21.4
11	99 238	0.00014	99 231	67.0	61	89 048	0.00932	88 639	20.6
12	99 224	0.00015	99 217	66.0	62	88 218	0.01031	87 770	19.7
13	99 209	0.00018	99 201	65.0	63	87 308	0.01142	86 817	18.9
14	99 191	0.00024	99 180	64.0	64	86 311	0.01264	85 774	18.2
15	99 168	0.00035	99 152	63.0	65	85 220	0.01401	84 632	17.4
16	99 134	0.00050	99 110	62.1	66	84 026	0.01553	83 383	16.6
17	99 084	0.00067	99 053	61.1	67	82 721	0.01723	82 019	15.9
18	99 018	0.00082	98 978	60.1	68	81 296	0.01911	80 530	15.1
19	98 937	0.00092	98 892	59.2	69	79 742	0.02122	78 908	14.4
20	98 845	0.00098	98 797	58.2	70	78 050	0.02357	77 143	13.7
21	98 749	0.00100	98 699	57.3	71	76 210	0.02620	75 225	13.0
22	98 650	0.00102	98 600	56.3	72	74 214	0.02912	73 147	12.4
23	98 550	0.00104	98 499	55.4	73	72 052	0.03237	70 900	11.7
24	98 447	0.00107	98 395	54.5	74	69 720	0.03597	68 480	11.1
25	98 342	0.00109	98 289	53.5	75	67 212	0.03993	65 884	10.5
26	98 235	0.00111	98 181	52.6	76	64 528	0.04429	63 113	9.9
27	98 126	0.00113	98 071	51.6	77	61 670	0.04907	60 170	9.4
28	98 015	0.00115	97 959	50.7	78	58 644	0.05427	57 065	8.8
29	97 903	0.00117	97 845	49.7	79	55 461	0.05994	53 810	8.3
30	97 788	0.00120	97 730	48.8	80	52 137	0.06611	50 423	7.8
31	97 671	0.00122	97 612	47.9	81	48 690	0.07298	46 922	7.3
32	97 552	0.00124	97 492	46.9	82	45 137	0.08078	43 321	6.8
33	97 431	0.00126	97 370	46.0	83	41 491	0.08970	39 635	6.4
34	97 308	0.00128	97 246	45.0	84	37 769	0.09996	35 884	6.0
35	97 183	0.00131	97 120	44.1	85	33 993	0.11164	32 095	5.6
36	97 056	0.00133	96 992	43.1	86	30 198	0.12441	28 314	5.2
37	96 927	0.00137	96 861	42.2	87	26 441	0.13787	24 606	4.9
38	96 794	0.00141	96 726	41.3	88	22 796	0.15165	21 048	4.6
39	96 658	0.00147	96 587	40.3	89	19 339	0.16536	17 716	4.3
40	96 516	0.00154	96 442	39.4	90	16 141	0.17869	14 671	4.1
41	96 368	0.00163	96 290	38.4	91	13 257	0.19130	11 958	3.9
42	96 210	0.00175	96 127	37.5	92	10 721	0.20238	9 607	3.7
43	96 042	0.00189	95 952	36.6	93	8 551	0.21507	7 605	3.5
44	95 860	0.00206	95 762	35.6	94	6 712	0.22774	5 923	3.3
45	95 662	0.00224	95 556	34.7	95	5 183	0.24039	4 538	3.2
46	95 448	0.00241	95 334	33.8	96	3 937	0.25300	3 420	3.0
47	95 218	0.00257	95 097	32.9	97	2 941	0.26558	2 534	2.9
48	94 974	0.00273	94 845	31.9	98	2 160	0.27813	1 846	2.8
49	94 714	0.00292	94 577	31.0	99	1 559	0.29064	1 322	2.7
					100	1 106	0.30310	(a)2 803	2.5

(a) At age 100, L100+ is shown.

x number of persons at exact age *x*

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

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

$e^{o}x$ expectation of life at exact age *x*

5.30 AUSTRALIAN LIFE TABLE, Females—2000–2002

Age	lx	qx	Lx	e°x	Age	lx	qx	Lx	e°x
0	100 000	0.00464	99 592	82.6	50	96 946	0.00201	96 849	34.2
1	99 536	0.00043	99 512	82.0	51	96 750	0.00220	96 646	33.3
2	99 493	0.00020	99 482	81.0	52	96 537	0.00242	96 423	32.4
3	99 474	0.00015	99 466	80.0	53	96 304	0.00266	96 178	31.5
4	99 459	0.00013	99 452	79.0	54	96 048	0.00292	95 910	30.5
5	99 446	0.00012	99 439	78.1	55	95 767	0.00321	95 616	29.6
6	99 434	0.00011	99 428	77.1	56	95 460	0.00353	95 294	28.7
7	99 423	0.00010	99 418	76.1	57	95 123	0.00386	94 942	27.8
8	99 413	0.00009	99 409	75.1	58	94 756	0.00422	94 559	26.9
9	99 405	0.00009	99 400	74.1	59	94 356	0.00459	94 143	26.0
10	99 396	0.00009	99 392	73.1	60	93 923	0.00500	93 691	25.2
11	99 387	0.00009	99 383	72.1	61	93 454	0.00545	93 202	24.3
12	99 378	0.00010	99 373	71.1	62	92 945	0.00595	92 672	23.4
13	99 368	0.00012	99 363	70.1	63	92 392	0.00651	92 095	22.5
14	99 357	0.00016	99 349	69.1	64	91 790	0.00714	91 467	21.7
15	99 341	0.00021	99 331	68.1	65	91 135	0.00786	90 782	20.8
16	99 320	0.00027	99 307	67.1	66	90 418	0.00868	90 032	20.0
17	99 293	0.00032	99 277	66.2	67	89 634	0.00961	89 210	19.2
18	99 261	0.00035	99 244	65.2	68	88 773	0.01066	88 307	18.4
19	99 227	0.00036	99 209	64.2	69	87 826	0.01185	87 314	17.5
20	99 191	0.00036	99 174	63.2	70	86 785	0.01320	86 221	16.8
21	99 156	0.00035	99 138	62.3	71	85 639	0.01472	85 019	16.0
22	99 121	0.00035	99 104	61.3	72	84 379	0.01642	83 697	15.2
23	99 087	0.00035	99 069	60.3	73	82 994	0.01831	82 246	14.4
24	99 052	0.00035	99 035	59.3	74	81 475	0.02041	80 655	13.7
25	99 017	0.00037	98 999	58.3	75	79 812	0.02274	78 917	13.0
26	98 981	0.00038	98 962	57.4	76	77 997	0.02540	77 021	12.3
27	98 943	0.00040	98 924	56.4	77	76 016	0.02846	74 950	11.6
28	98 904	0.00041	98 884	55.4	78	73 852	0.03203	72 687	10.9
29	98 863	0.00043	98 842	54.4	79	71 487	0.03620	70 212	10.2
30	98 821	0.00045	98 799	53.4	80	68 899	0.04105	67 506	9.6
31	98 776	0.00047	98 754	52.5	81	66 071	0.04668	64 550	9.0
32	98 730	0.00049	98 706	51.5	82	62 987	0.05316	61 335	8.4
33	98 681	0.00052	98 656	50.5	83	59 638	0.06055	57 854	7.9
34	98 630	0.00056	98 603	49.5	84	56 027	0.06888	54 117	7.3
35	98 575	0.00060	98 546	48.6	85	52 168	0.07813	50 147	6.8
36	98 516	0.00064	98 485	47.6	86	48 092	0.08830	45 981	6.4
37	98 453	0.00069	98 420	46.6	87	43 846	0.09937	41 674	5.9
38	98 385	0.00075	98 349	45.7	88	39 489	0.11134	37 290	5.5
39	98 312	0.00081	98 273	44.7	89	35 092	0.12418	32 906	5.2
40	98 232	0.00088	98 190	43.7	90	30 734	0.13788	28 602	4.8
41	98 146	0.00096	98 099	42.8	91	26 497	0.15240	24 458	4.5
42	98 052	0.00104	98 001	41.8	92	22 459	0.16793	20 548	4.3
43	97 950	0.00113	97 895	40.9	93	18 687	0.18375	16 939	4.0
44	97 839	0.00123	97 779	39.9	94	15 253	0.19813	13 706	3.8
45	97 718	0.00134	97 654	38.9	95	12 231	0.21032	10 907	3.6
46	97 588	0.00145	97 518	38.0	96	9 659	0.22093	8 557	3.5
47	97 446	0.00158	97 370	37.1	97	7 525	0.23143	6 624	3.3
48	97 292	0.00171	97 210	36.1	98	5 783	0.24303	5 055	3.1
49	97 126	0.00185	97 037	35.2	99	4 378	0.25551	3 796	3.0
					100	3 259	0.26785	(a)9 331	2.9

(a) At age 100, L100+ is shown.

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°x expectation of life at exact age x

5.31 EXPECTATION OF LIFE, Australia(a), Selected years

Selected years(b)	AGE (years) 0	1	10	20	30	40	50	60	70	80
					MALES					
1982	71.25	71.08	62.39	52.84	43.57	34.12	25.13	17.18	10.74	6.21
1987	73.06	72.79	64.01	54.38	45.08	35.64	26.49	18.31	11.57	6.66
1992	74.46	74.06	65.25	55.54	46.18	37.70	27.55	19.10	12.11	6.93
1995–1997	75.57	75.04	66.20	56.50	47.15	37.77	28.53	19.93	12.69	7.20
1996–1998	75.86	75.31	66.48	56.77	47.43	38.05	28.80	20.18	12.86	7.32
1997–1999	76.22	75.68	66.84	57.12	47.79	38.41	29.16	20.50	13.10	7.50
1998–2000	76.56	76.01	67.16	57.44	48.10	38.73	29.47	20.78	13.30	7.59
1999–2001	77.03	76.49	67.63	57.90	48.54	39.14	29.88	21.17	13.59	7.76
2000–2002	77.40	76.83	67.97	58.22	48.80	39.37	30.11	21.37	13.72	7.79
					FEMALES					
1982	78.26	77.97	69.20	59.38	49.65	39.96	30.65	22.00	14.28	8.03
1987	79.54	79.14	70.30	60.48	50.76	41.06	31.68	22.85	14.91	8.54
1992	80.42	79.90	71.08	61.22	51.47	41.77	32.31	23.39	15.30	8.71
1995–1997	81.27	80.68	71.81	61.97	52.20	42.50	33.01	24.03	15.84	9.02
1996–1998	81.52	80.91	72.04	62.20	52.43	42.73	33.25	24.25	16.01	9.13
1997–1999	81.77	81.17	72.30	62.46	52.70	43.01	33.53	24.49	16.20	9.26
1998–2000	82.04	81.43	72.56	62.71	52.96	43.26	33.78	24.72	16.38	9.36
1999–2001	82.41	81.81	72.93	63.06	53.30	43.60	34.11	25.02	16.62	9.54
2000–2002	82.59	81.98	73.09	63.22	53.44	43.73	34.23	25.15	16.75	9.61

(a) Prior to 1995 and from 1999, expectation of life has been based on annual life tables calculated by the Australian Bureau of Statistics. From 1995 to 1998 the life tables were produced as a joint venture between the Australian Bureau of Statistics and the Australian Government Actuary. See paragraph 32 of the Explanatory Notes for more information.

(b) From 1995 onwards expectation of life has been calculated using three years of data.

5.32 PROBABILITY OF SURVIVAL FROM BIRTH TO SPECIFIC AGES, Australia(a)

	AGE (years)								
	1	*10*	*20*	*30*	*40*	*50*	*60*	*70*	*80*
Selected years(b)	%	%	%	%	%	%	%	%	%
				MALES					
1982	98.8	98.4	97.6	96.2	94.8	91.5	82.8	63.4	31.9
1987	99.0	98.7	98.1	96.7	95.4	92.7	85.2	67.8	37.5
1992	99.2	98.9	98.4	97.2	96.0	93.5	87.3	71.3	41.5
1995–1997	99.4	99.2	98.7	97.4	96.0	93.8	88.3	74.0	45.7
1996–1998	99.4	99.2	98.7	97.4	96.0	93.9	88.6	74.7	46.7
1997–1999	99.4	99.2	98.7	97.5	96.1	93.9	88.8	75.5	48.0
1998–2000	99.4	99.2	98.8	97.5	96.1	94.0	89.1	76.3	49.3
1999–2001	99.4	99.2	98.8	97.6	96.3	94.2	89.4	77.3	51.0
2000–2002	99.4	99.3	98.8	97.8	96.5	94.4	89.8	78.1	52.1
				FEMALES					
1982	99.1	98.8	98.5	98.0	97.3	95.4	90.5	79.5	55.4
1987	99.3	99.0	98.8	98.3	97.6	95.9	91.8	81.9	58.9
1992	99.4	99.2	98.9	98.5	97.9	96.4	92.7	83.6	61.8
1995–1997	99.5	99.3	99.1	98.7	98.1	96.7	93.2	84.9	64.5
1996–1998	99.5	99.4	99.1	98.7	98.1	96.7	93.3	85.2	65.4
1997–1999	99.5	99.4	99.1	98.7	98.1	96.7	93.5	85.7	66.3
1998–2000	99.5	99.4	99.1	98.7	98.1	96.7	93.6	86.1	67.3
1999–2001	99.5	99.4	99.2	98.8	98.2	96.9	93.8	86.6	68.4
2000–2002	99.5	99.4	99.2	98.8	98.2	96.9	93.9	86.8	68.9

(a) Based on life tables. Prior to 1995 and from 1999, expectation of life has been based on annual life tables calculated by the Australian Bureau of Statistics. From 1995 to 1998 the life tables were produced as a joint venture between the Australian Bureau of Statistics and the Australian Government Actuary. See paragraph 32 of the Explanatory Notes for more information.

(b) From 1995 onwards, expectation of life has been calculated using three years of data.

CHAPTER 6 TABLES (OCCURRENCE YEAR)

Deaths presented in this chapter are on a year of occurrence basis, derived from deaths that have been registered up to 31 December 2002. With year of occurrence deaths data, some deaths that have occurred during the calendar year may not be registered until the following year or several years after the event. It is for this reason these deaths counts are considered preliminary and are subject to change as deaths which have occurred up to 31 December 2002 and not registered by this date, get registered in 2003 and subsequent years. Most deaths are registered in the year in which they occur. The chance of a death being registered in a year following its occurrence increases substantially for those deaths which occur close to the end of the year. In 2002, 95.3% of deaths registered to the total population also occurred in 2002. For the same period, only 87.6% of deaths registered to the Indigenous population occurred in 2002.

6.1 DEATHS REGISTERED IN THE SAME YEAR AS THEY OCCURRED

	Total population	*Indigenous*
Year	%	%
1997	95.6	85.0
1998	96.0	86.7
1999	95.8	86.4
2000	95.7	87.4
2001	95.3	86.7
2002	95.3	87.6

AGE AT DEATH

As with data on a year of registration basis, the ageing of the Australian population was evident in data on a year of occurrence basis. In 2002, 37.4% of male deaths occurred at age 80 years or older, compared to 20.6% in 1982. For females, 57.7% of deaths occurred at age 80 years or older in 2002, compared with 41.9% in 1982.

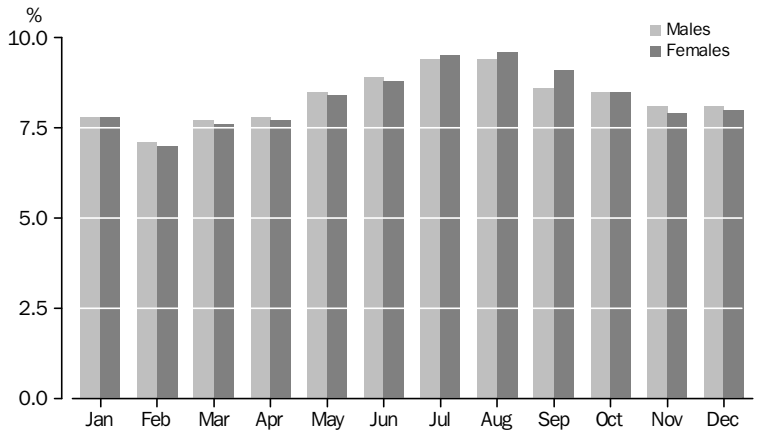
MONTHLY OCCURRENCE OF DEATHS

The number of deaths that occur each year vary considerably from month to month, ranging between 13,260 in July and 5,520 in December in 2002. The low in December occurrences is primarily due to deaths not being registered until the following year.

During 1999–2001, an average of 128,600 deaths occurred each year in Australia. The months where the largest number of deaths occurred were the winter months of July (18,900 male deaths and 17,600 females deaths) and August (18,800 male deaths and 17,700 females deaths) (see graph 6.2). February was the month with the fewest deaths (14,300 male deaths and 12,900 females deaths).

MONTHLY OCCURRENCE OF DEATHS *continued*

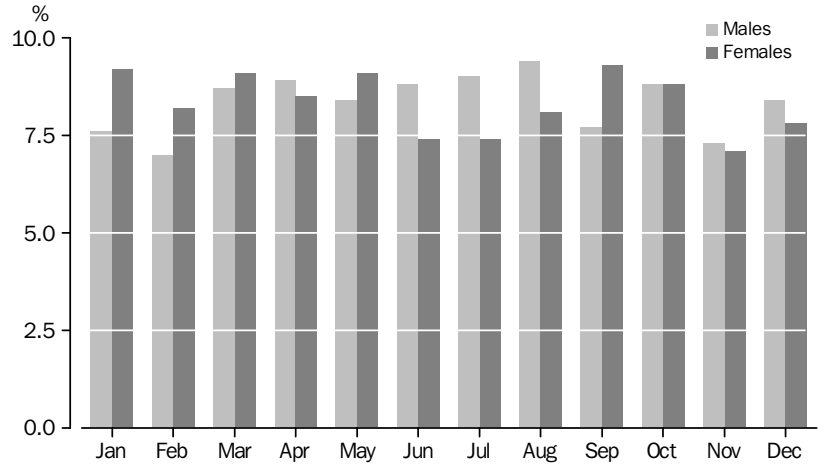
6.2 MONTH OF DEATH, Preliminary—1999–2001



Monthly occurrence of infant deaths

During the period 1999–2001, an average of 1,320 infant deaths occurred in Australia each year. There is less seasonality associated with infant deaths, as is visible in graph 6.3. Based on combined data for 1999–2001, the months of November (290) and February (300) experienced the least number of infant deaths, while March (355), August and October (each 350) were the months that experienced the largest number of infant deaths.

6.3 MONTH OF DEATH, Infants, Preliminary—1999–2001



6.4 DEATHS, Year of occurrence(a), Selected years, Preliminary

STATE OR TERRITORY OF USUAL RESIDENCE

Year of occurrence	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.(b)*
					MALES				
1982	22 849	16 446	10 373	5 785	4 751	1 907	381	469	62 961
1987	23 306	16 450	10 489	5 762	5 014	1 967	513	535	64 036
1992	23 564	16 701	11 131	5 946	5 393	1 950	464	574	65 723
1997	23 689	16 741	12 007	6 021	5 805	1 977	500	650	67 392
1998	23 521	16 516	12 155	6 127	5 777	1 925	519	641	67 185
1999	23 776	16 421	12 134	5 869	5 860	1 935	538	685	67 222
2000	23 613	16 467	12 128	6 102	5 651	1 908	565	657	67 095
2001	23 181	16 393	12 208	6 086	5 730	1 958	538	719	66 815
2002(c)	22 969	16 399	11 745	5 756	5 581	1 932	510	613	65 510
					FEMALES				
1982	19 144	14 068	7 548	4 693	3 510	1 533	213	410	51 119
1987	20 151	14 679	8 285	4 762	3 864	1 654	259	464	54 118
1992	20 435	15 050	9 309	5 294	4 596	1 792	294	486	57 256
1997	21 752	16 024	10 050	5 623	5 042	1 857	334	689	61 374
1998	21 253	15 549	10 140	5 643	4 929	1 775	341	608	60 240
1999	21 439	15 562	10 599	5 477	5 069	1 787	330	653	60 920
2000	22 073	15 773	10 485	5 735	4 877	1 805	324	667	61 742
2001	21 458	15 790	10 609	5 904	5 168	1 898	330	684	61 842
2002(c)	21 558	15 937	10 699	5 589	5 251	1 865	311	673	61 885
					PERSONS				
1982	41 993	30 514	17 921	10 478	8 261	3 440	594	879	114 080
1987	43 457	31 129	18 774	10 524	8 878	3 621	772	999	118 154
1992	43 999	31 751	20 440	11 240	9 989	3 742	758	1 060	122 979
1997	45 441	32 765	22 057	11 644	10 847	3 834	834	1 339	128 766
1998	44 774	32 065	22 295	11 770	10 706	3 700	860	1 249	127 425
1999	45 215	31 983	22 733	11 346	10 929	3 722	868	1 338	128 142
2000	45 686	32 240	22 613	11 837	10 528	3 713	889	1 324	128 837
2001	44 639	32 183	22 817	11 990	10 898	3 856	868	1 403	128 657
2002(c)	44 527	32 336	22 444	11 345	10 832	3 797	821	1 286	127 395

(a) Based on deaths registered to 31 December 2002. See paragraph 2 of the Explanatory Notes for further information.

(b) Includes Other Territories.

(c) Data for 2002 is incomplete due to the delay between the occurrence and registration of a death.

6.5 DEATHS, Year of occurrence(a), Indigenous(b), Selected years, Preliminary

Year of occurrence	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*
				STATE OR TERRITORY OF USUAL RESIDENCE				
				MALES—INDIGENOUS				
1997	61	66	320	94	223	—	215	3
1998	277	66	329	75	240	6	228	—
1999	260	63	285	61	200	4	247	—
2000	263	63	324	80	219	6	236	—
2001	279	47	310	69	208	15	249	—
2002(c)	275	38	266	49	164	12	230	3
				FEMALES—INDIGENOUS				
1997	37	39	228	43	158	—	192	3
1998	188	42	239	54	147	7	186	3
1999	173	42	230	55	142	8	188	—
2000	217	52	256	60	153	4	191	—
2001	208	34	227	52	139	14	179	—
2002(c)	204	21	220	50	161	8	168	3
				PERSONS—INDIGENOUS				
1997	98	105	548	137	381	5	407	3
1998	465	108	568	129	387	13	414	3
1999	433	105	515	116	342	12	435	7
2000	480	115	580	140	372	10	427	—
2001	487	81	537	121	347	29	428	3
2002(c)	479	59	486	99	325	20	398	4

(a) Based on deaths registered to 31 December 2002. See paragraph 2 of the Explanatory Notes for further information.

(b) See the Notes on page 2 and Chapter 7 for more details about Indigenous deaths.

(c) Data for 2002 is incomplete due to the delay between the occurrence and registration of a death.

6.6 AGE AT DEATH, Year of occurrence(a), Selected years, Preliminary

Age group (years)	*1982*	*1987*	*1992*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002(b)*
				MALES					
0	1 384	1 256	1 051	752	723	804	720	751	616
1–4	306	261	222	205	198	165	155	144	155
5–9	217	135	118	96	100	98	100	99	91
10–14	242	175	133	131	123	112	125	109	104
15–19	804	724	538	567	500	529	509	469	390
20–24	1 080	1 007	873	831	874	827	707	663	559
25–29	899	924	870	926	1 009	1 002	919	735	679
30–34	800	840	959	931	1 041	982	925	864	790
35–39	846	956	983	1 048	1 143	1 073	1 106	1 009	870
40–44	1 088	1 168	1 298	1 320	1 314	1 285	1 355	1 247	1 179
45–49	1 726	1 595	1 660	1 686	1 636	1 650	1 663	1 677	1 673
50–54	2 917	2 354	2 255	2 382	2 354	2 388	2 425	2 366	2 216
55–59	4 714	4 099	3 221	3 027	3 063	3 095	3 067	3 237	3 024
60–64	6 031	6 153	5 485	4 531	4 354	4 157	4 135	4 272	4 032
65–69	8 308	7 846	8 072	7 028	6 675	6 280	5 959	5 709	5 416
70–74	9 504	9 782	9 519	9 768	9 648	9 554	9 129	8 810	8 340
75–79	9 134	9 883	10 616	10 586	10 762	11 188	11 268	11 113	10 864
80–84	6 817	7 828	9 184	10 456	10 184	9 892	10 055	10 327	10 608
85 and over	6 133	7 036	8 660	11 116	11 475	12 131	12 760	13 200	13 865
Total(c)	**62 961**	**64 036**	**65 723**	**67 392**	**67 185**	**67 222**	**67 095**	**66 815**	**65 510**
				FEMALES					
0	1 023	938	740	619	531	602	573	521	525
1–4	224	165	173	113	146	133	111	113	87
5–9	111	95	102	83	65	71	76	60	68
10–14	121	86	85	85	86	83	81	63	67
15–19	259	293	219	220	243	206	217	153	175
20–24	316	325	310	274	250	270	256	222	179
25–29	325	329	284	305	313	314	327	244	245
30–34	335	368	392	426	366	403	375	361	330
35–39	440	511	488	553	566	539	562	527	455
40–44	621	672	711	737	755	781	765	776	711
45–49	885	899	975	1 068	1 066	1 083	1 057	1 024	1 009
50–54	1 578	1 303	1 311	1 437	1 517	1 386	1 486	1 539	1 515
55–59	2 298	2 032	1 797	1 788	1 724	1 749	1 868	1 901	1 891
60–64	3 332	3 209	2 833	2 473	2 410	2 378	2 314	2 313	2 388
65–69	4 612	4 445	4 438	3 989	3 618	3 447	3 428	3 315	3 243
70–74	5 992	6 436	6 324	6 253	6 023	5 879	5 664	5 598	5 154
75–79	7 237	8 160	8 684	8 266	8 452	8 566	8 342	8 334	8 126
80–84	8 237	8 992	10 156	11 157	10 800	10 567	10 411	10 794	10 928
85 and over	13 171	14 854	17 232	21 525	21 308	22 462	23 828	23 974	24 764
Total(c)	**51 119**	**54 118**	**57 256**	**61 374**	**60 240**	**60 920**	**61 742**	**61 842**	**61 885**

(a) Based on deaths registered to 31 December 2002. See paragraph 2 of the Explanatory Notes for further information.

(b) Data for 2002 is incomplete due to the delay between the occurrence and registration of a death.

(c) Includes age not stated.

6.7 AGE AT DEATH, Year of occurrence(a), 2002(b), Preliminary

STATE OR TERRITORY OF USUAL RESIDENCE

Age group (years)	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.(c)*
					MALES				
0	198	168	126	43	33	20	20	8	616
1–4	54	36	30	7	18	5	3	3	155
5–9	28	23	16	6	12	5	—	—	91
10–14	32	30	20	5	10	4	—	3	104
15–19	114	90	83	33	43	12	8	6	390
20–24	187	118	125	39	61	10	15	4	559
25–29	214	155	136	39	79	19	30	7	679
30–34	271	164	156	60	85	17	29	8	790
35–39	304	194	174	74	63	22	28	10	870
40–44	423	265	215	95	111	30	26	14	1 179
45–49	610	389	309	109	159	39	39	19	1 673
50–54	780	477	411	188	226	62	42	30	2 216
55–59	1 034	704	603	271	244	99	45	24	3 024
60–64	1 400	945	838	293	355	115	48	37	4 032
65–69	1 939	1 322	986	460	460	164	42	42	5 416
70–74	2 968	2 191	1 393	695	729	264	40	60	8 340
75–79	3 808	2 741	1 918	1 021	886	351	35	103	10 864
80–84	3 896	2 663	1 803	989	857	265	27	108	10 608
85 and over	4 705	3 721	2 403	1 329	1 120	427	31	129	13 865
Total(d)	**22 969**	**16 399**	**11 745**	**5 756**	**5 581**	**1 932**	**510**	**613**	**65 510**
					FEMALES				
0	172	120	115	37	50	14	13	4	525
1–4	23	20	18	7	7	—	9	—	87
5–9	26	17	12	3	6	—	3	—	68
10–14	18	17	14	4	9	3	—	—	67
15–19	53	35	37	15	19	3	10	3	175
20–24	49	33	41	12	23	6	11	4	179
25–29	73	58	55	16	28	5	8	3	245
30–34	108	77	56	18	38	12	17	4	330
35–39	140	108	79	39	52	17	16	4	455
40–44	221	169	134	64	71	24	17	11	711
45–49	307	246	193	91	104	33	20	15	1 009
50–54	502	357	292	140	139	44	22	19	1 515
55–59	668	456	343	158	163	61	21	21	1 891
60–64	870	563	411	194	222	84	17	26	2 388
65–69	1 174	808	560	277	266	98	20	40	3 243
70–74	1 853	1 311	906	421	435	157	24	47	5 154
75–79	2 859	2 107	1 393	713	678	261	29	86	8 126
80–84	3 858	2 822	1 892	1 025	830	338	18	144	10 928
85 and over	8 582	6 611	4 148	2 355	2 092	703	35	238	24 764
Total(d)	**21 558**	**15 937**	**10 699**	**5 589**	**5 251**	**1 865**	**311**	**673**	**61 885**

(a) Based on deaths registered to 31 December 2002. See paragraph 2 of the Explanatory Notes for further information.

(b) Data for 2002 is incomplete due to the delay between the occurrence and registration of a death.

(c) Includes Other Territories.

(d) Includes age not stated.

6.8 MEDIAN AGE AT DEATH(a), Year of occurrence(b), Selected years, Preliminary

STATE OR TERRITORY OF USUAL RESIDENCE

Year of occurrence	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.(c)*
				MALES					
1992	72.4	73.2	72.2	73.5	72.5	73.9	54.4	69.1	72.6
1993	72.9	73.5	72.6	73.7	72.6	73.3	52.4	69.9	73.0
1994	73.5	74.1	73.2	74.2	73.2	74.1	53.6	69.1	73.5
1995	73.7	73.9	72.8	74.2	73.2	73.9	54.3	70.6	73.5
1996	74.1	74.7	73.3	74.6	73.7	74.2	53.9	71.7	74.1
1997	74.3	74.8	73.4	75.2	73.7	75.2	56.8	72.4	74.3
1998	74.5	75.0	74.0	75.4	73.6	75.2	51.9	72.6	74.5
1999	74.8	75.3	74.4	75.9	74.2	75.3	55.2	72.2	74.8
2000	75.3	75.8	74.9	76.1	74.6	75.3	56.4	73.8	75.3
2001	75.6	76.2	74.9	76.7	74.8	76.0	55.2	72.5	75.6
2002(d)	76.3	76.9	75.7	77.3	75.5	76.2	56.5	76.6	76.3
				FEMALES					
1992	79.3	80.1	78.8	79.8	79.1	79.4	59.4	74.8	79.4
1993	79.6	80.2	79.0	79.9	79.7	79.1	56.7	77.3	79.6
1994	80.1	80.6	79.7	80.9	79.7	79.2	62.8	78.3	80.2
1995	80.2	81.0	79.8	80.8	80.3	79.7	60.5	76.6	80.3
1996	80.6	81.3	80.1	81.1	80.8	79.9	59.8	77.0	80.7
1997	81.1	81.5	80.5	81.5	80.7	80.2	59.5	78.4	81.0
1998	80.9	81.7	80.4	82.0	80.9	80.7	58.8	79.1	81.0
1999	81.3	81.8	81.1	82.2	81.4	80.6	61.0	79.4	81.4
2000	81.9	82.0	81.4	82.2	81.2	81.0	57.8	80.2	81.7
2001	81.8	82.2	81.5	82.3	81.5	81.2	62.2	81.1	81.8
2002(d)	82.2	82.5	82.0	82.8	81.8	82.0	56.5	81.6	82.2
				PERSONS					
1992	75.7	76.7	75.2	76.5	75.7	76.8	56.8	72.2	75.9
1993	76.0	76.9	75.4	76.8	76.2	75.9	54.1	72.9	76.1
1994	76.6	77.4	76.0	77.3	75.9	76.3	56.9	73.3	76.6
1995	76.7	77.3	75.9	77.5	76.2	76.6	56.8	73.6	76.7
1996	77.1	77.8	76.3	77.6	76.9	76.9	55.3	74.4	77.0
1997	77.4	77.9	76.5	78.1	76.7	77.3	57.6	75.0	77.3
1998	77.4	78.1	76.7	78.4	76.9	77.7	53.6	75.3	77.4
1999	77.8	78.3	77.4	78.6	77.4	77.7	57.1	75.4	77.8
2000	78.4	78.7	77.8	78.8	77.4	78.1	57.0	76.9	78.2
2001	78.6	79.1	77.9	79.7	78.0	78.8	57.9	77.1	78.6
2002(d)	79.2	79.7	78.7	80.1	78.6	78.7	56.5	79.2	79.2

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

(b) Based on deaths registered to 31 December 2002. See paragraph 2 of the Explanatory Notes for further information.

(c) Includes Other Territories.

(d) Data for 2002 is incomplete due to the delay between the occurrence and registration of a death.

6.9 INFANT DEATHS, Year of occurrence(a), Selected years, Preliminary

	NEONATAL					POST NEONATAL	TOTAL
	Early neonatal			Late neonatal	Total neonatal		
Year of occurrence	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						
1997	258	129	387	95	482	270	752
1998	242	140	382	116	498	225	723
1999	297	141	438	107	545	259	804
2000	273	107	380	101	481	239	720
2001	272	142	414	117	531	220	751
2002(b)	218	103	321	82	403	213	616
	FEMALES						
1997	254	91	345	82	427	192	619
1998	185	85	270	87	357	174	531
1999	237	78	315	88	403	199	602
2000	234	87	321	65	386	187	573
2001	219	73	292	67	359	162	521
2002(b)	188	111	299	69	368	157	525
	PERSONS						
1997	512	220	732	177	909	462	1 371
1998	427	225	652	203	855	399	1 254
1999	534	219	753	195	948	458	1 406
2000	507	194	701	166	867	426	1 293
2001	491	215	706	184	890	382	1 272
2002(b)	406	214	620	151	771	370	1 141

(a) Based on deaths registered to 31 December 2002. See paragraph 2 of the Explanatory Notes for further information.

(b) Data for 2002 is incomplete due to the delay between the occurrence and registration of a death.

6.10 INFANT DEATHS, Year of occurrence(a),States and territories, Preliminary

Year of occurrence	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.(b)*
1982	841	583	402	213	212	54	60	42	2 407
1987	774	506	384	167	199	69	56	39	2 194
1992	636	366	362	119	173	50	55	30	1 791
1997	456	293	292	91	138	43	38	20	1 371
1998	383	285	289	76	123	31	42	25	1 254
1999	506	327	270	71	117	47	52	16	1 406
2000	449	284	287	76	104	38	36	19	1 293
2001	429	269	282	85	121	35	40	11	1 272
2002(c)	370	288	241	80	83	34	33	12	1 141

(a) Based on deaths registered to 31 December 2002. See paragraph 2 of the Explanatory Notes for further information.

(b) Includes Other Territories.

(c) Data for 2002 is incomplete due to the delay between the occurrence and registration of a death.

6.11 MONTH OF DEATH, Year of occurrence(a), Selected years, Preliminary

STATE OR TERRITORY OF USUAL RESIDENCE

Month of occurrence	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.(b)*
				2000					
January	3 411	2 537	1 842	917	906	327	70	106	10 117
February	3 285	2 358	1 631	808	738	265	68	84	9 237
March	3 246	2 464	1 670	919	807	248	75	117	9 546
April	3 419	2 548	1 733	955	806	289	63	85	9 900
May	3 810	2 742	1 889	1 001	952	316	94	118	10 922
June	4 161	2 813	2 036	1 051	968	313	71	106	11 519
July	4 364	3 016	2 166	1 125	897	307	66	117	12 060
August	4 613	2 912	2 013	1 101	947	340	77	143	12 146
September	4 497	2 949	2 055	1 069	957	325	70	119	12 042
October	3 731	2 801	1 852	1 067	901	382	84	116	10 935
November	3 511	2 516	1 781	899	838	287	68	103	10 003
December	3 638	2 584	1 945	925	811	314	83	110	10 410
Total(c)	**45 686**	**32 240**	**22 613**	**11 837**	**10 528**	**3 713**	**889**	**1 324**	**128 837**
				2001					
January	3 399	2 570	1 795	925	859	302	67	110	10 027
February	3 192	2 312	1 583	836	749	298	67	90	9 127
March	3 380	2 562	1 808	952	845	289	65	102	10 003
April	3 437	2 530	1 702	927	816	300	75	119	9 907
May	3 781	2 754	1 909	1 027	878	346	76	115	10 886
June	4 104	2 719	1 930	1 064	945	340	73	116	11 291
July	4 331	2 934	2 139	1 091	1 091	326	65	145	12 122
August	4 304	2 879	2 164	1 128	974	347	75	115	11 986
September	3 852	2 728	1 979	982	974	348	82	136	11 082
October	3 811	2 763	1 996	1 075	1 024	329	86	131	11 215
November	3 548	2 676	1 813	1 001	896	340	73	103	10 451
December	3 500	2 756	2 000	982	847	291	64	121	10 560
Total(c)	**44 639**	**32 183**	**22 818**	**11 990**	**10 898**	**3 856**	**868**	**1 403**	**128 657**
				2002(d)					
January	3 475	2 566	1 931	935	899	287	88	88	10 270
February	3 048	2 419	1 676	806	814	270	70	96	9 199
March	3 469	2 555	1 847	944	803	331	68	109	10 128
April	3 559	2 440	1 768	888	880	286	69	128	10 019
May	3 950	2 889	1 872	947	932	353	81	91	11 116
June	4 282	2 949	2 075	1 001	1 007	331	73	129	11 847
July	4 855	3 245	2 400	1 199	1 016	350	68	129	13 262
August	4 554	3 234	2 349	1 166	1 067	367	83	119	12 939
September	4 066	2 976	2 137	1 029	1 018	320	70	108	11 725
October	3 717	2 849	2 026	1 008	1 015	361	71	120	11 168
November	3 537	2 607	1 778	930	855	333	57	110	10 207
December	2 015	1 607	585	492	526	208	23	59	5 515
Total(c)	**44 527**	**32 336**	**22 444**	**11 345**	**10 832**	**3 797**	**821**	**1 286**	**127 395**

(a) Based on deaths registered to 31 December 2002. See paragraph 2 of the Explanatory Notes for further information.

(b) Includes Other Territories.

(c) Includes not stated.

(d) Data for 2002 is incomplete due to the delay between the occurrence and registration of a death.

6.12 MONTH OF INFANT DEATH, Year of occurrence(a), Selected years, Preliminary

STATE OR TERRITORY OF USUAL RESIDENCE

Month of occurrence	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.(b)*
				2000					
January	35	23	22	11	9	3	3	3	106
February	29	27	26	3	10	—	3	—	100
March	32	26	28	10	9	3	3	—	110
April	47	23	22	5	8	—	6	3	113
May	36	23	21	9	10	5	3	3	109
June	34	32	19	3	11	4	4	5	112
July	45	18	33	8	6	4	3	—	117
August	45	16	28	8	11	—	—	—	112
September	35	28	22	5	4	9	3	3	109
October	42	20	24	6	10	5	3	3	112
November	29	31	23	5	10	—	3	—	101
December	40	17	19	3	6	4	3	—	92
Total(c)	**449**	**284**	**287**	**76**	**104**	**38**	**36**	**19**	**1 293**
				2001					
January	34	20	18	9	8	3	4	—	96
February	31	18	24	6	9	—	—	—	90
March	54	18	35	10	11	6	—	—	136
April	37	22	29	5	7	—	5	3	108
May	36	19	26	5	17	5	4	—	114
June	37	28	9	8	6	4	3	—	95
July	30	25	22	10	15	5	4	—	113
August	28	24	19	6	7	3	3	—	91
September	34	34	20	6	8	3	4	—	110
October	44	22	31	5	13	3	4	—	122
November	29	18	21	5	9	—	3	—	84
December	35	21	28	10	11	3	5	—	113
Total(c)	**429**	**269**	**282**	**85**	**121**	**35**	**40**	**11**	**1 272**
				2002(d)					
January	22	31	25	10	9	3	7	3	107
February	29	15	18	8	7	5	5	—	87
March	37	26	23	7	12	6	—	—	113
April	44	29	22	8	8	—	4	3	118
May	26	29	19	5	6	5	—	—	91
June	40	30	21	4	9	—	3	—	108
July	38	38	22	9	5	4	3	—	121
August	28	24	19	8	5	3	—	3	89
September	31	26	21	6	6	3	5	—	98
October	34	16	22	8	8	4	3	3	96
November	25	16	23	7	4	3	3	—	78
December	16	8	6	—	4	—	—	3	35
Total(c)	**370**	**288**	**241**	**80**	**83**	**34**	**33**	**12**	**1 141**

(a) Based on deaths registered to 31 December 2002. See paragraph 2 of the Explanatory Notes for further information.

(b) Includes Other Territories.

(c) Includes not stated.

(d) Data for 2002 is incomplete due to the delay between the occurrence and registration of a death.

CHAPTER 7 DEATHS OF INDIGENOUS PEOPLE

INTRODUCTION

There were 2,140 deaths registered in Australia in 2002 where the deceased person was identified as being of Aboriginal, Torres Strait Islander or both origins (Indigenous), an increase of approximately 60 deaths (3%) on the number registered in 2001.

A variety of measures of mortality (death rates, median age at death, age-specific death rates, life expectancy at birth and infant mortality) indicate that the mortality level of Indigenous Australians is substantially higher than for the total Australian population. The exact scale of difference between the Indigenous and the total population is difficult to establish conclusively, due to the experimental nature of Indigenous population estimates and data quality issues with Indigenous deaths data. Caution should be exercised when undertaking precise analysis of Indigenous mortality and trends in Indigenous mortality.

Some of the issues impacting upon the reporting of Indigenous mortality include coverage of Indigenous deaths, the propensity to identify as Indigenous, the use of a standard Indigenous question and not stated Indigenous status.

COVERAGE OF INDIGENOUS DEATHS

The extent to which the identification of Indigenous Australians occurs in data collections is referred to as coverage. It is considered likely that most Indigenous deaths are registered but a proportion are not identified as 'Indigenous' when registered. Therefore, the 2,140 Indigenous deaths registered in 2002, is likely to be an underestimate of the true number of Indigenous deaths.

7.1 DEATHS, Indigenous people, Selected years

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.(a)*
	DEATHS REGISTERED AS INDIGENOUS								
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
2000	473	108	535	144	407	8	450	—	2 127
2001r	481	93	565	125	345	32	429	—	2 072
2002	516	64	590	107	371	20	462	4	2 136

r revised

(a) Includes Other Territories.

COVERAGE OF INDIGENOUS DEATHS *continued*

The level of coverage varies amongst all states and territories. The extent to which the true number of deaths is under reported is not known. In previous issues of this publication, the ABS has calculated coverage estimates of registered Indigenous deaths. The revised coverage estimates, using new experimental life tables for the 1996–2001 intercensal period, are being calculated and will be reported in the new year. For further information on the coverage of Indigenous deaths, please see Explanatory Notes 15–20.

The ABS continues to work with each state and territory Registrar of Births, Deaths and Marriages to improve the level of coverage in each jurisdiction. Fluctuations in the level of Indigenous mortality over time may reflect changing levels of coverage of Indigenous deaths. Given the volatility in measures of Indigenous mortality caution should be exercised in assessing trends in Indigenous mortality over time. The ABS publications *Experimental Estimates and Projections of Indigenous Australians, 1991 to 2016* (cat. no. 3238.0) and *Information Paper: Issues in Monitoring Trends in Indigenous Mortality, Australia* (cat. no. 4716.0), both scheduled for release in 2004, will examine data quality issues and the impact of interpreting trends in these data.

While the actual levels of coverage are uncertain, the much larger numbers of Indigenous deaths recorded in Australia in the latter half of the last decade than those recorded during the first half of the decade indicate substantial improvements in the completeness of the data. Table 7.1 shows that improvements were largely driven by changes in Queensland, which only started to count Indigenous deaths in 1996, and changes in New South Wales, especially since 1998 when the counts suddenly rose to a much higher level than previous years. The continuity of annual counts at much the same level in the South Australia, Western Australia and the Northern Territory over the entire period suggest that coverage rates have been relatively stable in those jurisdictions.

Due to small numbers, Indigenous deaths for Victoria, Tasmania and the Australian Capital Territory have not been shown separately in table 7.4 onwards in this chapter. However, these states and territory are included in the totals for Australia in all tables presenting this information.

PROPENSITY TO IDENTIFY AS INDIGENOUS

There are several data collection forms on which people are asked to state whether they are of Indigenous origin. Due to a number of factors, the results across various collections are not always consistent. The likelihood that a person will identify, or be identified, as Indigenous on a specific form is known as the propensity to identify as Indigenous. Propensity to identify as Indigenous is determined by a range of factors including how the information is collected (e.g. census, survey, or administrative data); who provides the information (e.g. the person in question, a relative, or an official); the perception of how the information will be used; educational programs about identifying as Indigenous; and cultural aspects associated with identifying as Indigenous.

Propensity to identify as Indigenous on death certificates can be problematic because the person completing the death certificate (usually a funeral director or a doctor) may not know if the deceased was of Indigenous origin, and may be reluctant or unable to ask relatives.

THE STANDARD INDIGENOUS QUESTION

All states and territories ask for the identification of Indigenous status of the deceased on the death certificate, which needs to be lodged with the state and territory Registrars of Births, Deaths and Marriages. However, some jurisdictions have had a longer history of recording the Indigenous status of deaths than others and it has only been since the mid to late 1990s that a uniform system of identifying all Indigenous deaths in Australia has been established.

The current question asks:

"Was the deceased of Aboriginal or Torres Strait Islander Origin?"

(If of both Aboriginal and Torres Strait Islander origin, tick both 'yes' boxes.)

- No
- Yes, Aboriginal origin
- Yes, Torres Strait Islander origin.

NOT STATED RESPONSES

In addition to those deaths identified as Indigenous, a number of deaths occur each year where the Indigenous status is not stated on the death registration form, as can be seen in table 7.2. There were 4,930 deaths registered in Australia in 2002, representing 3.7% of total deaths, for whom the Indigenous status was not specified. There is a likelihood that some Indigenous deaths are included in this number, contributing to the undercoverage of Indigenous registered deaths.

7.2 DEATHS, Indigenous status, States and territories—2002

	NON-INDIGENOUS		INDIGENOUS		NOT STATED		TOTAL
	no.	%	no.	%	no.	%	no.
New South Wales	44 386	95.7	516	1.1	1 482	3.2	46 384
Victoria	31 131	92.2	64	0.2	2 577	7.6	33 772
Queensland	23 030	96.1	590	2.5	348	1.5	23 968
South Australia	11 604	96.8	107	0.9	276	2.3	11 987
Western Australia	10 803	95.4	371	3.3	152	1.3	11 326
Tasmania	3 929	98.7	20	0.5	30	0.8	3 979
Northern Territory	444	48.7	462	50.7	5	0.5	911
Australian Capital Territory	1 308	95.3	4	0.3	61	4.4	1 373
Australia(a)	**126 640**	**94.7**	**2 136**	**1.6**	**4 931**	**3.7**	**133 707**

(a) Includes Other Territories.

Comparison with the 2001 census

Analysis of the Indigenous status variable in the 2001 Census of Population and Housing, showed that 2.2% of the total Australian population were Indigenous, while 4.1% of the total population were recorded as not stating their Indigenous status (table 7.3). These proportions can be contrasted to the current death statistics, which show 1.6% of all deaths in 2002 were recorded as Indigenous and 3.7% as Indigenous status not stated. However, caution should be exercised in interpreting these comparisons as the census counts are not adjusted for under or over enumeration in the census.

In 2002, Indigenous deaths in the Northern Territory accounted for just over half (50.7%) of all deaths, but according to the 2001 census counts the Indigenous population in the Northern Territory represented only 27% of the territory's population. Western Australia was almost balanced, recording 3.3% of all deaths as Indigenous when 3.2% of the population were recorded as Indigenous according to the 2001 census counts. For the remaining states and territory, the proportions of deaths recorded as Indigenous were lower than the proportion of Indigenous population recorded in the 2001 census. It is important to note that the different proportions identified as Indigenous in the census and in the deaths registrations may be partially explained by differences in the age distribution of the population in each state and territory.

7.3 Indigenous status, 2001 census counts(a)

	NON-INDIGENOUS		INDIGENOUS		NOT STATED		TOTAL
	no.	%	no.	%	no.	%	no.
New South Wales	5 916 340	93.5	120 047	1.9	290 192	4.6	6 326 579
Victoria	4 444 048	95.3	25 059	0.5	191 884	4.1	4 660 991
Queensland	3 278 044	93.1	112 575	3.2	131 425	3.7	3 522 044
South Australia	1 401 649	95.3	23 377	1.6	45 031	3.1	1 470 057
Western Australia	1 699 189	92.9	58 467	3.2	70 638	3.9	1 828 294
Tasmania	428 426	93.0	15 856	3.4	16 390	3.6	460 672
Northern Territory	125 686	66.8	50 845	27.0	11 544	6.1	188 075
Australian Capital Territory	295 912	95.5	3 548	1.1	10 538	3.4	309 998
Australia(b)	**17 591 489**	**93.7**	**410 003**	**2.2**	**767 757**	**4.1**	**18 769 249**

(a) The data presented in this table are raw census counts.

(b) Includes Other Territories.

Source: 2001 Census of Population and Housing, data available on request.

AGE AT DEATH

Deaths identified as Indigenous tend to occur at younger ages than deaths for the total population. In 2002, 71.4% of all Indigenous male deaths (table 7.4) and 62.6% of all Indigenous female deaths (table 7.6) occurred before the age of 65 years. However, for the total population 25.4% of male deaths and 15.8% of female deaths occurred before the age of 65 years in 2002.

AGE AT DEATH *continued*

For male Indigenous deaths in 2002, there was a larger proportion of Indigenous deaths occurring at the younger ages compared with the total males population. The Northern Territory had 80.1% of its Indigenous male deaths occurring before the age of 65 years in 2002, followed by South Australia (74.5%) and Queensland (72.3%). The total males population had 74.5% of deaths occurring after the age of 65 years (graph 7.5 and 7.7) in 2002.

For female Indigenous deaths in 2002, there was also a larger proportion of Indigenous deaths occurring at the younger ages. The Northern Territory had 70.6% of its Indigenous female deaths occurring before the age of 65 years in 2002, followed by South Australia (67.3%) and Western Australia (64.4%).

For males, the proportion of deaths occurring during infancy and the age group 25–34 years was over five times higher for Indigenous males than the total male population in 2002. While for females, the proportion of deaths occurring under the age of one year and during the age groups 15–24 years and 25–34 years were over eight times higher for Indigenous females than the total female population in 2002.

7.4 INDIGENOUS AND TOTAL DEATHS, Males—2002

	NSW		Qld		SA		WA		NT		Aust.(a)	
	no.	%	no.	%	no.	%	no.	%	no.	%	no.	%
INDIGENOUS MALES												
Age at death (years)												
0	16	5.4	24	7.3	3	5.5	11	6.0	11	4.2	68	5.7
1–14	6	2.0	6	1.8	—	—	6	3.3	5	1.9	26	2.2
15–24	10	3.3	15	4.6	3	5.5	8	4.4	19	7.3	57	4.8
25–34	29	9.7	38	11.6	5	9.1	18	9.8	40	15.3	136	11.5
35–44	37	12.4	42	12.8	6	10.9	22	12.0	45	17.2	164	13.9
45–54	48	16.1	58	17.7	18	32.7	32	17.5	45	17.2	205	17.3
55–64	55	18.4	54	16.5	4	7.3	24	13.1	44	16.9	190	16.0
65 and over	98	32.8	91	27.7	14	25.5	47	25.7	52	19.9	323	27.3
Total deaths(b)	**299**	**100.0**	**328**	**100.0**	**55**	**100.0**	**183**	**100.0**	**261**	**100.0**	**1 184**	**100.0**
TOTAL(c) MALES												
Age at death (years)												
0	214	0.9	155	1.2	50	0.8	46	0.8	23	4.1	699	1.0
1–14	122	0.5	72	0.6	19	0.3	42	0.7	7	1.2	374	0.5
15–24	327	1.4	245	1.9	79	1.3	111	1.9	27	4.8	1 058	1.5
25–34	511	2.1	313	2.5	114	1.9	171	2.9	61	10.9	1 566	2.3
35–44	781	3.3	424	3.4	180	3.0	187	3.2	61	10.9	2 206	3.2
45–54	1 470	6.1	779	6.2	322	5.3	404	6.9	94	16.7	4 154	6.0
55–64	2 550	10.6	1 543	12.3	606	9.9	629	10.8	103	18.3	7 455	10.8
65 and over	17 968	75.0	9 045	71.9	4 730	77.5	4 210	72.1	186	33.1	51 322	74.5
Total deaths(b)	**23 953**	**100.0**	**12 576**	**100.0**	**6 100**	**100.0**	**5 836**	**100.0**	**562**	**100.0**	**68 885**	**100.0**

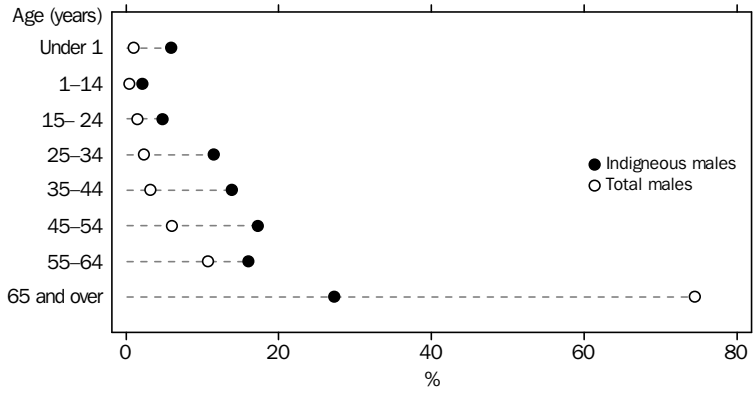
(a) Australian total is based on all states and territories. Data for Victoria, Tasmania and the Australian Capital Territory are not shown separately because of small numbers.

(b) Includes age not stated.

(c) Includes Indigenous status not stated.

AGE AT DEATH *continued*

7.5 PROPORTION OF DEATHS(a) BY AGE, By Indigenous status, Males—2002



(a) Totals are based on all states and territories.

7.6 INDIGENOUS AND TOTAL DEATHS, Females—2002

	NSW		Qld		SA		WA		NT		Aust.(a)	
	no.	%	no.	%	no.	%	no.	%	no.	%	no.	%
INDIGENOUS FEMALES												
Age at death (years)												
0	15	6.9	17	6.5	7	13.5	13	6.9	13	6.5	66	6.9
1–14	5	2.3	4	1.5	—	—	4	2.1	7	3.5	20	2.1
15–24	11	5.1	12	4.6	—	—	6	3.2	13	6.5	45	4.7
25–34	15	6.9	18	6.9	3	5.8	19	10.1	23	11.4	78	8.2
35–44	18	8.3	24	9.2	7	13.5	17	9.0	27	13.4	94	9.9
45–54	22	10.1	39	14.9	7	13.5	32	17.0	29	14.4	134	14.1
55–64	35	16.1	47	17.9	9	17.3	30	16.0	30	14.9	159	16.7
65 and over	96	44.2	101	38.5	17	32.7	53	28.2	58	28.9	341	35.8
Total deaths(b)	**217**	**100.0**	**262**	**100.0**	**52**	**100.0**	**188**	**100.0**	**201**	**100.0**	**952**	**100.0**
TOTAL(c) FEMALES												
Age at death (years)												
0	183	0.8	122	1.1	40	0.7	56	1.0	19	5.4	565	0.9
1–14	70	0.3	51	0.4	18	0.3	25	0.5	13	3.7	244	0.4
15–24	110	0.5	86	0.8	29	0.5	46	0.8	21	6.0	382	0.6
25–34	188	0.8	126	1.1	41	0.7	70	1.3	29	8.3	626	1.0
35–44	392	1.7	228	2.0	112	1.9	128	2.3	39	11.2	1 258	1.9
45–54	849	3.8	520	4.6	243	4.1	254	4.6	47	13.5	2 656	4.1
55–64	1 609	7.2	821	7.2	367	6.2	407	7.4	44	12.6	4 506	7.0
65 and over	19 028	84.8	9 438	82.8	5 037	85.6	4 478	81.6	136	39.0	54 553	84.2
Total deaths(b)	**22 431**	**100.0**	**11 392**	**100.0**	**5 887**	**100.0**	**5 490**	**100.0**	**349**	**100.0**	**64 822**	**100.0**

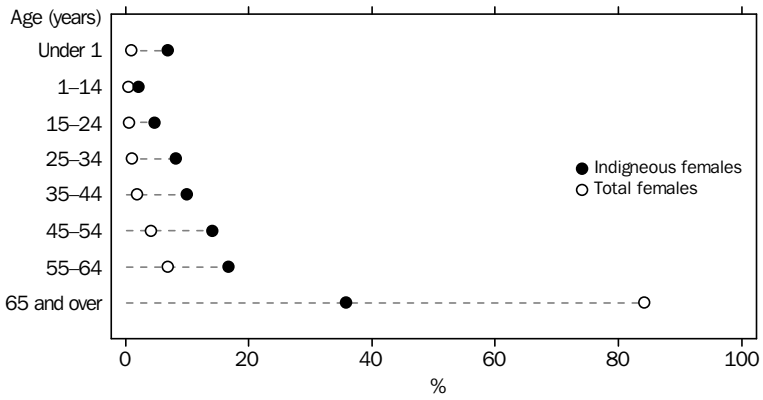
(a) Australian total is based on all states and territories. Data for Victoria, Tasmania and the Australian Capital Territory are not shown separately because of small numbers.

(b) Includes age not stated.

(c) Includes Indigenous status not stated.

AGE AT DEATH *continued*

7.7 PROPORTION OF DEATHS(a) BY AGE, By Indigenous status, Females—2002



(a) Totals are based on all states and territories.

AGE-SPECIFIC DEATH RATES

Observed age-specific death rates in table 7.8 were calculated by combining data for New South Wales, Queensland, South Australia, Western Australia and the Northern Territory. Results show that the Indigenous age-specific death rates were higher than for the total population in all age groups in 2002. For males in 2002, the greatest difference was in the 40–44 years and 45–49 years age groups, where the Indigenous age-specific death rates were almost five times higher than for all males in Australia (based on data for New South Wales, Queensland, South Australia, Western Australia and the Northern Territory).

7.8 AGE-SPECIFIC DEATH RATES(a)—2002

	INDIGENOUS		TOTAL POPULATION	
Age (years)	*Males*	*Females*	*Males*	*Females*
0–4	3.0	3.0	1.3	1.1
5–9	0.2	0.2	0.1	0.1
10–14	0.3	0.3	0.2	0.1
15–19	1.1	0.9	0.6	0.3
20–24	1.9	1.5	1.0	0.3
25–29	3.5	1.5	1.1	0.4
30–34	5.4	3.5	1.2	0.5
35–39	5.9	3.3	1.3	0.7
40–44	8.3	4.4	1.7	1.0
45–49	12.9	6.9	2.7	1.5
50–54	17.0	10.4	3.8	2.5
55–59	20.0	15.2	5.9	3.8
60–64	35.6	25.5	10.2	6.1
65–69	56.7	34.9	16.6	9.7
70–74	55.9	52.1	28.4	16.3
75 and over	116.8	93.1	80.3	65.2

(a) Per 1,000 population. For New South Wales, Queensland, South Australia, Western Australia and the Northern Territory combined.

AGE-SPECIFIC DEATH RATES *continued*

For females in 2002, the greatest difference was in the 30–34 years age group, where the Indigenous age-specific death rates were seven times higher than for all females in Australia. In most other age groups, the Indigenous age-specific death rates for both males and females were at least double the rates for total males and females.

MEDIAN AGE AT DEATH

The difference between the median age at death for Indigenous males and females and for non-Indigenous males and females in 2002 was more than 16 years. For males, the difference between the Indigenous and non-Indigenous median was greatest in South Australia (28.4 years) and smallest in the Northern Territory (15.9 years). For females, the difference between the Indigenous and non-Indigenous median was greatest in Western Australia (29.2 years) and smallest in New South Wales (20.4 years).

The median age at death among Indigenous males in 2002 was the highest in New South Wales (56.3 years) and the lowest was in the Northern Territory (47.1 years) (see table 7.9).

The median age at death among Indigenous females in 2002 was the highest in New South Wales (61.9 years), and the lowest in the Northern Territory (50.0 years) (see table 7.10).

7.9 MEDIAN AGE AT DEATH(a), Indigenous status, Males

	NSW	*Qld*	*SA*	*WA*	*NT*
	INDIGENOUS(b)				
1997	np	50.6	50.3	48.6	48.7
1998	50.3	46.9	44.0	45.0	45.5
1999	51.3	48.9	46.5	49.3	47.5
2000	53.9	53.9	49.5	46.6	46.2
2001	56.3	52.5	51.0	51.0	45.1
2002	56.3	51.8	48.9	51.2	47.1
	NON–INDIGENOUS				
1997	74.4	73.6	75.4	74.2	61.7
1998	74.7	74.4	75.6	74.1	56.3
1999	75.0	74.5	76.0	74.8	60.4
2000	75.5	75.3	76.3	75.1	61.1
2001	75.7	75.1	76.9	75.4	63.2
2002	76.5	75.9	77.3	75.9	63.0

(a) The variation between the median age at death in selected states and territories can, in part, be explained by variations in the age distribution of the resident population in each state and territory.

(b) See Explanatory Notes 15–20 for information about the coverage of Indigenous deaths.

MEDIAN AGE AT DEATH *continued*

7.10 MEDIAN AGE AT DEATH(a), Indigenous status, Females

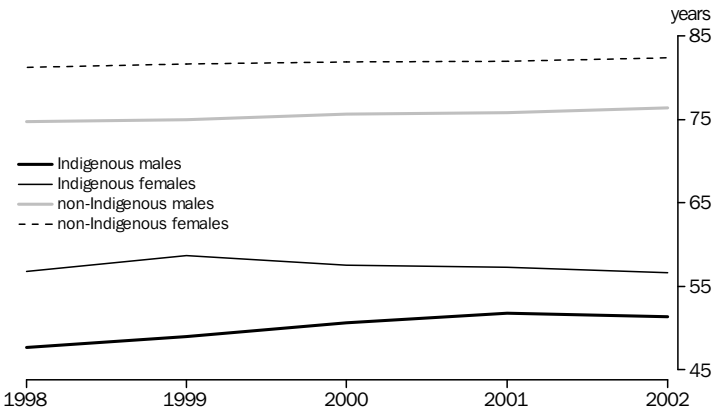
	NSW	*Qld*	*SA*	*WA*	*NT*
			INDIGENOUS(b)		
1997	np	57.7	52.5	57.8	52.3
1998	58.0	59.3	50.5	57.0	49.7
1999	60.8	60.3	50.5	55.3	56.3
2000	59.4	61.3	56.3	56.0	54.0
2001	62.9	54.1	55.5	53.5	52.8
2002	61.9	58.8	55.0	53.0	50.0
			NON–INDIGENOUS		
1997	81.1	80.7	81.6	81.2	66.0
1998	81.0	80.6	82.1	81.1	68.0
1999	81.4	81.4	82.2	81.8	71.3
2000	82.1	81.7	82.3	81.6	63.0
2001	81.9	81.7	82.4	81.9	71.5
2002	82.3	82.1	82.8	82.2	70.5

(a) The variation between the median age at death in selected states and territories can, in part, be explained by variations in the age distribution of the resident population in each state and territory.

(b) See Explanatory Notes 15–20 for information about the estimated coverage of Indigenous deaths.

Variation, with no definite trend, remains evident in the median age at death for Indigenous males and females, while there is a steady increase in the median age at death for males and females in the total population (see graph 7.11).

7.11 MEDIAN AGE AT DEATH(a)



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

INFANT DEATHS

The Indigenous infant mortality rate (IMR) was higher than the total infant mortality rate for the states and territory presented. In 2000–2002 the highest Indigenous IMR was experienced in the Northern Territory (18.1), while New South Wales (9.5) experienced the lowest Indigenous IMR.

The Indigenous IMRs have fluctuated over time. While some decline is apparent in the infant mortality rates, due to the small number of infant deaths involved no reliable trend is evident.

7.12 INFANT MORTALITY RATES(a), Indigenous status

	NSW	*Qld*	*SA*	*WA*	*NT*
INDIGENOUS MALES					
1997–1999	10.2	17.6	6.3	15.6	23.0
1998–2000	11.9	15.8	8.4	18.8	20.9
1999–2001	11.0	14.4	9.4	17.7	20.6
2000–2002	10.4	12.2	10.4	18.1	18.3
INDIGENOUS FEMALES					
1997–1999	10.5	7.6	7.4	15.9	23.9
1998–2000	11.7	9.0	7.2	14.9	22.1
1999–2001	10.8	8.9	6.5	15.6	17.7
2000–2002	8.6	10.7	10.4	14.7	17.8
INDIGENOUS PERSONS					
1997–1999	10.4	12.6	6.9	15.8	23.5
1998–2000	11.8	12.5	7.8	16.9	21.5
1999–2001	10.9	11.7	8.0	16.6	19.2
2000–2002	9.5	11.5	10.4	16.5	18.1
TOTAL PERSONS					
1997–1999	5.1	6.0	4.4	5.0	12.2
1998–2000	5.1	6.1	4.3	4.7	11.9
1999–2001	5.4	5.9	4.5	4.7	11.4
2000–2002	5.0	6.0	4.8	4.6	11.2

(a) Per 1,000 live births. Indigenous IMRs are calculated using Indigenous births. Total IMRs are calculated using total births. IMRs have been calculated using data from the three calender years shown.

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

Year	%	Year	%
1991	93.6	1997	95.6
1992	94.3	1998	96.0
1993	94.8	1999	95.8
1994	95.6	2000	95.7
1995	95.2	2001	95.3
1996	95.2	2002	95.3

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, with the exception of tables 5.19 and 5.20.

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 5.7 shows the number of deaths cross-classified by state or territory of usual residence and state or territory of registration.

6 In 2002 there were 363 deaths registered in Australia of persons usually resident overseas. These deaths have been included in this publication and classified according to the state or territory in which the death was registered. For more information about the death of overseas visitors to Australia, see Chapter 4.

STATES AND TERRITORIES *continued*

DEATHS OF OVERSEAS VISITORS

State/territory of registration	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*
New South Wales	135	130	120	145	127	114	139
Victoria	61	55	49	64	55	51	50
Queensland	106	98	91	90	110	107	92
South Australia	22	16	21	14	17	12	18
Western Australia	48	55	61	50	41	50	47
Tasmania	4	4	4	7	7	11	—
Northern Territory	15	11	17	16	17	18	13
Australian Capital Territory	—	6	8	4	3	6	—
Australia	**393**	**375**	**371**	**390**	**377**	**369**	**363**

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.

THE EFFECT OF THE BALI BOMBING ON AUSTRALIAN DEATH STATISTICS

10 The ABS death statistics collection includes all deaths that occurred and were registered in Australia including deaths of persons whose usual residence is overseas. Deaths of Australian residents which occurred outside Australia may be registered but are not included in the ABS statistics as was the case for many of the Australians killed in the Bali bombing.

11 As deaths of Australian residents which occurred outside of Australia are not within the scope of the collection most of the Australian victims of the Bali bombing have been excluded from these statistics. Only eight victims of the bombing died after arrival or en route to Australia and have been included in 2002 statistics. The number includes two overseas residents.

12 Under the International Classification of Diseases and Related Health Problems (ICD-10) these deaths have been coded to X96 (Assault by explosive material).

International comparison

13 After the attacks on the World Trade Center on September 11, 2001 the National Center for Health Statistics in the United States of America assigned preliminary codes within the ICD-10 classification for deaths by terrorism. To classify a death as terrorist-related in the United States of America, it is necessary for the incident to be designated as such by the Federal Bureau of Investigation (FBI).

14 The ABS has not adopted the terrorism codes but has coded these deaths using the standard ICD-10 classification and coding rules. If the terrorism codes were to be used and the Bali bombing was classified as a terrorist-related incident these deaths would have been classified as U01.2 Terrorism involving other explosives and fragments.

INDIGENOUS DEATHS

15 Although it is considered likely that most Indigenous deaths are registered, a proportion of these deaths are not registered as 'Indigenous'. This publication includes the number of registered Indigenous deaths. However, because of the data quality issues outlined below, more detailed breakdowns of Indigenous deaths are provided for New South Wales, Queensland, South Australia, Western Australia and the Northern Territory only.

Coverage of Indigenous deaths

16 There are several data collection forms on which people are asked to state whether they are of Indigenous origin. Due to a number of factors, the results 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.

17 Propensity to identify as Indigenous is determined by a range of factors, including how the information is collected; who completes the form; the perception of how the information will be used; education programs about identifying as Indigenous; and cultural issues associated with identifying as Indigenous.

18 There are two estimates of the number of Indigenous deaths each year. Each is based on a different collection, with a different propensity to identify as Indigenous:

- 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 to 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.

19 The estimated coverage of Indigenous deaths is a comparison of the number of deaths registered as Indigenous with the census-based estimates and projections of Indigenous deaths. However, due to the investigative work currently being undertaken by the ABS, coverage rates have not been included in this publication.

Coverage of Indigenous deaths *continued*

20 Given this volatility, and the experimental nature of the base populations, any estimates of coverage are only indicative. The assessment of the completeness of coverage of Indigenous deaths should be interpreted with caution. Over-precise analysis based on Indigenous death registrations, Indigenous deaths coverage or projected Indigenous deaths should be avoided.

CAUSES OF DEATH

21 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. Deaths registered in 1997 and 1998 have since been coded to ICD-10. 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).

22 Deaths registered prior to 1997 are coded on the 9th version of the World Health Organisation's International Classification of Diseases (ICD-9). For cause of death tables, new time series tables have been constructed commencing from 1997 on ICD-10. For cause-specific indirect standardised death rates the Australian 1999 death rates have been used as standard for 1997 onwards, as the conventional standard death rates (1991) are not available on ICD-10.

23 The time series summary table (table 5.1) includes causes of death data. Data prior to 1997 is coded to ICD-9 and is not directly comparable with later years presented in the table. The pre-1997 data in this table relates to:

Malignant neoplasms (140–208)
Ischaemic heart diseases (410–414)
Cerebrovascular diseases (430–438)
Chronic obstructive pulmonary disease and allied conditions (including asthma, emphysema and bronchitis (490–496)
Accidents (E800–E949)

from the ICD-9 classification.

24 To enable the reader to see the relationship between the various summary classifications used in this publication, all tables show in brackets the ICD codes which constitute the causes of death covered.

25 ICD-10 allows for the coding of AIDS and AIDS-related deaths (B20-B24). As ICD-9 did not directly accommodate the coding of AIDS and AIDS-related deaths, cases where AIDS was the underlying cause were coded to ICD-9 deficiency of cell-mediated immunity (279.1), from 1988 to 1995. In 1996, ABS adopted ICD-9 Clinically Modified (CM) for coding of AIDS and AIDS-related deaths. Hence, for 1996, all AIDS-related deaths (i.e. deaths where AIDS was mentioned in any place on the death certificate) were coded to HIV infection (042–044). For all years where ICD-9 has been used, all AIDS-related deaths have been reported as ICD-9 CM HIV infection (042–044).

CAUSES OF DEATH *continued*

26 All data in this publication refer to AIDS-related deaths rather than only those deaths where AIDS is the underlying cause. Hence in table 5.19 and 5.20, AIDS-related deaths differ from the data provided for all other causes in that table since for all other causes, only data for underlying cause are given.

LIFE TABLES

27 A life table is a statistical model used to represent mortality of a population. In its simplest form, a life table is generated from age-specific death rates and the resulting values are used to measure mortality, survivorship and life expectancy.

28 The life tables in this publication are current or period life tables, based on death rates for a short period of time during which mortality has remained much the same. Mortality rates for the Australian, and state and territory life tables are based on 2000–2002 data.

29 A life table may be complete or abridged, depending on the age interval used in the 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.

30 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.

31 To construct a life table, data on population, deaths and births are needed. Mortality rates are smoothed to avoid fluctuations in the data. The life tables presented in this publication 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 at exact age x;

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

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

Australian life tables

32 The 2000–2002 life tables were 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 which were used for the quinquennial Australian life tables prepared by the Australian Government Actuary. Life tables for the 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).

Small area life tables

33 Expectation of life for Statistical Divisions (table 5.6) have been calculated with reference to state and territory life tables, using Brass' Logit System. Small area life tables are based on age-specific death rates for each area, some of which may be zero as no deaths were recorded at those ages. Brass' Logit technique enables the calculation of smooth abridged life tables for regions which have defective age-specific death rates, by adjusting them with reference to a standard life table. The technique does not alter the overall level of mortality, but the age-specific functions of the life table are smoothed.

34 Essentially, the technique compares mortality between the regional and standard life tables across ages, then a line of best fit is calculated to describe that relationship by age. The line of best fit is then used in conjunction with the standard life table to determine death rates for the small area life table. For a more detailed description of Brass' Logit System refer to Brass (1975) *Methods for Estimating Fertility and Mortality from Limited and Defective data*.

SOCIO-ECONOMIC INDEXES FOR AREAS (SEIFA), 2001

35 The ABS has developed summary measures, or indexes, derived from the 2001 Census of Population and Housing to measure different aspects of socio economic conditions by geographic areas. The Index of Relative Socio-Economic Advantage/Disadvantage is included in table 5.6.

36 The index has been constructed so that relatively advantaged areas have high index values. A higher score on the Index of Relative Socio-Economic Advantage/Disadvantage indicates that an area has attributes such as a relatively high proportion of people with high incomes or a skilled work force. It also means an area has a low proportion of people with low incomes and relatively few unskilled people in the work force. Conversely, a low score indicates that an area has a higher proportion of individuals with low incomes, more employees in unskilled occupations, etc.; and a low proportion of people with high incomes or in skilled occupations.

37 Further information can be found in the *Information Paper: Census of Population and Housing: Socio-Economic Indexes for Areas, Australia, 2001* (cat. no. 2039.0).

TIME SERIES

38 Time series data from 1901 to 1995 is available in the 1995 issue of *Deaths, Australia* (cat. no. 3302.0), in *Australian Demographic Trends, 1997* (cat. no. 3102.0) and in Australian Historical Population Statistics (available through AusStats, see Explanatory Note 41).

ACKNOWLEDGMENT

39 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

40 Other ABS publications which may be of interest to users include:

AusStats — electronic data (see Explanatory Note 41)
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 2002–2101, cat. no. 3222.0 — issued irregularly
Experimental Projections of the Aboriginal and Torres Strait Islander Population, cat. no. 3231.0 — issued irregularly
The Health and Welfare of Australia's Aboriginals and Torres Strait Islander Peoples, cat. no. 4704.0— issued bi-annually.

41 AusStats is a web based information service which provides the ABS full standard product range online. It also includes companion data in multidimensional datasets in SuperTABLE format and spreadsheets. For a list of the related data available on AusStats see the List of tables on page 5.

42 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.

43 From 1994 detailed state and territory data for deaths and causes of death are available in *Causes of Death, Australia* (cat. no. 3303.0).

44 Current publications produced by the ABS are listed in the *Catalogue of Publications and Products* (cat. no. 1101.0).

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

ADDITIONAL STATISTICS AVAILABLE

46 The ABS can also make available information which is not published. See Appendix 1 for the characteristics processed by the ABS related to deaths registered. A charge is applied for providing unpublished information.

47 For additional mortality articles written by the ABS, please see the list in Appendix 2.

SYMBOLS AND ABBREVIATIONS

ABS	Australian Bureau of Statistics
AIHW	Australian Institute of Health and Welfare
ARIA	Accessibility/Remoteness Index of Australia
ASCCSS	Australian Standard Classification of Countries for Social Statistics
ASDR	age-specific death rate
CD	Census Collection District
CDR	crude death rate
DFAT	Department of Foreign Affairs and Trade
ERP	estimated resident population
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome
ICD-9	International Classification of Diseases, 9th Revision
ICD-10	International Classification of Diseases, 10th Revision
IHD	Ischaemic heart diseases
IMR	infant mortality rate
ISDR	indirect standardised death rate
na	not available
np	not available for publication but included in totals where applicable
PRB	Population Reference Bureau
r	revised
SD	Statistical Division
SDR	standardised death rate
SEIFA	Socio-economic Indexes for Areas
SLA	Statistical Local Area
SMR	standardised mortality ratio
SSD	Statistical Subdivision
. .	not applicable
—	nil, or rounded to zero (including null cells) (see Explanatory Notes, paragraph 3).

APPENDIX 1 CHARACTERISTICS AVAILABLE

RELATED TO THE DEATH

Date of death (day, month and year)
Date of registration (month and year)
Cause of death (multiple cause introduced in 1997; ICD-10 available from 1997 onwards)
State of registration
State or territory of usual residence
Statistical local area of usual residence

RELATED TO THE PERSON

Age at death
Sex
Date of birth (NSW, SA, WA, NT, ACT)
Marital status
Date of marriage (WA and NT)
Age at marriage (not available for Vic.; age at last marriage for Tas., for other states either first of subsequent marriage)
Number of children
Country of birth
Duration of residence in Australia, if born overseas
Indigenous status

APPENDIX 2 FEATURE ARTICLES LIST

DEATHS, AUSTRALIA (cat. no. 3302.0)

A century of change in life expectancy, 1997, p. 57

Child mortality, 2001, p. 27

Death of older people, 1998, p. 46

Death of people aged 25–39 years, 1999, p. 59

How long can I look forward to live? Mortality projections for 'real' cohorts, 2000, p. 42

Life expectancy of first generation migrants, 2000, p. 29

Life tables, 1996, p. 59

Separation factors, 2001, p. 32

Socio economic differences in mortality, 2000, p. 33

The years of living dangerously, 1997, p. 28

AUSTRALIAN SOCIAL TRENDS (cat. no. 4102.0)

Accidental death of children, 1996, p. 59

Accidental drowning, 2000, p. 69

Cancer trends, 1995, p. 68

Cardiovascular disease: 20th century trends, 2002, p. 81

Drug-related deaths, 2001, p. 71

Infant mortality, 2002, p. 91

Mortality in the 20th Century, 2001, p. 67

Mortality of Aboriginal and Torres Strait Islander people, 2002, p. 86

Suicide, 2000, p. 65

Youth suicide, 1994, p. 55

GLOSSARY

Age-specific death rate

Age-specific death rates are the number of deaths (occurred or registered) 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

The classification of countries is the Australian Standard Classification of Countries for Social Statistics (ASCCSS). For more detailed information refer to the *Australian Standard Classification of Countries for Social Statistics* (ASCCSS) (cat. no. 1269.0).

Recent political developments in Europe and the former USSR have resulted in a number of changes to the ASCCSS. These changes have affected some categories and are detailed in revisions 1.02 and 1.03 of the ASCCSS.

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

Death is the permanent disappearance of all evidence of life after birth has taken place. The definition excludes deaths prior to live birth. 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

The concept of estimated resident population (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 in a reference year.

The ERP is an estimate 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 the estimated interstate movements involving a change of usual residence.

Estimates of the resident population are based on census counts by place of usual residence, to which are added the estimated net census undercount and Australian residents estimated to have been temporarily overseas at the time of the census. Overseas visitors in Australia are excluded from this calculation.

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.

Indigenous

Persons who identify themselves 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 one calendar year per 1,000 live births in the same calendar year.

Intercensal discrepancy Intercensal discrepancy is the difference between two estimates at 30 June of a census year population, the first based on the latest census and the second arrived at by updating the 30 June estimate of the previous census year 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. It is calculated as 1,000/expectation of life at birth.

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:

- 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.

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. 2001). The current standard population is all persons in the 2001 Australian population. Standardised death rates 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 and Statistical local area of usual residence

State or territory and Statistical Local Area (SLA) of usual residence refers to the state or territory and SLA of usual residence of:

the population (estimated resident population)

the mother (birth collection); or

the deceased (death collection).

In the case of overseas movements, state or territory of usual residence refers to the state or territory regarded by the traveller as the one in which he/she lives or has lived. State or territory of intended residence is derived from the intended address given by settlers, and by Australian residents returning after a journey abroad. Particularly in the case of the former, this information does not necessarily relate to the state or territory in which the traveller will eventually establish a permanent residence.

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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2330200001025
ISSN 1031-0223

RRP $32.00

Produced by the Australian Bureau of Statistics