



2007

3302.0

DEATHS

AUSTRALIA

EMBARGO: 11.30AM (CANBERRA TIME) TUES 25 NOV 2008

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INQUIRIES

For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070 or Tracey Coomber on Canberra (02) 6252 5406.

NOTES

ABOUT THIS ISSUE

This publication brings together statistics on deaths and mortality in Australia. Data refer to deaths registered during the calendar year shown, unless otherwise stated. State or territory relates to state or territory of usual residence, unless otherwise stated.

Populations used in the calculation of rates prior to 2006 are the final estimated resident population by age and sex based on results of the *2006 Census of Population and Housing* (2006 Census) and earlier censuses. Mortality rates for 2007 use preliminary 30 June 2007 estimated resident population figures.

CHANGES IN THIS ISSUE

The content of this publication has been reviewed, with the aim of reducing duplication of data. Tables previously presented in the printed publication (in Adobe PDF format) have been removed and are now available in data cubes (in Microsoft Excel format) from the ABS website. See paragraph 57 of the Explanatory Notes for more information.

Mortality rates from 2002 to 2006 have been revised using final estimated resident population data based on results of the 2006 Census.

TAKE CARE

As there is undercoverage of deaths of Aboriginal and Torres Strait Islander (Indigenous) Australians in most states and territories, Indigenous age-specific death rates presented in this publication are likely to be underestimates of the true rates. 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.

EXPERIMENTAL INDIGENOUS LIFE TABLES

The method used in constructing experimental Indigenous life tables is currently under review. An assessment of various methods for adjusting incomplete Indigenous death registration data for use in compiling Indigenous life tables and life expectancy estimates is presented in *Discussion Paper: Assessment of Methods for Developing Life Tables for Aboriginal and Torres Strait Islander Australians, 2006* (cat. no. 3302.0.55.002), released on 17 November 2008.

CAUSES OF DEATH

Causes of death information is published under the 3303.0 product family. See *Causes of Death, Australia: Doctor Certified Deaths, Summary Tables, 2007* (cat. no. 3303.0.55.001) released on 25 November 2008, and *Causes of Death, Australia, 2007* (cat. no. 3303.0) scheduled for release in March 2009, for more information.

ROUNDING AND CONFIDENTIALITY

Calculations as shown in the commentary sections of this publication are based on unrounded figures. Calculations using rounded figures may differ from those published. It is recommended that when using information presented in this publication, 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.

Where necessary, tables have had small values suppressed or randomised to protect confidentiality. As a result, sums of components may not add to totals.

Brian Pink
Australian Statistician

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South Australia (cat. no. 3302.4.55.001)
Western Australia (cat. no. 3302.5.55.001)
Tasmania (cat. no. 3302.6.55.001)
Northern Territory (cat. no. 3302.7.55.001)
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ABBREVIATIONS

ABS	Australian Bureau of Statistics
ACT	Australian Capital Territory
AIHW	Australian Institute of Health and Welfare
ASDR	age-specific death rate
ASGC	Australian Standard Geographical Classification
Aust.	Australia
cat. no.	Catalogue number
DRF	death registration form
ERP	estimated resident population
IMR	infant mortality rate
ISDR	indirect standardised death rate
LGA	local government area
MCCD	medical certificate of cause of death
no.	number
NSW	New South Wales
NT	Northern Territory
Qld	Queensland
SA	South Australia
SACC	Standard Australian Classification of Countries
SAR	Special Administrative Region
SD	statistical division
SDR	standardised death rate
SLA	statistical local area
SSD	statistical subdivision
Tas.	Tasmania
UNSD	United Nations Statistics Division
Vic.	Victoria
WA	Western Australia

MORTALITY CONTINUES TO DECLINE

- There were 137,900 deaths registered in Australia in 2007, approximately 4,100 (3.1%) more than the number registered in 2006 (133,700).
- The standardised death rate (SDR) in 2007 (6.0 deaths per 1,000 standard population) was the same as in 2005 and 2006, which is the lowest on record.
- Over the past 20 years, SDRs have decreased for all states and territories, although some states and territories experienced slightly higher SDRs in 2007 than in 2006.
- The highest standardised death rate in 2007 was in the Northern Territory (8.9 deaths per 1,000 standard population), while the lowest was in the Australian Capital Territory (5.6).
- In the last 20 years death rates have declined for both males and females for all ages. The largest proportional decreases in male age-specific death rates over this period occurred in the 5–9 years and 10–14 years age groups (both down 58%). For females, the 5–9 years age group experienced the largest proportional decrease (down 52%), followed by females aged 1–4 years (down 51%).

LIFE EXPECTANCY AT BIRTH CONTINUES TO INCREASE

- Over the past 20 years life expectancy at birth has improved by 6.0 years for males and 4.1 years for females. Based on current mortality rates, a boy born in 2005–2007 can expect to live 79.0 years while a girl can expect to live 83.7 years.
- The Australian Capital Territory recorded the highest life expectancy at birth for males (80.3 years), while the highest life expectancy at birth for females (84.0 years) was recorded in both Western Australia and the Australian Capital Territory. The Northern Territory recorded the lowest life expectancy at birth for both males (72.4 years) and females (78.4 years).
- In 2005–2007 life expectancy at birth varied between the Statistical Divisions (SD) of Australia by approximately 12 years for males and 10 years for females. Male life expectancy at birth was highest in Canberra SD, Melbourne SD and the Sunshine Coast SD in Queensland (each 80.3 years). Female life expectancy at birth was highest in Sunshine Coast SD in Queensland (85.2 years), Outer Adelaide SD (84.8 years) and Perth SD (84.6 years).
- Male life expectancy at birth was lowest in Northern Territory Balance SD (68.5 years), followed by Darwin SD and South Eastern SD in Western Australia (both 75.7 years). Female life expectancy at birth was lowest in Northern Territory Balance SD (74.8 years), Far West SD in New South Wales (80.5 years) and South Eastern SD in Western Australia (80.9 years).
- According to United Nations estimates for 2005–10, Australia's life expectancy at birth is ranked among the highest in the world. Australia's male life expectancy at birth ranks fifth, below Iceland, Hong Kong, Japan and Switzerland. Australia's female life expectancy at birth is ranked sixth, below Japan, Hong Kong, Switzerland, Spain and France.

INFANT DEATHS

- In 2007 there were 1,200 infant deaths (deaths of children less than one year of age) registered in Australia. This was a decrease of 60 infant deaths (or 4.7%) over the number registered in 2006.
- The infant mortality rate in 2007 was 4.2 infant deaths per 1,000 live births, 11% lower than the 2006 rate (4.7).

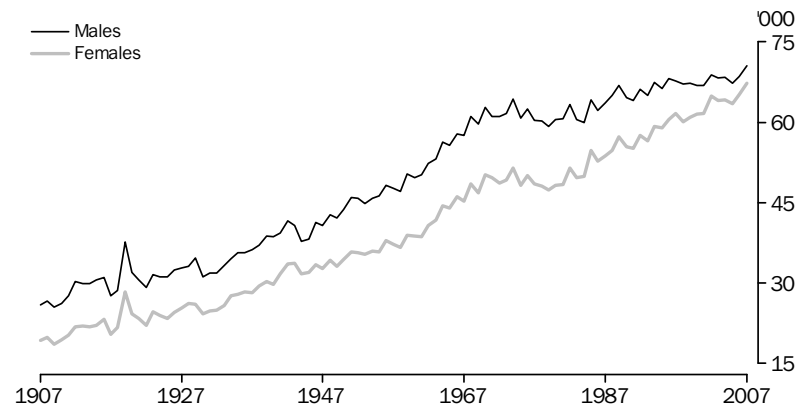
DEATHS OF ABORIGINAL
AND TORRES STRAIT
ISLANDER AUSTRALIANS

- There were 2,400 deaths registered in Australia in 2007 where the deceased person was identified as being of Aboriginal, Torres Strait Islander or both origins (Indigenous).

INTRODUCTION

In 2007 there were 137,900 deaths (70,600 males and 67,300 females) registered in Australia, an increase of 4,100 deaths (or 3.1%) compared with the number of deaths registered in 2006 (133,700). Since 1987 the number of deaths registered has increased by around 0.5% per year on average for males and 1.1% per year for females, with year to year fluctuations.

2.1 DEATHS REGISTERED, 1907–2007



Source: Australian Historical Population Statistics (3105.0.65.001); Deaths, Australia (3302.0).

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 is projected to continue to increase throughout the remainder of the century (Series B, *Population Projections, Australia, 2006 to 2101*, cat. no. 3222.0).

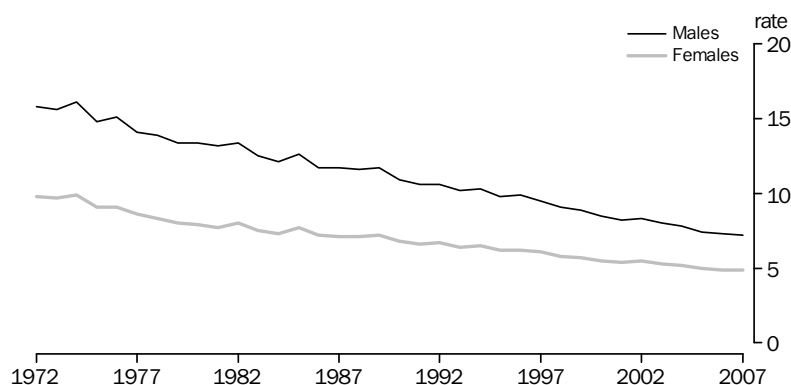
Declining death rates

Despite the ageing of the population over the last 20 years, death rates have continued to decline. The crude death rate declined from 7.2 deaths per 1,000 population in 1987 to 6.4 deaths per 1,000 population in 2005, and has risen slightly since then, to 6.6 deaths per 1,000 population in 2007. Given the ageing of Australia's population, the overall decline in the crude death rate indicates a considerable decline in age-specific death rates over the period.

The standardised death rate (SDR), which eliminates the effect of changes in the age structure of a population over time, was 6.0 deaths per 1,000 standard population in 2007, the same as the previous two years and down by 34% from 1987 (9.1). The rates for 2005, 2006 and 2007 are the lowest on record. Standardised death rates are calculated using the 2001 total population of Australia as the standard population (see Glossary for more information).

Declining death rates
continued

2.2 STANDARDISED DEATH RATES(a), Australia



(a) Deaths per 1,000 standard population. Standardised death rates are calculated using the 2001 total population of Australia as the standard population.

Although male mortality remains higher than female mortality, in the last 20 years the gap has narrowed. In 1987, males had an SDR of 11.7 deaths per 1,000 standard population, 4.5 deaths higher than the female SDR of 7.1 deaths per 1,000 standard population. By 2007, the male SDR had decreased to 7.2 deaths per 1,000 standard population, 2.3 deaths higher than the female rate of 4.9 deaths per 1,000 standard population.

Over the same period the difference between male and female life expectancy at birth has narrowed, from 6.5 years in 1987 (life expectancy at birth of 73.1 years for males and 79.5 years for females) to 4.7 years in 2007 (life expectancy at birth of 79.0 years for males and 83.7 years for females).

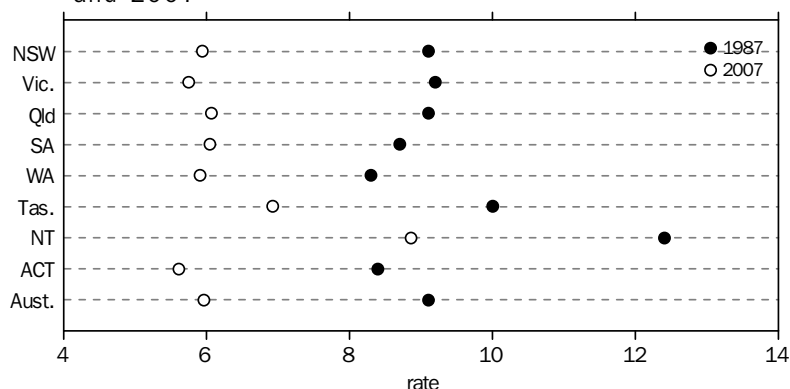
States and territories

Over the past 20 years all states and territories have experienced sustained declines in SDRs, with the Northern Territory experiencing the largest absolute decline (from 12.4 deaths per 1,000 standard population in 1987 to 8.9 in 2007) and Western Australia experiencing the smallest absolute decline (from 8.3 to 5.9 over the same period).

In recent years, SDRs for states and territories have generally declined. However, in 2007, Queensland, Western Australia, Tasmania, the Northern Territory and the Australian Capital Territory all experienced slightly higher SDRs than in 2006. The Northern Territory's SDR of 8.9 remained much higher than the other states and territories, while Tasmania recorded the second highest SDR (6.9). The lowest SDR was recorded in the Australian Capital Territory, with 5.6 deaths per 1,000 standard population.

States and territories
continued

2.3 STANDARDISED DEATH RATES(a), States and territories—1987 and 2007



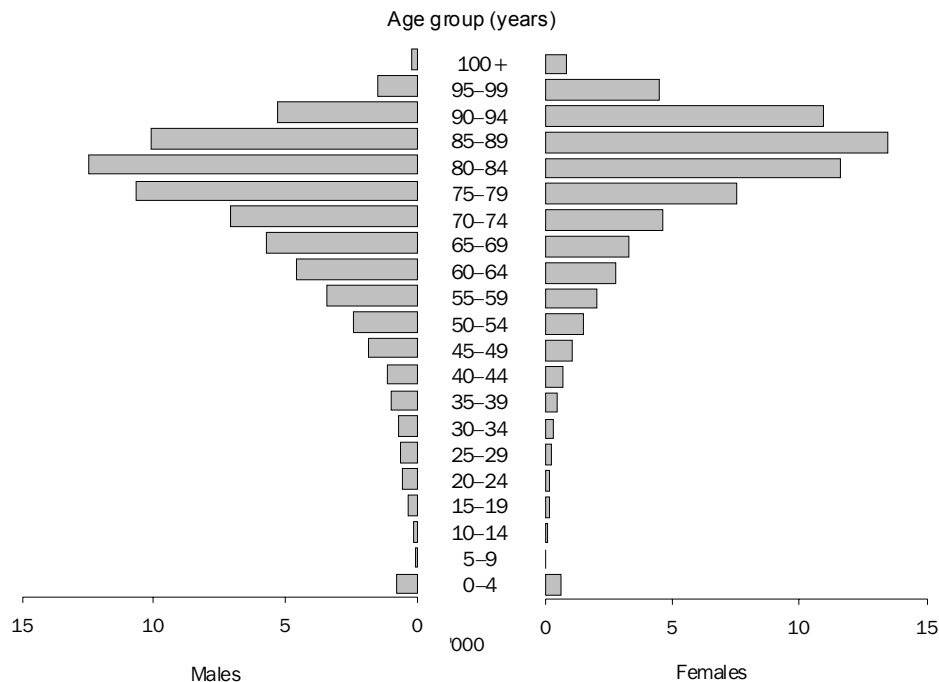
(a) Deaths per 1,000 standard population. Standardised death rates are calculated using the 2001 total population of Australia as the standard population.

MALE AND FEMALE DEATHS

Male deaths (70,600) registered in 2007 outnumbered female deaths (67,300), resulting in a sex ratio of 104.9 male deaths for every 100 female deaths. This ratio has decreased from 118.4 male deaths for every 100 female deaths in 1987. Since 1987, the annual number of male deaths has increased by 11% overall, while female deaths have increased by 25%. This difference is due primarily to the greater improvements in male mortality relative to female mortality.

Graph 2.4 shows the distribution of deaths registered in 2007 by age group and sex.

2.4 DEATHS, Australia, Age(a) and sex—2007



(a) Excludes deaths for which age of death was not stated.

States and territories

In 2007, the Northern Territory recorded the highest SDRs for both males and females, of 10.9 and 6.9 deaths per 1,000 standard population respectively. The lowest SDRs for both males and females were recorded in the Australian Capital Territory (6.7 and 4.7 respectively).

Over the past year the largest decline in SDRs for males was recorded in Tasmania (down 0.3 deaths per 1,000 standard population), while for females the largest decline was in the Northern Territory (down 0.5 deaths per 1,000 standard population). South Australia, the Northern Territory and the Australian Capital Territory all recorded small increases in male SDRs, while Queensland, Western Australia and Tasmania recorded small increases in female SDRs.

Male death rates were higher than female death rates in all states and territories in 2007. The difference was greatest in the Northern Territory where the male SDR (10.9 deaths per 1,000 standard population) was 4.0 deaths higher than the female SDR (6.9 deaths per 1,000 standard population). Tasmania and the Australian Capital Territory both recorded the smallest differences, with male SDRs (7.9 and 6.7 respectively) being 1.9 deaths higher than female SDRs (6.0 and 4.7 respectively).

There were more male deaths registered than female deaths in all states and territories, with the exception of Tasmania and Victoria. The Northern Territory recorded 173 male deaths to every 100 female deaths, while Tasmania recorded 92 male deaths to every 100 female deaths.

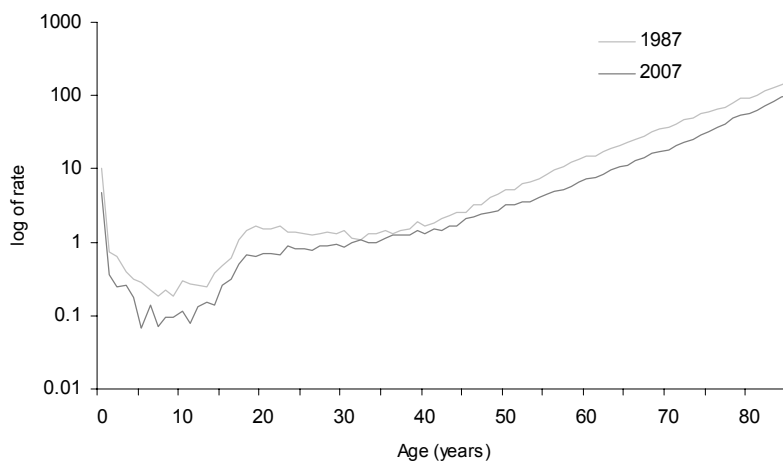
AGE-SPECIFIC DEATH RATES

From relatively high rates of death in infancy, death rates decline sharply through childhood. In 2007 the lowest age-specific death rates (ASDRs) in Australia were experienced by males and females aged 5–9 years and 10–14 years. ASDRs begin to increase from around 15 years of age, for both males and females. For all age groups to 85 years and over, ASDRs are higher for males.

For 2007, males aged 15–19 years had an ASDR of 0.5 deaths per 1,000 male population, while females of the same age experienced 0.2 deaths per 1,000 female population. Male ASDRs increase gradually until around age 40–44 years, where they begin to increase more quickly throughout the older age groups (graph 2.5). Age-specific death rates for females aged 15–25 years are low and relatively constant. Steady increases in the female ASDRs are evident beyond 35–39 years of age and continue throughout the remaining age groups (graph 2.6).

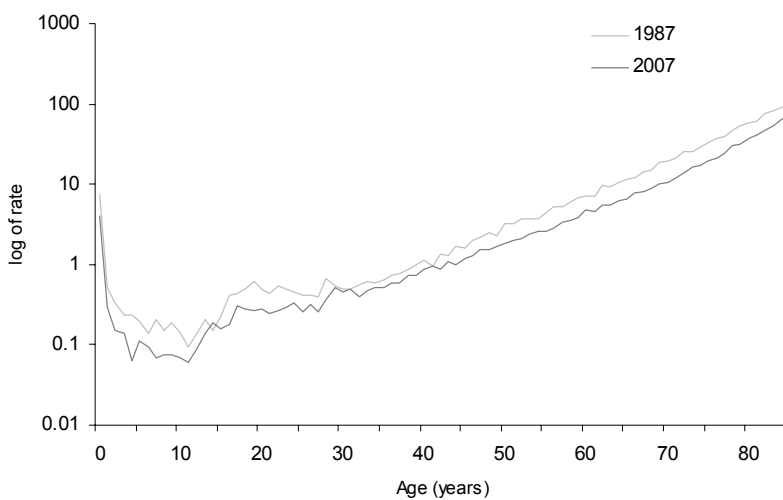
Over the past 20 years death rates have declined for both males and females for all ages. The largest proportional decreases in male age-specific death rates occurred in the 5–9 year and 10–14 year age groups (both down 58%), followed by males aged 15–19 years (down 54%) and infants (down 53%). For females, the 5–9 years age group experienced the largest proportional decrease (down 52%), followed by females aged 1–4 years (down 51%) and 15–19 years and infants (both down 45%).

2.5 AGE-SPECIFIC DEATH RATES(a), Males—1987 and 2007



(a) Deaths per 1,000 males.

2.6 AGE-SPECIFIC DEATH RATES(a), Females—1987 and 2007

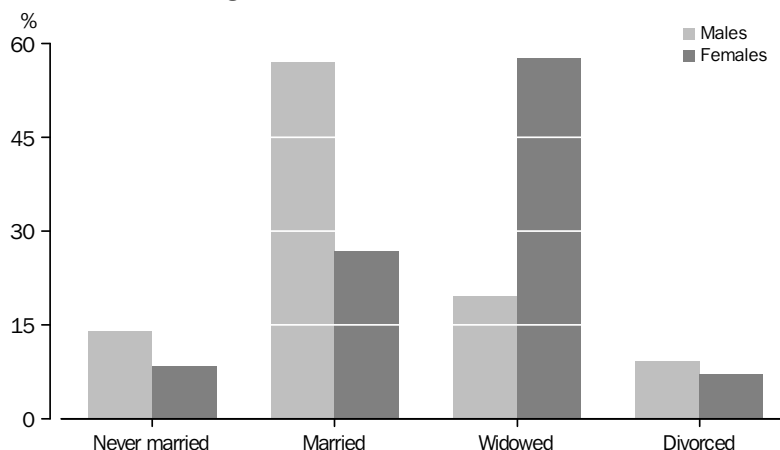


(a) Deaths per 1,000 females.

MARITAL STATUS

Of all men whose deaths were registered during 2007 for whom marital status was known, 57% were in a registered marriage at the time of death, 20% were widowed and 14% were never married. In contrast, of all women whose deaths were registered during 2007 for whom marital status was known, 27% were in a registered marriage, 58% were widowed and 8% were never married. These differences are a consequence of the greater longevity of women.

2.7 DEATHS, Registered marital status—2007



As estimated resident population (ERP) by marital status is only available for census years and is not yet available from the 2006 Census, the most recent standardised death rates (SDRs) by marital status are for 2001 (calculated using 2001 deaths data and 2001 marital status ERP). The 2001 SDRs by registered marital status showed that males and females who had never married had higher SDRs (11.9 and 7.3 deaths per 1,000 standard population respectively) than their married counterparts (7.0 and 4.1 respectively).

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 an earlier 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 due to the 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

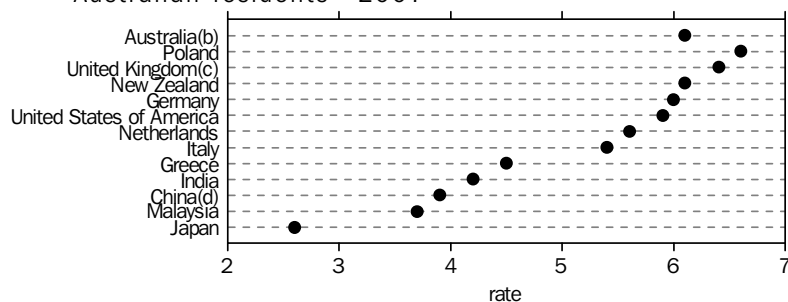
Australia's overseas-born population accounted for 30% of deaths registered in 2007 (41,100 deaths), despite making up only 25% of the resident population in 2007. This is due to the older age structure of the overseas-born population (with a median age of 46.1 years in 2007) compared with the Australian-born population (with a median age of 33.1 years).

However, when the older age structure of the overseas-born population is taken into account, migrants generally have lower death rates than the Australian-born population. This is true for nearly all migrant groups.

Indirect standardised death rates (ISDRs) allow comparisons of mortality between populations with different age and sex structures. In 2007, men born overseas had an ISDR of 6.7 deaths per 1,000 standard population, 10% lower than the rate for men born in Australia (7.5). Women born overseas had an ISDR of 4.7 deaths per 1,000 standard population, 10% lower than the rate for women born in Australia (5.2).

For individual birthplaces, ISDRs differ markedly. Rates for Australians born in New Zealand (6.1), the United States of America (5.9) and Western European countries such as Germany (6.0) and the Netherlands (5.6) were similar to that of Australian-born persons (6.1) in 2007, while rates for Southern European birthplaces (Italy and Greece) were lower (5.4 and 4.5 respectively). Australian residents born in South-East and North-East Asian countries recorded the lowest ISDRs in 2007: people born in China recorded 3.9 deaths per 1,000 standard population, while people born in Malaysia recorded 3.7. People born in Japan recorded the lowest ISDR of the selected birthplaces in 2007, with 2.6 deaths per 1,000 standard population (57% lower than the rate for the Australian-born population).

2.8 INDIRECT STANDARDISED DEATH RATES(a), Country of birth of Australian residents—2007



(a) Deaths per 1,000 standard population. Standardised death rates are calculated using the 2001 total population of Australia as the standard population.

(b) Includes External Territories.

(c) United Kingdom, Channel Islands and Isle of Man.

(d) Excludes SARs and Taiwan Province.

Of the 41,100 deaths of Australians born overseas for whom duration of residence in Australia was known, 64% had resided in Australia for 40 years or more. A further 16% had resided in Australia for 30–39 years, and 10% for 20–29 years. The remaining 11% of deaths of the overseas-born population were of persons who had resided in Australia for less than 20 years. In 2007 the median duration of residence for deaths registered in Australia of overseas-born persons was 46.3 years.

INFANT DEATHS

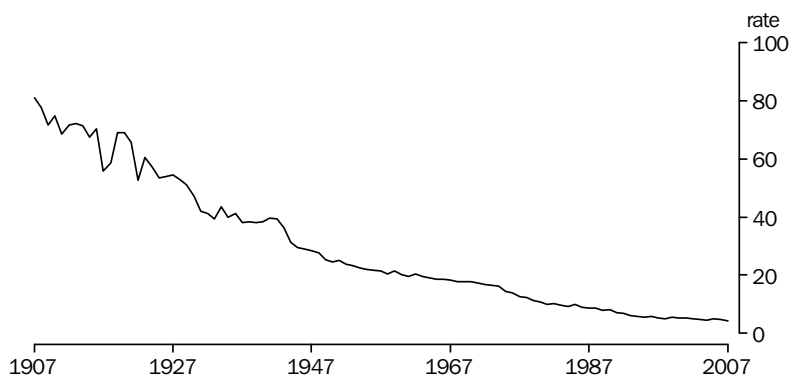
In 2007 there were 1,200 infant deaths (deaths of children less than one year of age) registered in Australia. This was a decrease of 60 infant deaths (or 4.7%) over the number registered in 2006.

Infant mortality rates

The infant mortality rate (IMR) of 4.2 infant deaths per 1,000 live births in 2007 was 11% lower than the 2006 rate (4.7) and 51% lower than in 1987 (8.7).

Over the past 100 years Australia's infant mortality has declined significantly. For the period 1901–1910, around one in 12 infants did not survive to their first birthday (an IMR of 81.8 infant deaths per 1,000 live births in 1905). By 2007, one in 240 infants did not survive their first year of life. Declines in infant mortality in the early part of the 20th century have been attributed to improvements in public sanitation and health education, while 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).

2.9 INFANT MORTALITY RATES (a) — 1907–2007



(a) Infant deaths per 1,000 live births.
Source: Australian Historical Population Statistics (3105.0.65.001); Deaths, Australia (3302.0)

States and territories

Western Australia recorded the lowest IMR in 2007 (2.4 infant deaths per 1,000 live births), followed Victoria and the Australian Capital Territory (both 3.8). The Northern Territory's IMR of 8.5 was the highest of the states and territories, followed by Queensland with an IMR of 5.0. Some states and territories have experienced volatility in IMRs from year to year due in part to the decline in the number of infant deaths, resulting in rates based on small numbers.

Infant age at death

In 2007, 39% of all infant deaths occurred within the first day of life, with a further 32% occurring in the remainder of the first four weeks of life.

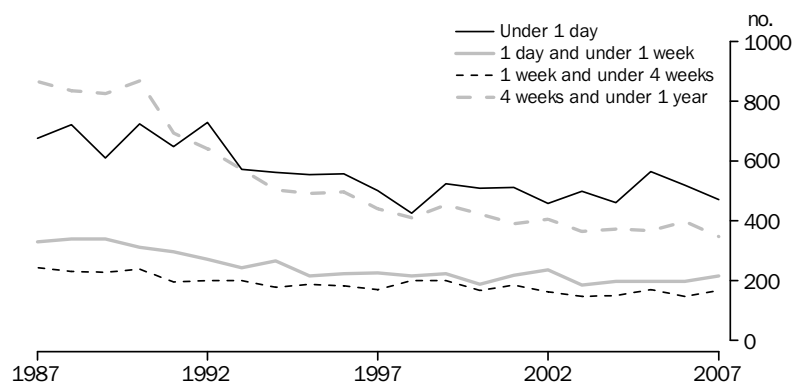
Until around 1998, numbers of infant deaths at all ages were decreasing. Since then, total numbers of infant deaths each year have continued to decrease, although at a slower rate than in the previous decade. The total number of infant deaths decreased by 4.7% per year on average between 1987 and 1998, and by 1.9% per year between 1999 and 2007.

Between 1987 and 1998, deaths of infants aged under one week decreased by 4.0% per year on average. Since then, the number of deaths have remained relatively stable in number, fluctuating between 660 and 760 deaths per year.

Infant age at death
continued

Between 1987 and 1998, deaths of infants aged one week and over decreased by 5.3% per year on average, and have continued to decrease, although at a slower rate (1.9% per year) than previously.

2.10 INFANT DEATHS, Age at death—1987–2007



(a) For some infant deaths, only limited information on age at death is known. See paragraph 40 of the Explanatory Notes for more information.

Sex

Over the past twenty years, male infant deaths have consistently outnumbered female infant deaths. In 2007 there were 660 male deaths, 20% more than the number of female deaths (550). As a result the male IMR has been consistently higher than the female IMR over that period.

LIFE EXPECTANCY

In 2005–2007 life expectancy at birth was 79.0 years for males and 83.7 years for females, increases of 0.3 years for males and 0.2 years for females over 2004–2006 life expectancy at birth.

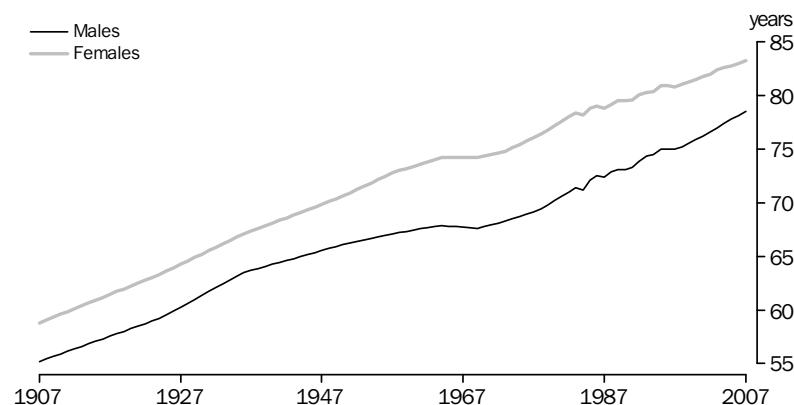
Over the past century, male life expectancy at birth has increased by 24 years, from 55.2 years in 1901–1910 to 79.0 years in 2005–2007. Similarly, female life expectancy at birth has increased by 25 years, from 58.8 years to 83.7 years. The increase in life expectancy at birth reflects declining death rates at all ages.

For males, life expectancy at birth for 2005–2007 was highest in the Australian Capital Territory (80.3 years), exceeding the Australian life expectancy for males by 1.3 years. For females, life expectancy at birth was highest in both Western Australia and the Australian Capital Territory at 84.0 years. These were 0.3 years higher than the female Australian life expectancy. Life expectancy at birth was lowest in the Northern Territory, where a boy born in 2005–2007 could expect to live to 72.4 years, and a girl, 78.4 years. These were 6.6 years and 5.3 years lower than the Australian life expectancies respectively. For information on state and territory life tables, see paragraph 47 of the Explanatory Notes.

LIFE EXPECTANCY

continued

2.11 LIFE EXPECTANCY AT BIRTH—1907–2007



Source: Australian Historical Population Statistics (3105.0.65.001); Deaths, Australia (3302.0)

Regional life expectancy

For the period 2005–2007, life expectancy at birth varied between the Statistical Divisions (SD) of Australia by approximately 12 years for males and 10 years for females. Male life expectancy at birth was highest in Canberra SD, Melbourne SD and Sunshine Coast SD in Queensland (each 80.3 years). Female life expectancy at birth was highest in Sunshine Coast SD in Queensland (85.2 years), Outer Adelaide SD (84.8 years) and Perth SD (84.6 years).

Male life expectancy was lowest in Northern Territory Balance SD (68.5 years), followed by Darwin SD and South Eastern SD in Western Australia (both 75.7 years). Female life expectancy was lowest in Northern Territory Balance SD (74.8 years), Far West SD in New South Wales (80.5 years) and South Eastern SD in Western Australia (80.9 years).

Australia's more rural and remote populations tend to have higher mortality rates and consequently lower life expectancy than populations living in either capital cities or urbanised areas (Australian Institute of Health and Welfare (AIHW), 1998). Where there is a higher proportion of Indigenous people living in rural and remote areas there is an additional impact upon mortality rates and life expectancy (AIHW, 1998). For instance, both Kimberley SD and Northern Territory Balance SD, which have the lowest life expectancy at birth, are rural or remote areas with high proportions of Indigenous people.

Outside the capital cities the more urbanised Statistical Divisions tended to have higher life expectancies at birth, such as in South-East Queensland and Outer Adelaide.

INTERNATIONAL
COMPARISON
Life expectancy

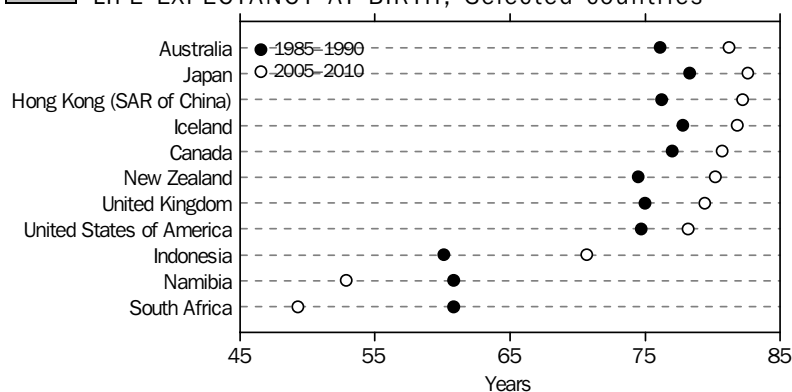
Australians have a life expectancy at birth which compares well with that experienced in other developed nations. According to the United Nations in *World Population Prospects: The 2006 Revision* (2007), global life expectancy at birth for 2005–10 (medium variant) is estimated to be 65.0 years for males and 69.5 years for females. ABS life tables for 2005–2007 indicate that life expectancy at birth for Australian males (79.0 years) and females (83.7 years) continue to be among the highest in the world.

Life expectancy at birth varies widely between regions of the world. According to United Nations estimates for 2005–10, Northern America has the highest combined life expectancy at birth at 78.5 years followed by Oceania (75.2 years) and Europe (74.6 years). Africa (52.8 years) has the lowest combined life expectancy at birth followed by Asia (69.0 years), then Latin America and the Caribbean (73.3 years).

Also according to United Nations estimates for 2005–2010, life expectancy at birth of Australian males (78.9 years) is exceeded only by Iceland, Hong Kong (SAR of China), Japan and Switzerland. Life expectancy at birth of Australian females (83.6) is exceeded by Japan, Hong Kong (SAR of China), Switzerland, Spain and France.

Combined Australian male and female life expectancy of new-born babies for 2005–10 was 81.2 years. This was higher than the level for Canada (80.7 years), New Zealand (80.2 years), the United Kingdom (79.4 years) and the United States of America (78.2 years).

2.12 LIFE EXPECTANCY AT BIRTH, Selected countries



Source: United Nations Population Division, *World Population Prospects: The 2006 Revision*, last viewed November 2008, <<http://www.un.org>>.

Infant mortality rate

The United Nations in *World Population Prospects: The 2006 Revision* (2007) estimates the global infant mortality rate for 2005–10 to be 49.4 infant deaths per 1,000 live births. The United Nations estimate of Australia's IMR (4.4 infant deaths per 1,000 live births) is among the lowest in the world, lower than that of Canada and the United Kingdom (both 4.8), New Zealand (5.0) and the United States of America (6.3). Iceland (2.9) has the lowest IMR, followed by Singapore (3.0) and Japan and Sweden (both 3.2).

On a regional basis, Northern America has the lowest IMR, with 6.2 infant deaths per 1,000 live births, followed by Europe (8.4). The world's regions recording the highest IMRs are Africa (86.9), followed by Asia (43.1), Oceania (25.8), which includes Australia, and then Latin America and the Caribbean (21.6).

YEAR OF OCCURRENCE

The majority of this publication contains deaths data based on year of registration. Although most deaths are registered in the year in which they occur, some deaths are not registered until the following year or later.

Deaths data presented by year of occurrence in this publication are therefore considered preliminary and are subject to change as deaths that occurred up to 31 December 2007 but have not yet been registered by this date are registered in subsequent years.

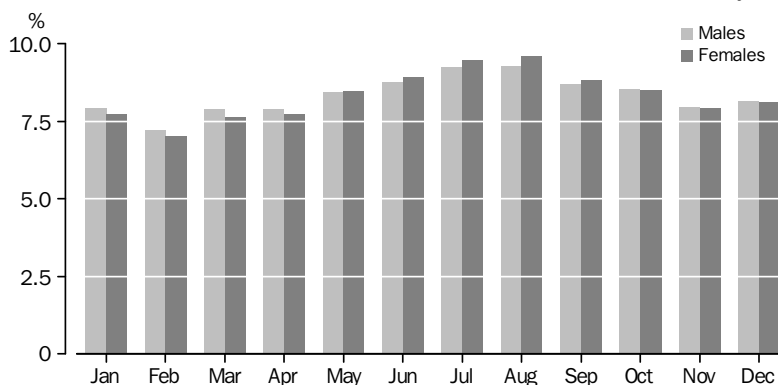
Deaths registered in the same year as they occurred

The likelihood of a death being registered in a year following its occurrence is substantially greater for deaths which occur near the end of the calendar year. Of the 137,900 deaths registered in 2007, 95.0% (131,000 deaths) occurred in 2007 and the remainder (5.0%, or 6,900 deaths) occurred in 2006 or earlier years (the majority of which occurred in December 2006). See paragraphs 27 and 28 of the Explanatory Notes.

Monthly occurrence of deaths

Deaths tend to occur more often in some months than others. Over the period 2004–2006, an average of 132,700 deaths occurred each year in Australia. The largest numbers of deaths on average occurred in the winter months of August (6,300 male deaths and 6,200 female deaths) and July (6,300 male deaths and 6,100 female deaths). In comparison, the smallest numbers of deaths on average (4,900 male deaths and 4,500 female deaths) occurred in the summer month of February (noting that February is the shortest month).

2.13 DEATHS, Month of death—2004–2006: Preliminary(a)



(a) Data for 2004–2006 are presented, as data for 2007 are incomplete due to delays between the occurrence and registration of deaths.

Deaths as a component of population change

Deaths form an important component of population change. In ABS population estimates, there were 137,800 deaths in Australia in 2007. This is roughly half the number the number of births (285,300), resulting in natural increase of around 150,000 people. As the population of Australia ages, the number of deaths each year will increase, and the difference between numbers of births and deaths will decrease. Based on Series B of the most recent ABS population projections (*Population Projections, Australia, 2006 to 2101*, cat. no. 3222.0), the number of births is projected to remain higher than the number of deaths until 2101.

2.14 COMPONENTS OF POPULATION CHANGE (a)

	Births(b)	Deaths(b)	Natural increase	Net overseas migration	Population at end of period	Population increase(c)	
	'000	'000	'000	'000	'000	'000	%
2003	248.0	131.8	116.2	110.1	20 011.9	240.9	1.2
2004	248.6	132.4	116.2	106.4	20 252.1	240.3	1.2
2005	263.4	131.4	132.0	137.0	20 544.1	291.9	1.4
2006	p266.8	p134.4	p132.4	p158.8	p20 848.8	p304.7	p1.5
2007	p285.3	p137.8	p147.4	p184.4	p21 180.6	p331.9	p1.6

p preliminary figure or series subject to revision

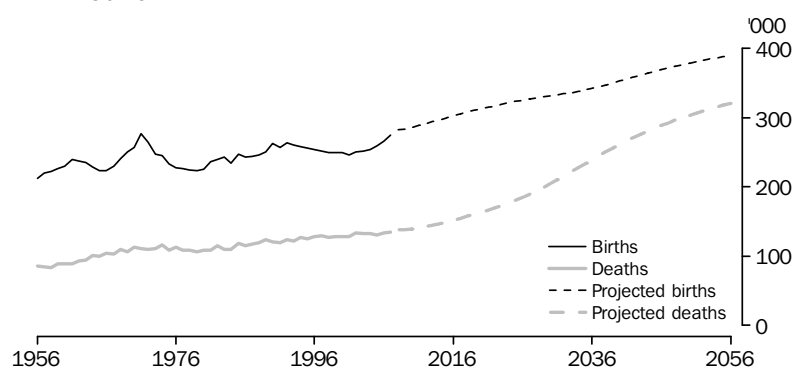
(a) Calendar year.

(b) For 2005 and earlier years, births and deaths in this table are based on year of occurrence, for population estimation purposes. For 2006, a combination of data based on quarter of occurrence (for the March and June quarters) and quarter of registration (for the September and December quarters) is used. Data for 2007 are based on year of registration. Numbers of deaths in this table will therefore differ from data elsewhere in this publication.

(c) Population increase will not necessarily equal the sum of natural increase and net overseas migration due to intercensal discrepancy. See Glossary for more information.

Source: Australian Demographic Statistics (cat. no. 3101.0)

2.15 ACTUAL AND PROJECTED BIRTHS AND DEATHS, Year ended 30 June



Source: Australian Historical Population Statistics, 2008 (cat. no. 3105.0.65.001)
 Australian Demographic Statistics, March Quarter 2008 (cat. no. 3101.0)
 Population Projections, Australia, 2006 to 2101 (cat. no. 3222.0) (Series B)

2.16 DEATHS, Australia—Selected years

		1987	1992	1997	2002	2003	2004	2005	2006	2007
DEATHS										
Total deaths	no.	117 321	123 660	129 350	133 707	132 292	132 508	130 714	133 739	137 854
Males	no.	63 611	66 115	67 752	68 885	68 330	68 395	67 241	68 556	70 569
Females	no.	53 710	57 545	61 598	64 822	63 962	64 113	63 473	65 183	67 285
Sex ratio	ratio	118.4	114.9	110.0	106.3	106.8	106.7	105.9	105.2	104.9
Standardised death rates(a)										
Males	rate	11.7	10.6	9.5	8.3	8.0	7.8	7.4	7.3	7.2
Females	rate	7.1	6.7	6.1	5.5	5.3	5.2	5.0	4.9	4.9
Persons	rate	9.1	8.4	7.6	6.7	6.5	6.3	6.0	6.0	6.0
Crude death rates(b)										
Males	rate	7.8	7.6	7.4	7.1	6.9	6.8	6.6	6.7	6.8
Females	rate	6.6	6.6	6.6	6.5	6.4	6.3	6.2	6.3	6.4
Persons	rate	7.2	7.1	7.0	6.8	6.6	6.6	6.4	6.5	6.6
Median age at death										
Males	years	71.4	72.6	74.2	76.2	76.2	76.6	76.8	77.3	77.5
Females	years	78.2	79.3	81.0	82.2	82.4	82.6	82.9	83.3	83.5
Persons	years	74.4	75.9	77.2	79.1	79.3	79.5	79.8	80.3	80.5
Life expectancy at exact age(c)										
Males										
0	years	73.1	74.5	75.6	77.4	77.8	78.1	78.5	78.7	79.0
1	years	72.8	74.1	75.0	76.8	77.2	77.5	77.9	78.1	78.4
25	years	49.8	50.9	51.8	53.5	53.8	54.1	54.5	54.7	55.0
45	years	31.0	32.1	33.1	34.7	35.0	35.2	35.6	35.7	36.0
65	years	14.7	15.4	16.1	17.4	17.6	17.8	18.1	18.3	18.5
85	years	5.0	5.1	5.3	5.6	5.6	5.7	5.9	5.9	6.0
Females										
0	years	79.5	80.4	81.3	82.6	82.8	83.0	83.3	83.5	83.7
1	years	79.1	79.9	80.7	82.0	82.2	82.4	82.7	82.9	83.1
25	years	55.6	56.4	57.1	58.3	58.5	58.7	59.0	59.2	59.4
45	years	36.3	37.0	37.7	38.9	39.1	39.3	39.6	39.7	39.9
65	years	18.7	19.2	19.8	20.8	21.0	21.1	21.4	21.5	21.6
85	years	6.2	6.2	6.4	6.8	6.9	6.9	7.1	7.1	7.1

INFANT DEATHS

Total infant deaths	no.	2 116	1 843	1 341	1 264	1 199	1 184	1 302	1 262	1 203
Males	no.	1 235	1 073	744	699	677	678	714	727	655
Females	no.	881	770	597	565	522	506	588	535	548
Infant mortality rates(d)										
Males	rate	9.9	7.9	5.8	5.4	5.2	5.2	5.4	5.3	4.5
Females	rate	7.4	6.0	4.9	4.6	4.3	4.1	4.7	4.1	3.9
Persons	rate	8.7	7.0	5.3	5.0	4.8	4.7	5.0	4.7	4.2

(a) Deaths per 1,000 standard population. Standardised death rates use total persons in the 2001 Australian population as the standard population.

(b) Deaths per 1,000 population.

(c) Prior to 1995 life expectancy was based on annual life tables calculated by the Australian Bureau of Statistics. For 1995 onwards, life expectancy has been calculated using data for the three years ending in the year in the table heading.

(d) Infant deaths per 1,000 live births.

2.17 DEATHS, States and territories—2007

		NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust. (a)
DEATHS										
Total deaths	no.	46 759	33 930	25 801	12 345	12 283	4 132	1 001	1 597	137 854
Males	no.	23 833	16 938	13 582	6 335	6 448	1 980	634	815	70 569
Females	no.	22 926	16 992	12 219	6 010	5 835	2 152	367	782	67 285
Sex ratio	ratio	104.0	99.7	111.2	105.4	110.5	92.0	172.8	104.2	104.9
Standardised death rates(b)										
Males	rate	7.2	6.9	7.3	7.6	7.1	7.9	10.9	6.7	7.2
Females	rate	4.9	4.8	5.0	4.8	4.8	6.0	6.9	4.7	4.9
Persons	rate	5.9	5.8	6.1	6.0	5.9	6.9	8.9	5.6	6.0
Crude death rates(c)										
Males	rate	7.0	6.6	6.5	8.1	6.1	8.1	5.7	4.8	6.8
Females	rate	6.6	6.5	5.8	7.5	5.6	8.6	3.6	4.6	6.4
Persons	rate	6.8	6.5	6.2	7.8	5.8	8.4	4.7	4.7	6.6
Median age at death										
Male	years	77.9	78.3	76.7	78.5	76.3	76.5	58.3	76.6	77.5
Female	years	83.6	83.9	83.0	84.2	83.0	83.6	60.8	82.4	83.5
Persons	years	80.6	81.1	79.7	81.3	79.4	80.2	59.4	79.5	80.5
Life expectancy at exact age(d)										
Male										
0	years	79.1	79.5	78.9	78.8	79.2	77.7	72.4	80.3	79.0
1	years	78.5	78.9	78.3	78.2	78.5	77.0	72.2	79.7	78.4
25	years	55.0	55.3	54.9	54.7	55.1	53.7	49.4	56.2	55.0
45	years	36.0	36.3	36.0	35.9	36.2	35.1	32.1	37.1	36.0
65	years	18.5	18.7	18.5	18.5	18.7	17.8	16.3	19.2	18.5
85	years	6.0	6.0	6.0	5.9	6.0	5.7	5.3	6.1	6.0
Female										
0	years	83.8	83.8	83.6	83.9	84.0	82.4	78.4	84.0	83.7
1	years	83.2	83.2	83.0	83.2	83.3	81.6	78.0	83.4	83.1
25	years	59.4	59.5	59.3	59.5	59.7	58.0	54.8	59.7	59.4
45	years	39.9	40.0	39.9	40.1	40.3	38.6	36.2	40.1	39.9
65	years	21.6	21.7	21.6	21.8	22.0	20.6	19.3	21.6	21.6
85	years	7.1	7.1	7.1	7.1	7.3	6.7	6.3	6.9	7.1

INFANT DEATHS

Total infant deaths	no.	387	270	308	88	71	28	33	18	1 203
Males	no.	212	143	165	54	36	14	21	10	655
Females	no.	175	127	143	34	35	14	12	8	548
Infant mortality rate(e)										
Males	rate	4.6	4.0	5.2	5.5	2.4	4.1	10.4	4.1	4.5
Females	rate	4.0	3.7	4.8	3.5	2.5	4.3	6.4	3.4	3.9
Persons	rate	4.3	3.8	5.0	4.5	2.4	4.2	8.5	3.8	4.2

(a) Includes Other Territories.

(b) Deaths per 1,000 standard population. Standardised death rates use total persons in the 2001 Australian population as the standard population.

(c) Deaths per 1,000 population.

(d) Life expectancy has been calculated over the three-year period 2005–2007.

(e) Infant deaths per 1,000 live births.

INTRODUCTION

There were 2,400 deaths registered in Australia in 2007 where the deceased person was identified as being of Aboriginal, Torres Strait Islander or both origins (Indigenous).

A variety of measures of mortality (age-specific death rates, median age at death, infant mortality rates and life expectancy at birth) indicate that the mortality level of Indigenous Australians is substantially higher than that of the total Australian population.

The exact scale of difference between Indigenous and total population mortality is difficult to establish conclusively, due to quality issues with Indigenous deaths data and the uncertainties inherent with estimating and projecting the size and structure of the Indigenous population over time. Caution should be exercised when undertaking analysis of Indigenous mortality and, in particular, trends in Indigenous mortality.

Some of the issues affecting the reporting of Indigenous mortality include coverage of Indigenous deaths, unexplained changes in the number of people identified as Indigenous in different data collections and over time, the use of a standard Indigenous status question, and not stated Indigenous status.

REGISTERED INDIGENOUS DEATHS

Coverage of Indigenous deaths

It is considered likely that most deaths of Indigenous Australians are registered. However, some of these deaths are not identified as Indigenous when they are registered. The extent to which this occurs is referred to as coverage of Indigenous deaths. For more information see *Information Paper: Census Data Enhancement—Indigenous Mortality Quality Study, 2006–07* (cat. no. 4723.0) and *Discussion Paper: Assessment of Methods for Developing Life Tables for Aboriginal and Torres Strait Islander Australians, 2006* (cat. no. 3302.0.55.002), both released on 17 November 2008.

The ABS continues to work with state and territory Registrars of Births, Deaths and Marriages and other stakeholders to improve the level of coverage of Indigenous deaths in each jurisdiction. The larger numbers of Indigenous deaths recorded in Australia in recent years than those recorded in earlier years are partly due to substantial improvements in the completeness of the data.

Table 3.1 shows that improvements for Australia overall in the late 1990s were largely driven by improvements for Queensland and New South Wales. Queensland began to register deaths as Indigenous in 1996. In New South Wales the number of registered Indigenous deaths increased in 1998 to much higher levels than previous years. The numbers of Indigenous deaths registered in South Australia and the Northern Territory have remained relatively constant since 1997, suggesting that coverage has been relatively stable in these jurisdictions.

Coverage of Indigenous deaths continued

An examination of the effect of data quality issues on the interpretation of trends in these data can be found in the ABS publications *The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples, 2008* (cat. no. 4704.0) and *Experimental Estimates and Projections, Aboriginal and Torres Strait Islander Australians, 1991 to 2009* (cat. no. 3238.0).

Indigenous status on Medical Certificate of Cause of Death

From 2007, Indigenous status for deaths registered in South Australia, Western Australia, Tasmania, the Northern Territory and the Australian Capital Territory was sourced from both the Death Registration Form (DRF) and the Medical Certificate of Cause of Death (MCCD). Prior to 2007, Indigenous status was sourced only from the DRF. This new method resulted in an additional 18 deaths recorded as Indigenous in 2007, representing a 0.7% increase in the number of deaths recorded as Indigenous for Australia overall. In addition, a further 682 records were reclassified from 'not stated' Indigenous status to 'non-Indigenous'.

3.1 INDIGENOUS DEATHS, State/territory of usual residence(a)—1991–2007

	NSW	Vic.	Qld(b)	SA	WA	Tas.	NT	ACT	Aust.(c)
1991	206	50	np	135	401	np	412	—	1 208
1992	165	53	np	107	346	np	397	—	1 074
1993	194	50	np	111	386	np	376	9	1 134
1994	207	50	np	123	377	np	380	10	1 153
1995	224	50	np	121	384	np	387	9	1 182
1996	177	49	258	118	370	np	328	np	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	np	450	np	2 127
2001	481	93	565	125	345	np	429	np	2 072
2002	516	64	590	107	371	20	462	4	2 136
2003	485	82	569	137	338	23	435	9	2 079
2004	490	54	579	131	400	20	449	10	2 136
2005	507	71	519	142	406	28	454	11	2 141
2006	530	111	584	124	443	20	452	14	2 279
2007(d)	601	95	594	138	502	24	461	6	2 421

— nil or rounded to zero (including null cells)

np not available for publication but included in totals where applicable, unless otherwise indicated

(a) Due to differing levels of coverage for the states and territories and over time, care should be taken in interpreting change in numbers of deaths. As a result, data for Australia should not be analysed as a time series.

(b) Queensland began to register Indigenous deaths as Indigenous in 1996.

(c) Includes Other Territories.

(d) From 2007, Indigenous status for deaths registered in South Australia, Western Australia, Tasmania, Northern Territory and Australian Capital Territory is sourced from both the Death Registration Form and Medical Certificate of Cause of Death.

The standard Indigenous question

All states and territories ask for the identification of Indigenous status of the deceased on the death certificate, which must 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. 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 Indigenous status is not stated on the death registration form (table 3.2). In 2007 there were 1,400 deaths registered in Australia for whom Indigenous status was not stated, representing 1.0% of all deaths registered. The Australian Capital Territory, Queensland and Victoria had the highest proportions of not stated responses in 2007.

As a proportion of all deaths registered, deaths for which Indigenous status was not stated increased from 0.8% in 2006 to 1.0% in 2007. This was largely due to an increase in the number of deaths in Victoria for which Indigenous status was not stated; from 51 in 2006 to 439 in 2007. Queensland also recorded a large increase, with the number of deaths for which Indigenous status was not stated up from 318 in 2006 to 496 in 2007. New South Wales recorded a decrease in the number of deaths for which Indigenous status was not stated, down from 456 in 2006 to 221 in 2007.

Despite the relatively low proportion of deaths with unidentified Indigenous status, it is likely that some Indigenous deaths are included in the not stated category, contributing to the undercoverage of Indigenous deaths.

3.2 DEATHS, Indigenous status—2007

<i>State or territory</i>	INDIGENOUS		NON-INDIGENOUS		NOT STATED		TOTAL
	<i>no.</i>	<i>%</i>	<i>no.</i>	<i>%</i>	<i>no.</i>	<i>%</i>	<i>no.</i>
New South Wales	601	1.3	45 937	98.2	221	0.5	46 759
Victoria	95	0.3	33 396	98.4	439	1.3	33 930
Queensland	594	2.3	24 711	95.8	496	1.9	25 801
South Australia	138	1.1	12 119	98.2	88	0.7	12 345
Western Australia	502	4.1	11 716	95.4	65	0.5	12 283
Tasmania	24	0.6	4 106	99.4	np	—	4 132
Northern Territory	461	46.1	537	53.6	3	0.3	1 001
Australian Capital Territory	6	0.4	1 484	92.9	107	6.7	1 597
Australia(a)	2 421	1.8	134 012	97.2	1 421	1.0	137 854

— nil or rounded to zero (including null cells)

np not available for publication but included in totals where applicable, unless otherwise indicated

(a) Includes Other Territories.

Other factors influencing coverage

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. These factors may include:

- how the information is collected (e.g. census, survey, or administrative data);
- who provides the information (e.g. the person in question, a relative, a health professional, 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.

These factors may also influence data collected for death certificates, affecting the coverage of Indigenous registered deaths.

AGE AT DEATH

Care should be exercised when analysing Indigenous deaths by age as differences in coverage by age may lead to biased results.

Table 3.3 shows observed data but care should be exercised for New South Wales, Queensland and South Australia.

3.3 AGE AT DEATH, Indigenous status—2007

State or territory (a)	0	1-14	15-24	25-34	35-44	45-54	55-64	65 years and over	Total(b)
	no.	no.	no.	no.	no.	no.	no.	no.	no.
MALES									
Indigenous									
New South Wales	23	np	np	9	34	68	68	111	327
Queensland	13	12	15	24	40	56	53	104	317
South Australia	6	np	np	9	7	15	13	17	70
Western Australia	9	np	np	24	44	53	54	83	290
Northern Territory	15	np	np	20	51	48	40	46	255
Non-Indigenous									
New South Wales	187	np	np	361	598	1 306	2 622	17 967	23 366
Queensland	146	52	212	259	372	764	1 536	9 658	12 999
South Australia	47	np	np	101	184	339	637	4 820	6 209
Western Australia	26	np	np	155	188	399	669	4 551	6 115
Northern Territory	6	np	np	16	24	48	85	186	377
Total(c)									
New South Wales	212	95	240	373	640	1 382	2 720	18 165	23 833
Queensland	165	66	234	293	430	840	1 623	9 931	13 582
South Australia	54	18	72	111	195	356	657	4 872	6 335
Western Australia	36	37	116	183	236	461	731	4 648	6 448
Northern Territory	21	11	34	36	76	97	125	232	634
FEMALES									
Indigenous									
New South Wales	18	np	np	16	24	35	49	128	274
Queensland	12	6	9	12	34	42	47	115	277
South Australia	4	np	np	6	8	8	13	25	68
Western Australia	5	np	np	13	27	35	41	87	212
Northern Territory	9	np	np	16	30	34	38	67	206
Non-Indigenous									
New South Wales	156	np	np	160	344	818	1 536	19 385	22 571
Queensland	128	51	65	106	211	450	905	9 796	11 712
South Australia	29	np	np	36	88	199	380	5 152	5 910
Western Australia	30	np	np	62	106	237	415	4 692	5 601
Northern Territory	3	np	np	6	10	20	21	93	160
Total(c)									
New South Wales	175	70	107	177	369	861	1 591	19 575	22 926
Queensland	143	59	81	122	250	503	971	10 090	12 219
South Australia	34	9	20	43	98	210	396	5 199	6 010
Western Australia	35	14	52	76	133	276	458	4 791	5 835
Northern Territory	12	4	15	22	40	55	59	160	367

np not available for publication but included in totals where applicable, unless otherwise indicated

(a) Victoria, Tasmania and the Australian Capital Territory are excluded due to small numbers of Indigenous deaths.

(b) Includes deaths for which age of death was not stated.

(c) Includes deaths for which Indigenous status was not stated.

3.3 AGE AT DEATH, Indigenous status—2007 *continued*

State or territory (a)	0	1–14	15–24	25–34	35–44	45–54	55–64	65 years and over	Total(b)
	no.	no.	no.	no.	no.	no.	no.	no.	no.
PERSONS									
Indigenous									
New South Wales	41	10	8	25	58	103	117	239	601
Queensland	25	18	24	36	74	98	100	219	594
South Australia	10	np	np	15	15	23	26	42	138
Western Australia	14	6	21	37	71	88	95	170	502
Northern Territory	24	12	33	36	81	82	78	113	461
Non-Indigenous									
New South Wales	343	152	338	521	942	2 124	4 158	37 352	45 937
Queensland	274	103	277	365	583	1 214	2 441	19 454	24 711
South Australia	76	np	np	137	272	538	1 017	9 972	12 119
Western Australia	56	43	143	217	294	636	1 084	9 243	11 716
Northern Territory	9	3	16	22	34	68	106	279	537
Total(c)									
New South Wales	387	165	347	550	1 009	2 243	4 311	37 740	46 759
Queensland	308	125	315	415	680	1 343	2 594	20 021	25 801
South Australia	88	27	92	154	293	566	1 053	10 071	12 345
Western Australia	71	51	168	259	369	737	1 189	9 439	12 283
Northern Territory	33	15	49	58	116	152	184	392	1 001

np not available for publication but included in totals where applicable, unless otherwise indicated

(a) Victoria, Tasmania and the Australian Capital Territory are excluded due to small numbers of Indigenous deaths.

(b) Includes deaths for which age of death was not stated.

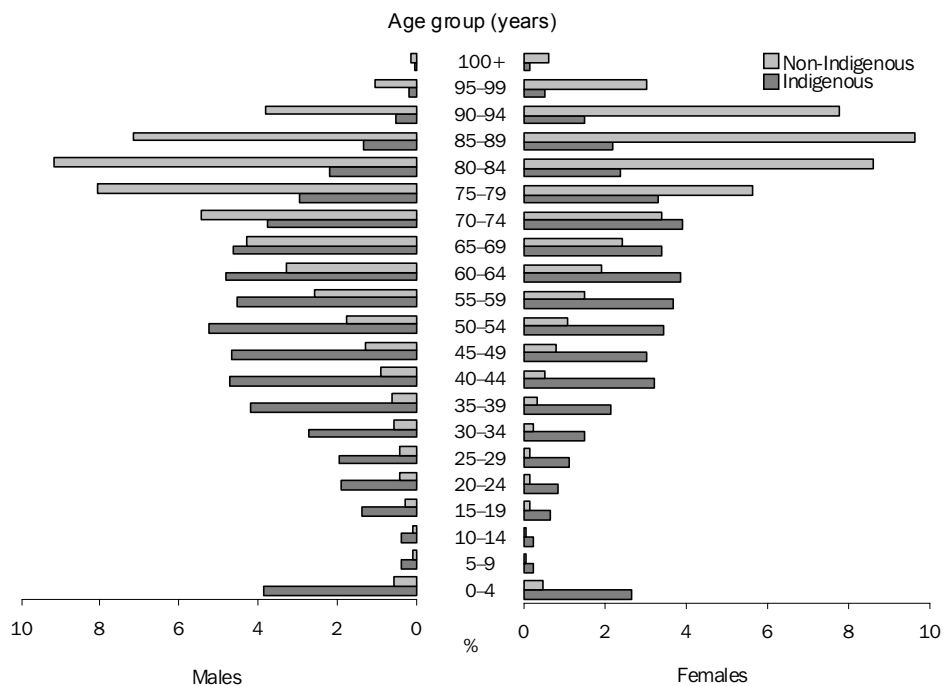
(c) Includes deaths for which Indigenous status was not stated.

AGE AT DEATH
continued

Graph 3.4 illustrates the differences between the age structure of deaths of the Indigenous and non-Indigenous populations for the period 2005–2007. Whereas deaths of non-Indigenous persons are concentrated in the older age groups, deaths of Indigenous persons are more widely spread across younger age groups.

Care should be exercised when analysing Indigenous and non-Indigenous age at death, as the data may be influenced by differences in coverage by age, as well as different age structures of the two populations.

3.4 PROPORTION OF DEATHS (a)(b), Indigenous status (c), Age group (d) and sex—2005–2007



- (a) Victoria, Tasmania and the Australian Capital Territory are excluded due to small numbers of Indigenous deaths.
- (b) Non-Indigenous deaths calculated as the proportion of all non-Indigenous deaths registered. Indigenous deaths calculated as the proportion of all Indigenous deaths registered.
- (c) Excludes deaths for which Indigenous status was not stated.
- (d) Excludes deaths for which age of death was not stated.

Age-specific death rates

In this section, age-specific death rates (ASDRs) have been calculated for New South Wales and Queensland combined and South Australia, Western Australia and the Northern Territory combined. These combinations were made by grouping states and territories with similar levels of coverage of Indigenous deaths. Victoria, Tasmania and the Australian Capital Territory are excluded due to small numbers of Indigenous deaths. As rates are based on registered deaths, Indigenous rates are likely to be underestimated.

For both combined regions, death rates for 2005–2007 for Indigenous males and females in all age groups were higher than rates for non-Indigenous males and females (table 3.5).

For New South Wales and Queensland combined, ASDRs for Indigenous Australians aged 25 to 64 years were more than twice the rates for non-Indigenous Australians. For both males and females, the largest difference was for persons aged 35–44 years, where Indigenous age-specific death rates were almost four times higher than those recorded for non-Indigenous males and females respectively.

Age-specific death rates
continued

For South Australia, Western Australia and the Northern Territory combined, differences between ASDRs for Indigenous and non-Indigenous Australians were greater. The greatest differences occurred among males aged 25 to 54 years and females aged 25 to 64 years. Rates for Indigenous persons in these ages were at least five times those recorded for non-Indigenous persons.

Additional analysis is presented in *Discussion Paper: Assessment of Methods for Developing Life Tables for Aboriginal and Torres Strait Islander Australians, 2006* (cat. no. 3302.0.55.002), released on 17 November 2008.

The denominators used in calculating Indigenous age-specific death rates were the final 30 June 2006 experimental estimates from *Experimental Estimates of Aboriginal and Torres Strait Islander Australians, Jun 2006* (cat. no. 3238.0.55.001).

3.5 AGE-SPECIFIC DEATH RATES (a), Indigenous status and sex—2005–2007

	MALES			FEMALES		
	Indigenous(b)	Non-Indigenous	Rate ratio(c)	Indigenous(b)	Non-Indigenous	Rate ratio(c)
NSW/QLD (d)						
0(e)	11.1	5.2	2.2	7.7	4.1	1.9
1–4	51.8	23.9	2.2	29.3	19.3	1.5
5–14	20.4	11.3	1.8	11.6	8.4	1.4
15–24	94.1	59.2	1.6	48.6	23.5	2.1
25–34	191.2	85.0	2.2	111.1	33.8	3.3
35–44	462.1	128.1	3.6	269.6	68.7	3.9
45–54	862.3	278.9	3.1	506.6	167.9	3.0
55–64	1 675.8	674.8	2.5	1 143.3	400.0	2.9
65 and over	5 091.4	4 217.6	1.2	4 173.9	3 681.2	1.1
SA/WA/NT (f)						
0(e)	14.0	3.6	3.9	10.1	3.8	2.6
1–4	79.9	25.4	3.1	69.7	15.0	4.6
5–14	36.5	7.8	4.7	28.2	7.7	3.6
15–24	260.2	67.1	3.9	113.8	26.6	4.3
25–34	503.6	100.4	5.0	264.8	37.5	7.1
35–44	1 080.6	139.3	7.8	578.8	73.3	7.9
45–54	1 565.2	282.3	5.5	972.1	167.1	5.8
55–64	2 682.7	660.9	4.1	2 022.0	376.0	5.4
65 and over	6 729.5	4 190.4	1.6	5 334.1	3 625.9	1.5

- (a) Deaths per 100,000 population, except age 0.
- (b) Indigenous rates are based on registered deaths and are therefore likely to be underestimated.
- (c) Indigenous rate divided by the non-Indigenous rate.
- (d) Data for New South Wales and Queensland combined.
- (e) Infant deaths per 1,000 live births.
- (f) Data for South Australia, Western Australia and the Northern Territory combined.

Median age at death

Care should be exercised when analysing Indigenous median age at death, as it may also be affected by differences in coverage by age. For example, higher coverage of Indigenous infant deaths compared with older age groups may result in the median age at death being underestimated.

*Median age at death
continued*

Median age at death is also influenced to some extent by the age structure of a population, which itself has been influenced by the ages at which deaths occur. The Indigenous population is younger than the non-Indigenous population and this is reflected in the median age at death of the two populations (Baade & Coory, 2003).

In 2007, for the selected states and territories presented in table 3.6, the median age at death of Indigenous males ranged from 46 to 58 years while the median age at death for Indigenous females ranged from 56 to 63 years. In contrast, the median age at death for non-Indigenous males and females was considerably higher, ranging from 65 to 79 years and from 69 to 84 years respectively.

3.6 MEDIAN AGE AT DEATH(a), Indigenous status(b)—2002–2007

	NSW	Qld	SA	WA	NT
MALES					
Indigenous					
2002	56.3	51.8	48.9	51.2	47.1
2003	56.8	51.2	48.8	50.2	46.3
2004	55.8	53.7	49.5	50.0	43.8
2005	54.3	51.1	42.4	52.8	45.8
2006	59.3	55.6	50.4	47.9	45.4
2007	58.1	54.7	50.5	53.3	45.9
Non-Indigenous					
2002	76.5	75.9	77.3	75.9	63.0
2003	76.5	75.9	77.7	76.1	65.9
2004	77.0	76.2	77.6	76.3	63.0
2005	77.2	76.4	77.9	76.6	63.7
2006	77.8	76.7	78.3	76.9	64.7
2007	78.1	77.1	78.7	76.9	64.6
FEMALES					
Indigenous					
2002	61.9	58.8	55.0	53.0	50.0
2003	58.9	62.1	50.0	55.0	52.8
2004	62.7	57.9	53.5	63.6	54.0
2005	65.8	59.5	47.5	57.8	50.4
2006	64.8	57.0	59.3	57.0	55.3
2007	63.0	59.5	58.3	59.3	55.7
Non-Indigenous					
2002	82.3	82.1	82.8	82.2	70.5
2003	82.7	82.2	83.2	82.4	74.5
2004	82.8	82.5	83.3	82.3	71.3
2005	83.1	82.6	83.7	83.2	70.5
2006	83.5	83.1	84.1	83.1	75.0
2007	83.7	83.3	84.3	83.4	69.3

- (a) Victoria, Tasmania and the Australian Capital Territory are excluded due to small numbers of Indigenous deaths.
- (b) Care should be exercised when comparing median age at death of Indigenous and non-Indigenous Australians. See commentary.

INFANT MORTALITY RATE

Table 3.7 presents infant mortality rates, calculated as the number of infant deaths per 1,000 live births registered during a specific period. Rates for Indigenous Australians are around twice the rates for all Australians.

3.7 INFANT MORTALITY RATES(a)(b), Indigenous status(c)—2002–2007

	NSW	Qld	SA	WA	NT
INDIGENOUS					
Males					
2002–2004	8.4	14.3	6.3	14.8	18.1
2003–2005	8.8	14.6	7.1	13.9	21.2
2004–2006	7.9	14.5	8.2	13.0	21.0
2005–2007	10.0	11.0	10.2	10.6	19.1
Females					
2002–2004	8.6	7.3	12.6	13.5	12.4
2003–2005	7.9	6.9	8.3	11.6	9.5
2004–2006	7.0	7.6	4.9	10.7	12.1
2005–2007	7.7	7.2	7.4	9.8	12.1
Persons					
2002–2004	8.5	10.9	9.4	14.1	15.4
2003–2005	8.4	10.9	7.7	12.8	15.6
2004–2006	7.5	11.1	6.7	11.9	16.7
2005–2007	8.9	9.1	8.9	10.2	15.7
ALL PERSONS					
Persons					
2002–2004	4.6	5.3	4.0	4.1	10.1
2003–2005	4.7	5.0	4.0	4.2	9.5
2004–2006	4.8	5.2	3.8	4.5	9.7
2005–2007	4.7	5.1	4.3	3.9	9.0

- (a) Infant deaths per 1,000 live births. The volatility in infant mortality rates is partially due to the relatively small number of infant deaths registered.
- (b) Victoria, Tasmania and the Australian Capital Territory are excluded due to small numbers of registered Indigenous deaths.
- (c) Deaths for whom Indigenous status was not stated are excluded. As a result, Indigenous infant mortality rates may be underestimated.

EXPERIMENTAL
INDIGENOUS LIFE TABLES

The method used in constructing experimental Indigenous life tables is currently under review. An assessment of various methods for adjusting incomplete Indigenous death registration data for use in compiling Indigenous life tables and life expectancy estimates is presented in *Discussion Paper: Assessment of Methods for Developing Life Tables for Aboriginal and Torres Strait Islander Australians, 2006* (cat. no. 3302.0.55.002), released on 17 November 2008.

CHAPTER **4**

LIFE TABLES

4.1

LIFE TABLE, Australia—Males—2005–2007

Age	$l_x(a)$ no.	$q_x(b)$ rate	$L_x(c)$ no.	$ex(d)$ years	Age	$l_x(a)$ no.	$q_x(b)$ rate	$L_x(c)$ no.	$ex(d)$ years
0	100 000	0.00527	99 535	79.0	51	94 846	0.00328	94 693	30.5
1	99 473	0.00040	99 452	78.4	52	94 535	0.00354	94 370	29.6
2	99 434	0.00025	99 420	77.5	53	94 200	0.00383	94 022	28.7
3	99 409	0.00019	99 399	76.5	54	93 840	0.00415	93 647	27.8
4	99 390	0.00015	99 383	75.5	55	93 450	0.00452	93 241	27.0
5	99 376	0.00013	99 369	74.5	56	93 027	0.00493	92 801	26.1
6	99 363	0.00011	99 357	73.5	57	92 569	0.00540	92 322	25.2
7	99 352	0.00010	99 347	72.5	58	92 069	0.00593	91 800	24.3
8	99 342	0.00010	99 337	71.5	59	91 523	0.00652	91 229	23.5
9	99 332	0.00010	99 327	70.5	60	90 926	0.00719	90 604	22.6
10	99 322	0.00010	99 318	69.6	61	90 272	0.00795	89 919	21.8
11	99 313	0.00010	99 308	68.6	62	89 555	0.00879	89 167	21.0
12	99 302	0.00012	99 297	67.6	63	88 768	0.00972	88 343	20.1
13	99 291	0.00013	99 285	66.6	64	87 905	0.01076	87 439	19.3
14	99 278	0.00016	99 270	65.6	65	86 959	0.01190	86 449	18.5
15	99 262	0.00023	99 251	64.6	66	85 924	0.01316	85 367	17.8
16	99 239	0.00034	99 223	63.6	67	84 794	0.01451	84 187	17.0
17	99 205	0.00051	99 181	62.6	68	83 563	0.01589	82 908	16.2
18	99 155	0.00064	99 124	61.7	69	82 236	0.01738	81 530	15.5
19	99 091	0.00072	99 056	60.7	70	80 807	0.01909	80 045	14.7
20	99 020	0.00077	98 982	59.7	71	79 264	0.02108	78 440	14.0
21	98 943	0.00079	98 904	58.8	72	77 593	0.02338	76 699	13.3
22	98 865	0.00080	98 826	57.8	73	75 779	0.02605	74 806	12.6
23	98 786	0.00080	98 747	56.9	74	73 805	0.02910	72 746	11.9
24	98 707	0.00080	98 668	55.9	75	71 657	0.03259	70 506	11.3
25	98 628	0.00082	98 588	55.0	76	69 322	0.03655	68 072	10.7
26	98 547	0.00084	98 506	54.0	77	66 788	0.04101	65 436	10.0
27	98 464	0.00088	98 421	53.1	78	64 049	0.04601	62 593	9.4
28	98 378	0.00091	98 333	52.1	79	61 102	0.05158	59 543	8.9
29	98 288	0.00095	98 242	51.2	80	57 950	0.05776	56 292	8.3
30	98 195	0.00098	98 147	50.2	81	54 603	0.06456	52 854	7.8
31	98 099	0.00101	98 049	49.3	82	51 078	0.07201	49 250	7.3
32	97 999	0.00104	97 948	48.3	83	47 400	0.08014	45 509	6.8
33	97 897	0.00107	97 845	47.4	84	43 601	0.08897	41 666	6.4
34	97 792	0.00110	97 738	46.4	85	39 722	0.09852	37 766	6.0
35	97 684	0.00114	97 629	45.5	86	35 808	0.10879	33 857	5.6
36	97 573	0.00117	97 516	44.5	87	31 913	0.11998	29 991	5.2
37	97 459	0.00121	97 400	43.6	88	28 084	0.13295	26 208	4.8
38	97 340	0.00127	97 279	42.6	89	24 350	0.14829	22 532	4.5
39	97 217	0.00134	97 153	41.7	90	20 739	0.16503	19 009	4.2
40	97 087	0.00142	97 019	40.7	91	17 317	0.18192	15 715	3.9
41	96 950	0.00151	96 877	39.8	92	14 166	0.19803	12 733	3.7
42	96 803	0.00163	96 725	38.8	93	11 361	0.21339	10 116	3.5
43	96 645	0.00175	96 562	37.9	94	8 937	0.22824	7 885	3.3
44	96 476	0.00189	96 386	37.0	95	6 897	0.24280	6 030	3.1
45	96 293	0.00205	96 196	36.0	96	5 222	0.25726	4 525	2.9
46	96 096	0.00222	95 991	35.1	97	3 879	0.27159	3 330	2.8
47	95 883	0.00240	95 769	34.2	98	2 825	0.28593	2 403	2.7
48	95 652	0.00260	95 530	33.3	99	2 018	0.30026	1 700	2.5
49	95 404	0.00281	95 271	32.3	100	1 412	0.31460	(e) 3 429	2.4
50	95 135	0.00304	94 993	31.4					

- (a) l_x — number of persons surviving to exact age x .
 (b) q_x — proportion of persons dying between exact age x and exact age $x+1$.

- (c) L_x — number of person years lived within the age interval x to $x+1$.
 (d) ex — expectation of life at exact age x .
 (e) At age 100, L_{100+} is shown.

4.2

LIFE TABLE, Australia—Females—2005–2007

Age	$l_x(a)$ no.	$q_x(b)$ rate	$L_x(c)$ no.	$ex(d)$ years	Age	$l_x(a)$ no.	$q_x(b)$ rate	$L_x(c)$ no.	$ex(d)$ years
0	100 000	0.00444	99 607	83.7	51	97 076	0.00201	96 980	34.3
1	99 556	0.00032	99 539	83.1	52	96 882	0.00217	96 778	33.3
2	99 524	0.00019	99 514	82.1	53	96 672	0.00233	96 560	32.4
3	99 505	0.00015	99 497	81.1	54	96 446	0.00251	96 327	31.5
4	99 490	0.00012	99 484	80.1	55	96 204	0.00271	96 075	30.5
5	99 478	0.00011	99 472	79.1	56	95 943	0.00295	95 804	29.6
6	99 467	0.00009	99 462	78.1	57	95 660	0.00323	95 509	28.7
7	99 458	0.00008	99 454	77.1	58	95 352	0.00356	95 185	27.8
8	99 450	0.00007	99 446	76.1	59	95 012	0.00394	94 828	26.9
9	99 443	0.00007	99 439	75.2	60	94 638	0.00436	94 435	26.0
10	99 436	0.00007	99 432	74.2	61	94 225	0.00480	94 002	25.1
11	99 429	0.00007	99 425	73.2	62	93 773	0.00525	93 531	24.2
12	99 421	0.00008	99 418	72.2	63	93 281	0.00572	93 018	23.4
13	99 413	0.00010	99 409	71.2	64	92 747	0.00624	92 462	22.5
14	99 403	0.00014	99 397	70.2	65	92 169	0.00681	91 859	21.6
15	99 390	0.00018	99 381	69.2	66	91 541	0.00746	91 204	20.8
16	99 372	0.00022	99 361	68.2	67	90 857	0.00820	90 490	19.9
17	99 350	0.00025	99 337	67.2	68	90 112	0.00905	89 710	19.1
18	99 325	0.00027	99 311	66.2	69	89 296	0.01002	88 856	18.3
19	99 298	0.00028	99 284	65.3	70	88 401	0.01113	87 917	17.4
20	99 270	0.00028	99 256	64.3	71	87 418	0.01239	86 885	16.6
21	99 242	0.00028	99 228	63.3	72	86 334	0.01383	85 747	15.8
22	99 214	0.00028	99 200	62.3	73	85 140	0.01545	84 493	15.0
23	99 186	0.00029	99 172	61.3	74	83 825	0.01732	83 111	14.3
24	99 158	0.00029	99 144	60.3	75	82 373	0.01949	81 584	13.5
25	99 129	0.00030	99 114	59.4	76	80 768	0.02201	79 894	12.8
26	99 100	0.00031	99 084	58.4	77	78 990	0.02493	78 022	12.0
27	99 069	0.00033	99 052	57.4	78	77 021	0.02831	75 949	11.3
28	99 036	0.00035	99 018	56.4	79	74 840	0.03220	73 655	10.7
29	99 001	0.00037	98 983	55.4	80	72 430	0.03666	71 124	10.0
30	98 964	0.00039	98 945	54.5	81	69 775	0.04173	68 341	9.4
31	98 926	0.00040	98 906	53.5	82	66 864	0.04752	65 297	8.7
32	98 886	0.00043	98 865	52.5	83	63 686	0.05413	61 985	8.2
33	98 844	0.00045	98 822	51.5	84	60 239	0.06166	58 404	7.6
34	98 799	0.00049	98 775	50.5	85	56 525	0.07021	54 561	7.1
35	98 751	0.00052	98 725	49.6	86	52 557	0.07986	50 476	6.6
36	98 699	0.00057	98 671	48.6	87	48 359	0.09069	46 180	6.1
37	98 643	0.00062	98 613	47.6	88	43 974	0.10278	41 722	5.6
38	98 582	0.00067	98 550	46.6	89	39 454	0.11617	37 164	5.2
39	98 516	0.00073	98 481	45.7	90	34 871	0.13091	32 583	4.8
40	98 444	0.00080	98 406	44.7	91	30 306	0.14705	28 064	4.5
41	98 366	0.00087	98 323	43.7	92	25 849	0.16408	23 705	4.2
42	98 280	0.00095	98 234	42.8	93	21 608	0.18021	19 628	3.9
43	98 187	0.00104	98 136	41.8	94	17 714	0.19574	15 943	3.7
44	98 085	0.00113	98 030	40.9	95	14 247	0.21156	12 702	3.4
45	97 974	0.00123	97 914	39.9	96	11 233	0.22844	9 912	3.2
46	97 853	0.00134	97 788	39.0	97	8 667	0.24526	7 568	3.0
47	97 721	0.00146	97 651	38.0	98	6 541	0.26209	5 651	2.9
48	97 579	0.00158	97 503	37.1	99	4 827	0.27892	4 125	2.7
49	97 424	0.00172	97 342	36.1	100	3 480	0.29575	(e)8 902	2.6
50	97 257	0.00186	97 168	35.2					

(a) l_x — number of persons surviving to exact age x .(b) q_x — proportion of persons dying between exact age x and exact age $x+1$.(c) L_x — number of person years lived within the age interval x to $x+1$.(d) ex — expectation of life at exact age x .(e) At age 100, L_{100+} is shown.

4.3

LIFE EXPECTANCY, Australia(a)—Selected years(b)

	AGE (YEARS)									
	0	1	10	20	30	40	50	60	70	80
MALE										
1987	73.1	72.8	64.0	54.4	45.1	35.6	26.5	18.3	11.6	6.7
1992	74.5	74.1	65.3	55.5	46.2	36.8	27.5	19.1	12.1	6.9
1995–1997	75.6	75.0	66.2	56.5	47.2	37.8	28.5	19.9	12.7	7.2
2000–2002	77.4	76.8	68.0	58.2	48.8	39.4	30.1	21.4	13.7	7.8
2001–2003	77.8	77.2	68.3	58.6	49.1	39.6	30.4	21.6	13.9	7.9
2002–2004	78.1	77.5	68.6	58.9	49.4	39.9	30.6	21.8	14.1	8.0
2003–2005	78.5	77.9	69.0	59.2	49.7	40.2	31.0	22.2	14.4	8.2
2004–2006	78.7	78.1	69.3	59.5	49.9	40.4	31.2	22.3	14.5	8.2
2005–2007	79.0	78.4	69.6	59.7	50.2	40.7	31.4	22.6	14.7	8.3
FEMALE										
1987	79.5	79.1	70.3	60.5	50.8	41.1	31.7	22.9	14.9	8.5
1992	80.4	79.9	71.1	61.2	51.5	41.8	32.3	23.4	15.3	8.7
1995–1997	81.3	80.7	71.8	62.0	52.2	42.5	33.0	24.0	15.8	9.0
2000–2002	82.6	82.0	73.1	63.2	53.4	43.7	34.2	25.2	16.7	9.6
2001–2003	82.8	82.2	73.3	63.4	53.6	43.9	34.4	25.3	16.9	9.7
2002–2004	83.0	82.4	73.5	63.6	53.8	44.1	34.6	25.5	17.0	9.8
2003–2005	83.3	82.7	73.8	63.9	54.1	44.4	34.9	25.7	17.2	9.9
2004–2006	83.5	82.9	74.0	64.1	54.3	44.5	35.0	25.8	17.3	9.9
2005–2007	83.7	83.1	74.2	64.3	54.5	44.7	35.2	26.0	17.4	10.0

(a) Prior to 1995 life expectancy was based on annual life tables calculated by the ABS. From 1995 to 1998 the life tables were produced as a joint venture between the ABS and the Australian Government Actuary. For census years the Australian Government Actuary also produces life tables. See paragraph 46 of the Explanatory Notes for more information.

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

4.4 PROBABILITY OF SURVIVING FROM BIRTH TO SPECIFIC AGES, Australia(a)—Selected years(b)

	AGE (YEARS)								
	1	10	20	30	40	50	60	70	80
MALES									
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	95.9	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
2000–2002	99.4	99.3	98.8	97.8	96.5	94.4	89.8	78.1	52.1
2001–2003	99.4	99.3	98.9	97.9	96.7	94.7	90.1	78.7	53.4
2002–2004	99.5	99.3	98.9	98.0	96.9	94.8	90.4	79.3	54.4
2003–2005	99.5	99.3	99.0	98.1	96.9	94.9	90.6	79.9	55.8
2004–2006	99.5	99.3	99.0	98.1	97.0	95.1	90.8	80.4	56.7
2005–2007	99.5	99.3	99.0	98.2	97.1	95.1	90.9	80.8	58.0
FEMALES									
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
2000–2002	99.5	99.4	99.2	98.8	98.2	96.9	93.9	86.8	68.9
2001–2003	99.6	99.4	99.2	98.9	98.3	97.0	94.1	87.1	69.5
2002–2004	99.6	99.4	99.2	98.9	98.3	97.1	94.3	87.4	70.2
2003–2005	99.5	99.4	99.2	98.9	98.4	97.1	94.4	87.8	71.1
2004–2006	99.5	99.4	99.3	98.9	98.4	97.2	94.5	88.1	71.6
2005–2007	99.6	99.4	99.3	99.0	98.4	97.3	94.6	88.4	72.4

- (a) Based on life tables. Prior to 1995 life expectancy was based on annual life tables calculated by the ABS. From 1995 to 1998 life tables were produced as a joint venture between the ABS and the Australian Government Actuary. For census years the Australian Government Actuary also produces life tables. See paragraph 46 of the Explanatory Notes for more information.
- (b) From 1995 onwards life expectancy has been calculated using three years of data.

EXPLANATORY NOTES

INTRODUCTION

1 This publication contains statistics for deaths and mortality in Australia. Detailed information can be obtained from data cubes (in Microsoft Excel format) available for download from the ABS website (see paragraph 57).

2 A glossary is provided detailing definitions of terminology used. Also provided is a list of abbreviations.

SCOPE AND COVERAGE

3 The statistics in this publication relate to the number of deaths registered during the calendar year shown, unless otherwise stated. Statistics related to deaths by year of occurrence can be obtained from data cubes (in Microsoft Excel format) available for download from the ABS website (see paragraph 57).

Scope of death statistics

4 The ABS Death Registrations collection includes all deaths that occurred and were registered in Australia, including deaths of persons whose place of usual residence is overseas. Deaths of Australian residents that occurred outside Australia may be registered by individual Registrars, but are not included in ABS deaths statistics.

5 The scope of the statistics includes:

- all deaths being registered for the first time;
- deaths of temporary visitors to Australia (including visitors from Norfolk Island);
- deaths occurring within Australian Territorial waters;
- deaths occurring in Australian Antarctic Territories or other external territories (excluding Norfolk Island);
- deaths occurring in transit (i.e. deaths on ships or planes) if registered in the state of 'next port of call';
- deaths of Australian nationals employed overseas at legations and consular offices (i.e. deaths of Australian diplomats while overseas) where able to be identified; and
- deaths that occurred in earlier years that have not previously been registered (late registrations).

6 The scope of the statistics excludes:

- still births/fetal deaths (these are included in perinatal death statistics published in *Causes of Death, Australia*, cat. no. 3303.0);
- repatriation of human remains of decedents whose death occurred overseas;
- deaths overseas of foreign diplomatic staff (where these are able to be identified); and
- deaths occurring on Norfolk Island.

7 Up to and including the 2006 issue of *Deaths, Australia* (cat. no. 3302.0), the scope for each reference year of the Death Registrations collection included:

- all deaths registered in Australia for the reference year and received by the ABS in the reference year;
- deaths registered during the two years prior to the reference year but not received by the ABS until the reference year; and
- deaths registered in the reference year and received by the ABS in the first quarter of the subsequent year.

*Scope of death statistics
continued*

8 For example, death records received by the ABS during the March quarter 2007 which were initially registered in 2006 (but not fully completed until 2007) were assigned to the 2006 reference year. Any registrations relating to 2006 which were received by the ABS after the end of the March quarter 2007 were assigned to the 2007 reference year.

9 Under these rules, it was possible for a death registration to not be recorded in the collection. For 2007 onwards, the scope of the Death Registrations collection has been reviewed and amended. The scope now includes:

- all deaths registered in Australia for the reference year and received by the ABS in the reference year;
- deaths registered in the years prior to the reference year but not received by ABS until the reference year or the first quarter of the subsequent year, provided that these records have not been included in any statistics from earlier periods; and
- deaths registered in the reference year and received by the ABS in the first quarter of the subsequent year.

Coverage of death statistics

10 Ideally, for compiling annual time series, the number of events (deaths) should be recorded as all those occurring within a given reference period such as a calendar year. Due to lags in registration of deaths and the provision of that information to the ABS from state/territory Registrars of Births, Deaths and Marriages, data in this publication are presented on a year of registration basis.

11 In effect there are three dates attributable to each death registration:

- the date of occurrence (of the death);
- the date of registration or inclusion on the state/territory register; and
- the month in which the registered event is provided to the ABS.

CLASSIFICATIONS

Marital status

12 Marital status relates to the registered marital status of the deceased at the time of death, which refers to formally registered marriages or divorces for which a certificate is held.

13 From 2007 onwards, marital status at death is provided by registries as legal marital status. Previously, a mix of legal and social marital status was used for some states and territories.

*Australian Standard
Geographical Classification*

14 The Australian Standard Geographical Classification (ASGC) is a hierarchical classification system consisting of six interrelated classification structures. The ASGC provides a common framework of statistical geography and thereby enables the production of statistics which are comparable and can be spatially integrated.

15 For further information refer to *Australian Standard Geographical Classification (ASGC)* (cat. no. 1261.0).

*Standard Australian
Classification of Countries*

16 The Standard Australian Classification of Countries (SACC) (Second Edition) groups neighbouring countries into progressively broader geographical areas on the basis of their similarity in terms of social, cultural, economic and political characteristics. The SACC (Second Edition) is the revised edition of the Australian Standard Classification of Countries for Social Statistics (ASCCSS) and includes concordances between the SACC (First Edition) and the SACC (Second Edition).

17 For further information refer to *Standard Australian Classification of Countries (SACC) Second Edition* (cat. no. 1269.0).

DATA SOURCES

18 Registration of deaths is the responsibility of state and territory Registrars of Births, Deaths and Marriages. Information about the deceased is acquired from a Death Registration Form (DRF) which is completed by the funeral director, based on information supplied by a relative or other person acquainted with the deceased, or by an official of the institution where the death occurred. As part of the registration process, information on the cause of death is either supplied by the medical practitioner certifying the death on a Medical Certificate of Cause of Death (MCCD), or supplied as a result of a coronial investigation. This information is provided to the ABS by individual Registrars for coding and compilation into aggregate statistics shown in this publication.

State and territory data

19 As a result of an amendment made in 1992 to section 17(a) of the *Acts Interpretation Act 1901–1973 (Cwlth)* the Indian Ocean Territories of Christmas Island and Cocos (Keeling) Islands have been included as part of geographic Australia, hence another category of the state and territory classification has been created. This category is known as 'Other Territories' and includes Christmas Island, the Cocos (Keeling) Islands and Jervis Bay Territory.

20 Prior to 1993, deaths of persons usually resident in Christmas Island and Cocos (Keeling) Islands were included with Off-Shore Areas and Migratory in Western Australia, while deaths of persons usually resident in Jervis Bay Territory were included with the Australian Capital Territory.

21 In 2007 there were 6 deaths of persons usually resident in Christmas Island, the Cocos (Keeling) Islands and Jervis Bay Territory.

22 Death 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, except where otherwise stated.

23 In the following table data are presented on a state or territory of registration basis. Deaths which took place outside Australia are excluded from the statistics. Deaths of persons who were usual residents of Australia's Other Territories (Christmas Island, Cocos (Keeling) Islands and Jervis Bay Territory) are registered in other Australian states.

DEATHS, State or territory of usual residence and state or territory of registration—2007

State or territory of usual residence	STATE OR TERRITORY OF REGISTRATION								
	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
NSW	45 855	200	421	32	17	6	4	224	46 759
Vic.	173	33 618	70	41	10	5	5	8	33 930
Qld	236	45	25 481	11	15	np	8	np	25 801
SA	26	23	15	12 262	8	np	9	np	12 345
WA	19	9	7	np	12 232	np	10	—	12 283
Tas.	12	19	8	np	5	4 085	np	—	4 132
NT	4	np	9	35	11	—	936	np	1 001
ACT	42	np	4	—	—	—	np	1 545	1 597
Aust. (a)	46 367	33 923	26 015	12 388	12 304	4 101	975	1 781	137 854

— nil or rounded to zero (including null cells)

np not available for publication but included in totals where applicable, unless otherwise indicated

(a) Includes Other Territories.

*State and territory data
continued*

24 In 2007 there were 315 deaths registered in Australia of persons usually resident overseas. These have been included in this publication with state and territory of usual residence classified according to the state or territory in which the death was registered.

DEATHS, Persons usually resident overseas

<i>State or territory of registration</i>	2001	2002	2003	2004	2005	2006	2007
NSW	114	139	100	98	100	92	95
Vic	51	50	48	56	33	50	46
Qld	107	92	109	81	77	88	83
SA	12	18	19	16	12	8	13
WA	50	47	44	40	46	60	50
Tas.	11	—	10	5	7	6	6
NT	18	13	6	6	12	11	13
ACT	6	—	—	5	4	4	9
Aust.	369	363	336	307	291	319	315

— nil or rounded to zero (including null cells)

Sub-state/territory mortality rates

25 Indirect standardised death rates for sub-state/territory regions (for example, Statistical Divisions) presented in this publication are calculated as average rates over three years ending in the reference year. Rates for Australia and the states and territories in all other tables are based on single years of death registration data.

DATA QUALITY

26 In compiling death statistics, the ABS employs a variety of measures to improve the quality of the deaths collection. While every opportunity is undertaken to ensure that the highest quality of statistics are provided, the following is a list of known issues associated with the quality of deaths statistics included in this publication.

27 For the most part, statistics in this publication refer to deaths registered during the calendar year shown. There is usually an interval between the occurrence and registration of a death (referred to as a registration 'lag') and as a result, some deaths occurring in one year are not registered until the following year or later. This can be caused by either a delay in the submission of a completed form to the registry, or a delay by the registry in processing the death.

DEATHS REGISTERED IN 2007, Year of occurrence—Selected years

<i>Year of occurrence</i>	STATE OR TERRITORY OF REGISTRATION								
	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
2001 or earlier	10	61	3	8	7	—	—	—	89
2002	—	8	np	11	6	—	np	—	28
2003	np	15	np	np	—	—	—	—	19
2004	4	17	5	np	np	—	—	—	30
2005	np	42	15	4	np	—	np	—	73
2006	1 710	1 458	2 072	536	498	136	113	117	6 640
2007	44 640	32 322	23 917	11 824	11 787	3 965	856	1 664	130 975
Total(a)	46 367	33 923	26 015	12 388	12 304	4 101	975	1 781	137 854

— nil or rounded to zero (including null cells)

np not available for publication but included in totals where applicable, unless otherwise indicated

(a) Includes not available year of occurrence.

28 Of the 137,900 deaths registered in 2007, 95% occurred in 2007 while 4.8% occurred in 2006 and the remainder (0.2%) occurred in 2005 or earlier years.

*Indigenous deaths and
mortality rates*

29 The term Indigenous is used to refer to Aboriginal and Torres Strait Islander Australians. Those who are identified as being of Aboriginal and/or Torres Strait Islander origin through the death registration process are classified as Indigenous persons.

30 While it is considered likely that most deaths of Indigenous Australians are registered, a proportion of these deaths are not identified as Indigenous by the family, health worker or funeral director during the death registration process. That is, whilst data is provided to the ABS for the Indigenous status question for 99% of all deaths, there are concerns regarding the accuracy of the data. The Indigenous status question is not always directly asked of relatives and friends of the deceased by the funeral director.

31 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 only for New South Wales, Queensland, South Australia, Western Australia and the Northern Territory.

32 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.

33 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.

34 In addition to those deaths identified as Indigenous, a number of deaths occur each year where Indigenous status is not stated on the death registration form (table 3.2). In 2007 there were 1,400 deaths registered in Australia for whom Indigenous status was not stated, representing 1.0% of all deaths registered. The Australian Capital Territory, Queensland and Victoria had the highest proportions of not stated responses in 2007.

35 As a proportion of all deaths registered, deaths for which Indigenous status was not stated increased from 0.8% in 2006 to 1.0% in 2007. This was largely due to an increase in the number of deaths in Victoria for which Indigenous status was not stated; from 51 in 2006 to 439 in 2007. Queensland also recorded a large increase, with the number of deaths for which Indigenous status was not stated up from 318 in 2006 to 496 in 2007. New South Wales recorded a decrease in the number of deaths for which Indigenous status was not stated, down from 456 in 2006 to 221 in 2007.

36 From 2007, Indigenous status recorded for deaths registered in South Australia, Western Australia, Tasmania, the Northern Territory and the Australian Capital Territory was sourced from both the Death Registration Form (DRF) and the Medical Certificate of Cause of Death (MCCD). Prior to 2007, Indigenous status was sourced only from the DRF. This new method resulted in an additional 18 deaths recorded as Indigenous in 2007, representing a 0.7% increase in the number of deaths recorded as Indigenous for Australia overall. In addition, a further 682 records were reclassified from 'not stated' Indigenous status to 'non-Indigenous'.

37 Despite the relatively low number of deaths with unidentified Indigenous status, it is likely that some Indigenous deaths are included in the not stated category, contributing to the undercoverage of Indigenous deaths.

Indigenous deaths and mortality rates continued

38 Quality studies conducted as part of the Census Data Enhancement project have investigated the levels and consistency of Indigenous identification between the 2006 Census and death registrations. See *Information Paper: Census Data Enhancement—Indigenous Mortality Quality Study, 2006–07* (cat. no. 4723.0), released on 17 November 2008.

39 An assessment of various methods for adjusting incomplete Indigenous death registration data for use in compiling Indigenous life tables and life expectancy estimates is presented in *Discussion Paper: Assessment of Methods for Developing Life Tables for Aboriginal and Torres Strait Islander Australians, 2006* (cat. no. 3302.0.55.002), released on 17 November 2008.

Unknown infant age at death

40 For some infant deaths, only limited information on age at death is known. These deaths are included in the following categories:

- not stated minutes and not stated hours (i.e. age at death was under one day) are included in 'Under one day'
- not stated days (i.e. age at death was at least one day but under one month) are included in 'One week to under four weeks'
- not stated months (i.e. age at death was at least one month but under one year) are included in 'Four weeks to under one year'.

LIFE TABLES

41 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.

42 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 death registrations and estimated resident population for the period 2005–2007. The life tables do not take into account future assumed improvements in mortality.

43 Life tables are presented separately for males and females. 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.

44 To construct a life table, data on population, deaths and births are needed. Mortality rates are smoothed to avoid fluctuations in the data. Apart from mortality rates themselves (q_x) all other functions of the life table are derived from q_x . The life tables presented in this publication contain four columns of interrelated information. These functions are:

- l_x —the number of persons surviving to exact age x ;
- q_x —the proportion of persons dying between exact age x and exact age $x+1$. It is the mortality rate, from which other functions of the life table are derived;
- L_x —the number of person years lived within the age interval x to $x+1$; and
- e_x —life expectancy at exact age x .

Life tables based on assumed improvements in mortality

45 Life tables based on assumed improvements in mortality are produced by the ABS using assumptions on future life expectancy at birth, based on recent trends in life expectancy. Mortality rates derived from these life tables are used as inputs to ABS population projections. For further information see *Population Projections, Australia, 2006 to 2101* (cat. no. 3222.0).

Australian life tables

46 The 2005–2007 life 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 death registrations and estimated resident population data. This is designed to reduce the impact of year-to-year statistical variations, particularly at younger ages where there are small numbers of deaths and at very old ages where the population at risk is small. Secondly, the deaths and population 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.

State and territory life tables

47 Life tables for the states and territories are produced on the same principles as the Australian life tables. For the years 1994–1996 to 1999–2001 these are available in the Demography (cat. nos. 3311.1–3311.8) set of publications. State and territory life tables for the period 2000–2002 are available on request. State and territory life tables for the period 2001–2003 and onwards are published in *Life Tables* (cat. nos. 3302.0.55.001–3302.8.55.001).

Statistical Division life tables

48 Life expectancy at birth for Statistical Divisions 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.

49 The Brass' Logit technique essentially 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*.

CAUSES OF DEATH

50 Causes of death information is published under the 3303.0 product family. See *Causes of Death, Australia: Doctor Certified Deaths, Summary Tables, 2007* (cat. no. 3303.0.55.001) released on 25 November 2008, and *Causes of Death, Australia, 2007* (cat. no. 3303.0) scheduled for release in March 2009, for more information.

CONFIDENTIALITY

51 The *Census and Statistics Act 1905* provides the authority for the ABS to collect statistical information, and requires that statistical output shall not be published or disseminated in a manner that is likely to enable the identification of a particular person or organisation. This requirement means that the ABS must take care and make assurances that any statistical information about individual respondents cannot be derived from published data.

52 Where necessary, tables in this publication have had small values suppressed or randomised to protect confidentiality. As a result, sums of components may not add exactly to totals.

ROUNDING

53 Calculations as shown in the commentary sections of this publication are based on unrounded figures. Calculations using rounded figures may differ from those published. Where figures have been rounded in tables, discrepancies may occur between sums of component item and totals.

ACKNOWLEDGEMENT

54 The 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 PRODUCTS

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

- *Australian Demographic Statistics* (cat. no. 3101.0)
- *Australian Demographic Trends* (cat. no. 3102.0)
- *Australian Historical Population Statistics* (cat. no. 3105.0.65.001)
- *Demography Working Paper 2004/3—Calculating Experimental Life Tables for Use in Population Estimates and Projections of Aboriginal and Torres Strait Islander Australians, 1991 to 2001* (cat. no. 3106.0.55.003)
- *Population Projections, Australia, 2006 to 2101* (cat. no. 3222.0)
- *Experimental Estimates and Projections, Aboriginal and Torres Strait Islander Australians, 1991 to 2009* (cat. no. 3238.0)
- *Experimental Estimates of Aboriginal and Torres Strait Islander Australians, Jun 2006* (cat. no. 3238.0.55.001)
- *Births, Australia* (cat. no. 3301.0)
- *Life Tables* (cat. nos. 3302.0.55.001–3302.8.55.001)
- *Discussion Paper: Assessment of Methods for Developing Life Tables for Aboriginal and Torres Strait Islander Australians, 2006* (cat. no. 3302.0.55.002)
- *Causes of Death, Australia* (cat. no. 3303.0)
- *Causes of Death, Australia: Doctor Certified Deaths, Summary Tables* (cat. no. 3303.0.55.001)
- *Perinatal Deaths, Australia* (cat. no. 3304.0)—issued annually to 1993
- *Information Paper: ABS Causes of Death Statistics: Concepts, Sources, and Methods* (cat. no. 3317.0.55.002)
- *Australian Social Trends* (cat. no. 4102.0)
- *ABS Directions in Aboriginal and Torres Strait Islander Statistics, Jun 2007* (cat. no. 4700.0)
- *The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples* (cat. no. 4704.0)
- *Information Paper: Census Data Enhancement—Indigenous Mortality Quality Study, 2006–07* (cat. no. 4723.0)

56 ABS products and publications are available free of charge from the ABS website <<http://www.abs.gov.au>>. Click on Statistics to gain access to the full range of ABS statistical and reference information. For details on products scheduled for release in the coming week, click on the Future Releases link on the ABS homepage.

ADDITIONAL STATISTICS
AVAILABLE

57 More detailed deaths and mortality statistics can be obtained from data cubes (in Microsoft Excel format) available for download from the ABS website in *Deaths, Australia, 2007* (cat. no. 3302.0):

- Table 1: Deaths, Summary, Australia, states and territories, 1997 to 2007
- Table 2: Death rates, Summary, Australia, states and territories, 1997 to 2007
- Table 3: Life expectancy, Australia, states and territories, 1997 to 2007
- Table 4: Deaths, Summary, Statistical Divisions, 2003 to 2007
- Table 5: Deaths, Summary, Statistical Local Areas, 2003 to 2007
- Table 6: Deaths, Summary, Local Government Areas, 2003 to 2007
- Table 7: Deaths, Age at death, Marital status, Australia, 2007
- Table 8: Deaths, Country of birth, Australia, 2007
- Table 9: Infant deaths, Age at death, Australia, states and territories, 1997 to 2007
- Table 10: Deaths, Year of occurrence, Age at death, Australia, states and territories, 1997 to 2007
- Table 11: Median age at death, Year of occurrence, Australia, states and territories, 1997 to 2007
- Table 12: Deaths, Year and month of occurrence, Australia, states and territories, 1997 to 2007
- Table 13: Infant deaths, Year of occurrence, Age at death, Australia, 1997 to 2007
- Table 14: Infant deaths, Year and month of occurrence, Australia, states and territories, 2005 to 2007
- Table 15: Deaths, Indigenous status, Australia, states and territories, 1991 to 2007
- Table 16: Median age at death, Indigenous status, Selected states and territories, 1991 to 2007
- Table 17: Infant mortality rates, Indigenous status, Selected states and territories, 1991 to 2007

58 For additional articles on deaths (including causes of death) and mortality published by the ABS, please see Appendix: Feature Articles List.

59 The ABS can also make available information which is not published. See Appendix: Characteristics Available for the characteristics processed by the ABS related to registered deaths. A charge is applied for providing this information.

60 As well as the statistics included in this and related publications, the ABS may have other relevant data available on request. Inquiries should be made to the National Information and Referral Service on 1300 135 070.

61 The ABS also issues a daily Release Advice on the website which details the products to be released in the week ahead.

GLOSSARY

Age-specific death rate	Age-specific death rates (ASDRs) 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 the 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 used is the Standard Australian Classification of Countries (SACC). For more detailed information refer to the <i>Standard Australian Classification of Countries (SACC)</i> (cat. no. 1269.0).
Crude death rate	The crude death rate (CDR) 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 all deaths prior to live birth. For the purposes of the Deaths and Causes of Death collections of the Australian Bureau of Statistics (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 official measure of the population of Australia is based on the concept of residence. It refers to all people, regardless of nationality or citizenship, who usually live in Australia, with the exception of foreign diplomatic personnel and their families. It includes residents who are overseas for less than 12 months. It excludes overseas visitors who are in Australia for less than 12 months.
External territories	Australian external territories include Australian Antarctic Territory, Coral Sea Islands Territory, Norfolk Island, Territory of Ashmore and Cartier Islands, and Territory of Heard and McDonald Islands.
Indigenous	Persons who identify themselves as being of Aboriginal and/or Torres Strait Islander origin.
Indigenous death	The death of a person who is identified as being of Aboriginal and/or Torres Strait Islander (Indigenous) origin on the Death Registration Form (DRF). From 2007, Indigenous origin for deaths registered in South Australia, Western Australia, Tasmania, the Northern Territory and the Australian Capital Territory is also derived from the Medical Certificate of Cause of Death (MCCD).
Indirect standardised death rate (ISDR)	See Standardised death rate (SDR).
Infant death	An infant death is the death of a live-born child who dies before reaching his/her first birthday.
Infant mortality rate	The number of deaths of children under one year of age in a calendar year per 1,000 live births in the same calendar year.
Intercensal discrepancy	Intercensal discrepancy is the difference between two estimates 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	<p>A life table is a tabular, numerical representation of mortality and survivorship of a cohort of births at each age of life. The conventional life table is based on the assumption that as the cohort passes through life it experiences mortality at each age in accordance with a predetermined pattern of mortality rates which do not change from year to year. The life table thus constitutes a hypothetical model of mortality, and even though it is usually based upon death rates from a real population during a particular period of time, it does not describe the real mortality which characterises a cohort as it ages.</p> <p>Due to differences in mortality patterns between males and females at different ages, life tables are generally constructed separately for each sex.</p>
Live birth	A live birth is the birth of a child who, after delivery, breathes or shows any other evidence of life such as a heartbeat.
Local Government Area	Local Government Areas (LGAs) are the spatial units which represent the geographical areas of incorporated local government councils and incorporated Community Government Councils (CGCs) where the CGC is of sufficient size and statistical significance. The various types of LGAs are cities (C), areas (A), rural cities (RC), towns (T), shires (S), district councils (DC) and municipalities (M). Further information concerning LGAs is contained in <i>Australian Standard Geographic Classification</i> (cat. no. 1216.0).
Marital status	<p>Two separate concepts are measured by the ABS. These are registered marital status and social marital status.</p> <p>Registered marital status refers to formally registered marriages and divorces. Registered marital status is a person's relationship status in terms of whether he or she has, or has had, a registered marriage with another person. Accordingly, people are classified as either 'never married', 'married', 'widowed', or 'divorced'.</p> <p>Social marital status is the relationship status of an individual with reference to another people who is usually resident in the household. A marriage exists when two people live together as husband and wife, or partners, regardless of whether the marriage is formalised through registration. Individuals are, therefore, regarded as married if they are in a de facto marriage, or if they are living with the person to whom they are registered as married. Under social marital status, a person is classified as either 'married' or 'not married' with further disaggregation of 'married' to distinguish 'registered married' from 'de facto married' person.</p>
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.
Mortality	Death.
Natural increase	Excess of births over deaths.
Other Territories	Following the 1992 amendments to the <i>Acts Interpretation Act</i> to include the Indian Ocean Territories of Christmas Island and the Cocos (Keeling) Islands as part of geographic Australia, another category at 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.
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)	<p>Standardised death rates (SDRs) 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 Australian population at 30 June 2001. SDRs are expressed per 1,000 or 100,000 persons. There are two methods of calculating standardised death rates:</p> <ul style="list-style-type: none"> ■ 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. <p>Wherever used, the definition adopted is indicated.</p>
Standardised mortality ratio	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	<p>State or territory and Statistical Local Area (SLA) of usual residence refers to the state or territory and SLA of usual residence of:</p> <ul style="list-style-type: none"> ■ the population (estimated resident population); ■ the mother (birth collection); ■ the deceased (death collection).
Statistical Division	Statistical Divisions (SDs) consist of one or more Statistical Subdivisions (SSD). The divisions are designed to be relatively homogeneous regions characterised by identifiable social and economic units within the region, under the unifying influence of one or more major towns or cities. Further information concerning SDs is contained in <i>Australian Standard Geographic Classification (ASGC)</i> (cat. no. 1216.0).
Statistical Local Area	Statistical Local Areas (SLAs) are, in most cases, identical with, or have been formed from a division of, whole Local Government Areas (LGAs). In other cases, they represent unincorporated areas. In aggregate, SLAs cover the whole of a state or territory without gaps or overlaps. In some cases, legal LGAs overlap statistical subdivision boundaries and therefore comprise two or three SLAs (Part A, Part B and, if necessary, Part C). Further information concerning SDs is contained in <i>Australian Standard Geographic Classification (ASGC)</i> (cat. no. 1216.0).
Usual residence	Usual residence within Australia refers to that address at which the person has lived or intends to live for a total of six months or more in a given reference year.
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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