2000 3302.0

Australian Bureau of Statistics

DEATHS

AUSTRALIA

EMBARGO: 11:30AM (CANBERRA TIME) TUES 11 DEC 2001

CONTENTS

■ For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070, or Lisa Fenn on Canberra 02 6252 7546.

NOTES

ABOUT THIS ISSUE

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

CHANGES IN THIS ISSUE

Data for 1997–2000 cause of death is coded to ICD–10 (see Explanatory Notes 16–18).

ROUNDING

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

DATA IN THIS PUBLICATION

This publication uses death registration data except where otherwise stated.

SYMBOLS AND OTHER USAGES

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

Dennis Trewin
Australian Statistician

LIST OF TABLES AND GRAPHS

CHAPTER 2—SUMMARY OF FINDINGS

CHAPTER 3—DEATHS OF ABORIGINAL AND TORRES STRAIT ISLANDER PEOPLE

CHAPTER 4—FEATURE ARTICLE—LIFE EXPECTANCY OF FIRST GENERATION MIGRANTS

CHAPTER 5—FEATURE ARTICLE—SOCIOECONONIC DIFFERENCES IN MORTALITY

CHAPTER 6—FEATURE ARTICLE—HOW LONG CAN I LOOK FORWARD TO LIVE? MORTALITY PROJECTIONS FOR 'REAL' COHORTS

CHAPTER 7—TABLES

Life Tables

Deaths of Aboriginal and Torres Strait Islander People

ADDITIONAL TABLES AVAILABLE ON AUSSTATS

3303.0 Causes of Death

3105.0.65.001 Australian Historical Population Statistics

CHAPTER 1 MAIN FEATURES

MORTALITY CONTINUES TO DECLINE

- The Australian death rate continued to decline in 2000. The death rate is down by 3% since 1999 and 34% since 1980. There were 128,300 deaths registered in Australia in 2000, much the same as the number registered in 1999 (128,100) (page 8).
- Over the past 20 years there has been a sustained decline in death rates for all States and Territories. The highest death rate in 2000, after controlling for age structure, was in the Northern Territory and the lowest in the Australian Capital Territory (page 8).

LIFE EXPECTANCY CONTINUES TO INCREASE

- Life expectancy at birth continued to increase, reflecting the general decrease in death rates. A boy born in 1998–2000 could expect to live 77 years, while a girl could expect to live 82 years. Since 1980 life expectancy at birth has increased by 6 years for males and 4 years for females (page 19).
- Internationally, Australia's life expectancy at birth for males ranks beside Japan, Switzerland, Hong Kong, and Sweden (each 77 years), and is above that of the United Kingdom, New Zealand and the United States of America (each 74 years). Australia's life expectancy for females is similar to Hong Kong, Sweden, France and Spain (each 82 years), and is above that of the United Kingdom, New Zealand (each 80 years) and the United States of America (79 years) (page 9).
- Male life expectancy at birth was highest in the Australian Capital Territory (78 years), while female life expectancy was highest in Western Australia (83 years). The Northern Territory had the lowest male and female life expectancies, at 70 years for males and 75 years for females (page 19).
- In 1998–2000 life expectancy at birth for males and females varied across the regions of Australia by up to 11 years. Male life expectancy at birth was highest in Canberra (79 years) followed by Outer Adelaide, Melbourne and Perth (each 78 years), while female life expectancy was highest at 83 years in Lower Great Southern (Western Australia), Midlands (Western Australia), Perth (Western Australia) and Moreton (Queensland). Both male and female life expectancy were lowest in the Balance of the Northern Territory (69 years and 73 years respectively) and the Kimberley (69 years and 76 years) (page 20).

VARIATIONS IN MORTALITY

- The 2000 infant mortality rate was 5.2 deaths per 1,000 live births, a decrease of 9% from 1999, and 51% since 1980 (page 17). In 2000, over one-third (39%) of all infant deaths occurred within one day of birth (page 18).
- Overall the male death rate was 58% higher than the female rate. The greatest difference in age-specific death rates occurred in the 25–29 years age group where the male death rate was nearly three times higher than the female death rate (page 11).

VARIATIONS IN MORTALITY *continued*

- Males and females who had never married had death rates almost twice those of their married counterparts (page 11).
- The remaining life expectancy at age 30 years of first generation Australian migrants was generally higher than for Australian-born residents. Migrant men and women born in Viet Nam had the highest life expectancy at age 30 years (56 years for males and 59 years for females) (page 29).
- The death rate for Australia's most socioeconomically disadvantaged fifth of the population (7.6 per 1,000 population) was 23% higher than for the least disadvantaged fifth of the population (6.2). For men, the most disadvantaged had a death rate over one third (31%) higher than the least disadvantaged, while for women the rate among the most disadvantaged was 11% higher than among the least disadvantaged (page 33).

INDIGENOUS MORTALITY

- There were 2,100 deaths registered in 2000 where the deceased person was identified as being of Aboriginal, Torres Strait Islander or both origins (Indigenous). Overall the Indigenous population had death rates at least twice as high as the total population (page 21).
- The 2000 infant mortality rate for Indigenous Australians (14 deaths per 1,000 live births) was over twice the infant mortality rate for all Australians (5) (page 24).
- The median age at death for Indigenous people in 2000 was 53 years, around 25 years less than the median age for all deaths (78 years) (page 22).
- Indigenous life expectancy at birth was about 20 years less than for the total population, 56 years for Indigenous males compared to 77 years for all Australian males and 63 years for Indigenous females compared to 82 years for all Australian females (page 26).
- The life expectancy of indigenous people in both New Zealand and the United States of America is higher than for Indigenous Australians, and the difference to the total population is not as great as in Australia. In 1995–1997 the New Zealand Maori population had a life expectancy at birth of 67 years for males and 72 years for females, 7 years lower than for the total male population and 8 years lower than the total female population. In 1994–1996 the American Indian and Alaska Native population of the United States of America had a life expectancy at birth of 71 years, 5 years less than the total population (page 26–27).

CAUSES OF DEATH

- In 2000, malignant neoplasms (cancer) was the leading cause of death, accounting for 35,600 deaths or 28% of all deaths. Ischaemic heart disease was the second leading cause of death, contributing 26,500 deaths or 21% of all deaths (page 13). Cerebrovascular diseases (stroke) contributed 10% of all deaths while chronic lower respiratory diseases contributed 5% of all deaths. Accidents were the fifth leading cause of death accounting for 4% of deaths (page 14–15).
- In 2000, suicide deaths accounted for just under 2% of all deaths registered in Australia. Throughout the twentieth century suicide death rates have fluctuated dramatically with the male suicide rate consistently higher than the female rate. Recent years have seen a slight decline in the overall rates, with the male suicide death rate at 19 per 100,000 population in 2000, and the female suicide death rate at 5 per 100,000 (page 16).

CHAPTER 2 SUMMARY OF FINDINGS

DECLINING DEATH RATES

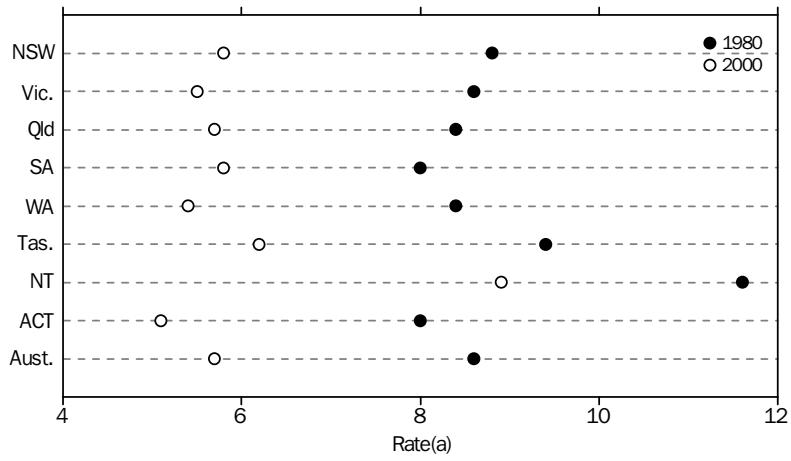
In 2000, a total of 128,300 deaths (66,800 males and 61,500 females) were registered in Australia, much the same as the number registered in 1999 (128,100). Since 1980 the number of deaths has increased by an average of 0.8% per year. The steady increase in the number of deaths over time reflects the increasing size of the population and, in particular, the increasing number of older people. With the continued ageing of the population the number of deaths will continue to rise in the future, with the number of deaths projected to outnumber births sometime around the 2030s (Cat. no. 3222.0).

Despite the ageing of the population over the last 20 years, deaths rates have continued to decline. The crude death rate (CDR) fell slightly, from 7.4 deaths per 1,000 population in 1980 to 6.7 deaths per 1,000 in 2000. The fall in CDR against the background of an older population indicates the considerable decline in age-specific death rates over the period. The standardised death rate (SDR) (which eliminates the effect of the changing age structure of the population) was 5.7 deaths per 1,000 population in 2000, down by 3% since 1999 (5.9) and down by 34% since 1980 (8.6).

States and Territories

Over the past 20 years there has been a sustained decline in all State and Territory death rates. However, the Northern Territorys SDR in 2000 remains higher than most States and Territory SDRs 20 years ago. In 2000, the Northern Territory had the highest SDR at 8.9 deaths per 1,000 standard population, and Tasmania had the second highest (6.2). The lowest SDR was recorded in the Australian Capital Territory (ACT) at 5.1 deaths per 1,000 standard population. This was followed by Western Australia (5.4), Victoria (5.5) and Queensland (5.7).

2.1 STATE AND TERRITORY DEATH RATES(a)



(a) Standardised death rates. Per 1,000 population standardised to the 1991 Australian total population.

INTERNATIONAL COMPARISON

Life expectancy

In 2000, global life expectancy at birth was projected to be 66 years (males and females combined), a gain of more than 20 years of life from 1950 when a newborn infant could expect to live on average for 45 years. Australia's 1998–2000 life expectancy of 77 years for males and 82 years for females is among the highest in the world. In a summary produced by the Population Reference Bureau (PRB, 2000), Australia's male life expectancy rates beside Japan, Switzerland, Hong Kong and Sweden (each 77 years), and is above that of Canada (76 years), France and Greece (each 75 years), Spain, the United Kingdom, New Zealand and the United States of America (each 74 years).

Australia's life expectancy for females is similar to Hong Kong, Sweden, France and Spain (each 82 years). It falls behind Japan (84 years) and Switzerland (83 years), and is above Canada and Greece (each 81 years), the United Kingdom and New Zealand (each 80 years) and the United States of America (79 years). The worlds most populous country, China, is projected to have a life expectancy of 69 years for males and 73 years for females in 2000, while a life expectancy of 62 years for males and 66 years for females is projected for Indonesia.

Infant mortality rate

The 2000 global infant mortality rate (IMR) was projected to be 57 infant deaths per 1,000 live births. Australia's 2000 IMR of 5.2 infant deaths per 1,000 live births was among the lowest in the world. Projections for 2000 (PRB, 2000) show Iceland with the lowest IMR, of 2.6 infant deaths per 1,000 live births, followed by Singapore (3.2), Hong Kong (3.2), Sweden (3.5), and Japan (3.5). In contrast, the world's highest IMRs were projected for regions in Sub-saharan Africa where the projected IMR for Middle Africa was 106 and for Eastern Africa was 102 infant deaths per 1,000 live births for 2000. Most infant deaths in Africa are from infectious and parasitic diseases (including HIV/AIDs) and from nutritional deficiencies.

AGE AT DEATH

The median age at death in 2000 was 75 years for males and 82 years for females, an increase of 3 years respectively on the median age at death in 1990. This reflects the ageing of the population, as well as an increase in the life expectancy of males and females over the period.

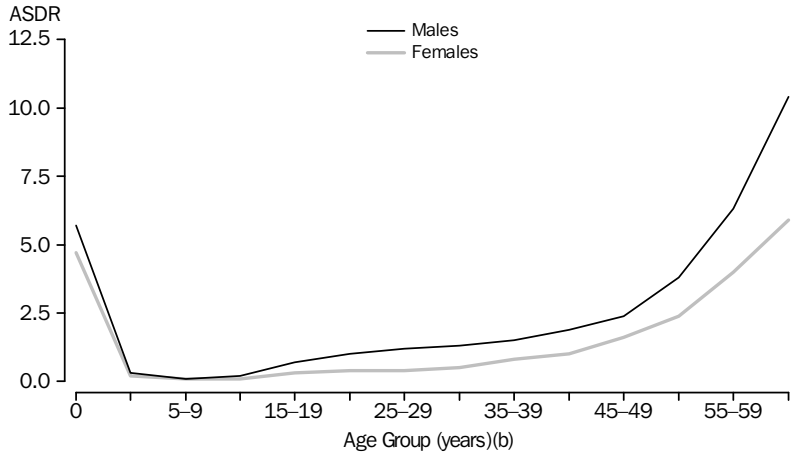
The median age at death in the Northern Territory was 22 years less than the median age nationally. This results from a combination of a young age structure and high mortality of the Indigenous population which comprises approximately 28% of the total Territory's population. South Australia had the highest median ages at death with 76 years for males and 82 years for females, reflecting the older population of South Australia compared to other States and Territories.

From the relatively high rates of death in infancy, death rates sharply decline through childhood. The lowest age-specific death rates (ASDRs) were experienced by males and females aged 5–9 years, with an ASDR of 0.1 male deaths and 0.1 female deaths per 1,000 respective populations. While the ASDRs of children aged 10–14 years were slightly higher than at 5–9 years, the increase seen after age 15 years is more prominent.

AGE AT DEATH *continued*

Males aged 15–19 years had an ASDR of 0.7 deaths per 1,000 male population, while the female ASDR at age 15–19 years was 0.3 deaths per 1,000 females. The male ASDR further increased at age 20–24 years, and then leveled off somewhat until after age 40 where it increased steadily throughout the rest of the life cycle. The ASDR for females aged 15–29 years remained relatively constant. Steady increase in the female ASDR was evident after age 30 years, and continued throughout the remaining age groups.

2.2 MALE AND FEMALE AGE-SPECIFIC DEATH RATES(a), Infants To Age 64 Years



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

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

Between 1990 and 2000, the risk of dying has declined for people of all age groups. The largest declines in male ASDRs occurred in the 1–4 years age group (40%), and for infants (39%). Female ASDRs also declined most substantially in the infants (37%) and 1–4 years (34%) age groups.

SEX

Male deaths (66,800) outnumbered female deaths (61,500) registered in 2000, giving a sex ratio of 109 male deaths for every 100 female deaths. This ratio has decreased from 117 male deaths per 100 female deaths in 1990. Since 1990, male deaths have increased by 3% while female deaths have increased by 11%, due to the change in the age composition of the population.

Although male mortality levels remain higher than females', in the last 20 years or so the gap has narrowed. In 1980 males had a SDR of 11.3 deaths per 1,000 standard population, 74% higher than the female SDR of 6.5 deaths per 1,000 standard population. By 2000, the male SDR was 7.1 deaths per 1,000 standard population, 58% higher than the female rate of 4.5 deaths per 1,000 standard population. Over the same period the difference in male and female life expectancy at birth has narrowed, from 7 years in 1980 (life expectancy of 71 years for males and 78 years for females) to 5 years in 2000 (life expectancy of 77 years for males and 82 years for females).

SEX *continued*

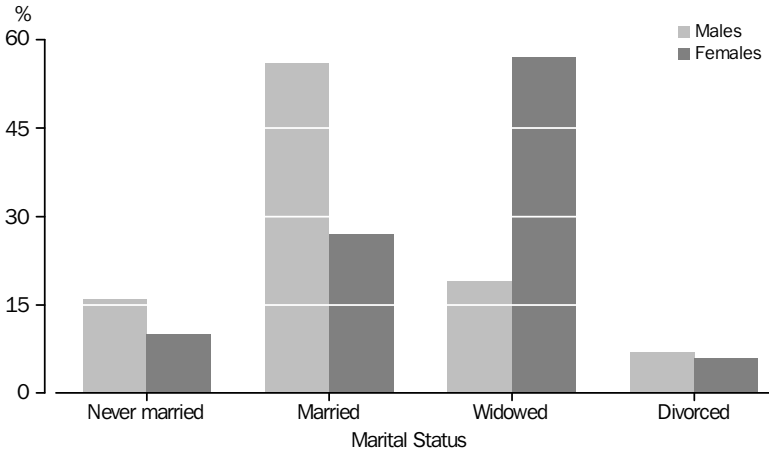
Overall in 2000, the male standardised death rate (SDR) of 7.1 deaths per 1,000 standard population was 58% higher than the female SDR (4.5 deaths per 1,000 standard population). The greatest difference in age-specific death rates occurred in the 25–29 year age group where male death rates were nearly 3 times higher than female death rates.

Male death rates were higher than female death rates across all the States and Territories in 2000. The difference was greatest in South Australia where the male SDR (7.3) was 62% higher than the female SDR (4.5). The Northern Territory recorded the highest death rates for both males and females. For males in the Northern Territory the SDR was 52% higher (10.8 deaths per 1,000 standard population) than the Australian total for males (7.1 deaths per 1,000 standard population). For Northern Territory females the SDR was 56% higher (7.0 deaths per 1,000 standard population) than the Australian total for females (4.5 deaths per 1,000 standard population).

MARITAL STATUS

Of all men whose deaths were registered during 2000, 56% were in a registered marriage at the time of death, while 19% were widowed and 16% were never married. In contrast, of all women whose deaths were registered during 2000, 57% were widows at the time of death, with a further 27% being in a registered marriage and 10% never married. This difference is a consequence of the greater longevity of women.

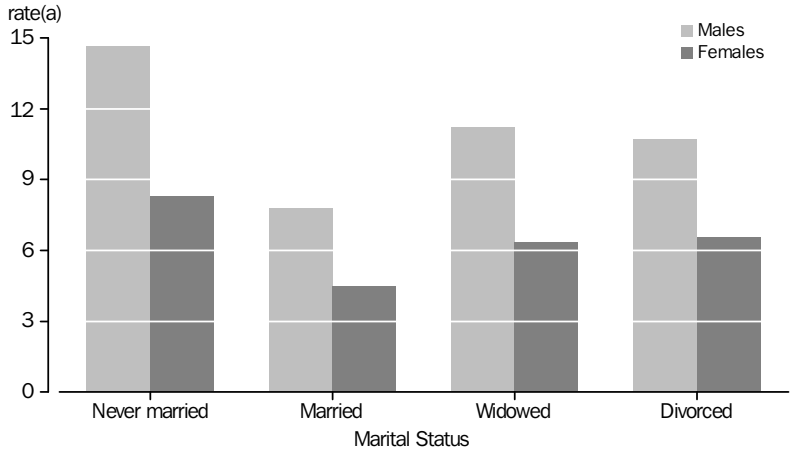
2.3 DEATHS BY REGISTERED MARITAL STATUS



Males and females who had never married had death rates almost twice those of their married counterparts, when the different age structures of each population is taken into account. Both men and women who were widowed had slightly lower death rates than those who were divorced.

MARITAL STATUS *continued*

2.4 DEATH RATES(a) BY REGISTERED MARITAL STATUS



(a) Standardised deaths rates for persons aged 15 years and over. Per 1,000 population standardised to the 1991 Australian total population.

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

COUNTRY OF BIRTH

Australia's overseas-born population accounted for 29% of deaths registered in 2000 despite making up only 24% of the resident population. The main reason for this is that the overseas-born population has an older age structure than the Australian-born population. The median age of the overseas-born population in 2000 was 45 years compared to 31 years for the Australian-born population.

Migrants generally have lower death rates than the Australian-born population, after adjusting for the older age structure of the overseas-born population. This is true for nearly all migrant groups. Philippino-born residents had the lowest indirect standardised death rates (ISDR) in 2000, just over half (51%) that of the total population. Residents born in the United States of America had the highest overall ISDR (11% more) and the highest ISDR for ischaemic heart diseases, chronic lower respiratory diseases and accidents.

LEADING CAUSES OF DEATH

In 2000, as in previous years, malignant neoplasms (cancer) was the leading cause of death, with 35,600 deaths accounting for 28% of all deaths. As with most causes of death the SDR for malignant neoplasms for males (212 deaths per 100,000 standard population) was much higher than that for females (128).

Of deaths due to malignant neoplasms, cancer of the digestive organs was the leading cause of death for males, accounting for 28% of all male cancer deaths, followed by cancer of the trachea, bronchus and lung (23%). The ACT SDR for male cancer deaths (189) was 11% lower than that for all males in Australia while the death rates for the Northern Territory (262) and Tasmania (234) were 24% and 10% higher respectively.

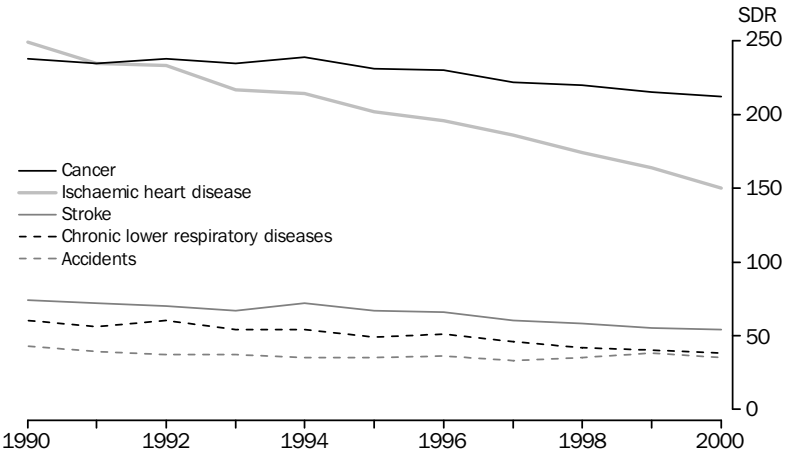
For females, cancer of the digestive organs was also the major cause of cancer deaths (28%), followed by breast cancer (16%). For females, the Northern Territory (175) and Tasmania (151) recorded the highest rates for cancer deaths, which were 37% and 18% higher than for all females in Australia.

Ischaemic heart disease (IHD) was the second leading cause of death, contributing 26,500 deaths, or 21% of all deaths in Australia in 2000. For Australia as a whole the male death rate for IHD was 150 deaths per 100,000 standard population, compared to 84 for females. The highest death rates for males for IHD were in the Northern Territory (184), South Australia (160) and Tasmania (157), with the lowest rate occurring in the ACT (122). For females, the highest rate for IHD occurred in Queensland (96) which was some 14% higher than the rate for Australia (84) while the lowest female death rates for IHD were in Western Australia (73) and Victoria (75), which were 13% and 11% lower than for all females in Australia.

During the last decade, IHD and cancer remained the two leading causes of death. In 1991, cancer overtook IHD as the leading cause of death for men and since then has been the leading cause of death for both men and women. This has been the result of the long-term downward trend in the death rate for IHD, declining by an average of 5% per year for both males and females from 1990 to 2000. Over the same period the death rate for malignant neoplasms declined by an average of just 1.0% per year for females and 1.2% for males.

LEADING CAUSE OF DEATH *continued*

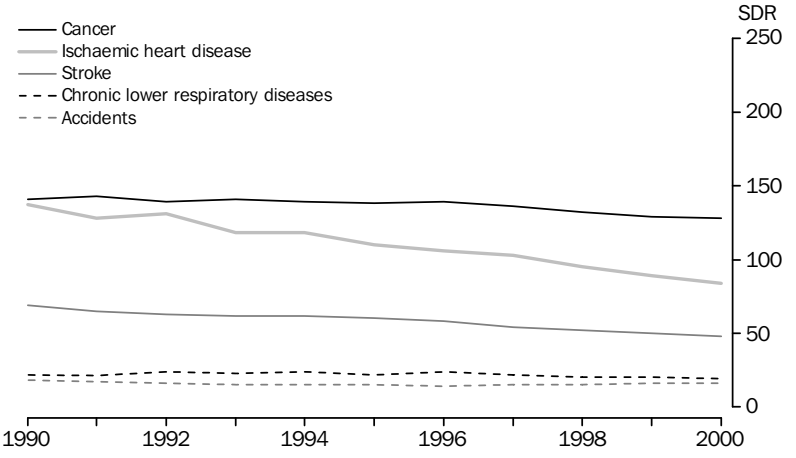
2.5 CAUSES OF DEATH, Standardised death rates(a)(b)—Males



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

(b) 1997–2000 data are coded to ICD–10. Prior to 1997 data are coded to ICD–9. The SDR for chronic respiratory diseases prior to 1997 is the SDR for the group of diseases in ICD–9 under the heading of chronic obstructive pulmonary disease and conditions (including asthma, emphysema, bronchitis) (490–496).

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



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

(b) 1997–2000 data are coded to ICD-–0. Prior to 1997 data are coded to ICD–9. The SDR for chronic respiratory diseases prior to 1997 is the SDR for the group of diseases in ICD–9 under the heading of chronic obstructive pulmonary disease and conditions (including asthma, emphysema, bronchitis) (490–496).

Cerebrovascular disease (stroke) was the third leading cause of death contributing 10% of all deaths. For males the death rate for stroke was 54, compared to 48 for females. Tasmania had the highest rate for stroke deaths for males (at 63, or 17% higher than the rate for Australia), while the ACT had the highest rate for females (55), but the lowest for males (42). Stroke deaths have undergone a decline similar to that of

LEADING CAUSE OF DEATH *continued*

ischaemic heart disease, with the death rate declining by an average of 3% per year for males and 4% per year for females since 1990.

Chronic lower respiratory diseases were the fourth leading cause of death in 2000, with 5% of all deaths. The Northern Territory's male death rate for chronic lower respiratory diseases (73) was almost double the national rate of 38, while the Northern Territory's female death rate (52) was almost three time that of the national rate (19).

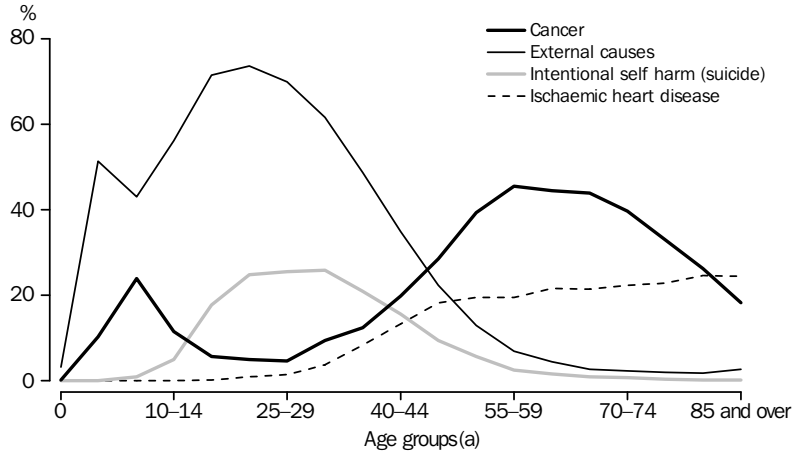
Accidents were the fifth leading cause of death, accounting for 4% of all deaths. The male rate of 35 deaths per 100,000 population was more than double the rate for females (16) for this cause. Transport accidents contributed 39% of these deaths while accidental poisoning by and exposure to noxious substances contributed 16%. The Northern Territory female death rate for accidents (36) was more than double that of the national level (16), while the Northern Territory male death rate for accidents was almost double (65) that of the rate for Australia (35).

Age differences

The leading causes of death vary markedly according to age and sex. Certain conditions originating in the perinatal period were the leading cause of death among infants and were responsible for 49% of all male infant deaths and 50% of all female infant deaths followed by congenital malformations, deformations and chromosomal abnormalities (25% for both male and females).

Generally, external causes (such as accidents and intentional self harm) are the single most prominent cause of death for males aged 1–44 years and indeed account for more than half of all deaths of males aged 10–34 years. For females aged 1–34 years external causes are also the largest single cause of death, accounting for more than half the deaths of women aged 15–29 years. In the middle years of life cancer becomes the major cause of death, peaking for women in the 50–54 years age group and for men in the 55–59 years age group. Ischaemic heart disease becomes an increasingly important cause of death into the older age groups, peaking amongst those aged 80 years and over.

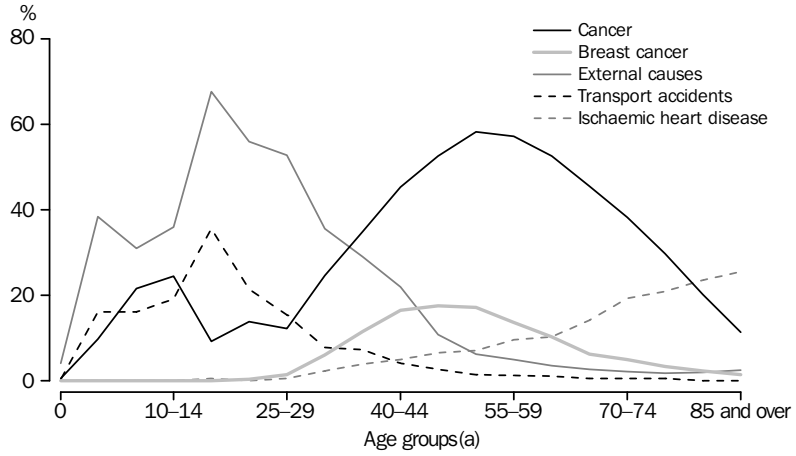
2.7 THE RELATIVE CONTRIBUTION OF SELECTED CAUSES OF DEATH, Males



(a) Age groups 0, 1–4, and then five year age groups to 85 and over.

Age differences *continued*

2.8 THE RELATIVE CONTRIBUTION OF SELECTED CAUSES OF DEATH, Females



(a) Age groups 0, 1–4, and then five year age groups to 85 and over.

Suicide

In 2000, suicide deaths accounted for just under 2% of all deaths registered in Australia. The 1,900 male suicides registered accounted for nearly 3% of all male deaths, while the 500 female suicides accounted for just under 1% of all female deaths.

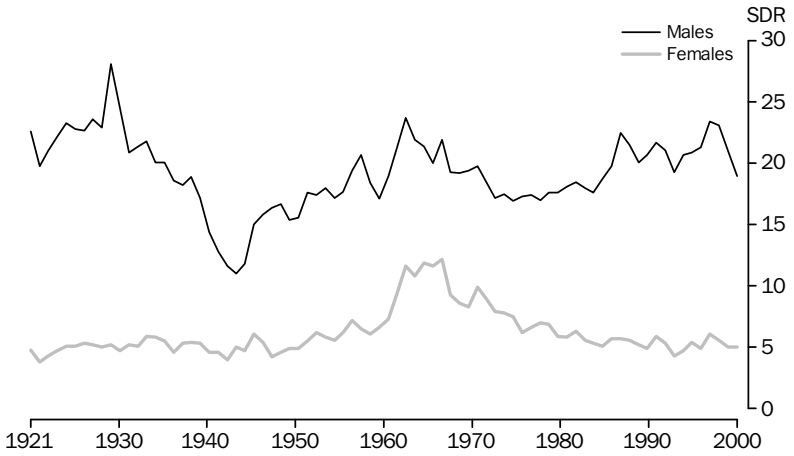
Throughout the twentieth century suicide death rates have fluctuated dramatically with the male suicide rate consistently higher than the female rate. The ratio of male to female suicides has ranged from more than 5.2 to 1 in 1930 to 1.7 to 1 in 1966 (for more information see *Suicides, Australia,* Cat. no. 3309.0), and in 2000 was 3.7 to 1.

The male suicide death rate reached its highest peak (28 deaths per 100,000 standard population) during the depression, a time of high unemployment, particularly among males. In contrast, male suicide rates declined during World War II, falling to 11 deaths per 100,000 standard population. Since then there has been a general rise in male suicide rates, albeit punctuated by a number of peaks and troughs. Recent years have seen a slight decline in the overall rate. The rates for women have generally been below 6 deaths per 100,000 standard population for most of the twentieth century, apart from a period in the 1960s and 1970s when rates reached as high as 12. In 2000, the male suicide death rate was 19 per 100,000 population, and the female suicide death rate was 5 per 100,000.

There are marked variations among the suicide rates experienced by people at different ages. For males the biggest increase in death rates over time has been experienced by those aged 15–19 and 20–24 years where the rates have more than tripled between 1921–1925 and 1996–1998. In contrast, rates for men aged 40 years and over have declined at a somewhat lower rate over the same period. Between 1921–1925 and 1996–1998 the suicide rate has tripled for women aged 75 and over and more than doubled for women aged 20–24. However, the level of reporting of suicide deaths may have changed over time due to changing social acceptance.

Suicide *continued*

2.9 STANDARDISED SUICIDE DEATH RATES



INFANT DEATHS

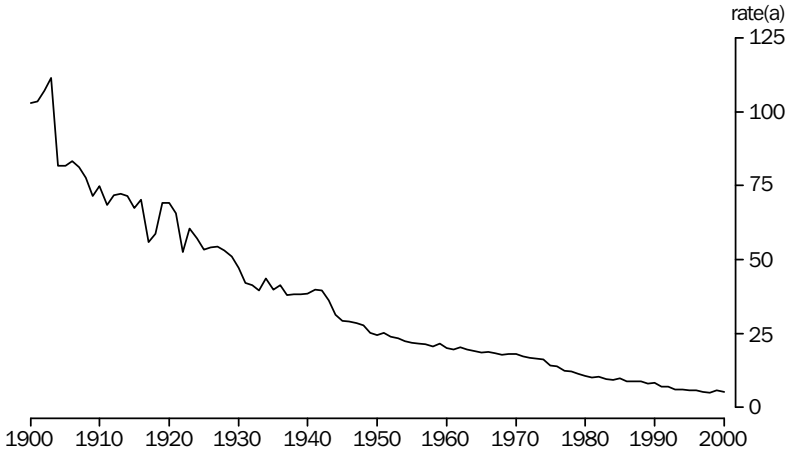
In 2000, 1,300 infants deaths (deaths of children less than one year of age) were registered in Australia. This was a decrease of 8% on the number registered in 1999 (1,400) and supports the long-term trend of decline in infant deaths. The number of infant deaths registered in 2000 was 40% lower than the number registered in 1990 (2,100), and 47% lower than in 1980 (2,400).

The infant mortality rate (IMR) of 5.2 deaths per 1,000 live births in 2000 was a 9% decrease from 1999. This reflects the decrease in the number of infant deaths in 2000, together with a slight increase in the number of births. The 2000 IMR was 37% lower than in 1990 (8.2 deaths per 1,000 live births), and 51% lower than in 1980 (10.7 deaths per 1,000 live births).

Australia's infant mortality has declined by 95% in the last 100 years. In 1900, 1 in 10 infants born did not survive to their first birthday (IMR of 103). Today only 1 in 192 infants born will not survive their first year of life (IMR of 5.2). The early decline in infant mortality has been linked to improvements in public sanitation and health education. Later declines may be a consequence of the introduction of universal health insurance (Medicare) and improvements in medical technology, such as neonatal intensive care units (Taylor et al. 1998).

INFANT DEATHS *continued*

2.10 INFANT MORTALITY RATE(a), 1900—2000



(a) Per 1,000 live births.

States and Territories

The Australian Capital Territory had the lowest IMR, 4.2 in 2000, followed closely by Western Australia with an IMR of 4.3. The Northern Territory IMR of 11.7 was the highest of the States and Territories, with Tasmania and Queensland also experiencing IMRs above the national level. Compared to 1990, the largest decrease in the IMR (55%, from 9.4 to 4.2) occurred in the Australian Capital Territory, while the smallest decrease occurred in Queensland (declining 19% from 7.7 to 6.2).

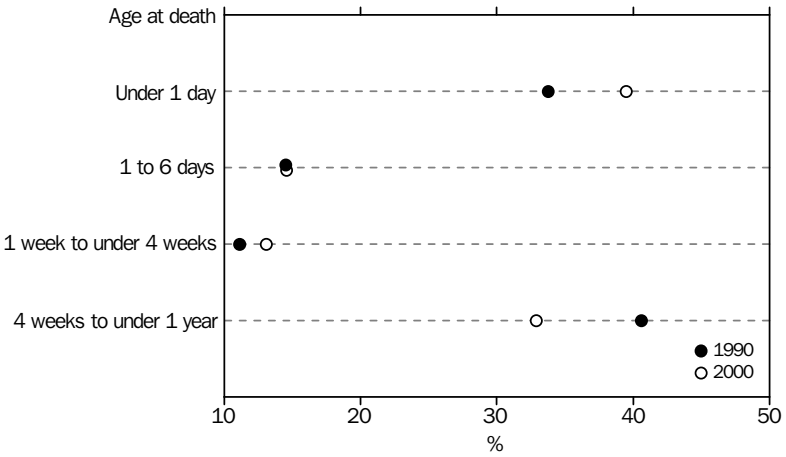
Infant age at death

In 2000, 39% of all infant deaths occurred within the first day of birth, with a further 28% of all infant deaths occurring in the remainder of the neonatal period (first four weeks of life). Between 1990 and 2000, declines in infant deaths have not been uniform across different age-groups. Deaths that occurred between one month and one year of age experienced the greatest decline over the ten year period (51%), followed by deaths of infants aged one day to six days (33% decline). Smallest reductions were evident in the age groups one week to under four weeks and under one day (29% and 30% decline respectively).

A higher proportion of infant deaths occurred within the first day of life in 2000 (39%) compared with 1990 (34%). Conversely, a lower proportion of deaths occurred between one month and one year of age in 2000 (33%) compared with 1990 (41%).

Infant age at death *continued*

2.11 PROPORTION OF INFANT DEATHS BY AGE AT DEATH



Sex

Over the last twenty years male infant deaths have consistently outnumbered female infant deaths. In 2000, male infant deaths (730) outnumbered female infant deaths (570) by 28%. However as male births outnumbered female births by 6% the difference in the IMR was 21%, with 5.7 male and 4.7 female deaths per 1,000 live births. In the last twenty years the male IMR has been consistently higher than the female IMR (by between 18% and 33%), reflecting the greater vulnerability of male infants to death (Waldron, 1983).

LIFE EXPECTANCY

In 1998–2000 life expectancy at birth was 77 years for males and 82 years for females, an increase of 0.4 and 0.2 years respectively over the 1997–1999 life expectancies at birth. Male life expectancy was highest in the Australian Capital Territory (78 years), while female life expectancy was highest in Western Australia (83 years). The lowest life expectancy was in the Northern Territory where a boy born in 2000 could expect to live an average of 70 years, and a girl, 75 years.

Since 1980, life expectancy at birth has increased by 6 years for males and 4 years for females. The life expectancy of 65 year olds has increased by 3 years for males and females over the 1980–2000 period, to 17 years for males and 20 years for females. It is assumed that by the year 2051 life expectancy at birth could be around 83 years for males and 87 years for females. This assumption is based on the average annual increase from 1970–1998 for male and female life expectancy at birth, of 0.30 years and 0.22 years respectively continuing until 2003 and then gradually declining over time.

Assuming that the mortality levels prevailing in the Australian population over the 1998–2000 period were to continue, a boy born in this period would have a 49% chance of living to age 80, while a girl would have a 67% chance of living to age 80. The chances of living to 100, would be 1% for boys and 2.8% for girls.

Regional life expectancy

In 1998–2000 life expectancy at birth for males and females varied across the regions of Australia by up to 11 years. Male life expectancy at birth was highest in Canberra (79 years) followed by Outer Adelaide, Melbourne and Perth (each 78 years), while female life expectancy was highest at 83 years in Lower Great Southern (Western Australia), Midlands (Western Australia), Perth (Western Australia) and Moreton (Queensland). Male life expectancy was lowest in the Balance of the Northern Territory and the Kimberley (each 69 years), followed by North-West Queensland (72 years) and South-West Queensland (73 years). Female life expectancy was lowest in the Balance of the Northern Territory (73 years), the Kimberley (76 years), North-West Queensland and Darwin (each 78 years).

CHAPTER 3 DEATHS OF ABORIGINAL AND TORRES STRAIT ISLANDER PEOPLE

INTRODUCTION

There were 2,100 deaths registered in Australia in 2000 where the deceased person was identified as being of Aboriginal, Torres Strait Islander or both origins (Indigenous), an 8% increase on the number registered in 1999 (2,000). It is considered likely that most Indigenous deaths are registered but a proportion of these deaths are not registered as 'Indigenous'. Therefore, the 2,100 registered Indigenous deaths is likely to be an underestimate of the true number of such deaths. See Explanatory notes 10–15 for a discussion of the coverage of Indigenous deaths, and table 7.41 for a summary of the estimated extent of coverage.

A variety of measures of mortality (death rates, median age at death, life expectancy at birth and infant mortality) indicate that the mortality level of Indigenous Australians is substantially higher than for the total Australian population. Death rates, median age at death and infant mortality indicate that in 2000 the mortality experience of Indigenous men and women in the Northern Territory was higher than in the States. International comparisons indicate that the Indigenous Australian infant mortality rate is higher, and life expectancy lower, than for indigenous populations in New Zealand and the United States of America.

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

INDIGENOUS MORTALITY

In 2000, the death rate among the Indigenous population was more than twice the death rate among the total Australian population. The indirect standardised death rate (ISDR) for the Indigenous population was 15 deaths per 1,000 population compared to 6 deaths per 1,000 for the total population. Due to the undercoverage of Indigenous deaths Australia-wide, this estimate of the disparity between Indigenous and total mortality is likely to be conservative. For example, the Indigenous death rate based on South Australia, Western Australia and Northern Territory data, where the estimated coverage of deaths is higher, was 21 per 1,000 population; over three times the death rate for the total population (6 per 1,000).

While overall mortality is higher among males than females, this difference was greater among the Indigenous population. The Australian Indigenous male ISDR (19 per 1,000 population) was 49% higher than the Indigenous female ISDR (12 per 1,000). Among the total population the male IDSR (7 per 1,000) was 41% higher than the female ISDR (5 per 1,000).

AGE AT DEATH

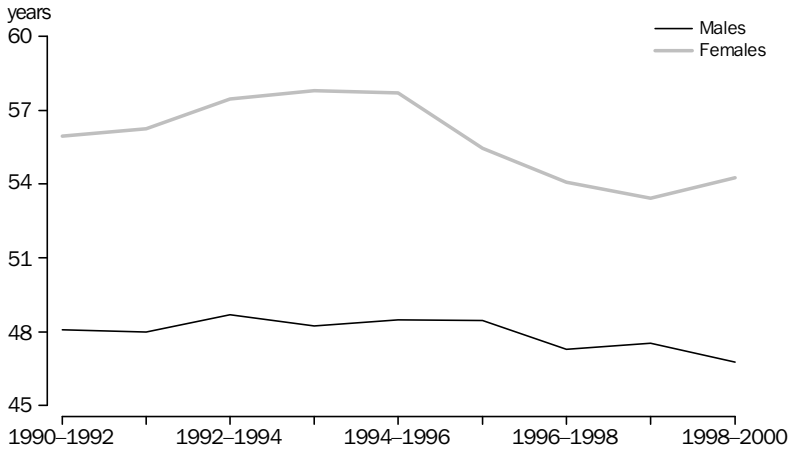
Deaths identified as Indigenous occurred at younger ages than total deaths. In 2000 the median age at death for Indigenous people was 53 years, around 25 years less than the median age at death of total persons (78 years). Indigenous males had a median age at death of 51 years, 7 years less than Indigenous females (57 years).

The median age at death among Indigenous males in 2000 was highest in New South Wales and Queensland (each 54 years), and the median age at death among Indigenous females was highest in Queensland (61 years). The lowest median age at death among both Indigenous males and females was experienced in the Northern Territory (46 years and 54 years respectively) (see tables 7.42 and 7.43).

While the median age at death for total males and females has shown a continual increase over the last 10 years, the median age at death for Indigenous males and females has fluctuated (see tables 7.42 and 7.43). This fluctuation reflects the relatively small population. The changing proportion of deaths registered as Indigenous over time may also impact.

Combining data for South Australia, Western Australia and the Northern Territory only, where coverage is estimated to have been relatively high, and combining three years data reduces some of the year to year fluctuations. However, no apparent increase in median age at death is evident, compared to the steady increase apparent among all deaths.

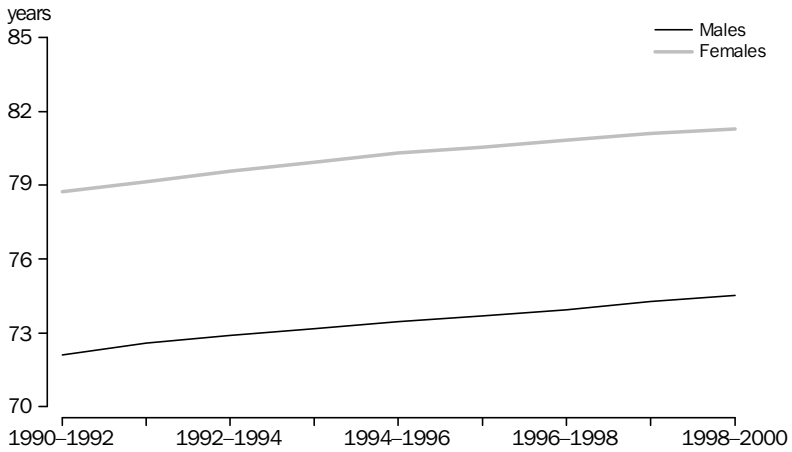
3.1 MEDIAN AGE AT DEATH(a), Indigenous



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

AGE AT DEATH *continued*

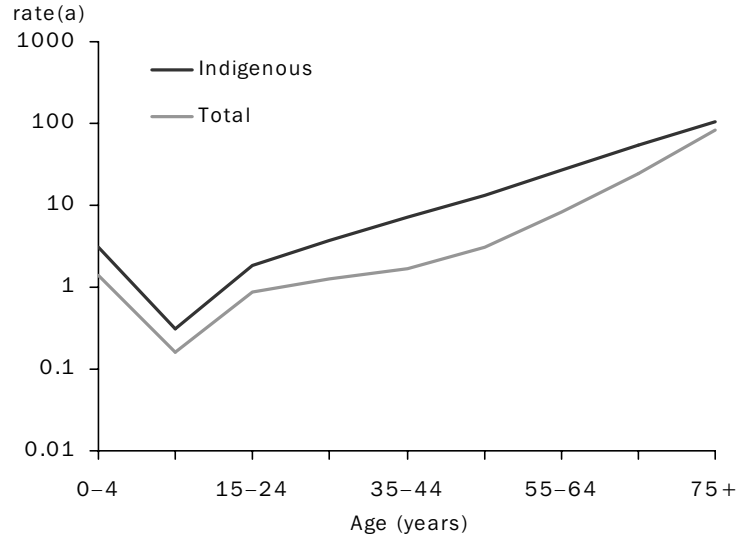
3.2 MEDIAN AGE AT DEATH(a), All Deaths



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

Age-specific death rates for the Indigenous population were higher than for the total population in all age groups in 2000. Among males, the greatest differences were in the 35–44 and 45–54 years age groups, where the Indigenous age-specific death rates were over four times greater than for Australian males as a whole. Among females the difference was greatest in the 55–64 year age group and 35–44 years age group, where the Indigenous age-specific death rates were also over four times higher than for the total population.

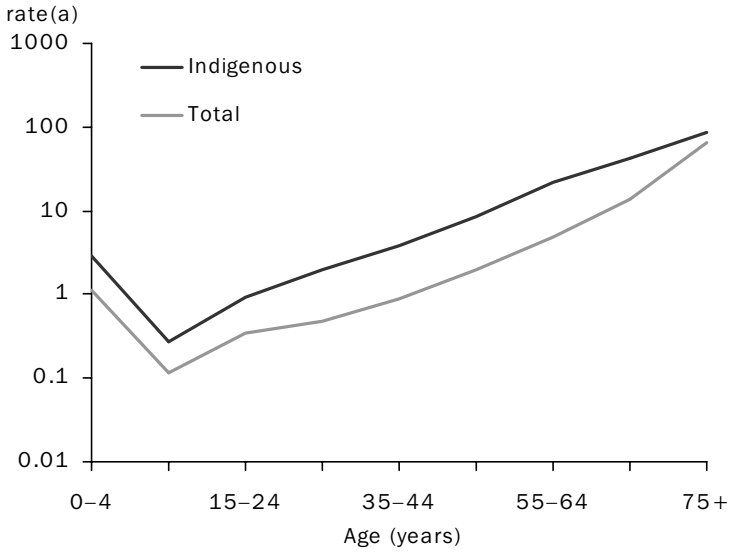
3.3 AGE-SPECIFIC DEATH RATES, Males



(a) Logarithmic scale.

AGE AT DEATH *continued*

3.4 AGE-SPECIFIC DEATH RATES, Females



(a) Logarithmic scale.

No clear trend over time is evident in Indigenous age-specific death rates. Combining data for South Australia, Western Australia and the Northern Territory, year to year fluctuations in age-specific death rates remain evident.

3.5 AGE-SPECIFIC DEATH RATES, Indigenous(a)

	1995	*1996*	*1997*	*1998*	*1999*	*2000*
0–4	4.2	5.0	4.5	3.4	3.9	4.8
5–14	0.5	0.4	0.5	0.5	0.4	0.5
15–24	1.9	1.4	1.8	2.8	2.2	2.2
25–34	4.4	3.2	4.3	4.4	4.0	4.6
35–44	9.0	8.2	8.7	10.3	7.1	8.6
45–54	15.4	14.3	17.8	14.4	15.2	14.4
55–64	32.5	29.5	32.5	26.2	26.2	34.1
65–74	57.1	49.6	55.8	49.5	48.7	58.8
75 and over	118.7	90.5	99.6	106.7	102.7	105.1

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

INFANT DEATHS

As with other age groups, Indigenous children under one year have a higher death rate than all children under one year. The 2000 Indigenous infant mortality rate (IMR) was 14 deaths per 1,000 live births, over twice the total IMR (5). The highest Indigenous IMR was experienced in the Northern Territory (23). The statistical coverage of Indigenous births throughout Australia has deficiencies similar to those of the deaths collection, although the level of 2000 births coverage is estimated to be around 92% on 1996 Census based experimental projections (*Births, Australia, 2000* (Cat. no. 3301.0)). Given that the level of estimated Indigenous births coverage is higher than the deaths coverage, the Indigenous IMRs presented here are likely to be conservative estimates.

INFANT DEATHS *continued*

The Indigenous IMR has fluctuated over time. While some decline is apparent in the infant mortality rate for South Australia, due to the small number of infant deaths involved no reliable trend is evident.

3.6 INFANT MORTALITY RATES, Indigenous

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.(a)*
1993–1995	n.p.	n.p.	n.p.	13.7	18.0	n.p.	22.2	n.p.	15.0
1994–1996	n.p.	n.p.	n.p.	12.2	20.6	n.p.	18.8	n.p.	13.3
1995–1997	n.p.	n.p.	n.p.	12.3	18.7	n.p.	22.2	n.p.	12.8
1996–1998	n.p.	n.p.	11.7	8.3	18.3	n.p.	23.7	n.p.	12.7
1997–1999	n.p.	n.p.	12.6	6.9	15.8	n.p.	23.5	n.p.	13.0
1998–2000	11.8	12.2	12.5	7.8	16.9	n.p.	21.5	n.p.	13.5

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

(a) Includes Other Territories.

The disparity between the IMR of the Indigenous population and that of the total population is more pronounced in Australia than in the United States of America and New Zealand. In 1998 the New Zealand Maori population experienced an IMR of 7 compared to 5 for the total population, while in 1996–1998 the American Indian and Alaska Native population of the Unites States of America experienced an IMR of 9, compared to 7 for the total population. The infant mortality rates of the indigenous populations in both New Zealand (7) and the United States of America (9) are substantially lower than in Australia (14) (table 7.52).

CAUSES OF DEATH

The leading causes of death for the Indigenous population differ from the total population, reflecting the different health experience of Indigenous Australians. For example, external causes of death (including accidents, assault and intentional self-harm) comprised 15% of Indigenous deaths compared to 6% of total deaths and diabetes mellitus contributed 8% of Indigenous deaths compared to 2% of total deaths.

The leading cause of death categories among the Indigenous population in 2000 were diseases of the circulatory system (28% of deaths), malignant neoplasms (16%), and external causes (15%), followed by endocrine, nutritional and metabolic diseases (9%), diseases of the respiratory system (8%) and diseases of the digestive system (3%).

3.7 SELECTED LEADING CAUSES OF INDIGENOUS DEATHS

Cause of death	Indigenous deaths	Total deaths	Indigenous median age at death	Total median age at death	Indigenous SMR(a)
	no.	no.	years	years	rate
Diseases of the circulatory system (I00–I99)	600	49 687	59.7	82.2	2.7
Malignant neoplasms (C00–C97)	335	35 628	62.3	73.5	1.5
External causes (V01–Y98)	323	8 098	30.0	42.5	2.3
Endocrine, nutritional, and metabolic diseases (E00–E90)	199	4 157	61.1	77.0	8.3
Diseases of the respiratory system (J00–J99)	161	10 907	65.1	80.7	3.6
Diseases of the digestive system (K00–K93)	70	4 141	49.2	78.4	2.8
All causes	**2 127**	**128 291**	**53.5**	**78.2**	**2.6**

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

In each leading cause of death category the median age at death among deaths registered as Indigenous was below the median age at death for the total population, with the greatest difference among deaths due to diseases of the digestive system. In this cause category, the median age at death among Indigenous deaths (49 years) was 29 years less than that for total deaths (78 years). The highest median age at death among the Indigenous population was among deaths due to diseases of the respiratory system (65 years), while the lowest was for deaths due to external causes (30 years).

The rate of death among the Indigenous population was higher in each leading cause category than the rate for the total population. Differences were most notable among deaths due to diseases of the respiratory system and endocrine, nutritional and metabolic diseases where deaths rates for the Indigenous population were respectively four times and eight times higher than for the total population.

INDIGENOUS LIFE EXPECTANCY

Differences in Indigenous and total mortality are reflected in substantially lower life expectancy for the Indigenous population. At the national level, experimental life expectancy at birth for the period 1998–2000 was estimated to be about 56 years for Indigenous males and 63 years for Indigenous females (including an adjustment for the estimated undercoverage of Indigenous deaths). This compares to life expectancy at birth of 77 years for total males, and 82 years for total females. For both Indigenous males and females life expectancy was highest in New South Wales (56 and 64 years respectively) and lowest in South Australia (55 and 61 years respectively).

International comparison

The life expectancy of indigenous people in both New Zealand and the United States of America is higher than for Indigenous Australians. While the indigenous life expectancy in these countries is lower than their respective total populations, the difference is not as great as in Australia (a difference of 21 years for males and 19 years for females). In 1995–1997 the New Zealand Maori population had a life expectancy at birth of 67 years

International comparison *continued*

for males and 72 years for females. For males this was 7 years lower than for the total population (74 years), and for females 8 years lower than the total population (80 years). In 1994–1996 the American Indian and Alaska Native population of the United States of America had a life expectancy at birth of 71 years, 5 years less than the total population (76 years).

Coverage and adjustment

Two sets of experimental Indigenous life tables were produced. Life expectancy at birth, derived from these experimental life tables, is published in table 3.8. One set (the observed life expectancies) was based on the number of registered deaths which were not adjusted for undercoverage. To compensate for undercoverage the other set was produced after inflating the number of registered deaths in the State or Territory by an adjustment factor.

The observed life expectancies are higher than the adjusted life expectancies in all States and Territories, for both sexes. The observed life expectancies are based on the actual number of deaths registered as Indigenous. As Indigenous deaths are underregistered to some extent in all States and Territories, the observed life expectancies are likely to be an over estimate of Indigenous life expectancy.

For more details on the experimental Indigenous life table calculation, and the method of adjustment for undercoverage see 'Appendix 1, Indigenous Life Tables' in *Deaths, Australia 1999*.

Evaluation and limitations

The assessment of the life table results made in *Deaths, Australia 1999* (p. 73) that "there seems to be some improvement in life expectancy in South Australia, Western Australia and the Northern Territory" may not be correct.

The adjustment factors used in producing the 'adjusted' experimental life tables were based on experimental estimates and projections of the Indigenous population. These estimates and projections were in turn based on experimental Indigenous life tables for the period 1991–1996. In evaluating the 1997–1999 life tables it was apparent that the later life tables replicate the 1991–1996 life expectancy values, with only slight modifications due to the varying age distribution of registered deaths in different time periods. This circularity, and uncertainty concerning the 1991–1996 experimental life tables, indicates that the adjusted life expectancy estimates cannot be validly interpreted as reduction in Indigenous mortality over time. On the other hand, there was an apparent improvement in the experimental observed life expectancy estimates, although much uncertainty applied to them.

For a more detailed evaluation of the experimental Indigenous life tables see *Demography Working Paper 2001/2 — Aboriginal and Torres Strait Islander Mortality: Evaluation of Experimental Indigenous Life Tables.*

While the adjusted life expectancy estimates represent the ABS's current best assessment of Indigenous life expectancy, they should not be used to draw inferences on change in life expectancy over the last 10 years.

3.8 EXPERIMENTAL ESTIMATES OF LIFE EXPECTANCY AT BIRTH, Indigenous

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*NT*	*Aust.(a)*
OBSERVED LIFE EXPECTANCY							
MALES							
1990–1992(b)	n.a.	n.a.	n.a.	58.0	57.8	55.4	n.a.
1990–1992(c)	n.a.	n.a.	n.a.	60.0	59.4	56.5	n.a.
1995–1997	n.a.	n.a.	n.a.	60.1	59.8	57.6	n.a.
1997–1999	65.8(d)	64.5	62.9	61.6	60.0	57.8	62.5
1998–2000	66.1	64.4	63.4	62.2	59.9	57.9	62.8
FEMALES							
1990–1992(b)	n.a.	n.a.	n.a.	64.2	62.4	59.3	n.a.
1990–1992(c)	n.a.	n.a.	n.a.	65.8	64.6	60.9	n.a.
1995–1997	n.a.	n.a.	n.a.	68.4	65.6	63.3	n.a.
1997–1999	71.4(d)	71.6	68.5	68.0	66.6	62.4	68.2
1998–2000	71.0	69.9	68.7	66.9	66.1	62.9	68.0
ADJUSTED LIFE EXPECTANCY							
MALES							
1990–1992(b)	n.a.	n.a.	n.a.	51.2	53.4	54.1	n.a.
1990–1992(c)	n.a.	n.a.	n.a.	52.5	55.0	54.9	n.a.
1995–1997	n.a.	n.a.	n.a.	53.7	55.7	55.5	n.a.
1997–1999	55.6(d)	56.1	55.9	54.4	54.9	56.3	55.6
1998–2000	56.3	56.1	56.2	55.3	55.5	55.9	56.0
FEMALES							
1990–1992(b)	n.a.	n.a.	n.a.	57.7	58.7	58.3	n.a.
1990–1992(c)	n.a.	n.a.	n.a.	59.3	60.9	59.7	n.a.
1995–1997	n.a.	n.a.	n.a.	62.8	62.3	61.5	n.a.
1997–1999	64.0(d)	65.2	62.5	62.5	62.8	61.4	63.0
1998–2000	63.6	63.5	62.7	61.2	62.6	61.6	62.7

n.a. not available

(a) Excludes Tasmania and the Australian Capital Territory.

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

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

(d) Based on deaths registered during 1998–1999.

CHAPTER 4 FEATURE ARTICLE—LIFE EXPECTANCY OF FIRST GENERATION MIGRANTS

INTRODUCTION

Internationally, Australia's life expectancy at birth is one of the highest in the world, falling behind Japan by 1–2 years, which has the highest life expectancy. Life expectancies at birth and other ages are used as measures of the level of mortality of a population. They are also used for assessing trends and differentials in mortality.

In 2000, nearly 24% of Australia's population (or 4.5 million people) were born overseas in one of over 200 countries. With such a large migrant population, how does the life expectancy of first generation migrants compare to that of the Australian-born population? This article compares the life expectancy of first generation migrants from 20 countries with that of Australian-born residents. These countries represented 69% of the migrant population in 2000.

LIFE TABLES

A life table is a statistical model which is constructed from the mortality rates of a population at different ages. Life tables may be complete or abridged, depending on the age interval used in their compilation. Complete life tables contain data by single year of age, while abridged life tables contain data for five year age groups. For the 1997–1999 period life expectancy at birth for the Australian population was estimated at 76 years for males and 82 years for females.

Abridged life tables calculated for first generation migrants are slightly skewed as there are none or few deaths of migrants aged 15 years or less. Since the average age of migrants arriving permanently in recent years has been around 27 years, using a life table starting at age 30 years and estimating mortality from that age onwards provides a more meaningful comparison.

LIFE EXPECTANCY OF MIGRANTS

The analysis shows that at age 30 years Australian-born residents generally had a lower life expectancy (men 47.4 years, women 52.5 years) than migrants from the 20 different countries of birth (see table 4.1). This suggests that migrants may have more favourable health than the Australian-born population.

Male and female life expectancy

Women generally experience a longer life expectancy than men. This was observed for all countries of birth that were included in this analysis.

Compared with the life expectancy at age 30 years for Australian-born men (47.4 years), higher life expectancies were observed for migrant men from Viet Nam (56.2 years), Korea (54.6 years), China (53.2 years), Philippines (52.9 years) and Sri Lanka (51.3 years).

Viet Nam-born women had the highest life expectancy at age 30 years. At 58.7 years it was marginally higher than women born in China (57.5 years), Philippines

Male and female life expectancy, *continued*

(56.3 years), Korea (56.0 years) and Sri Lanka (55.1 years). By comparison Australian-born women had a life expectancy of 52.5 years at age 30.

Men born in Fiji (46.6 years), Japan (47.2 years) and Papua New Guinea (47.4 years) had life expectancies at 30 years that were lower than Australian-born men. Women migrants from Fiji (48.7 years), Japan (50.3 years), Papua New Guinea (50.5 years), Hong Kong (51.6 years) and Indonesia (51.9 years) had lower life expectancies at age 30 years than Australian-born women.

Some of these differences (e.g. Japan and Hong Kong) are due to the small number of deaths on which the life tables are based (see the column on confidence intervals in table 4.1).

4.1 EXPECTATION OF LIFE AT AGE 30 YEARS FOR THE AUSTRALIAN POPULATION, 1997–1999

	MALES				FEMALES			
Country of Birth	*Deaths 1997–1999* no.	*Population June 1998* no.	*e^{o} Age 30* years	*95% Confidence Interval(a)* years	*Deaths 1997–1999* no.	*Population June 1998* no.	*e^{o} Age 30* years	*95% Confidence Interval(a)* years
Total Australia	**202 052**	**9 319 897**	**47.9**	**(47.8–48.0)**	**182 602**	**9 410 462**	**52.8**	**(52.7–52.9)**
Australian-born	141 391	7 125 758	47.4	(47.3–47.5)	134 620	7 238 286	52.5	(52.4–52.6)
Overseas-born	60 661	2 194 139	48.9	(48.8–49.1)	47 982	2 172 176	53.6	(53.4–53.7)
China	1 142	72 553	53.2	(52.3–54.1)	968	76 548	57.5	(56.6–58.4)
Fiji	249	18 209	46.6	(44.3–48.9)	220	20 680	48.7	(46.3–51.2)
Former USSR and the Baltic States								
Former Yugoslavia	2 766	105 637	48.2	(47.5–48.9)	1 435	97 851	54.2	(53.4–55.0)
Germany	1 982	60 000	48.4	(47.5–49.2)	1 868	62 690	53.0	(52.1–53.8)
Hong Kong	136	26 882	48.7	(45.9–51.5)	122	28 374	51.6	(48.9–54.4)
India	840	50 314	50.7	(49.6–51.8)	785	44 945	53.7	(52.6–54.7)
Indonesia	293	28 531	49.6	(47.7–51.4)	259	28 267	51.9	(50.0–53.9)
Japan	67	9 257	47.2	(40.8–53.6)	91	12 824	50.3	(46.9–53.7)
Korea	117	18 826	54.6	(50.3–58.9)	87	19 519	56.0	(52.6–59.5)
Lebanon	588	40 401	49.0	(47.6–50.4)	355	36 754	52.8	(51.1–54.5)
New Zealand	2 460	175 260	48.7	(47.9–49.4)	1 908	167 445	53.1	(52.3–53.9)
Papua New Guinea	102	12 526	47.4	(43.7–51.0)	106	14 059	50.5	(47.1–53.9)
Philippines	274	41 698	52.9	(50.4–55.5)	341	72 606	56.3	(54.4–58.2)
Singapore	114	13 465	45.8	(42.5–49.2)	90	15 307	51.5	(48.0–55.0)
South Africa	419	33 846	51.1	(49.5–52.7)	432	34 560	54.8	(53.3–56.3)
Sri Lanka	369	28 055	51.3	(49.5–53.0)	330	27 185	55.1	(53.6–56.6)
United Kingdom	22 343	620 036	49.2	(49.0–49.5)	20 642	604 634	53.5	(53.3–53.8)
United States of America	517	33 124	48.6	(47.1–50.2)	285	29 002	52.7	(50.6–54.7)
Viet Nam	534	86 837	56.2	(54.2–58.2)	393	86 712	58.7	(57.0–60.4)

(a) For the method of calculation see Chiang, C.L., 1984, *The life table and its applications*.

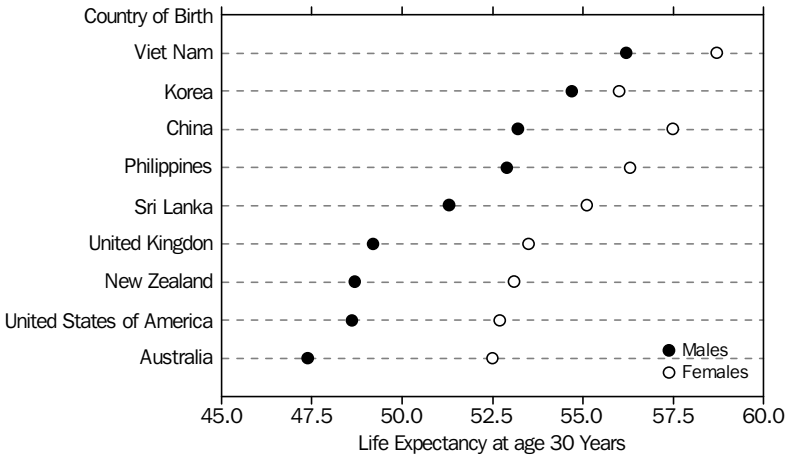
English proficiency

It is commonly assumed that those who do not speak English well tend to be disadvantaged in using Australian health services (VandenHeuvel 1999). While this analysis does not measure English proficiency, it was found that migrant men and women from non-English speaking countries, such as Viet Nam and China, had the

English proficiency, *continued*

highest life expectancies. Migrants from countries like the United States, United Kingdom and New Zealand had similar life expectancies to Australia.

4.2 LIFE EXPECTANCIES OF MIGRANTS FROM SELECTED ENGLISH AND NON–ENGLISH SPEAKING COUNTRIES



A Comparison with the population of the country of birth

For selected countries the analysis showed the life expectancy of first generation migrants in Australia was generally higher than the life expectancy at age 30 years of the population in their country of birth (table 4.3). Japanese-born men and women and Singapore-born men were the exceptions to this.

4.3 EXPECTATION OF LIFE AT AGE 30 years

	POPULATION OF COUNTRY SHOWN(a)			AUSTRALIAN POPULATION BORN IN COUNTRY SHOWN				
Country of Birth	*Period*	*Male*	*Female*	*Period*	*Male*	*95% Confidence Interval*	*Female*	*95% Confidence Interval*
Total Australia	**1995–1997**	**47.9**	**52.8**	**1997–1999**	**47.4**	**(47.3–47.5)**	**52.5**	**(52.4–52.6)**
China	1995–2000(b)	42.1	46.8	1997–1999	53.2	(52.3–54.1)	57.5	(56.6–58.4)
Germany	1994–1996(c)	44.6	50.6	1997–1999	48.4	(47.5–49.2)	53.0	(52.1–53.8)
India	1991–1995	39.3	42.2	1997–1999	50.7	(49.6–51.8)	53.7	(52.6–54.7)
Japan	1997	48.2	54.5	1997–1999	47.2	(40.8–53.6)	50.3	(46.9–53.7)
Korea	1995	41.5	48.8	1997–1999	54.6	(50.3–58.9)	56.0	(52.6–59.5)
New Zealand	1995–1997	46.2	50.8	1997–1999	48.7	(47.9–49.4)	53.1	(52.3–53.9)
Philippines	1991	40.1	42.7	1997–1999	52.9	(50.4–55.5)	56.3	(54.4–58.2)
Singapore	1998	46.2	50.0	1997–1999	45.8	(42.5–49.2)	51.5	(48.0–55.0)
United Kingdom	1997(b)	46.0	50.5	1997–1999	49.2	(49.0–49.5)	53.5	(53.3–53.8)
United States of America	1997(b)	42.4	50.4	1997–1999	48.6	(47.1–50.2)	52.7	(50.6–54.7)

(a) Source: *1998 Demographic Yearbook*, United Nations.

(b) Source: United Nations unpublished data

(c) Life expectancy derived from complete life tables.

POSSIBLE EXPLANATIONS FOR THE DIFFERENCES IN LIFE EXPECTANCY

Prospective settlers to Australia need to meet the criteria for a permanent visa as specified by the Government's Migration and Humanitarian programs, administered by Department of Immigration and Multicultural Affairs (DIMA). The prospective settler must undergo standard health and character tests. In addition checks relating to an applicant's skills, abilities, English language proficiency, age and family relationships may apply, depending on the type of visa being sought.

Health status

Potential settlers must meet an extensive health criteria prior to entry into Australia. This criteria tends to exclude those with poorer health status. It is also possible that people who are in poor health are less likely to have the ability and economic resources to migrate. Selection is thought to play an important part in explaining the lower mortality rate of many migrant groups, but their health advantage involves the interaction of social, cultural, environmental, biological and genetic factors (AIHW 1996).

This analysis shows that for the selected countries featured, first generation migrants generally experienced higher life expectancies than people born in Australia. Research has shown that this difference diminishes with increasing length of residence in Australia (AIHW 1996). This could be attributed to migrants taking on the habits and features of their new country. The diets of most Southern Europeans and Asians are higher in vegetables, and lower in animal fats than the standard Australian diet. As migrants adopt Australian eating practices, they tend to develop diseases prevalent in Australia, such as heart failure (Grbich 1999).

Support networks

Upon first arriving in Australia the majority of migrants share housing with family and friends who are existing Australian residents (VandenHeuvel 1999). This contact with a support network may lessen some of the difficulties encountered after migrating.

While migrants appear to be less susceptible to fatal diseases (Reid 1990), life expectancy data may not necessarily reflect differentials in other important dimensions of health status, such as disability, handicap, illness prevalence and perceived health (AIHW 1996).

CHAPTER 5 FEATURE ARTICLE — SOCIOECONOMIC DIFFERENCES IN MORTALITY

INTRODUCTION

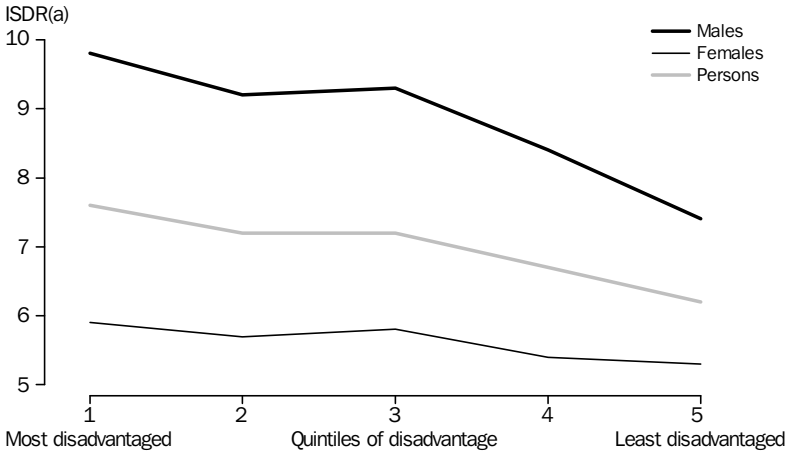
Differences in health and mortality have been clearly shown to be associated with socioeconomic inequality (Mathers, 1994a, 1994b, 1995, 1996, ABS, 1999, Yu et al. 2000). One measure of socioeconomic status which combines information regarding a number of variables such as income, education and occupation, is the index of relative socioeconomic disadvantage. This index is a summary measure of the socioeconomic conditions of an area. It was derived for all areas of Australia from the 1996 Census using attributes such as low income, low educational attainment, high unemployment and jobs in relatively unskilled occupations (ABS, 1998c). This article analyses the mortality of Australia's population by the level of socioeconomic disadvantage of the area in which people live.

The populations of all Australian Statistical Local Areas (SLAs) were grouped into quintiles, based on the socioeconomic disadvantage of the SLAs (the first quintile being the most disadvantaged 20% of the population and the fifth quintile being the least disadvantaged 20%). The different mortality experience of the population in each quintile group was represented by the average indirect standardised death rate (ISDR) for deaths registered in 1997–1999. The ISDR represents the mortality level that a particular population would experience, if it had the same age structure as the standard Australian population. The ISDR is represented as the number of deaths per 1,000 population: the higher the ISDR the worse the mortality experience of the population.

THE MOST AND THE LEAST DISADVANTAGED POPULATIONS

Overall, for both men and women, mortality increased with the level of socioeconomic disadvantage. The most disadvantaged fifth of the population experienced an ISDR of 7.6 per 1,000 population, 23% higher than the least disadvantaged fifth of the population (6.2). The mortality difference between most disadvantaged and least disadvantaged men was greater than the difference for women. For men, the most disadvantaged quintile had an ISDR of 9.8, over one third (31%) higher than the least disadvantaged quintile (7.4). Among women the death rate for the most disadvantaged quintile (5.9) was 11% higher than the least disadvantaged quintile (5.3).

5.1 MORTALITY BY SOCIOECONOMIC DISADVANTAGE



(a) Average indirect standardised death rate for 1997–1999. Per 1,000 population.

The middle quintiles

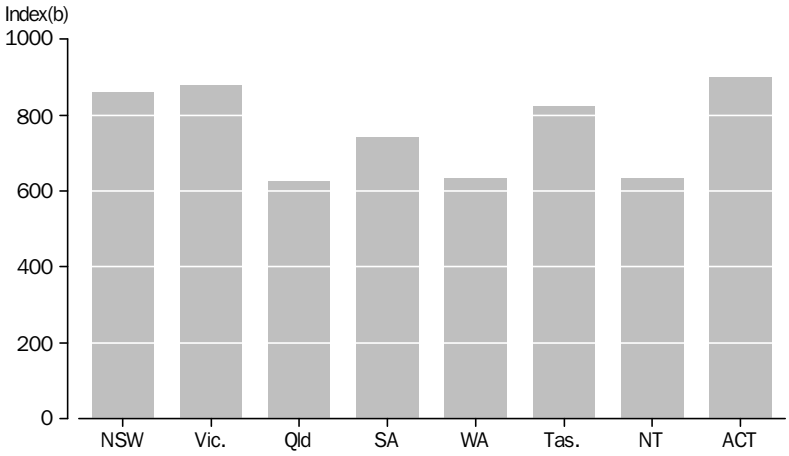
Overall, the second quintile of disadvantage experienced a death rate of 7.2 per 1,000, 7% higher than the fourth quintile (6.7). Among men the difference in mortality across the middle quintiles was greater, with the second quintile experiencing a death rate (9.2) 10% higher than the fourth quintile (8.4). Among women, the mortality experience of the second quintile (5.7) was 5% higher than the fourth quintile (5.4).

For both men and women the middle quintile experienced a death rate higher than the second quintile, although the second quintile is more socioeconomically disadvantaged.

STATE AND TERRITORY MORTALITY

The extent of the socioeconomic/mortality relationship varied across the States and Territories, partly reflecting the different levels of disadvantage across the quintiles in each State and Territory (see table 5.9). For example, the lowest socioeconomic score recorded in the ACT was 901, which was *less* disadvantaged than in other States and the Northern Territory.

5.2 THE MOST DISADVANTAGED(a), States and Territories



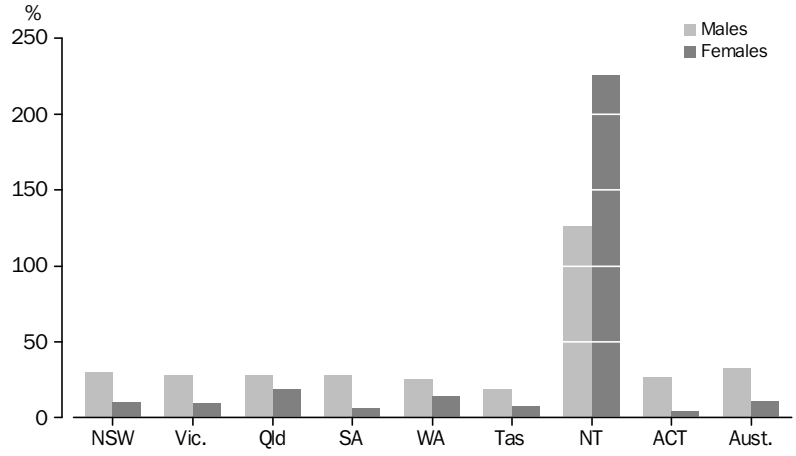
(a) Lower limit of the first quintile of disadvantage in each State and Territory.

(b) Index of Relative Socioeconomic Disadvantage, 1996 Census. Lower scores indicate greater disadvantage.

STATE AND TERRITORY MORTALITY, *continued*

Overall, the Northern Territory experienced the highest mortality rate (13 per 1,000), and had the greatest difference in mortality across socioeconomic groups. Northern Territory men in the most disadvantaged quintile had a death rate (23) more than double that of the least disadvantaged Northern Territory men (10). Among Northern Territory women the difference was even greater, with the death rate of the most disadvantaged (16) over triple that of the least disadvantaged (5).

5.3 PERCENTAGE DIFFERENCE IN DEATH RATES(a), Most and Least Disadvantaged Quintiles



(a) Average indirect standardised death rates for 1997–1999.

The ACT and Tasmania showed the least difference in mortality across socioeconomic groups, with the death rate of the most disadvantaged populations 14% higher than the least disadvantaged populations in this State and Territory. This homogeneity was largely the result of female mortality, with only 5% (ACT) and 8% (Tas.) differences between the mortality of the most disadvantaged and least disadvantaged females.

CAUSE OF DEATH

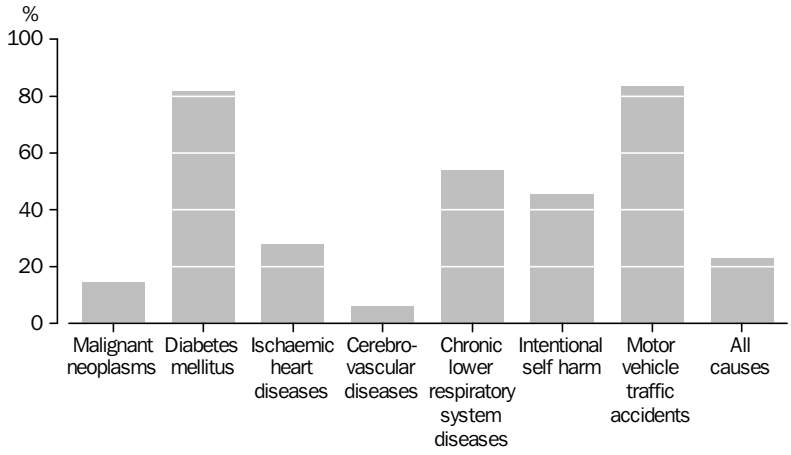
Overall the population in disadvantaged areas had higher death rates for all causes of death studied, although the extent of the mortality difference across socioeconomic groups varied by cause of death. Of the causes studied, malignant neoplasms were the leading cause of death, with an ISDR of 1.9 deaths per 1,000 population. This was the leading cause of death in all quintiles of disadvantage, although the death rate among the most disadvantaged (2.0) was 15% higher than among the least disadvantaged (1.7) for this cause.

While not as prevalent, other causes such as diabetes mellitus and motor vehicle traffic accidents showed greater difference across socioeconomic groups of the population. Death rates due to these behavioural associated causes were over 80% higher in the most disadvantaged fifth of the population than in the least disadvantaged fifth. The death rate due to motor vehicle traffic accidents among the most disadvantaged male population (0.2) was nearly double that of the least disadvantaged (0.1).

The least difference in death rates across socioeconomic groups was among deaths due to cerebrovascular diseases. Death rates due to this cause were 6% higher among the most disadvantaged than the least disadvantage population.

CAUSE OF DEATH *continued*

5.4 PERCENTAGE DIFFERENCE IN DEATH RATES(a), Most and Least Disadvantaged Quintiles



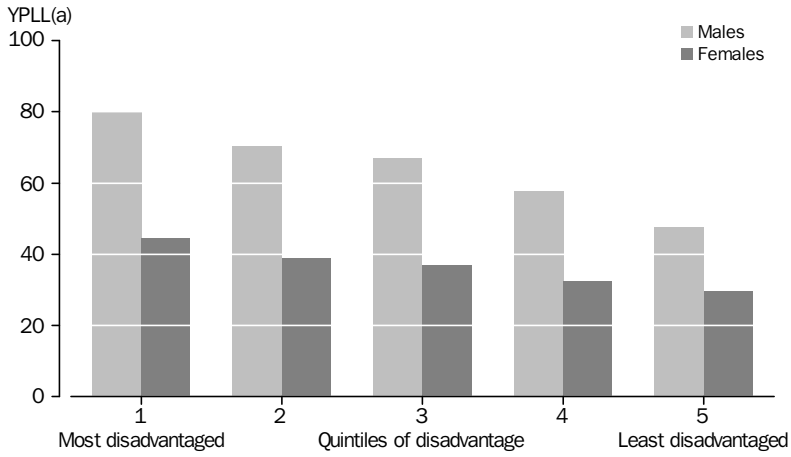
(a) Average indirect standardised death rates for 1997–1999.

YEARS OF LIFE LOST...

One indicator of the impact of mortality by age on a population is the number of years of potential life lost. Years of potential life lost are calculated by comparing age at death with the remaining life expectancy of a person of the same age. In this study, only deaths of persons up to age 75 years were included in the analysis of potential years of life lost.

Almost 1 million years of potential life were lost on average annually over the period 1997–1999, equating to around 51 years per 1,000 population. Of the total years of potential life lost 24% came from the most disadvantaged fifth of the population, compared to 15% from the least disadvantaged fifth of the population. Male deaths contributed 64% of the potential years of life lost, compared to 36% among female deaths.

5.5 YEARS OF POTENTIAL LIFE LOST



(a) Average annual years of potential life lost, 1997–1999, per 1,000 population.

...by cause of death

Overall, of the causes analysed, malignant neoplasms contributed the most loss of potential life (27%, or 257,800 years) followed by ischaemic heart diseases (10% or 95,500 years) and intentional self-harm (9% or 87,600 years).

5.6 YEARS OF POTENTIAL LIFE LOST(a), by Cause of Death

Selected cause of death	*Males* years	*Females* years	*Persons* years
Malignant neoplasms (C00–C97)	150 330	107 457	257 787
Diabetes mellitus (E10–E14	7 996	5 345	13 342
Ischaemic heart diseases (I20–I25)	69 620	25 906	95 526
Cerebrovascular diseases (I60–I69)	15 224	11 326	26 550
Chronic lower respiratory diseases (J40–J47)	14 232	9 033	23 266
Certain conditions originating in the perinatal period (P00–P96)	26 198	20 126	46 324
Sudden Infant Death Syndrome (R95)	6 631	4 247	10 877
Intentional self-harm (X60–X84)	70 008	17 602	87 610
Motor vehicle traffic accidents(b)	44 964	18 382	63 345
All causes	*607 646*	*346 664*	*954 310*

(a) Average annual, 1997–1999.

(b) 'Motor vehicle traffic accidents' has been recoded from ICD–10 codes for consistency with ICD–9 codes E810–819.

While these three causes contributed the most loss of potential life in all quintiles, their distribution varied by population quintiles. Malignant neoplasms and intentional self-harm contributed proportionally more years of life lost among the least disadvantaged, while nearly all other causes were more represented among the most disadvantaged.

Some 58,500 years (25%) of potential life were lost from the most disadvantaged population due to deaths from malignant neoplasms, compared to 44,500 years (30%) from the least disadvantaged. Deaths from ischaemic heart disease led to a loss of 24,800 (11%) potential years of life among the most disadvantaged population, compared to 13,100 years (9%) among the least disadvantaged, while intentional self-harm led to a loss of 20,200 (9%) potential years of life among the most disadvantaged population, compared to 13,900 years (9%) among the least disadvantaged.

CONTRIBUTING FACTORS

Mathers (1994a) suggests that "income and employment status explain around half of the differentials in health status by socioeconomic disadvantage of area and that risk factors and other demographic factors account for some part of the remainder" (p. 170). Different economic resources may result in differences in nutrition, housing standards and in access to medical care. Education, independent of its connection to higher income, appears to be related to the ability to obtain health information and services (ABS, 1999).

CONTRIBUTING FACTORS *continued*

Results from the 1995 National Heath Survey showed that those living in areas of greater socioeconomic disadvantage had less healthy lifestyles than those in other areas. Health risk behaviours such as smoking, lack of exercise and lack of preventative health actions (such as child immunisation and cancer screening tests) were found to be more prevalent in more disadvantaged areas (ABS, 1999). Another socioeconomic factor thought to be important to health or illness is the psycho-social environment in which people work and live (Marmot et al, 1999). That is, illness and the risk of death are related to the degree of control people have or perceive themselves to have over the forces operating in their work and home lives.

TRENDS OVER TIME

Previous research has indicated that although there has been an overall decline in death rates for all socioeconomic groups, the gap between the most disadvantaged and the least disadvantaged groups has widened over the 15 years 1981–1995 (Yu et al, 2000).

DATA CONSIDERATIONS

In this analysis, mean registered deaths for the years 1997, 1998 and 1999 have been used. Registered deaths and population data were both concorded to Australian Standard Geographic Classification (ASGC) 1996 boundaries for comparability with the 1996 socioeconomic index for areas (SEIFA) of relative socioeconomic disadvantage.

The standard death rates used in the calculation of ISDRs were those for the total Australian 1999 population by single year of age. As 1991 deaths were not available on ICD-10 coding the conventional standard death rates (1991) were not used (see Explanatory notes 16–18). The 30 June 1998 estimated resident population, being the mid point of the three years deaths data analysed, was the population used in ISDR calculations.

The quintiles of disadvantage used in this analysis were based on population, rather than number of SLAs. The quintiles therefore have slightly unequal populations, as they have been based on the population of whole SLAs.

The SEIFA index of relative socioeconomic disadvantage is best regarded as a measure of the socioeconomic characteristics of a person's environment. In this analysis it is used as a proxy for individual socioeconomic status. Because the socioeconomic index for each SLA is an aggregation of attributes for households, families and persons within the SLA, some heterogeneity of these variables within each SLA is lost. Furthermore, as highlighted by McCracken (2001), the SEIFA index is a summary measure. While illustrating the relationship between socioeconomic disadvantage and mortality, the separate impact of individual constituent variables (such as income, education and labour force status) on mortality is not explored.

5.7 MORTALITY BY SOCIOECONOMIC DISADVANTAGE(a), States and Territories

	QUINTILE OF DISADVANTAGE						
	1	*2*	*3*	*4*	*5*	*Total*	*Difference between 1st and 5th quintiles*
	rate(b)	rate(b)	rate(b)	rate(b)	rate(b)	rate(b)	%
				MALES			
NSW	9.6	9.6	9.6	8.9	7.4	9.0	30.3
Vic.	9.4	9.2	8.9	8.1	7.4	8.6	28.2
Qld	9.8	9.6	8.9	8.1	7.6	8.9	28.1
SA	10.3	8.9	8.6	8.2	8.1	8.8	28.1
WA	9.6	8.7	8.9	8.4	7.6	8.6	25.7
Tas.	10.1	10.4	9.6	9.2	8.5	9.6	18.6
NT	23.3	12.8	15.1	11.2	10.3	14.9	126.3
ACT	9.2	6.5	6.7	7.5	7.3	7.7	26.5
Aust.	9.8	9.2	9.3	8.4	7.4	8.9	32.4
				FEMALES			
NSW	5.8	5.9	5.8	5.6	5.3	5.7	10.2
Vic.	5.9	5.9	5.6	5.4	5.4	5.6	9.5
Qld	6.0	6.0	5.6	5.3	5.0	5.6	18.9
SA	6.0	5.2	5.3	5.4	5.7	5.6	6.2
WA	5.8	5.2	5.7	5.2	5.1	5.4	14.1
Tas.	6.6	6.3	6.1	5.6	6.1	6.2	8.2
NT	16.4	9.8	8.9	10.0	5.0	10.1	225.6
ACT	6.2	4.3	3.9	6.1	5.9	5.5	4.5
Aust.	5.9	5.7	5.8	5.4	5.3	5.6	11.3
				PERSONS			
NSW	7.4	7.4	7.3	6.9	6.1	7.0	22.0
Vic.	7.4	7.3	7.0	6.5	6.1	6.8	20.1
Qld	7.6	7.5	7.1	6.5	6.1	7.0	25.3
SA	7.8	6.8	6.7	6.5	6.6	6.9	19.0
WA	7.5	6.7	7.1	6.5	6.1	6.8	23.1
Tas.	8.1	8.0	7.5	7.1	7.1	7.6	14.4
NT	20.0	11.3	11.9	10.7	7.7	12.5	159.2
ACT	7.4	5.3	5.2	6.7	6.5	6.4	13.8
Aust.	7.6	7.2	7.2	6.7	6.2	7.0	22.6

(a) Index of Relative Socioeconomic Disadvantage, 1996 Census (Cat. no. 2039.0).

(b) Average indirect standardised death rate for 1997–1999. Per 1,000 population.

5.8 MORTALITY BY SOCIOECONOMIC DISADVANTAGE(a), Confidence Intervals(b)

	QUINTILE OF DISADVANTAGE											
	1		*2*		*3*		*4*		*5*		*Total*	
	Lower limit rate(c)	Upper limit rate(c)	Lower limit rate(c)	Upper limit rate(c)	Lower limit rate(c)	Upper limit rate(c)	Lower limit rate(c)	Upper limit rate(c)	Lower limit rate(c)	Upper limit rate(c)	Lower limit rate(c)	Upper limit rate(c)
					MALES							
NSW	9.3	9.8	9.3	9.8	9.3	9.8	8.6	9.1	7.1	7.6	8.9	9.1
Vic.	9.1	9.7	8.9	9.5	8.6	9.2	7.8	8.4	7.1	7.6	8.5	8.8
Qld	9.4	10.1	9.3	10.0	8.6	9.3	7.8	8.5	7.3	8.0	8.8	9.1
SA	9.8	10.9	8.3	9.4	8.2	9.1	7.7	8.7	7.6	8.5	8.6	9.0
WA	9.0	10.2	8.2	9.2	8.4	9.4	7.8	8.9	7.2	8.1	8.4	8.9
Tas.	9.1	11.2	9.4	11.3	8.7	10.5	8.3	10.2	7.6	9.4	9.2	10.0
NT	19.6	27.1	10.1	15.5	12.2	18.0	8.7	13.7	8.2	12.5	13.6	16.2
ACT	7.9	10.5	5.1	8.0	5.4	8.0	6.1	8.9	6.2	8.4	7.1	8.2
Aust.	9.6	9.9	9.1	9.4	9.1	9.5	8.3	8.6	7.3	7.6	8.8	8.9
					FEMALES							
NSW	5.7	6.0	5.7	6.0	5.6	6.0	5.5	5.8	5.1	5.4	5.6	5.8
Vic.	5.7	6.1	5.7	6.1	5.4	5.8	5.2	5.6	5.2	5.5	5.5	5.7
Qld	5.7	6.2	5.8	6.3	5.3	5.9	5.0	5.5	4.8	5.3	5.5	5.7
SA	5.7	6.4	4.9	5.6	5.0	5.6	5.1	5.7	5.4	6.0	5.4	5.7
WA	5.4	6.2	4.9	5.5	5.4	6.1	4.9	5.6	4.8	5.4	5.3	5.6
Tas.	5.9	7.3	5.7	6.9	5.5	6.7	5.0	6.2	5.5	6.7	5.9	6.5
NT	13.2	19.7	7.3	12.2	6.8	11.1	7.4	12.7	3.5	6.6	9.0	11.2
ACT	5.4	7.1	3.3	5.4	3.0	4.8	5.0	7.1	5.1	6.8	5.1	5.9
Aust.	5.8	6.0	5.6	5.8	5.7	5.9	5.3	5.5	5.2	5.4	5.6	5.7
					PERSONS							
NSW	7.3	7.6	7.2	7.6	7.2	7.5	6.8	7.1	6.0	6.2	7.0	7.1
Vic.	7.2	7.5	7.1	7.5	6.8	7.1	6.3	6.7	6.0	6.3	6.8	6.9
Qld	7.4	7.8	7.3	7.7	6.8	7.3	6.3	6.7	5.9	6.3	6.9	7.1
SA	7.5	8.1	6.4	7.1	6.4	7.0	6.2	6.8	6.3	6.8	6.7	7.0
WA	7.2	7.9	6.4	7.0	6.8	7.4	6.2	6.8	5.9	6.3	6.6	6.9
Tas.	7.5	8.7	7.5	8.5	7.0	8.0	6.6	7.7	6.6	7.6	7.3	7.8
NT	17.5	22.5	9.5	13.1	10.1	13.7	8.9	12.5	6.4	9.0	11.7	13.4
ACT	6.7	8.1	4.4	6.2	4.4	5.9	5.8	7.5	5.8	7.2	6.1	6.8
Aust.	7.5	7.7	7.1	7.3	7.1	7.3	6.6	6.7	6.1	6.2	6.9	7.0

(a) Index of Relative Socioeconomic Disadvantage, 1996 Census (Cat. no. 2039.0).

(b) 95% confidence interval for indirect standardised death rate. For the method of calculation see Chiang, C.L., 1984, *The life table and its applications*.

(c) Average indirect standardised death rate for 1997–1999. Per 1,000 population.

5.9 SEIFA(a) QUINTILE RANGES(b)

	QUINTILE OF DISADVANTAGE									
	1		*2*		*3*		*4*		*5*	
	Lower limit	Upper limit	Lower limit	Upper limit	Lower limit	Upper limit	Lower limit	Upper limit	Lower limit	Upper limit
NSW	861	956	956	978	978	1 004	1 004	1 071	1 071	1 174
Vic.	878	969	969	995	995	1 028	1 028	1 066	1 066	1 138
Qld	626	943	943	972	972	1 003	1 003	1 045	1 045	1 182
SA	741	934	934	956	956	989	989	1 047	1 047	1 126
WA	634	959	959	980	980	1 010	1 010	1 064	1 064	1 174
Tas.	824	938	938	950	950	961	961	1 028	1 028	1 135
NT	633	896	896	997	997	1 021	1 021	1 061	1 061	1 123
ACT	901	1 067	1 067	1 081	1 081	1 105	1 105	1 122	1 122	1 195
Aust.	626	954	954	980	980	1 010	1 010	1 064	1 064	1 195

(a) Socioeconomic Index for Areas, Index of Relative Socioeconomic Disadvantage, 1996 Census (Cat. no. 2039.0).

(b) With the exception of the fifth quintile, ranges are up to, but not including, the upper limit specified.

CHAPTER 6

FEATURE ARTICLE — HOW LONG CAN I LOOK FORWARD TO LIVE? MORTALITY PROJECTIONS FOR 'REAL' COHORTS

INTRODUCTION

Life expectancy at birth is a well recognised and understood measure of mortality of a population. It is the average number of years a newly-born child can look forward to live if subject to a schedule of age-specific death rates throughout his/her life time. Life expectancy estimates are also calculated at other ages and are obtained from a life table which is solely derived from a schedule of age-specific death rates. A life table is called the 'period' or the 'cross-sectional' life table if it is calculated from the age-specific death rates observed in a particular year (or period). These rates actually represent the mortality experience of different generations of men or women in that year. An alternative method, the 'cohort' or the 'generation' life table is based on the age-specific death rates of the same generation of men or women experienced over time. As mortality improves year after year, the 'cross-sectional' life table which uses static rates does not correctly estimate the 'true' life expectancy which people may experience in their lifetime.

The life expectancy of a real cohort can only be estimated from the age-specific death rates as experienced by this cohort over time. In the same vein, the life expectancy of people alive at present can only be estimated from the assumed mortality rates that are likely to be experienced by these people from their current age to the end of their life. These life expectancy estimates are calculated in this article.

PROJECTIONS OF AUSTRALIAN MORTALITY

Cross-sectional life tables

In the process of making population projections, the ABS produces assumptions of future mortality rates and life tables. These life tables are 'cross-sectional' and are calculated for each sex for each year over the next 50 years from the base year. For the 1999–2101 series of population projections (Cat. no. 3222.0), the life tables were calculated for each year from 1997–98 to 2051–52, and the life tables for 2051–52 were assumed to apply for future years to 2100–01[1].

These annual life tables represent the assumed mortality experience of various generations of men and women during each financial year. In the current projections, the mortality rates are assumed to decline year after year. The expectations of life at birth of 76.3 years for males and 81.9 years for females in 1997–98 are assumed to increase to 83.4 years for males and 86.6 years for females in 2051–52.

[1] The standard mortality assumption in the latest series of population projections has life expectancy at birth at 83.3 years for males and 86.6 years for females in 2051. A second (high) assumption, developed for analytical purposes, assumes that the rate of improvement in life expectancy at birth experienced between 1986 and 1996 continues unabated for the next 50 years. This assumption has life expectancy at birth at 92.1 years for males and 93.4 years for females in 2051.

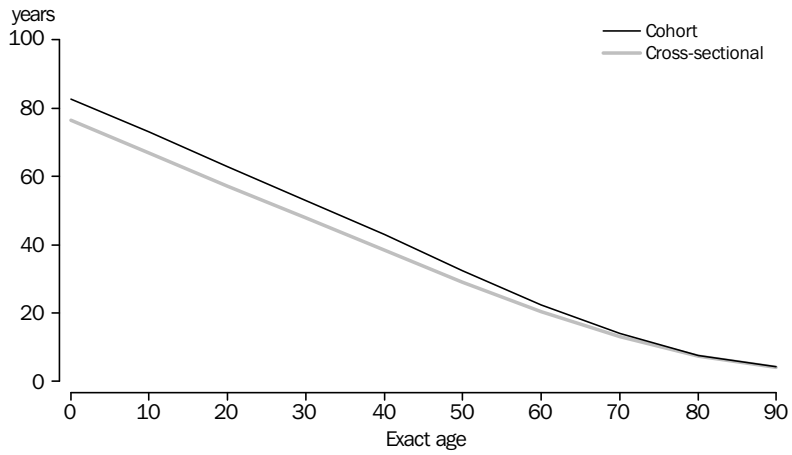
Cohort life tables

The calculation of the cohort life tables follow the same principles as the cross-sectional life tables. The mortality rates, the q(x) values (the probability of dying between exact ages x and x+1), for a year are replaced by q(x) values which a person of a given age x is expected to experience at different ages (>x) in his/her remaining future life. The cohort mortality rates at various ages, taken from the cross-sectional mortality assumptions at the same ages but in different years (financial years), are the required input for the cohort life tables.

Using the Australian mortality assumptions, it is estimated that a man alive at age 90 in 1997 can, on average, expect to live for another 4.2 years, whereas a woman alive at the same age in 1997 can expect to live for another 4.8 years. Based on the 'static' cross-sectional life table for 1997–98, if the same person experiences the mortality of 1997–98 for the rest of their life, his/her future life expectancy would be shorter (4.1 years for men and 4.7 years for women).

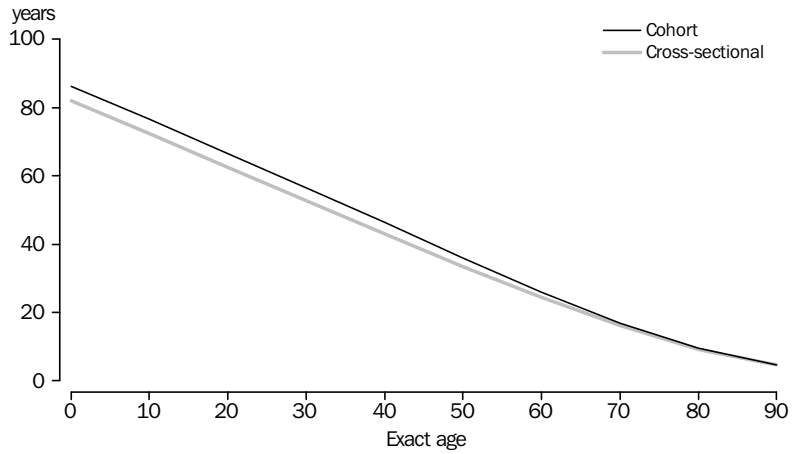
The difference between the cohort and cross sectional life expectancy estimates is substantial at the younger ages, as persons at the younger ages in 1997 are expected to experience lower mortality in their remaining life than the mortality of 1997–98. In 1997 at the age of 20 years men in a cohort life table could look forward to live for another 62.9 years (57.2 years in the cross-sectional life table for 1997–98) and women of the same age for another 66.5 years (62.5 years in the cross-sectional life table for 1997–98), a difference of 5.7 years for men and 4.0 years for women. This excess gain in life expectancy, which is even larger at age 0 (6.3 years for men and 4.3 years for women), is the outcome of the assumed reduction in mortality in the future, and depicts the 'real' life expectancy of children born in 1997–98 as long as the assumptions of mortality hold.

6.1 EXPECTATION OF LIFE AT SPECIFIC AGES, Males —1997–98

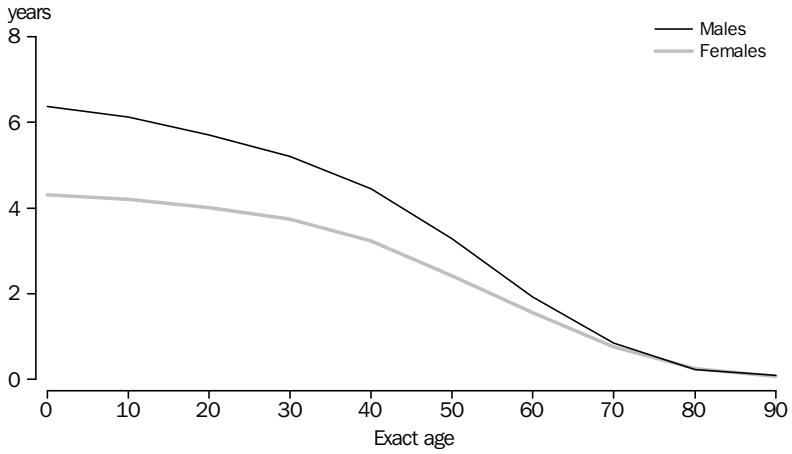


Cohort life tables *continued*

6.2 EXPECTATION OF LIFE AT SPECIFIC AGES, Females —1997–98



6.3 ADDITIONAL EXPECTATION OF LIFE (a)



(a) Excess expectation of life from cohort life table compared to cross sectional life table. For persons alive in 1997.

6.4 EXPECTATION OF LIFE AT SELECTED AGES, Cross-Sectional Life Tables and Cohort Life Tables

		EXPECTATION OF LIFE AT EXACT AGE									
	Cohort's age at June 1997	*0*	*10*	*20*	*30*	*40*	*50*	*60*	*70*	*80*	*90*
Birth cohort of year	years	years	years	years	years	years	years	years	years	years	years
CROSS-SECTIONAL LIFE TABLES, MALES											
1997–98	..	76.3	66.9	57.2	47.8	38.4	29.2	20.5	13.1	7.4	4.1
2051–52	..	83.4	73.6	63.7	54.1	44.5	34.9	25.6	17.0	9.7	5.4
CROSS-SECTIONAL LIFE TABLES, FEMALES											
1997–98	..	81.8	72.3	62.5	52.7	43.0	33.5	24.5	16.2	9.2	4.7
2051–52	..	86.6	76.8	66.8	57.0	47.2	37.5	28.0	19.0	11.0	5.6
COHORT LIFE TABLES, MALES											
1907–08	90	..	..	..	..	..	..	..	..	..	4.2
1917–18	80	..	..	..	..	..	..	..	..	7.7	4.3
1927–28	70	..	..	..	..	..	..	..	13.9	8.1	4.5
1937–38	60	..	..	..	..	..	..	22.4	14.9	8.5	4.7
1947–48	50	..	..	..	..	..	32.4	23.6	15.7	8.9	5.0
1957–58	40	..	..	..	..	42.9	33.6	24.5	16.3	9.4	5.3
1967–68	30	..	..	..	53.0	43.7	34.3	25.1	16.8	9.7	5.3
1977–78	20	..	..	62.9	53.5	44.2	34.7	25.4	17.0	9.7	5.4
1987–88	10	..	73.0	63.3	53.8	44.4	34.9	25.6	17.0	9.7	5.4
1997–98	0	82.7	73.3	63.5	54.0	44.5	34.9	25.6	17.0	9.7	5.4
COHORT LIFE TABLES, FEMALES											
1907–08	90	..	..	..	..	..	..	..	..	..	4.8
1917–18	80	..	..	..	..	..	..	..	..	9.5	4.9
1927–28	70	..	..	..	..	..	..	..	16.9	9.9	5.0
1937–38	60	..	..	..	..	..	..	26.0	17.6	10.2	5.2
1947–48	50	..	..	..	..	..	35.9	26.8	18.2	10.5	5.4
1957–58	40	..	..	..		46.2	36.7	27.4	18.6	10.8	5.6
1967–68	30	..	..	..	56.4	46.8	37.1	27.8	18.9	11.0	5.6
1977–78	20	..	..	66.5	56.7	47.0	37.4	28.0	19.0	11.0	5.6
1987–88	10	..	76.5	66.7	56.9	47.1	37.4	28.0	19.0	11.0	5.6
1997–98	0	86.2	76.6	66.8	56.9	47.2	37.5	28.0	19.0	11.0	5.6

Source: *Mortality assumptions in Population Projections, Australia, 1999–2101* (Cat. no. 3222.0), ABS data available on request.

7.1 DEATHS(a), Selected Years

		1980	1990	1995	1996	1997	1998	1999	2000
		DEATHS							
Total deaths	no.	**108 695**	**120 062**	**125 133**	**128 719**	**129 350**	**127 202**	**128 102**	**128 291**
Males	no.	60 518	64 660	66 251	68 206	67 752	67 073	67 227	66 817
Females	no.	48 177	55 402	58 882	60 513	61 598	60 129	60 875	61 474
Sex ratio		125.6	116.7	112.5	112.7	110.0	111.5	110.4	108.7
Standardised death rates	rate	*8.6*	*7.2*	*6.4*	*6.4*	*6.3*	*6.0*	*5.9*	*5.7*
Males	rate	11.3	9.2	8.2	8.2	7.9	7.6	7.4	7.1
Females	rate	6.5	5.6	5.0	5.0	4.9	4.7	4.6	4.5
Crude death rates	rate	*7.4*	*7.0*	*6.9*	*7.0*	*7.0*	*6.8*	*6.8*	*6.7*
Males	rate	8.2	7.6	7.4	7.5	7.4	7.2	7.1	7.0
Females	rate	6.5	6.5	6.5	6.6	6.6	6.4	6.4	6.4
Median age at death	years	*72.3*	*75.1*	*76.6*	*77.0*	*77.2*	*77.4*	*77.8*	*78.2*
Males	years	69.3	71.9	73.5	74.0	74.2	74.5	74.8	75.3
Females	years	76.7	78.7	80.3	80.7	81.0	81.0	81.4	81.7
Age specific death rates									
Age group (years)									
Males									
0	rate	12.1	9.3	6.1	6.4	5.7	5.5	6.4	5.7
1–4	rate	0.7	0.5	0.4	0.4	0.4	0.4	0.3	0.3
5–14	rate	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
15–24	rate	1.4	1.2	1.0	1.0	1.1	1.0	1.0	0.9
25–34	rate	1.3	1.4	1.3	1.3	1.3	1.4	1.4	1.3
35–44	rate	2.2	1.8	1.8	1.7	1.7	1.7	1.6	1.7
45–54	rate	6.6	4.1	3.5	3.4	3.4	3.2	3.2	3.1
55–64	rate	16.4	12.8	10.3	9.9	9.6	9.1	8.6	8.1
65–74	rate	41.2	32.3	28.9	28.3	27.4	26.2	25.5	24.1
75–84	rate	95.6	80.3	73.6	74.1	70.6	67.5	64.8	63.4
85 and over	rate	202.8	183.9	176.6	181.3	174.0	167.2	166.1	165.3
Females									
0	rate	9.6	7.4	5.1	5.0	4.9	4.5	4.9	4.7
1–4	rate	0.5	0.3	0.3	0.3	0.2	0.3	0.3	0.2
5–14	rate	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1
15–24	rate	0.5	0.4	0.4	0.3	0.4	0.4	0.4	0.3
25–34	rate	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5
35–44	rate	1.2	0.9	0.9	0.9	0.9	0.9	0.9	0.9
45–54	rate	3.3	2.5	2.2	2.1	2.1	2.1	2.0	2.0
55–64	rate	7.9	6.6	5.7	5.7	5.5	5.2	4.9	4.8
65–74	rate	20.4	17.5	15.6	15.1	15.1	14.2	13.8	13.4
75–84	rate	59.0	50.0	47.0	46.4	44.8	42.9	41.5	39.6
85 and over	rate	163.1	149.6	142.6	145.7	144.6	136.1	136.1	137.9

(a) See Glossary for definitions of terms used.

7.1 DEATHS(a), Selected Years *continued*

		1980	*1990*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*
DEATHS									
Expectation of life(b)									
Males									
Age 0	years	71.0	73.9	75.0	75.2	75.6	75.9	76.2	76.6
Age 1	years	70.9	73.6	74.5	74.7	75.0	75.3	75.7	76.0
Age 25	years	48.0	50.5	51.3	51.5	51.8	52.1	52.5	52.8
Age 45	years	29.3	31.8	32.5	32.8	33.1	33.4	33.8	34.1
Age 65	years	13.7	15.2	15.7	15.8	16.1	16.3	16.6	16.8
Age 85	years	4.7	5.1	5.1	5.1	5.3	5.4	5.5	5.5
Females									
Age 0	years	78.1	80.1	80.8	81.1	81.3	81.5	81.8	82.0
Age 1	years	77.8	79.7	80.3	80.5	80.7	80.9	81.2	81.4
Age 25	years	54.4	56.1	56.7	56.9	57.1	57.3	57.6	57.8
Age 45	years	35.2	36.8	37.3	37.5	37.7	38.0	38.2	38.5
Age 65	years	17.9	19.0	19.5	19.6	19.8	20.0	20.2	20.4
Age 85	years	5.7	6.2	6.3	6.4	6.4	6.5	6.6	6.6
Leading causes of death (SDR per 100,000 population)(c)									
Males									
Malignant neoplasms (C00–C97)	rate	239	238	231	230	220	217	215	212
Ischaemic heart diseases (I20–I25)	rate	345	249	202	196	183	171	164	150
Cerebrovascular diseases (I60–I69)	rate	119	74	67	66	59	56	55	54
Chronic lower respiratory diseases (J40–J47)	rate	72	60	49	51	45	42	40	38
Accidents (V01–X59)	rate	63	43	35	36	33	35	38	35
Females									
Malignant neoplasms (C00–C97)	rate	136	141	138	139	135	131	129	128
Ischaemic heart diseases (I20–I25)	rate	168	137	110	106	101	93	89	84
Cerebrovascular diseases (I60–I69)	rate	108	69	60	58	53	51	50	48
Chronic lower respiratory diseases (J40–J47)	rate	17	22	22	24	22	21	20	19
Accidents (V01–X59)	rate	26	18	15	14	15	15	16	16
INFANT DEATHS									
Total Infant deaths	no.	**2 417**	**2 145**	**1 449**	**1 460**	**1 341**	**1 252**	**1 408**	**1 290**
Males	no.	1 383	1 224	807	843	744	706	812	725
Females	no.	1 034	921	642	617	597	546	596	565
Infant mortality rates	rate	*10.7*	*8.2*	*5.7*	*5.8*	*5.3*	*5.0*	*5.7*	*5.2*
Males	rate	11.9	9.1	6.1	6.5	5.8	5.5	6.4	5.7
Females	rate	9.4	7.2	5.1	5.0	4.9	4.5	4.9	4.7
Age at death									
Males									
Under 1 day	no.	515	422	313	313	262	228	293	282
1 day and under 1 week	no.	243	159	118	133	132	132	148	104
1 week and under 4 weeks	no.	157	147	103	100	91	114	112	104
4 weeks and under 1 year	no.	468	496	273	297	259	232	259	235
Females									
Under 1 day	no.	395	302	241	244	239	198	233	227
1 day and under 1 week	no.	182	153	97	92	94	83	77	84
1 week and under 4 weeks	no.	114	92	85	82	81	87	90	65
4 weeks and under 1 year	no.	343	374	219	199	183	178	196	189

(a) See Glossary for definitions of terms used.

(b) From 1995 onwards, expectation of life has been calculated using data for the three years ending in the year in the table heading.

(c) Data prior to 1997 is on ICD–9 refer to Explanatory notes 16–18.

7.2 DEATHS(a), States and Territories

		NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.(b)
					DEATHS					
Total deaths	no.	**45 409**	**32 018**	**22 425**	**11 843**	**10 668**	**3 711**	**909**	**1 300**	**128 291**
Males	no.	23 445	16 368	12 023	6 121	5 718	1 926	571	642	66 817
Females	no.	21 964	15 650	10 402	5 722	4 950	1 785	338	658	61 474
Sex ratio	ratio	106.7	104.6	115.6	107.0	115.5	107.9	168.9	97.6	108.7
Indigenous deaths(c)	no.	*473*	*108*	*535*	*144*	*407*	*n.p.*	*450*	*n.p.*	*2 127*
Males	no.	259	57	291	79	237	n.p.	246	n.p.	1 174
Females	no.	214	51	244	65	170	n.p.	204	n.p.	953
Estimated coverage of Indigenous deaths(d)	%	46	48	54	69	77	6	92	—	59
Standardised death rates	rate	*5.8*	*5.5*	*5.7*	*5.8*	*5.4*	*6.2*	*8.9*	*5.1*	*5.7*
Males	rate	7.2	6.9	7.1	7.3	6.9	7.8	10.8	6.0	7.1
Females	rate	4.6	4.4	4.5	4.5	4.3	4.9	7.0	4.4	4.5
Crude death rates	rate	*7.0*	*6.7*	*6.3*	*7.9*	*5.7*	*7.9*	*4.7*	*4.2*	*6.7*
Males	rate	7.3	6.9	6.7	8.3	6.0	8.3	5.5	4.1	7.0
Females	rate	6.8	6.5	5.8	7.6	5.3	7.5	3.7	4.2	6.4
Median age at death	years	*78.4*	*78.7*	*77.8*	*78.8*	*77.3*	*77.9*	*56.5*	*76.6*	*78.2*
Males	years	75.3	75.8	75.0	76.1	74.4	75.1	55.7	73.5	75.3
Females	years	81.9	82.0	81.4	82.2	81.1	81.0	57.8	79.9	81.7
Age specific death rates										
Age group (years)										
Males										
0	rate	5.9	4.9	5.9	5.9	5.4	5.7	12.6	4.8	5.7
1–4	rate	0.3	0.2	0.3	0.4	0.3	0.4	0.1	0.4	0.3
5–14	rate	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.1	0.2
15–24	rate	0.9	0.8	0.8	1.0	0.9	1.1	2.4	0.7	0.9
25–34	rate	1.2	1.2	1.2	1.4	1.4	1.3	2.8	1.2	1.3
35–44	rate	1.7	1.5	1.6	1.7	1.7	2.1	4.1	1.2	1.7
45–54	rate	3.1	2.9	3.2	3.6	2.7	3.3	6.4	1.6	3.1
55–64	rate	8.6	7.6	8.3	8.1	7.4	8.7	14.7	5.5	8.1
65–74	rate	24.5	23.1	24.0	24.6	23.0	27.8	39.7	21.7	24.1
75–84	rate	64.0	61.7	63.5	65.1	61.2	71.4	86.3	54.4	63.4
85 and over	rate	167.8	166.4	163.0	167.3	160.4	160.4	130.0	141.8	165.3
Females										
0	rate	4.5	4.0	6.5	3.2	3.4	5.7	11.5	3.5	4.7
1–4	rate	0.3	0.2	0.2	0.2	0.3	0.3	0.4	0.2	0.2
5–14	rate	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1
15–24	rate	0.3	0.4	0.3	0.3	0.5	0.3	1.0	0.2	0.3
25–34	rate	0.4	0.5	0.5	0.5	0.5	0.4	1.3	0.4	0.5
35–44	rate	0.8	0.9	0.9	0.9	0.9	0.9	2.8	0.4	0.9
45–54	rate	2.0	1.9	1.9	2.2	1.8	2.4	4.4	2.1	2.0
55–64	rate	5.0	4.7	4.6	4.9	4.7	5.5	11.9	4.2	4.8
65–74	rate	13.8	13.0	13.3	13.2	12.8	15.1	22.9	13.1	13.4
75–84	rate	40.6	38.4	39.2	40.0	36.7	44.8	59.8	39.4	39.6
85 and over	rate	141.8	138.3	136.2	138.2	125.5	136.6	81.4	139.3	137.9

— nil or rounded to zero (including null cells)

n.p. not available for publication but included in totals where applicable

(a) See Glossary for definitions of terms used.

(b) Includes Other Territories.

(c) Does not include all Indigenous deaths—see table 7.41 and paragraph 10–15 of the Explanatory notes.

(d) Derived using 1996 Census based experimental Indigenous population projections. See Table 7.41 and paragraph 10–15 of the Explanatory notes.

7.2 DEATHS(a), States and Territories *continued*

		NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.(b)
					DEATHS					
Expectation of life(c)										
Males										
Age 0	years	76.4	77.1	76.4	76.6	76.9	75.7	70.3	78.3	76.6
Age 1	years	75.8	76.5	75.9	76.0	76.3	75.2	70.2	77.7	76.0
Age 25	years	52.6	53.2	52.7	52.7	53.1	52.0	47.7	54.3	52.8
Age 45	years	33.9	34.4	34.0	34.1	34.5	33.4	30.3	35.4	34.1
Age 65	years	16.7	17.1	16.9	16.8	17.1	16.3	15.0	17.6	16.8
Age 85	years	5.5	5.6	5.6	5.5	5.6	5.3	5.3	5.8	5.5
Females										
Age 0	years	81.9	82.3	81.9	82.3	82.6	81.2	75.2	82.3	82.0
Age 1	years	81.4	81.6	81.4	81.5	81.8	80.7	75.0	81.7	81.4
Age 25	years	57.7	58.0	57.8	57.9	58.3	57.1	51.8	58.2	57.8
Age 45	years	38.4	38.7	38.5	38.6	38.9	37.7	33.3	38.7	38.5
Age 65	years	20.3	20.5	20.4	20.6	20.8	19.8	17.2	20.5	20.4
Age 85	years	6.6	6.6	6.6	6.7	6.8	6.4	5.8	6.7	6.6
Leading causes of death (SDR per 100,000 population)										
Males										
Malignant neoplasms (C00–C97)	rate	207	209	219	213	212	234	262	189	212
Ischaemic heart diseases (I20–I25)	rate	156	139	155	160	140	157	184	122	150
Cerebrovascular diseases (I60–I69)	rate	60	48	53	50	48	63	57	42	54
Chronic lower respiratory diseases (J40–J47)	rate	39	37	40	37	30	52	73	24	38
Accidents (V01–X59)	rate	33	35	38	36	37	39	65	28	35
Females										
Malignant neoplasms (C00–C97)	rate	127	130	123	125	128	151	175	128	128
Ischaemic heart diseases (I20–I25)	rate	86	75	96	85	73	85	88	88	84
Cerebrovascular diseases (I60–I69)	rate	52	44	50	47	43	49	54	55	48
Chronic lower respiratory diseases (J40–J47)	rate	21	18	18	16	16	26	52	15	19
Accidents (V01–X59)	rate	13	17	17	15	17	13	36	14	16

(a) See Glossary for definitions of terms used.

(b) Includes Other Territories.

(c) Expectation of life was calculated over the three year period 1998–2000.

7.2 DEATHS(a), States and Territories *continued*

		NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.(b)*
		INFANT DEATHS								
Total Infant deaths	no.	**447**	**268**	**291**	**82**	**109**	**33**	**43**	**17**	**1 290**
Males	no.	260	150	143	54	68	17	23	10	725
Females	no.	187	118	148	28	41	16	20	7	565
Indigenous infant deaths(c)	no.	*37*	*6*	*34*	*7*	*29*	*n.p.*	*35*	*n.p.*	*148*
Males	no.	20	3	15	n.p.	19	n.p.	17	n.p.	79
Females	no.	17	3	19	n.p.	10	n.p.	18	n.p.	69
Infant mortality rates	rate	*5.2*	*4.5*	*6.2*	*4.6*	*4.3*	*5.8*	*11.7*	*4.2*	*5.2*
Males	rate	5.8	4.9	5.9	5.9	5.3	5.7	12.4	4.8	5.7
Females	rate	4.4	4.1	6.4	3.2	3.3	5.9	11.0	3.5	4.7
Age at death										
Males										
Under 1 day	no.	99	67	54	27	18	5	10	3	282
1 day and under 1 week	no.	36	22	22	6	7	5	5	—	104
1 week and under 4 weeks	no.	39	16	19	9	12	5	—	3	104
4 weeks and under 1 year	no.	86	45	48	12	31	3	7	4	235
Females										
Under 1 day	no.	80	42	62	14	16	4	7	—	227
1 day and under 1 week	no.	35	16	14	3	6	4	4	3	84
1 week and under 4 weeks	no.	16	15	23	—	4	—	3	3	65
4 weeks and under 1 year	no.	56	45	49	10	15	7	7	—	189

— nil or rounded to zero (including null cells)

n.p. not available for publication but included in totals where applicable

(a) See Glossary for definitions of terms used.

(b) Includes Other Territories.

(c) Does not include all Indigenous deaths—see table 7.41 and paragraph 10–15 of the Explanatory notes.

7.3 DEATHS REGISTERED, States and Territories

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.(a)
					MALES				
1980	22 336	16 115	9 420	5 274	4 655	1 951	323	444	60 518
1985	23 840	16 516	10 443	5 570	4 921	1 974	404	488	64 156
1990	23 506	16 321	10 694	5 833	5 152	2 046	514	594	64 660
1995	23 612	16 960	11 112	5 879	5 617	1 952	521	593	66 251
1996	23 765	17 009	12 151	6 061	5 978	2 052	487	698	68 206
1997	23 746	17 122	11 915	6 029	5 774	1 966	535	663	67 752
1998	23 520	16 407	12 235	6 095	5 750	1 889	527	646	67 073
1999	23 782	16 433	12 180	5 840	5 843	1 954	509	682	67 227
2000	23 445	16 368	12 023	6 121	5 718	1 926	571	642	66 817
					FEMALES				
1980	18 088	13 338	6 976	4 295	3 492	1 471	173	344	48 177
1985	20 424	14 837	8 186	4 926	3 915	1 719	237	408	54 652
1990	20 307	14 665	8 627	5 105	4 255	1 667	268	508	55 402
1995	21 161	15 465	9 551	5 339	4 747	1 802	292	521	58 882
1996	21 376	15 717	10 130	5 545	5 049	1 820	271	602	60 513
1997	21 895	16 139	10 030	5 629	5 033	1 843	356	671	61 598
1998	21 221	15 600	10 086	5 619	4 914	1 716	344	626	60 129
1999	21 433	15 485	10 669	5 451	5 034	1 829	323	649	60 875
2000	21 964	15 650	10 402	5 722	4 950	1 785	338	658	61 474
					PERSONS				
1980	40 424	29 453	16 396	9 569	8 147	3 422	496	788	108 695
1985	44 264	31 353	18 629	10 496	8 836	3 693	641	896	118 808
1990	43 813	30 986	19 321	10 938	9 407	3 713	782	1 102	120 062
1995	44 773	32 425	20 663	11 218	10 364	3 754	813	1 114	125 133
1996	45 141	32 726	22 281	11 606	11 027	3 872	758	1 300	128 719
1997	45 641	33 261	21 945	11 658	10 807	3 809	891	1 334	129 350
1998	44 741	32 007	22 321	11 714	10 664	3 605	871	1 272	127 202
1999	45 215	31 918	22 849	11 291	10 877	3 783	832	1 331	128 102
2000	45 409	32 018	22 425	11 843	10 668	3 711	909	1 300	128 291

(a) Includes Other Territories.

7.4 STANDARDISED DEATH RATES, States and Territories

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.(a)*
					MALES				
1980	11.6	11.4	10.9	10.5	10.9	12.4	13.0	10.2	11.3
1985	11.2	10.3	10.4	9.7	9.7	11.2	13.5	8.9	10.5
1990	9.5	9.0	9.0	9.0	8.4	10.2	14.2	8.2	9.2
1995	8.5	8.3	7.9	8.1	7.9	8.9	11.6	6.8	8.2
1996	8.3	8.1	8.3	8.1	8.2	9.2	10.3	7.8	8.2
1997	8.0	7.9	7.8	7.8	7.7	8.6	11.5	7.1	7.9
1998	7.7	7.4	7.8	7.7	7.4	8.1	9.8	6.6	7.6
1999	7.6	7.1	7.5	7.2	7.3	8.2	9.6	6.5	7.4
2000	7.2	6.9	7.1	7.3	6.9	7.8	10.8	6.0	7.1
					FEMALES				
1980	6.7	6.5	6.3	6.0	6.4	7.0	10.4	6.3	6.5
1985	6.6	6.3	6.1	6.0	5.8	7.0	9.2	5.4	6.3
1990	5.7	5.5	5.4	5.4	5.1	6.1	8.5	5.5	5.6
1995	5.1	5.0	4.9	4.9	4.8	5.7	8.2	4.4	5.0
1996	5.0	4.9	5.0	4.9	4.9	5.6	6.8	4.9	5.0
1997	5.0	4.9	4.8	4.8	4.7	5.5	8.2	5.1	4.9
1998	4.7	4.6	4.7	4.7	4.5	5.0	7.8	4.6	4.7
1999	4.6	4.5	4.8	4.4	4.4	5.2	7.7	4.5	4.6
2000	4.6	4.4	4.5	4.5	4.3	4.9	7.0	4.4	4.5
					PERSONS				
1980	8.8	8.6	8.4	8.0	8.4	9.4	11.6	8.0	8.6
1985	8.5	8.0	8.0	7.6	7.5	8.8	11.3	6.7	8.1
1990	7.4	7.0	7.0	7.0	6.6	7.9	11.3	6.7	7.2
1995	6.6	6.4	6.3	6.3	6.2	7.1	9.9	5.4	6.4
1996	6.4	6.3	6.5	6.3	6.4	7.1	8.6	6.1	6.4
1997	6.3	6.2	6.2	6.1	6.0	6.8	9.9	6.0	6.3
1998	6.0	5.8	6.1	6.0	5.8	6.3	8.9	5.4	6.0
1999	5.9	5.7	6.0	5.7	5.7	6.5	8.7	5.4	5.9
2000	5.8	5.5	5.7	5.8	5.4	6.2	8.9	5.1	5.7

(a) Includes Other Territories.

7.5 SUMMARY, Australia and Selected Countries

		Australia	*Canada*	*Germany*	*Greece*	*Hong Kong*	*Italy*	*Japan*	*Malaysia*	*Republic of Korea*	*New Zealand*	*United Kingdom*	*United States of America*
						MALES							
Crude death rate													
Reference year	year	2000	1995	1996	1997	1997	1994	1997	1997	1995	1996	1997	1995
Crude death rate	rate	7.0	7.6	10.2	10.2	5.5	10.3	6.5	5.1	6.1	8.1	10.4	9.1
Infant mortality rate													
Reference year	year	2000	1995	1997	n.a.	n.a.	1994	1997	1997	n.a.	n.a.	1997	1996
Infant mortality rate	rate	5.7	6.7	5.4	n.a.	n.a.	7.2	4.0	10.6	n.a.	n.a.	6.4	8.0
Expectation of life(a)													
Reference period	years	1998–2000	1995–2000(a)	1995–2000(a)	1995–2000(a)	1995–2000(a)	1995–2000(a)	1995–2000(a)	1995–2000(a)	1995–2000(a)	1995–2000(a)	1995–2000(a)	1995–2000(a)
Age 0	years	76.6	76.1	73.9	75.6	75.8	75.0	76.8	69.9	68.8	74.1	74.5	73.3
Age 1	years	76.0	75.6	73.4	75.2	75.3	74.5	76.2	69.8	68.5	73.6	74.1	72.9
Age 25	years	52.8	52.2	49.9	51.9	51.7	51.2	52.8	47.1	45.5	50.6	50.7	49.8
Age 45	years	34.1	33.4	31.1	33.1	32.6	32.1	33.7	28.7	27.2	31.9	31.6	31.7
Age 65	years	16.8	16.6	14.9	16.3	16.1	15.4	16.8	13.4	12.3	15.3	14.9	15.7
Age 85	years	5.5	5.9	4.8	5.1	5.7	4.9	5.3	4.8	3.6	5.1	5.0	5.3
Age-specific death rates(b)													
Reference year	year	2000	1995	1996	1997	1997	1994	1997	1997	1995	1996	1997	1995
0	rate	5.7	6.6	5.7	6.8	3.6	7.1	3.9	11.2	3.3	n.a.	6.3	8.4
1–4	rate	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.8	0.7	1.9(c)	0.3	0.4
5–9	rate	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.4	0.4	0.2	0.1	0.2
10–14	rate	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.5	0.4	0.3	0.2	0.3
15–19	rate	0.7	0.8	0.7	0.7	0.4	0.8	0.5	1.4	1.1	1.3	0.6	1.2
20–24	rate	1.0	1.0	1.0	1.1	0.8	0.9	0.6	1.7	1.2	1.5	0.9	1.6
25–29	rate	1.2	1.1	1.0	1.2	0.8	1.2	0.7	1.9	1.7	1.5	0.9	1.7
30–34	rate	1.3	1.3	1.2	1.2	0.8	1.7	0.8	2.3	2.1	1.4	1.0	2.3
35–39	rate	1.5	1.7	1.8	1.6	1.0	1.7	1.1	2.7	3.0	1.5	1.2	2.9
40–44	rate	1.9	2.2	2.8	2.2	1.8	2.1	1.7	3.5	4.6	1.7	2.0	3.8
45–49	rate	2.4	3.2	4.2	3.5	2.4	3.1	2.9	5.2	6.6	3.2	3.1	5.0
50–54	rate	3.8	5.1	6.8	5.6	4.3	5.5	4.7	8.6	10.2	5.4	5.1	7.3
55–59	rate	6.3	8.4	10.4	8.2	7.1	8.9	7.2	13.5	14.3	9.1	9.0	11.1
60–64	rate	10.4	14.1	17.3	12.8	12.3	15.2	12.0	23.0	20.6	15.7	14.9	17.7
65–69	rate	17.9	23.3	27.8	21.4	20.5	25.0	19.2	36.6	34.0	24.6	25.8	26.5
70–74	rate	31.0	36.8	42.8	34.9	32.9	39.1	29.1	57.9	55.3	40.2	43.4	40.3
75–79	rate	51.6	59.3	67.0	55.9	50.5	63.5	50.1	(d) 119.0	92.4	64.0	67.9	60.4
80–84	rate	85.0	94.8	115.2	103.4	76.8	100.3	86.5	n.a.	(e) 269.1	104.8	110.3	96.3
85 and over	rate	165.3	171.8	201.1	n.a.	123.3	183.2	n.a.	n.a.	n.a.	203.6	n.a.	179.8

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

n.a. not available

(a) United Nations projection data, unpublished.

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

(c) Includes age 0.

(d) Aged 75 years and over.

(e) Aged 80 years and over.

7.5 SUMMARY, Australia and Selected Countries *continued*

		Australia	*Canada*	*Germany*	*Greece*	*Hong Kong*	*Italy*	*Japan*	*Malaysia*	*Republic of Korea*	*New Zealand*	*United Kingdom*	*United States of America*
						FEMALES							
Crude death rate													
Reference year	year	2000	1995	1996	1997	1997	1994	1997	1997	1995	1996	1997	1995
Crude death rate	rate	6.4	6.6	11.3	8.9	4.2	9.2	8.1	3.8	4.7	7.5	11.0	8.5
Infant mortality rate													
Reference year	year	2000	1995	1997	n.a.	n.a.	1994	1997	1997	n.a.	n.a.	1997	1996
Infant mortality rate	rate	4.7	5.5	4.3	n.a.	n.a.	5.9	3.4	8.3	n.a.	n.a.	5.3	6.6
Expectation of life(a)													
Reference period	year	1998–2000	1995–2000(a)	1995–2000(a)	1995–2000(a)	1995–2000(a)	1995–2000(a)	1995–2000(a)	1995–2000(a)	1995–2000(a)	1995–2000(a)	1995–2000(a)	1995–2000(a)
Age 0	years	82.0	81.8	80.2	80.7	81.4	81.2	82.9	74.3	76.0	79.7	79.8	80.1
Age 1	years	81.4	81.3	79.6	80.3	80.8	80.8	82.3	74.0	75.8	79.3	79.3	79.6
Age 25	years	57.8	57.6	56.0	56.6	57.2	57.2	58.6	50.7	52.6	55.8	55.6	56.0
Age 45	years	38.5	38.2	36.6	37.1	37.7	37.7	39.2	31.7	33.7	36.5	36.2	36.9
Age 65	years	20.4	20.5	18.8	18.7	19.8	19.6	20.9	14.9	16.5	19.2	18.8	19.5
Age 85	years	6.6	7.3	5.8	5.3	7.2	6.2	6.7	4.9	5.0	6.6	6.6	6.8
Age-specific death rates (b)													
Reference year	year	2000	1995	1996	1997	1997	1994	1997	1997	1995	1996	1997	1995
0	rate	4.7	5.5	4.4	6.2	3.3	5.8	3.4	8.6	2.6	n.a.	5.2	6.9
1–4	rate	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.7	0.7	1.7(c)	0.2	0.4
5–9	rate	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.3	0.3	0.2	0.1	0.2
10–14	rate	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.3	0.2	0.3	0.1	0.2
15–19	rate	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.5	0.5	0.7	0.3	0.5
20–24	rate	0.4	0.3	0.3	0.3	0.2	0.3	0.3	0.5	0.6	0.5	0.3	0.5
25–29	rate	0.4	0.4	0.4	0.3	0.4	0.4	0.3	0.6	0.7	0.5	0.4	0.6
30–34	rate	0.5	0.5	0.5	0.5	0.3	0.6	0.4	0.9	0.8	0.7	0.5	0.9
35–39	rate	0.8	0.8	0.9	0.6	0.5	0.7	0.6	1.3	1.1	0.8	0.8	1.3
40–44	rate	1.0	1.2	1.4	1.1	0.9	1.0	1.0	1.8	1.6	1.1	1.3	1.8
45–49	rate	1.6	2.0	2.3	1.5	1.3	1.7	1.6	3.1	2.3	2.5	2.1	2.6
50–54	rate	2.4	3.1	3.4	2.3	2.3	2.7	2.3	4.9	3.8	3.7	3.3	4.1
55–59	rate	4.0	5.1	4.8	3.6	3.6	4.1	3.2	8.3	5.6	5.7	5.4	6.6
60–64	rate	5.9	7.7	7.8	5.7	5.9	6.6	5.1	14.5	8.7	9.9	9.0	10.4
65–69	rate	10.0	12.7	13.2	10.9	9.7	11.1	7.9	25.7	15.7	14.9	15.3	15.7
70–74	rate	17.0	20.1	22.8	20.3	17.7	19.9	13.3	42.6	29.2	23.4	26.2	24.4
75–79	rate	29.1	33.5	39.3	38.7	30.4	36.8	24.9	(d) 98.8	54.9	39.2	42.2	38.2
80–84	rate	55.7	59.0	76.7	85.6	51.0	66.5	48.2	n.a.	(e) 223.5	71.2	73.1	63.6
85 and over	rate	137.9	136.4	166.6	n.a.	109.9	155.6	n.a.	n.a.	n.a.	157.4	n.a.	144.9

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

n.a. not available

(a) United Nations projection data, unpublished.

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

(c) Includes age 0.

(d) Aged 75 years and over.

(e) Aged 80 years and over.

7.6 REGIONAL PATTERNS OF MORTALITY

Statistical Division	Deaths 2000	Estimated resident population June 2000(a)	Crude death rate(b)	Indirect standardised death rate(c)	Life expectancy at birth, male(d)	Life expectancy at birth, female(d)	SEIFA index of disadvantage(e)
	no.	no.	rate	rate	years	years	index
New South Wales							
Sydney	25 983	4 084 971	6.4	5.7	77.2	82.4	1 028
Hunter	4 757	576 779	8.1	6.3	75.8	81.6	970
Illawarra	2 911	389 213	7.4	5.9	76.2	82.1	979
Richmond–Tweed	1 662	211 137	8.1	5.7	76.2	82.2	960
Mid-North Coast	2 429	272 924	9.0	6.0	75.9	81.8	947
Northern	1 464	173 193	8.2	6.6	74.6	81.2	977
North-Western	951	116 877	8.1	7.1	74.0	79.6	952
Central West	1 381	172 724	8.3	6.8	74.8	80.8	982
South-Eastern	1 427	182 439	7.9	6.3	75.4	81.4	1 001
Murrumbidgee	1 112	148 713	7.5	6.4	75.7	81.3	989
Murray	885	109 945	8.0	6.3	75.6	81.3	994
Far West	255	23 584	10.2	7.0	73.5	80.2	919
Total(f)	*45 409*	*6 462 499*	*7.0*	*5.9*	*76.4*	*81.9*	*1 007*
Victoria							
Melbourne	21 432	3 466 707	6.3	5.5	77.7	82.5	1 026
Barwon	1 907	249 116	7.7	5.8	76.8	82.2	996
Western District	858	98 364	8.7	6.3	75.5	81.4	1 001
Central Highlands	1 118	138 256	8.2	6.5	76.2	81.3	989
Wimmera	519	50 848	10.2	6.3	75.8	80.3	1 006
Mallee	693	88 390	8.3	6.3	75.4	81.1	983
Loddon–Campaspe	1 316	162 064	8.1	6.3	76.2	81.5	999
Goulburn	1 433	188 161	7.7	6.0	76.3	82.1	992
Ovens–Murray	701	90 961	7.5	6.2	76.4	81.7	1 007
East Gippsland	704	79 866	8.8	6.6	75.5	81.4	985
Gippsland	1 252	154 063	8.1	6.4	75.4	81.4	984
Total(f)	*32 018*	*4 766 796*	*6.8*	*5.7*	*77.1*	*82.3*	*1 016*
Queensland							
Brisbane	9 629	1 627 076	6.1	5.8	77.1	82.2	1 012
Moreton	4 787	694 555	6.9	5.6	77.1	82.7	981
Wide Bay–Burnett	1 735	234 783	7.7	5.9	76.1	81.7	926
Darling Downs	1 523	202 377	7.6	6.1	76.4	81.7	983
South-West	185	25 600	7.4	7.3	73.3	79.9	961
Fitzroy	1 066	181 230	6.0	6.6	75.1	81.5	972
Central West	95	12 135	7.8	6.4	n.p.	n.p.	967
Mackay	642	127 547	5.0	6.1	76.2	81.9	977
Northern	1 241	200 196	6.3	6.7	75.6	81.1	990
Far North	1 227	225 551	5.6	6.6	75.1	80.6	977
North-West	172	35 764	5.1	8.2	72.1	77.9	941
Total(f)	*22 425*	*3 566 814*	*6.4*	*5.9*	*76.4*	*81.9*	*988*

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

(a) Revised.

(b) Per 1,000 population. Average crude death rate 1998–2000.

(c) Per 1,000 population. Average indirect standardised death rate 1998–2000.

(d) 1998–2000, see Explanatory notes 25–26.

(e) Socioeconomic Indexes for Areas as defined from the 1996 Census of Population and Housing. Recoded to 2000 Statistical Division boundaries for consistency.

(f) Includes not stated, no fixed abode and overseas residents. State and Territory life expectancy at birth are from Table 7.2. See Explanatory notes 19–24.

7.6 REGIONAL PATTERNS OF MORTALITY *continued*

Statistical Division	Deaths 2000	Estimated resident population June 2000(a)	Crude death rate(b)	Indirect standardised death rate(c)	Life expectancy at birth, male(d)	Life expectancy at birth, female(d)	SEIFA index of disadvantage(e)
	no.	no.	rate	rate	years	years	index
South Australia							
Adelaide	8 611	1 095 924	7.8	5.8	76.9	82.4	992
Outer Adelaide	778	110 645	6.8	5.2	78.0	82.5	1 002
Yorke and Lower North	489	44 218	10.7	6.5	75.5	80.7	956
Murray Lands	584	68 487	8.2	6.1	75.1	81.8	940
South-East	462	62 784	7.1	5.9	76.5	82.3	977
Eyre	265	33 489	7.6	6.0	75.3	81.0	963
Northern	629	81 847	7.4	6.6	74.2	80.8	928
Total(f)	*11 843*	*1 497 394*	*7.8*	*5.9*	*76.6*	*82.3*	*984*
Western Australia							
Perth	7 818	1 380 982	5.8	5.6	77.5	82.8	1 019
South-West	1 155	187 844	6.3	5.7	77.0	82.5	966
Lower Great Southern	341	52 125	6.5	5.5	76.8	83.3	982
Upper Great Southern	125	19 610	6.6	5.7	n.p.	n.p.	1 004
Midlands	296	52 985	5.4	5.0	76.7	82.9	979
South-Eastern	255	58 922	4.5	7.3	73.9	80.4	981
Central	354	60 249	5.4	5.8	75.6	82.2	962
Pilbara	100	40 425	2.6	7.2	n.p.	n.p.	994
Kimberley	173	30 536	5.8	11.1	68.6	75.8	905
Total(f)	*10 668*	*1 883 678*	*5.8*	*5.7*	*76.9*	*82.6*	*1 006*
Tasmania							
Greater Hobart	1 483	194 197	8.0	6.4	75.7	81.0	1 000
Southern	229	34 828	6.6	6.0	75.9	80.8	942
Northern	1 136	133 060	8.1	6.3	75.8	81.0	967
Mersey–Lyell	850	108 219	7.7	6.4	75.3	80.9	945
Total(f)	*3 711*	*470 304*	*7.8*	*6.4*	*75.7*	*81.2*	*974*
Northern Territory							
Darwin	317	90 010	3.5	7.5	73.6	78.0	1 030
Northern Territory—Balance	564	105 447	5.1	12.4	68.5	72.7	882
Total(f)	*909*	*195 457*	*4.5*	*10.2*	*70.3*	*75.2*	*962*
Australian Capital Territory							
Canberra	1 296	310 675	4.2	5.2	78.6	82.6	1 092
Total(f)	*1 300*	*310 993*	*4.2*	*5.2*	*78.3*	*82.3*	*1 091*
Australia	**128 291**	**19 157 140**	**6.7**	**5.9**	**76.6**	**82.0**	**1 000**

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

(a) Revised.

(b) Per 1,000 population. Aaverage crude death rate 1998–2000.

(c) Per 1,000 population. Average indirect standardised death rate 1998–2000.

(d) 1998–2000, see Explanatory notes 25–26.

(e) Socioeconomic Indexes for Areas as defined from the 1996 Census of Population and Housing. Recoded to 2000 Statistical Division boundaries for consistency.

(f) Includes not stated, no fixed abode or overseas residents. State and Territory life expectancy at birth are from Table 7.2. See Explanatory notes 19–24.

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

	STATE OR TERRITORY OF REGISTRATION								
State or Territory of usual residence	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.*
New South Wales	44 552	230	375	42	11	3	6	190	45 409
Victoria	156	31 712	62	44	21	9	5	9	32 018
Queensland	210	39	22 135	11	10	4	10	6	22 425
South Australia	21	40	10	11 748	5	3	12	4	11 843
Western Australia	12	11	14	6	10 617	—	7	—	10 668
Tasmania	9	23	8	—	3	3 665	3	—	3 711
Northern Territory	3	—	4	32	5	—	864	—	909
Australian Capital Territory	40	8	7	—	—	—	—	1 244	1 300
Australia(a)	**45 002**	**32 065**	**22 615**	**11 884**	**10 680**	**3 685**	**906**	**1 454**	**128 291**

— nil or rounded to zero (including null cells)

(a) Includes Other Territories.

7.8 DEATHS REGISTERED IN 2000, By Year of Occurrence(a)

	STATE OR TERRITORY OF REGISTRATION								
Year of occurrence	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.*
Before 1990	3	3	3	3	7	—	—	—	17
1990	—	3	—	—	3	—	—	—	4
1991	—	—	—	—	—	—	—	—	—
1992	—	—	—	—	—	—	—	—	4
1993	3	—	—	—	—	—	—	—	—
1994	—	3	—	—	—	—	—	—	4
1995	—	—	—	—	—	—	—	—	—
1996	—	4	3	—	—	—	—	—	11
1997	—	—	4	—	8	—	—	—	15
1998	13	4	9	6	13	—	3	—	47
1999	1 405	1 268	1 341	528	458	192	96	61	5 349
2000	43 580	30 780	21 255	11 345	10 188	3 489	808	1 393	122 838
Total(b)	**45 002**	**32 065**	**22 615**	**11 884**	**10 680**	**3 685**	**906**	**1 454**	**128 291**

— nil or rounded to zero (including null cells)

(a) See paragraph 2 of the Explanatory Notes.

(b) Includes year of occurrence not available.

7.9 DEATHS, Age and Sex—Selected Years

Age group (years)	*1980*	*1985*	*1990*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*
				MALES					
0	1 383	1 398	1 224	807	843	744	706	812	725
1–4	308	277	256	206	205	206	199	164	156
5–9	211	178	150	112	115	99	102	95	100
10–14	224	198	135	130	147	133	126	112	121
15–19	859	746	676	492	541	572	506	547	501
20–24	1 031	1 087	950	916	866	857	870	841	700
25–29	829	894	998	849	876	938	992	1 027	920
30–34	738	809	976	1 046	1 019	950	1 067	976	932
35–39	834	890	966	1 157	1 125	1 078	1 137	1 066	1 117
40–44	1 149	1 111	1 357	1 262	1 324	1 321	1 311	1 302	1 342
45–49	1 869	1 580	1 575	1 738	1 757	1 718	1 628	1 664	1 619
50–54	3 278	2 510	2 253	2 212	2 281	2 416	2 354	2 386	2 417
55–59	4 743	4 445	3 503	3 083	3 051	3 044	3 054	3 102	3 055
60–64	5 909	6 492	5 899	4 712	4 636	4 581	4 351	4 166	4 082
65–69	8 230	7 629	8 217	7 531	7 349	7 078	6 677	6 305	5 922
70–74	8 882	9 837	8 976	9 952	9 987	9 818	9 590	9 573	9 120
75–79	8 422	9 592	10 429	9 949	10 474	10 583	10 754	11 167	11 233
80–84	6 059	7 660	8 468	10 068	10 664	10 476	10 221	9 809	10 028
85–89	3 555	4 438	5 157	6 701	7 089	7 193	7 357	7 806	8 061
90–94	1 601	1 852	1 909	2 669	3 035	3 100	3 235	3 425	3 688
95–99	340	464	511	575	718	735	758	786	855
100 and over	36	45	65	80	90	105	71	87	105
Not stated	28	24	10	4	14	7	7	9	18
Total	**60 518**	**64 156**	**64 660**	**66 251**	**68 206**	**67 752**	**67 073**	**67 227**	**66 817**
				FEMALES					
0	1 034	1 054	921	642	617	597	546	596	565
1–4	215	210	168	151	146	121	148	129	112
5–9	144	114	88	93	73	86	61	72	74
10–14	136	105	94	113	106	81	87	89	78
15–19	279	267	265	214	184	221	237	215	216
20–24	339	353	298	293	228	284	258	269	247
25–29	266	347	325	289	296	320	308	315	324
30–34	383	363	375	414	364	431	374	406	374
35–39	428	499	499	494	556	553	574	531	570
40–44	629	603	705	729	713	746	760	787	738
45–49	917	936	892	1 030	1 059	1 072	1 059	1 085	1 060
50–54	1 547	1 364	1 310	1 334	1 380	1 457	1 507	1 390	1 484
55–59	2 359	2 258	1 791	1 728	1 823	1 813	1 715	1 727	1 874
60–64	3 012	3 362	3 018	2 540	2 518	2 484	2 420	2 377	2 294
65–69	4 474	4 357	4 671	4 227	4 024	3 990	3 633	3 440	3 441
70–74	5 659	6 719	6 173	6 357	6 301	6 294	5 994	5 879	5 637
75–79	6 908	8 029	8 650	8 214	8 480	8 304	8 427	8 567	8 330
80–84	7 795	8 974	9 361	10 865	11 013	11 174	10 785	10 561	10 390
90–94	3 603	4 790	5 122	6 305	6 934	7 142	7 106	7 563	8 061
95–99	1 061	1 577	1 883	2 368	2 587	2 696	2 698	2 706	2 942
100 and over	150	251	362	509	467	545	545	528	605
Not stated	5	4	3	—	3	4	—	—	3
Total	**48 177**	**54 652**	**55 402**	**58 882**	**60 513**	**61 598**	**60 129**	**60 875**	**61 474**

— nil or rounded to zero (including null cells)

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

Age group (years)	*1980*	*1985*	*1990*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*
					MALES				
0	12.1	11.4	9.3	6.1	6.4	5.7	5.5	6.4	5.7
1–4	0.7	0.6	0.5	0.4	0.4	0.4	0.4	0.3	0.3
5–9	0.3	0.3	0.2	0.2	0.2	0.1	0.2	0.1	0.1
10–14	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
15–19	1.3	1.1	0.9	0.8	0.8	0.9	0.8	0.8	0.7
20–24	1.6	1.6	1.4	1.3	1.2	1.2	1.3	1.2	1.0
25–29	1.4	1.3	1.4	1.2	1.2	1.3	1.3	1.4	1.2
30–34	1.2	1.3	1.4	1.4	1.4	1.3	1.5	1.4	1.3
35–39	1.7	1.4	1.5	1.6	1.5	1.5	1.5	1.4	1.5
40–44	2.8	2.2	2.1	1.9	2.0	1.9	1.9	1.8	1.9
45–49	4.9	3.8	3.1	2.7	2.7	2.6	2.5	2.5	2.4
50–54	8.3	6.7	5.4	4.5	4.4	4.3	4.0	3.9	3.8
55–59	13.0	11.5	9.5	7.6	7.3	7.0	6.8	6.7	6.3
60–64	20.9	18.8	16.0	13.3	13.1	12.7	11.8	11.0	10.4
65–69	33.5	30.1	26.2	22.5	21.8	21.0	20.0	19.0	17.9
70–74	52.2	48.0	41.2	36.9	36.2	34.9	33.5	33.0	31.0
75–79	82.3	76.0	67.5	58.7	58.3	55.7	53.6	52.6	51.6
80–84	123.2	120.8	104.8	98.1	100.8	96.6	92.9	88.3	85.0
85 and over	202.8	209.9	183.9	176.6	181.3	174.0	167.2	166.1	165.3
					FEMALES				
0	9.6	8.9	7.4	5.1	5.0	4.9	4.5	4.9	4.7
1–4	0.5	0.4	0.3	0.3	0.3	0.2	0.3	0.3	0.2
5–9	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
10–14	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1
15–19	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.3	0.3
20–24	0.5	0.5	0.4	0.4	0.3	0.4	0.4	0.4	0.4
25–29	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4
30–34	0.7	0.6	0.5	0.6	0.5	0.6	0.5	0.6	0.5
35–39	0.9	0.8	0.8	0.7	0.8	0.7	0.8	0.7	0.8
40–44	1.6	1.3	1.1	1.1	1.1	1.1	1.1	1.1	1.0
45–49	2.5	2.3	1.9	1.7	1.7	1.7	1.6	1.6	1.6
50–54	4.1	3.8	3.3	2.8	2.8	2.7	2.6	2.3	2.4
55–59	6.4	6.0	5.0	4.4	4.5	4.3	4.0	3.8	4.0
60–64	9.8	9.2	8.1	7.1	7.1	6.8	6.5	6.3	5.9
65–69	15.8	14.9	13.4	11.9	11.3	11.3	10.4	9.9	10.0
70–74	26.3	25.9	22.8	19.7	19.3	19.2	18.2	17.8	17.0
75–79	45.6	43.6	39.2	35.2	34.8	32.5	31.5	30.4	29.1
80–84	79.8	77.8	67.2	63.0	62.4	62.4	59.9	59.1	55.7
85 and over	163.1	165.9	149.6	142.6	145.7	144.6	136.1	136.1	137.9

(a) Per 1,000 population.

7.11 DEATHS, Age and Sex—States and Territories

Age group (years)	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.(a)
				MALES					
0	260	150	143	54	68	17	23	10	725
1–4	54	31	31	14	17	5	3	3	156
5–9	29	23	25	6	11	3	—	—	100
10–14	44	24	20	12	12	5	3	—	121
15–19	161	102	96	42	54	20	21	5	501
20–24	232	158	125	57	79	15	19	15	700
25–29	282	231	173	78	97	16	28	15	920
30–34	296	227	159	76	109	24	27	14	932
35–39	379	263	199	86	122	27	27	14	1 117
40–44	483	274	240	110	133	45	42	14	1 342
45–49	562	358	307	131	157	46	43	14	1 619
50–54	802	573	476	237	203	62	42	22	2 417
55–59	1 062	686	629	242	270	82	53	31	3 055
60–64	1 506	953	740	331	350	117	46	39	4 082
65–69	2 101	1 465	1 047	506	503	187	40	73	5 922
70–74	3 241	2 220	1 613	852	765	284	61	83	9 120
75–79	3 980	2 784	1 948	1 118	934	333	37	99	11 233
80–84	3 613	2 470	1 821	938	757	305	30	94	10 028
85–89	2 831	2 087	1 391	802	650	224	14	62	8 061
90–94	1 209	1 006	665	355	328	89	8	28	3 688
95–99	282	240	157	67	82	18	4	5	855
100 and over	28	39	18	7	11	3	—	—	105
Not stated	8	4	—	—	6	—	—	—	18
Total	**23 445**	**16 368**	**12 023**	**6 121**	**5 718**	**1 926**	**571**	**642**	**66 817**
				FEMALES					
0	187	118	148	28	41	16	20	7	565
1–4	49	18	17	6	13	4	3	3	112
5–9	22	20	15	3	8	3	3	—	74
10–14	24	19	15	7	9	—	—	—	78
15–19	56	57	43	14	30	6	6	4	216
20–24	84	59	41	15	33	5	9	—	247
25–29	86	81	78	26	33	5	12	3	324
30–34	128	86	62	31	41	8	11	7	374
35–39	166	155	101	42	60	17	25	4	570
40–44	236	182	139	65	75	16	18	7	738
45–49	341	266	177	103	101	30	21	20	1 060
50–54	502	341	281	128	129	47	28	28	1 484
55–59	642	448	359	165	161	53	25	20	1 874
60–64	819	570	367	185	215	72	34	32	2 294
65–69	1 224	832	608	307	297	108	25	40	3 441
70–74	2 049	1 450	940	492	453	167	23	62	5 637
75–79	3 027	2 135	1 354	826	603	272	21	92	8 330
80–84	3 814	2 570	1 781	979	791	313	31	110	10 390
85–89	4 356	3 181	1 942	1 138	943	361	11	124	12 056
90–94	2 902	2 103	1 373	798	623	198	7	57	8 061
95–99	1 037	792	457	308	249	65	4	30	2 942
100 and over	213	165	104	57	42	17	—	5	605
Not stated	—	3	—	—	—	—	—	—	3
Total	**21 964**	**15 650**	**10 402**	**5 722**	**4 950**	**1 785**	**338**	**658**	**61 474**

— nil or rounded to zero (including null cells)

(a) Includes Other Territories.

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

Age group (years)	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.(b)
				MALES					
0	5.9	4.9	5.9	5.9	5.4	5.7	12.6	4.8	5.7
1–4	0.3	0.2	0.3	0.4	0.3	0.4	0.1	0.4	0.3
5–9	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.1	0.1
10–14	0.2	0.1	0.2	0.2	0.2	0.3	0.4	0.1	0.2
15–19	0.7	0.6	0.7	0.8	0.8	1.1	2.8	0.4	0.7
20–24	1.0	0.9	1.0	1.1	1.1	1.0	2.1	1.0	1.0
25–29	1.1	1.2	1.3	1.5	1.3	1.1	2.7	1.1	1.2
30–34	1.2	1.3	1.2	1.4	1.5	1.6	2.8	1.2	1.3
35–39									
40–44	2.0	1.5	1.8	2.0	1.8	2.5	5.3	1.2	1.9
45–49	2.5	2.2	2.4	2.5	2.3	2.8	6.1	1.2	2.4
50–54	3.8	3.7	4.0	4.7	3.2	3.9	6.8	2.0	3.8
55–59	6.4	5.8	6.8	6.2	5.8	6.6	12.6	4.2	6.3
60–64	11.2	9.8	10.2	10.3	9.5	11.3	18.2	7.4	10.4
65–69	18.3	17.4	17.8	17.9	16.9	20.9	26.7	18.0	17.9
70–74	31.5	29.5	31.2	31.6	30.2	35.7	58.4	26.4	31.0
75–79	51.8	50.3	51.0	54.8	51.6	58.4	69.7	41.7	51.6
80–84	86.6	83.1	86.0	83.7	79.3	94.2	122.4	80.1	85.0
85 and over	167.8	166.4	163.0	167.3	160.4	160.4	130.0	141.8	165.3
				FEMALES					
0	4.5	4.0	6.5	3.2	3.4	5.7	11.5	3.5	4.7
1–4	0.3	0.2	0.2	0.2	0.3	0.3	0.4	0.2	0.2
5–9	0.1	0.1	0.1	0.0	0.1	0.2	0.2	0.2	0.1
10–14	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1
15–19	0.3	0.4	0.3	0.3	0.4	0.4	0.8	0.3	0.3
20–24	0.4	0.3	0.3	0.3	0.5	0.3	1.2	0.1	0.4
25–29	0.3	0.4	0.6	0.5	0.5	0.3	1.3	0.2	0.4
30–34	0.5	0.5	0.5	0.6	0.6	0.5	1.2	0.6	0.5
35–39	0.7	0.8	0.7	0.7	0.8	0.9	3.1	0.3	0.8
40–44	1.0	1.0	1.0	1.1	1.0	0.9	2.5	0.6	1.0
45–49	1.5	1.6	1.4	1.9	1.5	1.8	3.4	1.7	1.6
50–54	2.5	2.2	2.4	2.5	2.2	3.0	5.6	2.6	2.4
55–59	4.0	3.8	4.1	4.2	3.7	4.3	8.0	2.7	4.0
60–64	6.1	5.7	5.3	5.6	6.0	6.9	18.4	6.2	5.9
65–69	10.1	9.3	10.2	10.2	9.7	11.5	20.2	9.8	10.0
70–74	17.5	16.8	16.7	16.2	16.3	19.0	26.8	16.8	17.0
75–79	29.7	28.6	28.1	30.2	26.2	34.8	39.5	28.7	29.1
80–84	57.3	53.7	56.1	55.1	52.7	59.6	92.0	57.6	55.7
85 and over	141.8	138.3	136.2	138.2	125.5	136.6	81.4	139.3	137.9

(a) Per 1,000 population.

(b) Includes Other Territories.

7.13 DEATHS, Age, Sex and Marital Status

	MALES						FEMALES					
Age group (years)	Never married	Married	Widowed	Divorced	Not stated(a)	Total	Never married	Married	Widowed	Divorced	Not stated(a)	Total
0	725	—	—	—	—	725	565	—	—	—	—	565
1–4	156	—	—	—	—	156	112	—	—	—	—	112
5–9	100	—	—	—	—	100	74	—	—	—	—	74
10–14	106	—	—	—	15	121	72	—	—	—	6	78
15–19	383	—	—	—	116	501	169	—	—	—	45	216
20–24	661	26	—	—	13	700	228	13	—	—	6	247
25–29	743	113	—	15	48	920	221	73	—	7	22	324
30–34	600	239	—	48	44	932	155	165	—	31	21	374
35–39	568	387	4	101	57	1 117	170	307	6	60	27	570
40–44	491	588	6	187	70	1 342	164	405	8	129	32	738
45–49	435	828	19	269	68	1 619	145	668	41	167	39	1 060
50–54	445	1 429	41	414	88	2 417	154	913	69	312	36	1 484
55–59	456	1 855	92	539	113	3 055	178	1 195	180	289	32	1 874
60–64	540	2 659	176	572	135	4 082	181	1 377	412	282	42	2 294
65–69	667	4 036	449	650	120	5 922	210	1 811	971	390	59	3 441
70–74	946	6 121	1 098	754	201	9 120	302	2 556	2 255	458	66	5 637
75–79	927	7 370	2 092	685	159	11 233	451	2 749	4 598	466	66	8 330
80–84	729	6 030	2 768	396	105	10 028	623	2 181	7 130	386	70	10 390
85–89	454	4 070	3 220	254	63	8 061	744	1 394	9 503	343	72	12 056
90–94	215	1 405	1 962	71	35	3 688	601	421	6 860	140	39	8 061
95–99	48	195	586	17	9	855	287	62	2 522	61	10	2 942
100 and over	3	20	80	3	—	105	60	11	526	5	3	605
Not stated	4	3	—	—	12	18	—	—	—	—	3	3
Total	**10 402**	**37 375**	**12 595**	**4 973**	**1 472**	**66 817**	**5 867**	**16 303**	**35 084**	**3 526**	**694**	**61 474**

— nil or rounded to zero (including null cells)

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

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

	MALES					*FEMALES*				
Age group (years)	*Never married*	*Married*	*Widowed*	*Divorced*	*Total*	*Never married*	*Married*	*Widowed*	*Divorced*	*Total*
0	5.7	—	—	—	5.7	4.7	—	—	—	4.7
1–4	0.3	—	—	—	0.3	0.2	—	—	—	0.2
5–9	0.1	—	—	—	0.1	0.1	—	—	—	0.1
10–14	0.2	—	—	—	0.2	0.1	—	—	—	0.1
15–19	0.7	2.9	—	—	0.7	0.3	0.7	—	—	0.3
20–24	1.0	0.7	—	—	1.0	0.4	0.2	—	—	0.4
25–29	1.5	0.5	1.9	1.3	1.2	0.6	0.2	0.8	0.3	0.4
30–34	2.2	0.6	1.0	1.4	1.3	0.9	0.4	0.7	0.7	0.5
35–39	3.3	0.8	2.3	1.8	1.5	1.5	0.6	1.1	0.8	0.8
40–44	4.5	1.2	2.2	2.6	1.9	2.2	0.8	0.9	1.4	1.0
45–49	6.2	1.7	4.3	3.4	2.4	3.1	1.4	2.8	1.7	1.6
50–54	9.4	3.0	6.3	5.4	3.8	5.3	2.0	3.0	3.4	2.4
55–59	15.0	4.9	10.8	9.8	6.3	9.5	3.4	5.3	4.5	4.0
60–64	23.4	8.7	14.9	15.0	10.4	13.1	5.0	8.0	6.6	5.9
65–69	34.3	15.6	25.1	24.3	17.9	17.5	8.3	12.3	12.9	10.0
70–74	54.3	27.3	41.1	40.0	31.0	24.5	14.7	19.1	20.6	17.1
75–79	79.3	46.1	63.4	64.0	51.4	38.3	24.1	31.9	32.6	29.1
80–84	125.2	78.0	95.2	91.5	85.2	70.9	46.2	58.3	60.9	55.9
85 and over	177.1	141.8	185.6	170.4	162.1	158.6	91.1	140.5	164.7	136.1

— nil or rounded to zero (including null cells)
(a) Per 1,000 population.

7.15 DEATHS, Selected Countries of Birth—Males(a)

		Australia	*China*	*Germany*	*Greece*	*India*	*Indonesia*	*Italy*
Deaths	no.	46 224	362	655	711	254	110	2 136
Population(b)	'000	7 266.4	81.0	59.1	71.7	59.7	33.0	128.4
Crude death rate(c)	rate	6.4	4.5	11.1	9.9	4.3	3.3	16.6
Median age at death	years	75.1	76.9	72.4	72.1	75.6	74.4	75.5
Age at death (years)								
0	no.	720	—	—	—	—	—	—
1–4	no.	147	—	—	—	—	3	—
5–14	no.	199	—	—	—	—	—	—
15–24	no.	1 020	3	4	—	6	6	—
25–34	no.	1 526	7	6	—	5	3	3
35–44	no.	1 912	6	14	8	6	3	15
45–54	no.	2 809	19	66	33	8	10	77
55–64	no.	4 690	31	103	125	33	12	215
65–74	no.	9 926	91	193	273	66	26	715
75–84	no.	14 594	114	175	167	78	35	678
85 and over	no.	8 680	87	94	103	52	16	433
Not stated	no.	—	3	—	—	—	—	—
Leading causes of death(d)								
Malignant neoplasms (C00–C97)	rate	243	141	206	170	122	198	219
Ischaemic heart diseases (I20–I25)	rate	183	84	185	128	160	179	132
Cerebrovascular diseases (I60–I69)	rate	67	41	82	55	44	80	62
Chronic lower respiratory diseases (J40–J47)	rate	48	17	23	16	13	14	23
Accidents (V01–X59)	rate	39	18	33	23	15	30	27
Total causes	rate	852	423	786	584	519	712	706

— nil or rounded to zero (including null cells)

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

(b) Estimated male resident population by country of birth, June 2000 preliminary.

(c) Per 1,000 male estimated resident population by country of birth, June 2000 preliminary.

(d) ISDR per 100,000 population. Standardised using age-specific death rates for the 1999 Australian population, for comparability with *Deaths, Australia, 1999*. See paragraph 17 of the Explanatory Notes.

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

		Lebanon	*Netherlands*	*New Zealand*	*Philippines*	*United Kingdom*	*United States of America*	*Viet Nam*	*Total overseas-born(e)*
Deaths	no.	175	715	785	103	7 408	196	167	20 593
Population(b)	'000	41.7	47.6	192.5	45.6	588.3	36.2	86.7	2 271.4
Crude death rate(c)	rate	4.2	15.0	4.1	2.3	12.6	5.4	1.9	9.1
Median age at death	years	65.9	76.2	68.0	63.3	77.5	75.3	61.9	75.5
Age at death (years)									
0	no.	—	—	—	—	—	—	—	5
1–4	no.	—	—	—	—	—	3	3	9
5–14	no.	—	—	5	3	4	—	—	22
15–24	no.	—	5	27	5	25	3	16	181
25–34	no.	14	3	57	3	72	7	12	326
35–44	no.	8	5	62	16	170	8	20	547
45–54	no.	16	38	95	16	367	22	22	1 227
55–64	no.	42	73	112	11	781	21	17	2 447
65–74	no.	46	204	129	14	1 594	33	34	5 116
75–84	no.	35	275	164	22	2 597	69	35	6 667
85 and over	no.	13	112	132	13	1 798	30	10	4 029
Not stated	no.	—	—	—	—	—	—	—	17
Leading causes of death(d)									
Malignant neoplasms (C00–C97)	rate	143	263	195	157	241	188	105	219
Ischaemic heart diseases (I20–25)	rate	130	170	154	129	171	222	70	170
Cerebrovascular diseases (I60–I69)	rate	76	56	55	71	56	84	54	62
Chronic lower respiratory diseases (J40–J47)	rate	41	42	42	12	43	59	14	34
Accidents (V01–X59)	rate	25	33	39	22	29	59	29	32
Total causes	rate	612	788	729	507	782	859	398	761

— nil or rounded to zero (including null cells)

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

(b) Estimated male resident population by country of birth, June 2000 preliminary.

(c) Per 1,000 male estimated resident population by country of birth, June 2000 preliminary.

(d) ISDR per 100,000 population. Standardised using age-specific death rates for the 1999 Australian population, for comparability with *Deaths, Australia, 1999*. See paragraph 17 of the Explanatory Notes.

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

7.16 DEATHS, Selected Countries of Birth—Females(a)

		Australia	*China*	*Germany*	*Greece*	*India*	*Indonesia*	*Italy*
Deaths	no	45 008	400	684	485	241	64	1 378
Population(b)	'000	7 373.3	87.0	61.1	69.5	50.5	34.5	113.4
Crude death rate(c)	rate	6.1	4.6	11.2	7.0	4.8	1.9	12.2
Median age at death	years	82.0	81.6	78.6	78.0	81.1	75.0	80.4
Age at death (years)								
0	no.	561	—	—	—	—	3	—
1–4	no.	110	—	—	—	—	—	—
5–14	no.	142	—	—	—	—	—	—
15–24	no.	393	—	3	—	3	3	—
25–34	no.	583	3	3	—	—	—	—
35–44	no.	997	12	3	6	3	4	11
45–54	no.	1 769	12	58	25	9	5	29
55–64	no.	2 908	28	42	66	17	3	110
65–74	no.	6 397	71	140	109	45	15	268
75–84	no.	13 675	133	239	123	83	21	433
85 and over	no.	17 473	141	198	155	82	11	526
Not stated	no.	—	—	—	—	—	—	—
Leading causes of death(d)								
Malignant neoplasms (C00–C97)	rate	145	114	155	95	105	113	115
Ischaemic heart diseases (I20–I25)	rate	109	58	102	83	87	33	84
Cerebrovascular diseases (I60–I69)	rate	62	53	50	32	45	28	54
Chronic lower respiratory diseases (J40–J47)	rate	23	6	22	8	10	6	6
Accidents (V01–X59)	rate	18	9	24	14	11	11	19
Total causes	rate	552	360	536	382	400	367	452

— nil or rounded to zero (including null cells)

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

(b) Estimated female resident population by country of birth, June 2000 preliminary.

(c) Per 1,000 female estimated resident population by country of birth, June 2000 preliminary.

(d) ISDR per 100,000 population. Standardised using age-specific death rates for the 1999 Australian population, for comparability with *Deaths, Australia, 1999*. See paragraph 17 of the Explanatory Notes.

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

		Lebanon	*Netherlands*	*New Zealand*	*Philippines*	*United Kingdom*	*United States of America*	*Viet Nam*	*Total overseas-born(e)*
Deaths	no.	140	538	661	98	6 851	97	157	16 466
Population(b)	'000	38.1	43.0	182.4	77.4	571.8	28.9	87.8	2 245.9
Crude death rate(c)	rate	3.7	12.5	3.6	1.3	12.0	3.4	1.8	7.3
Median age at death	years	74.8	80.0	78.0	69.5	83.3	79.5	71.1	80.9
Age at death (years)									
0	no.	—	—	—	—	—	—	—	4
1–4	no.	—	—	—	—	—	—	—	—
5–14	no.	—	—	—	—	3	—	—	10
15–24	no.	—	3	14	3	6	4	7	70
25–34	no.	3	3	14	4	26	—	7	115
35–44	no.	3	—	48	7	81	4	13	311
45–54	no.	15	31	62	16	223	10	18	775
55–64	no.	10	45	63	11	465	9	14	1 260
65–74	no.	39	93	92	22	961	13	32	2 681
75–84	no.	42	199	158	24	2 032	23	45	5 045
85 and over	no.	27	165	209	10	3 054	32	21	6 191
Not stated	no.	—	—	—	—	—	—	—	3
Leading causes of death(e)									
Malignant neoplasms (C00–C97)	rate	121	151	162	88	152	157	97	138
Ischaemic heart diseases (I20–I25)	rate	93	98	98	35	106	135	35	98
Cerebrovascular diseases (I60–I69)	rate	72	57	72	40	56	44	41	56
Chronic lower respiratory diseases (J40–J47)	rate	8	14	22	6	26	7	9	18
Accidents (V01–X59)	rate	8	27	15	9	19	19	11	17
Total causes	rate	515	516	521	244	548	550	305	504

— nil or rounded to zero (including null cells)

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

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

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

(d) ISDR per 100,000 population. Standardised using age-specific death rates for the 1999 Australian population, for comparability with *Deaths, Australia, 1999*. See paragraph 17 of the Explanatory Notes.

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

7.17 SELECTED COUNTRIES OF BIRTH, Indirect Standardised Death Rates(a)

	LEADING CAUSES OF DEATH						
Birthplace	*Malignant neoplasms*	*Ischaemic heart diseases*	*Cerebrovascular diseases*	*Chronic lower respiratory diseases*	*Accidents*	*Total*	*Total deaths*
	rate	rate	rate	rate	rate	rate	no.
Australia	186	138	64	33	27	672	91 232
China	127	69	48	11	13	388	762
Germany	177	134	61	22	27	635	1 339
Greece	133	105	43	12	18	481	1 196
India	113	118	45	11	13	453	495
Indonesia	154	100	51	10	20	529	174
Italy	169	108	58	15	23	578	3 514
Lebanon	132	112	74	25	17	565	315
Netherlands	207	131	56	27	30	643	1 253
New Zealand	178	123	65	31	27	616	1 446
Philippines	110	66	51	8	13	333	201
United Kingdom	193	133	56	33	24	649	14 259
United States of America	175	183	66	37	41	725	293
Viet Nam	101	50	46	11	20	347	324
Total overseas-born(b)	177	130	58	25	24	620	37 059
Total Australia	**183**	**135**	**62**	**31**	**27**	**656**	**128 291**

(a) Per 100,000 population. Standardised using age-specific death rates for the 1999 Australian population, for comparability with *Deaths, Australia, 1999*. See paragraph 17 of the Explanatory Notes.

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

7.18 DEATHS, Country of Birth and Duration of Residence

	DURATION OF RESIDENCE (YEARS)									
Country of birth	0–4	5–9	10–19	20–29	30–39	40 and over	Not stated	Not applicable	Total	Median duration
	no.	no.	no.	no.	no.	no.	no.	no.	no.	years
Oceania and Antarctica										
Australia (incl. E T)	. .	. .	. .	. .	. .	. .	3	91 491	91 494	. .
Fiji	17	11	56	23	9	21	26	. .	163	14.6
New Zealand	132	95	245	194	111	385	284	. .	1 446	23.4
Papua New Guinea	—	—	5	34	5	15	13	. .	73	27.2
Other	31	24	48	19	—	23	53	. .	199	13.3
Total	*181*	*130*	*354*	*270*	*126*	*444*	*379*	*91 491*	*93 375*	*21.9*
North-West Europe										
Austria	3	—	12	8	24	190	39	. .	278	46.6
Denmark	3	—	3	9	18	44	5	. .	81	42.7
France	7	3	6	14	22	36	12	. .	100	34.5
Germany	17	11	62	52	130	944	123	. .	1 339	46.4
Ireland	11	5	34	49	96	315	80	. .	590	46.7
Netherlands	9	7	22	20	98	1 011	86	. .	1 253	46.3
Switzerland	4	—	4	6	7	34	13	. .	68	45.2
United Kingdom	196	179	904	1 357	3 018	7 283	1 322	. .	14 259	42.9
Other	8	—	6	20	56	102	33	. .	227	40.4
Total	*257*	*209*	*1 053*	*1 535*	*3 469*	*9 959*	*1 713*	. .	*18 195*	*44.3*
Southern and Eastern Europe										
Bosnia and Herzegovina	11	9	3	12	25	30	7	. .	96	31.4
Croatia	13	7	12	47	189	212	50	. .	530	38.2
Cyprus	3	—	3	36	26	86	7	. .	161	46.1
Former Yugoslav Republic of Macedonia	5	5	24	65	91	55	15	. .	260	30.8
Greece	10	10	20	92	408	612	44	. .	1 196	40.6
Hungary	3	3	19	27	52	383	77	. .	564	44.4
Italy	11	11	35	119	618	2 551	169	. .	3 514	46.0
Malta	—	—	4	14	104	337	28	. .	489	45.9
Poland	13	11	68	40	108	984	106	. .	1 330	50.4
Portugal	3	—	10	20	24	6	3	. .	65	29.8
Romania	3	5	22	11	9	66	11	. .	126	42.9
Russian Federation	9	13	17	11	38	178	30	. .	296	48.9
Spain	3	3	10	16	41	18	5	. .	94	35.1
Yugoslavia, Federal Republic of	10	7	20	54	136	206	49	. .	482	38.9
Other	21	49	57	48	64	1 056	116	. .	1 411	50.6
Total	*116*	*133*	*323*	*612*	*1 933*	*6 780*	*717*	. .	*10 614*	*45.8*
North Africa and the Middle East										
Egypt	6	8	22	27	113	196	33	. .	405	42.2
Iran	—	5	16	7	3	4	3	. .	38	n.p.
Israel	3	—	3	6	5	16	3	. .	33	n.p.
Lebanon	9	11	41	89	56	72	37	. .	315	29.0
Syria	—	5	7	9	11	—	—	. .	34	n.p.
Turkey	3	5	16	52	51	28	3	. .	158	30.1
Other	19	11	13	27	29	29	9	. .	137	29.3
Total	*38*	*45*	*118*	*217*	*268*	*345*	*89*	. .	*1 120*	*32.0*

. . not applicable

— nil or rounded to zero (including null cells)

n.p. not available for publication but included in totals where applicable

7.18 DEATHS, Country of Birth and Duration of Residence *continued*

	DURATION OF RESIDENCE (YEARS)									
Country of birth	*0–4* no.	*5–9* no.	*10–19* no.	*20–29* no.	*30–39* no.	*40 and over* no.	*Not stated* no.	*Not applicable* no.	*Total* no.	*Median duration* years
South-East Asia										
Cambodia	8	5	43	6	—	—	5	. .	67	13.5
Indonesia	20	11	24	20	10	69	20	. .	174	30.7
Laos	3	3	9	13	—	—	—	. .	28	n.p.
Malaysia	14	13	58	45	19	19	21	. .	189	19.8
Philippines	23	18	94	33	6	6	21	. .	201	14.1
Singapore	3	6	17	12	6	15	12	. .	71	22.8
Thailand	—	—	4	—	—	—	3	. .	10	n.p.
Viet Nam	11	65	162	64	—	3	20	. .	324	13.8
Other	4	12	33	36	32	17	7	. .	141	25.3
Total	*86*	*133*	*444*	*231*	*73*	*129*	*109*	. .	*1 205*	*16.6*
North-East Asia										
China (exc. SARs & Taiwan Province)	77	82	212	133	57	138	63	. .	762	19.1
Hong Kong (SAR of China)	3	8	22	19	13	22	6	. .	93	24.2
Japan	7	6	6	7	7	4	18	. .	55	19.5
Korea, Republic of (South)	20	4	28	15	—	3	9	. .	79	14.2
Other	—	3	8	—	3	—	6	. .	21	n.p.
Total	*108*	*102*	*276*	*175*	*79*	*168*	*102*	. .	*1 010*	*18.9*
Southern and Central Asia										
India	32	30	79	81	118	122	33	. .	495	30.2
Pakistan	—	3	—	4	3	6	3	. .	19	n.p.
Sri Lanka	24	19	52	43	25	44	5	. .	212	25.3
Other	5	9	4	4	3	3	5	. .	30	n.p.
Total	*63*	*60*	*137*	*132*	*146*	*174*	*44*	. .	*756*	*28.5*
Americas										
Argentina	—	—	9	16	5	8	4	. .	43	n.p.
Canada	6	7	9	11	25	62	21	. .	141	40.4
Caribbean	—	—	—	10	6	—	3	. .	21	n.p.
Central America	—	—	6	3	3	4	3	. .	19	n.p.
Chile	—	4	10	39	8	3	4	. .	67	25.3
United States of America	17	10	30	46	41	86	63	. .	293	31.8
Uruguay	—	—	5	24	3	3	3	. .	37	n.p.
Other	3	4	9	13	5	5	5	. .	43	n.p.
Total	*27*	*29*	*79*	*162*	*94*	*168*	*105*	. .	*664*	*29.4*
Sub-saharan Africa										
Kenya	—	3	—	—	7	—	—	. .	14	n.p.
Mauritius	—	3	15	13	46	5	4	. .	86	31.6
South Africa	25	25	73	58	35	87	33	. .	336	24.1
Zimbabwe	3	—	12	—	3	3	3	. .	23	n.p.
Other	11	7	14	10	13	10	10	. .	75	21.5
Total	*40*	*36*	*116*	*83*	*103*	*105*	*51*	. .	*534*	*26.5*
Other and not stated	*6*	—	*3*	*5*	*10*	*33*	*761*	. .	*818*	*40.9*
Total	**922**	**877**	**2 903**	**3 422**	**6 301**	**18 305**	**4 070**	**91 491**	**128 291**	**42.7**

. . not applicable

— nil or rounded to zero (including null cells)

n.p. not available for publication but included in totals where applicable.

7.19 LEADING CAUSES OF DEATH, Males

Cause of death	*1997*	*1998*	*1999*	*2000*
Chapter I Certain infectious and parasitic diseases (A00–B99)	*868*	*790*	*842*	*867*
Chapter II Neoplasms (C00–D48)	*19 865*	*20 168*	*20 283*	*20 545*
Malignant neoplasms (C00–C97)	19 489	19 816	19 866	20 153
Digestive organs (C15–C26)	5 482	5 432	5 600	5 676
Colon (C18)	1 855	1 736	1 771	1 753
Trachea, bronchus and lung (C33, C34)	4 536	4 714	4 655	4 587
Breast (C50)	19	19	22	19
Male genital organs (C60–C63)	2 480	2 593	2 546	2 700
Prostate (C61)	2 446	2 556	2 499	2 663
Lymphoid, haematopoietic and related tissue (C81–C96)	1 903	1 906	1 962	2 062
Chapter IV Endocrine, nutritional and metabolic diseases (E00–E90)	*2 008*	*2 003*	*2 001*	*2 141*
Diabetes mellitus (E10–E14)	1 515	1 481	1 485	1 594
Chapter V Mental and behavioural disorders (F00–F99)	*1 373*	*1 409*	*1 256*	*1 358*
Chapter VI Diseases of the nervous system (G00–G99)	*1 637*	*1 735*	*1 818*	*1 839*
Alzheimer's disease (G30)	479	485	493	455
Chapter IX Diseases of the circulatory system (I00–I99)	*26 121*	*25 159*	*24 824*	*23 756*
All heart diseases (I05–I09, I11, I13, I20–I25, I26, I27, I30–I52)	19 316	18 523	18 116	17 172
Ischaemic heart diseases (I20–I25)	15 791	15 256	14 865	14 052
Acute myocardial infarction (I21)	8 778	8 525	8 028	7 586
Pulmonary heart disease and diseases of pulmonary circulation and other forms of heart disease (I26–I52)	3 153	2 977	2 955	2 795
Heart failure (I50)	1 133	1 068	989	982
Cerebrovascular diseases (I60–I69)	4 978	4 910	4 894	4 913
Diseases of arteries, arterioles and capillaries (I70–I79)	1 523	1 408	1 476	1 321
Chapter X Diseases of the respiratory system (J00–J99))	*5 662*	*5 304*	*5 296*	*5 923*
Chronic lower respiratory diseases (J40–J47)	3 877	3 649	3 609	3 514
Chapter XI Diseases of the digestive system (K00–K93)	*2 092*	*2 013*	*2 111*	*2 063*
Diseases of liver (K70–K77)	926	867	863	805
Chapter XIV Diseases of the genitourinary system (N00–N99)	*1 186*	*1 197*	*1 232*	*1 186*
Chapter XVI Certain conditions originating in the perinatal period (P00–P96)	*347*	*333*	*377*	*360*
Chapter XVII Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)	*408*	*335*	*392*	*326*
Chapter XX External causes of morbidity and mortality (V01–Y98))	*5 426*	*5 747*	*5 868*	*5 517*
Transport accidents (V01–V99)	1 447	1 435	1 441	1 459
Falls (W00–W19)	259	270	309	308
Accidental drowning and submersion (W65–W74)	218	191	203	179
Intentional self-harm (X60–X84)	2 143	2 150	2 002	1 860
All Causes	**67 752**	**67 073**	**67 227**	**66 817**

7.20 LEADING CAUSES OF DEATH, Females

Cause of death	*1997*	*1998*	*1999*	*2000*
Chapter I Certain infectious and parasitic diseases (A00–B99)	*654*	*664*	*761*	*779*
Chapter II Neoplasms (C00–D48)	*15 498*	*15 441*	*15 573*	*15 829*
Malignant neoplasms (C00–C97)	15 173	15 137	15 187	15 475
Digestive organs (C15–C26)	4 349	4 310	4 312	4 379
Colon (C18)	1 678	1 659	1 557	1 665
Trachea, bronchus and lung (C33, C34)	2 052	2 028	2 148	2 291
Breast (C50)	2 609	2 557	2 505	2 511
Female genital organs (C51–C58)	1 391	1 374	1 300	1 402
Lymphoid, haematopoietic and related tissue (C81–C96)	1 581	1 621	1 596	1 682
Chapter IV Endocrine, nutritional and metabolic diseases (E00–E90)	*2 088*	*1 962*	*2 099*	*2 016*
Diabetes mellitus (E10–E14)	1 516	1 396	1 462	1 412
Chapter V Mental and behavioural disorders (F00–F99)	*1 512*	*1 463*	*1 552*	*1 716*
Chapter VI Diseases of the nervous system (G00–G99)	*2 069*	*1 982*	*2 072*	*2 200*
Alzheimer's disease (G30)	1 031	982	1 023	1 104
Chapter IX Diseases of the circulatory system (I00–I99)	*27 515*	*26 628*	*26 479*	*25 931*
All heart diseases (I05–I09, I11, I13, I20–I25, I26, I27, I30–I52)	18 256	17 457	17 229	16 747
Ischaemic heart diseases (I20–I25)	13 666	13 043	12 744	12 469
Acute myocardial infarction (I21)	7 744	7 352	7 124	7 030
Pulmonary heart disease and diseases of pulmonary circulation and other forms of heart disease (I26–I52)	3 943	3 822	3 896	3 713
Heart failure (I50)	1 849	1 727	1 725	1 662
Cerebrovascular diseases (I60–I69)	7 425	7 361	7 372	7 387
Diseases of arteries, arterioles and capillaries (I70–I79)	1 397	1 312	1 388	1 296
Chapter X Diseases of the respiratory system (J00–J99))	*4 687*	*4 310*	*4 317*	*4 984*
Chronic lower respiratory diseases (J40–J47)	2 668	2 485	2 487	2 448
Chapter XI Diseases of the digestive system (K00–K93)	*1 966*	*1 954*	*2 110*	*2 078*
Diseases of liver (K70–K77)	394	378	380	357
Chapter XIV Diseases of the genitourinary system (N00–N99)	*1 402*	*1 500*	*1 536*	*1 506*
Chapter XVI Certain conditions originating in the perinatal period (P00–P96)	*292*	*256*	*264*	*282*
Chapter XVII Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)	*337*	*277*	*323*	*284*
Chapter XX External causes of morbidity and mortality (V01–Y98))	*2 438*	*2 468*	*2 493*	*2 581*
Transport accidents (V01–V99)	591	551	570	556
Falls (W00–W19)	189	195	211	257
Accidental drowning and submersion (W65–W74)	61	58	75	50
Intentional self-harm (X60–X84)	577	533	490	503
All Causes	**61 598**	**60 129**	**60 875**	**61 474**

7.21 LEADING CAUSES OF DEATH, Standardised Death Rates—Males(a)

Cause of death	*1997* rate	*1998* rate	*1999* rate	*2000* rate
Chapter I Certain infectious and parasitic diseases (A00–B99)	*10*	*9*	*9*	*9*
Chapter II Neoplasms (C00–D48)	*227*	*224*	*219*	*216*
Malignant neoplasms (C00–C97)	222	220	215	212
Digestive organs (C15–C26)	62	60	60	59
Colon (C18)	21	19	19	18
Trachea, bronchus and lung (C33, C34)	51	52	50	48
Male genital organs (C60–C63)	30	30	29	29
Prostate (C61)	29	30	28	29
Lymphoid, haematopoietic and related tissue (C81–C96)	22	21	21	22
Chapter IV Endocrine, nutritional and metabolic diseases (E00–E90)	*23*	*23*	*22*	*23*
Diabetes mellitus (E10–E14)	18	17	16	17
Chapter V Mental and behavioural disorders (F00–F99)	*16*	*16*	*14*	*15*
Chapter VI Diseases of the nervous system (G00–G99)	*19*	*20*	*20*	*20*
Alzheimer's disease (G30)	6	6	6	5
Chapter IX Diseases of the circulatory system (I00–I99)	*311*	290	277	256
All heart diseases (I05–I09, I11, I13, I20–I25, I26, I27, I30–I52)	228	212	201	184
Ischaemic heart diseases (I20–I25)	186	174	164	150
Acute myocardial infarction (I21)	103	97	89	81
Pulmonary heart disease and diseases of pulmonary circulation and other forms of heart disease (I26–I52)	38	35	33	30
Heart failure (I50)	14	13	12	11
Cerebrovascular diseases (I60–I69)	60	58	55	54
Diseases of arteries, arterioles and capillaries (I70–I79)	18	16	17	14
Chapter X Diseases of the respiratory system (J00–J99))	*68*	*62*	*59*	*64*
Chronic lower respiratory diseases (J40–J47)	46	42	40	38
Chapter XI Diseases of the digestive system (K00–K93)	*24*	*22*	*23*	*22*
Diseases of liver (K70–K77)	10	9	9	8
Chapter XIV Diseases of the genitourinary system (N00–N99)	*15*	*14*	*14*	*13*
Chapter XVI Certain conditions originating in the perinatal period (P00–P96)	*4*	*4*	*4*	*4*
Chapter XVII Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)	*5*	*4*	*4*	*4*
Chapter XX External causes of morbidity and mortality (V01–Y98))	*60*	*63*	*63*	*58*
Transport accidents (V01–V99)	16	16	16	16
Falls (W00–W19)	3	3	3	3
Accidental drowning and submersion (W65–W74)	2	2	2	2
Intentional self-harm (X60–X84)	23	23	21	19
All Causes	**791**	**760**	**740**	**713**

(a) Deaths per 100,000 population.

7.22 LEADING CAUSES OF DEATH, Standardised Death Rates—Females(a)

Cause of death	*1997* rate	*1998* rate	*1999* rate	*2000* rate
Chapter I Certain infectious and parasitic diseases (A00–B99)	*5*	*5*	*6*	*6*
Chapter II Neoplasms (C00–D48)	*139*	*135*	*132*	*131*
Malignant neoplasms (C00–C97)	136	132	129	128
Digestive organs (C15–C26)	38	37	36	35
Colon (C18)	15	14	13	13
Trachea, bronchus and lung (C33, C34)	19	18	19	20
Breast (C50)	24	23	22	21
Female genital organs (C51–C58)	13	12	11	12
Lymphoid, haematopoietic and related tissue (C81–C96)	14	14	13	14
Chapter IV Endocrine, nutritional and metabolic diseases (E00–E90)	*17*	*16*	*16*	*15*
Diabetes mellitus (E10–E14)	12	11	11	11
Chapter V Mental and behavioural disorders (F00–F99)	*11*	*10*	*10*	*11*
Chapter VI Diseases of the nervous system (G00–G99)	*16*	*15*	*15*	*16*
Alzheimer's disease (G30)	7	7	7	7
Chapter IX Diseases of the circulatory system (I00–I99)	*204*	192	183	173
All heart diseases (I05–I09, I11, I13, I20–I25, I26, I27, I30–I52)	136	126	120	112
Ischaemic heart diseases (I20–I25)	103	95	89	84
Acute myocardial infarction (I21)	59	54	50	48
Pulmonary heart disease and diseases of pulmonary circulation and other forms of heart disease (I26–I52)	29	27	26	24
Heart failure (I50)	13	11	11	10
Cerebrovascular diseases (I60–I69)	54	52	50	48
Diseases of arteries, arterioles and capillaries (I70–I79)	10	9	10	9
Chapter X Diseases of the respiratory system (J00–J99))	*37*	*33*	*32*	*35*
Chronic lower respiratory diseases (J40–J47)	22	20	20	19
Chapter XI Diseases of the digestive system (K00–K93)	*16*	*15*	*16*	*15*
Diseases of liver (K70–K77)	4	4	3	3
Chapter XIV Diseases of the genitourinary system (N00–N99)	*10*	*11*	*11*	*10*
Chapter XVI Certain conditions originating in the perinatal period (P00–P96)	*4*	*3*	*3*	*3*
Chapter XVII Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)	*4*	*3*	*4*	*3*
Chapter XX External causes of morbidity and mortality (V01–Y98))	*23*	*23*	*23*	*23*
Transport accidents (V01–V99)	6	6	6	6
Falls (W00–W19)	1	2	2	2
Accidental drowning and submersion (W65–W74)	1	1	1	1
Intentional self-harm (X60–X84)	6	6	5	5
All Causes	**495**	**470**	**462**	**451**

(a) Deaths per 100,000 population.

7.23 LEADING CAUSES OF DEATH, States and Territories—Males

Cause of death	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.(a)*
Chapter I Certain infectious and parasitic diseases (A00–B99)	*369*	*208*	*126*	*60*	*62*	*20*	*16*	*6*	*867*
Chapter II Neoplasms (C00–D48)	*6 982*	*5 158*	*3 828*	*1 848*	*1 804*	*594*	*117*	*213*	*20 545*
Malignant neoplasms (C00–C97)	6 843	5 055	3 759	1 810	1 775	590	115	205	20 153
Digestive organs (C15–C26)	1 880	1 504	1 039	506	488	163	35	61	5 676
Colon (C18)	599	468	344	156	121	40	3	23	1 753
Trachea, bronchus and lung (C33, C34)	1 561	1 094	882	432	417	134	34	32	4 587
Male genital organs (C60–C63)	900	691	520	255	215	87	8	24	2 700
Prostate (C61)	891	682	511	253	212	84	6	24	2 663
Lymphoid, haematopoietic and related tissue (C81–C96)	712	550	351	182	185	51	5	26	2062
Chapter IV Endocrine, nutritional and metabolic diseases (E00–E90)	*616*	*646*	*404*	*191*	*189*	*53*	*28*	*14*	*2 141*
Diabetes mellitus (E10–E14)	452	489	309	130	145	41	18	10	1 594
Chapter V Mental and behavioural disorders (F00–F99)	*536*	*387*	*158*	*103*	*136*	*20*	*12*	*6*	*1 358*
Chapter VI Diseases of the nervous system	*671*	*472*	*327*	*117*	*180*	*46*	*8*	*18*	*1 839*
Alzheimer's disease (G30)	158	118	89	17	62	9	—	3	455
Chapter IX Diseases of the circulatory system (I00–I99)	*8 727*	*5 603*	*4 217*	*2 261*	*1 881*	*694*	*149*	*223*	*23 756*
All heart diseases (I05–I09, I11, I13, I20–I25, I26, I27, I30–I52)	6 244	4 107	2 996	1 679	1 376	491	116	162	17 172
Ischaemic heart diseases (I20–I25)	5 038	3 314	2 599	1 360	1 135	392	90	123	14 052
Acute myocardial infarction (I21)	2 631	1 799	1 401	791	641	219	41	62	7 586
Pulmonary heart disease and diseases of pulmonary circulation and other forms of heart disease (I26–I52)	1 086	712	355	282	218	88	20	34	2 795
Heart failure (I50)	347	278	122	93	85	34	6	17	982
Cerebrovascular diseases (I60–I69)	1 899	1 119	871	428	379	155	20	42	4 913
Diseases of arteries, arterioles and capillaries (I70–I79)	454	300	285	118	94	43	10	17	1 321
Chapter X Diseases of the respiratory system (J00–J99)	*2 147*	*1 387*	*1 032*	*640*	*446*	*185*	*42*	*44*	*5 923*
Chronic lower respiratory diseases (J40–J47)	1 248	874	667	308	239	128	27	23	3 514
Chapter XI Diseases of the digestive system (K00–K93)	*766*	*468*	*342*	*206*	*178*	*59*	*27*	*16*	*2 063*
Diseases of liver (K70–K77)	301	190	118	84	64	23	16	8	805
Chapter XIV Diseases of the genitourinary system (N00–N99)	*389*	*381*	*166*	*117*	*86*	*33*	*10*	*4*	*1 186*
Chapter XVI Certain conditions originating in the perinatal period (P00–P96)	*133*	*75*	*69*	*29*	*27*	*11*	*10*	*6*	*360*
Chapter XVII Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)	*99*	*85*	*61*	*32*	*27*	*7*	*9*	*6*	*326*
Chapter XX External causes of morbidity and mortality (V01–Y98)	*1 733*	*1 273*	*1 148*	*458*	*588*	*136*	*114*	*67*	*5 517*
Transport accidents (V01–V99)	477	322	274	129	167	34	42	14	1 459
Falls (W00–W19)	136	57	56	12	25	11	7	4	308
Accidental drowning and submersion (W65–W74)	53	34	43	12	24	7	—	5	179
Intentional self-harm (X60–X84)	588	382	421	161	206	40	37	25	1 860
All Causes	**23 445**	**16 368**	**12 023**	**6 121**	**5 718**	**1 926**	**571**	**642**	**66 817**

— nil or rounded to zero (including null cells)

(a) Includes Other Territories.

7.24 LEADING CAUSES OF DEATH, States and Territories—Females

Cause of death	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.(a)*
Chapter I Certain infectious and parasitic diseases (A00–B99)	*302*	*224*	*78*	*81*	*58*	*16*	*12*	*7*	*779*
Chapter II Neoplasms (C00–D48)	*5 484*	*4 175*	*2 630*	*1 409*	*1 364*	*494*	*83*	*189*	*15 829*
Malignant neoplasms (C00–C97)	5 358	4 076	2 574	1 375	1 339	487	79	186	15 475
Digestive organs (C15–C26)	1 499	1 195	726	389	371	142	12	44	4 379
Colon (C18)	559	462	292	138	132	62	3	19	1 665
Trachea, bronchus and lung (C33, C34)	785	599	362	195	231	75	13	31	2 291
Breast (C50)	835	709	398	226	205	79	15	44	2 511
Female genital organs (C51–C58)	491	347	242	134	122	42	9	15	1 402
Lymphoid, haematopoietic and related tissue (C81–C96)	611	443	251	164	137	54	6	16	1 682
Chapter IV Endocrine, nutritional and metabolic diseases (E00–E90)	*599*	*605*	*355*	*216*	*169*	*38*	*20*	*14*	*2 016*
Diabetes mellitus (E10–E14)	394	439	246	155	126	24	17	11	1 412
Chapter V Mental and behavioural disorders (F00–F99)	*604*	*524*	*194*	*184*	*144*	*37*	*6*	*23*	*1 716*
Chapter VI Diseases of the nervous system (G00–G99)	*818*	*579*	*334*	*132*	*257*	*54*	*8*	*18*	*2 200*
Alzheimer's disease (G30)	426	286	166	45	153	20	—	7	1 104
Chapter IX Diseases of the circulatory system (I00–I99)	*9 624*	*6 314*	*4 566*	*2 428*	*1 879*	*756*	*77*	*286*	*25 931*
All heart diseases (I05–I09, I11, I13, I20–I25, I26, I27, I30–I52)	6 135	4 079	2 985	1 609	1 225	481	50	182	16 747
Ischaemic heart diseases (I20–I25)	4 503	2 934	2 412	1 191	920	342	33	133	12 469
Acute myocardial infarction (I21)	2 379	1 716	1 398	743	514	187	15	78	7 030
Pulmonary heart disease and diseases of pulmonary circulation and other forms of heart disease (I26–I52)	1 419	1 002	494	361	262	125	7	43	3 713
Heart failure (I50)	637	459	204	172	113	58	3	17	1 662
Cerebrovascular diseases (I60–I69)	2 814	1 743	1 292	688	544	202	19	85	7 387
Diseases of arteries, arterioles and capillaries (I70–I79)	485	345	219	92	81	55	4	15	1 296
Chapter X Diseases of the respiratory system (J00–J99)	*1 860*	*1 203*	*754*	*557*	*369*	*165*	*31*	*45*	*4 984*
Chronic lower respiratory diseases (J40–J47)	932	617	391	194	183	89	20	22	2 448
Chapter XI Diseases of the digestive system (K00–K93)	*707*	*499*	*379*	*217*	*189*	*60*	*12*	*14*	*2 078*
Diseases of liver (K70–K77)	131	85	46	36	34	15	6	4	357
Chapter XIV Diseases of the genitourinary system (N00–N99)	*553*	*420*	*215*	*148*	*99*	*33*	*23*	*14*	*1 506*
Chapter XVI Certain conditions originating in the perinatal period (P00–P96)	*106*	*49*	*66*	*12*	*26*	*8*	*10*	*5*	*282*
Chapter XVII Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)	*93*	*70*	*67*	*18*	*19*	*5*	*8*	*4*	*284*
Chapter XX External causes of morbidity and mortality (V01–Y98)	*753*	*680*	*552*	*207*	*272*	*54*	*35*	*28*	*2 581*
Transport accidents (V01–V99)	180	141	89	49	61	10	17	9	556
Falls (W00–W19)	96	40	71	15	20	9	3	3	257
Accidental drowning and submersion (W65–W74)	14	8	11	4	8	3	—	3	50
Intentional self-harm (X60–X84)	142	129	120	38	55	10	5	4	503
All Causes	**21 964**	**15 650**	**10 402**	**5 722**	**4 950**	**1 785**	**338**	**658**	**61 474**

— nil or rounded to zero (including null cells)

(a) Includes Other Territories.

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

Cause of death	NSW rate	Vic. rate	Qld rate	SA rate	WA rate	Tas. rate	NT rate	ACT rate	Aust.(b) rate
Chapter I Certain infectious and parasitic diseases (A00–B99)	*11*	*9*	*7*	*7*	*7*	*8*	*21*	*5*	*9*
Chapter II Neoplasms (C00–D48)	*212*	*214*	*223*	*218*	*216*	*235*	*264*	*197*	*216*
Malignant neoplasms (C00–C97)	207	209	219	213	212	234	262	189	212
Digestive organs (C15–C26)	57	62	60	60	58	64	73	54	59
Colon (C18)	18	19	20	19	14	15	3	22	18
Trachea, bronchus and lung (C33, C34)	47	45	51	51	50	53	72	27	48
Male genital organs (C60–C63)	28	29	32	30	27	35	24	26	29
Prostate (C61)	28	29	31	30	27	34	17	26	29
Lymphoid, haematopoietic and related tissue (C81–C96)	22	23	21	21	22	20	19	25	22
Chapter IV Endocrine, nutritional and metabolic diseases (E00–E90)	*19*	*27*	*23*	*22*	*22*	*21*	*54*	*13*	*23*
Diabetes mellitus (E10–E14)	14	20	18	15	17	16	40	9	17
Chapter V Mental and behavioural disorders (F00–F99)	*17*	*17*	*10*	*13*	*16*	*8*	*14*	*7*	*15*
Chapter VI Diseases of the nervous system (G00–G99)	*21*	*20*	*19*	*14*	*22*	*19*	*17*	*15*	*20*
Alzheimer's disease (G30)	5	5	5	2	8	4	5	1	5
Chapter IX Diseases of the circulatory system (I00–I99)	*271*	*237*	*253*	*266*	*234*	*279*	*338*	*228*	*256*
All heart diseases (I05–I09, I11, I13, I20–I25, I26, I27, I30–I52)	193	173	179	197	170	197	245	165	184
Ischaemic heart diseases (I20–I25)	156	139	155	160	140	157	184	122	150
Acute myocardial infarction (I21)	81	76	84	93	79	88	89	61	81
Pulmonary heart disease and diseases of pulmonary circulation and other forms of heart disease (I26–I52)	34	30	21	33	27	36	47	38	30
Heart failure (I50)	11	12	8	11	11	14	19	20	11
Cerebrovascular diseases (I60–I69)	60	48	53	50	48	63	57	42	54
Diseases of arteries, arterioles and capillaries (I70–I79)	14	13	17	14	12	17	32	18	14
Chapter X Diseases of the respiratory system (J00–J99)	*67*	*59*	*63*	*76*	*56*	*75*	*103*	*46*	*64*
Chronic lower respiratory diseases (J40–J47)	39	37	40	37	30	52	73	24	38
Chapter XI Diseases of the digestive system (K00–K93)	*23*	*19*	*20*	*24*	*21*	*24*	*61*	*14*	*22*
Diseases of liver (K70–K77)	9	8	6	10	7	9	22	5	8
Chapter XIV Diseases of the genitourinary system (N00–N99)	*12*	*16*	*10*	*14*	*11*	*14*	*28*	*4*	*13*
Chapter XVI Certain conditions originating in the perinatal period (P00–P96)	*5*	*4*	*4*	*5*	*3*	*6*	*8*	*4*	*4*
Chapter XVII Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)	*3*	*4*	*4*	*5*	*3*	*3*	*8*	*4*	*4*
Chapter XX External causes of morbidity and mortality (V01–Y98)	*54*	*54*	*66*	*61*	*63*	*60*	*118*	*45*	*58*
Transport accidents (V01–V99)	15	14	16	18	18	15	41	9	16
Falls (W00–W19)	4	2	3	1	3	4	10	3	3
Accidental drowning and submersion (W65–W74)	2	1	2	2	2	3	1	3	2
Intentional self-harm (X60–X84)	18	16	24	21	21	19	33	16	19
All Causes	**725**	**688**	**712**	**732**	**688**	**781**	**1 081**	**599**	**713**

(a) Deaths per 100,000 population.

(b) Includes Other Territories.

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

Cause of death	NSW rate	Vic. rate	Qld rate	SA rate	WA rate	Tas. rate	NT rate	ACT rate	Aust.(b) rate
Chapter I Certain infectious and parasitic diseases (A00–B99)	*6*	*6*	*3*	*6*	*5*	*4*	*22*	*5*	*6*
Chapter II Neoplasms (C00–D48)	*130*	*133*	*125*	*128*	*130*	*153*	*181*	*130*	*131*
Malignant neoplasms (C00–C97)	127	130	123	125	128	151	175	128	128
Digestive organs (C15–C26)	34	37	34	34	35	42	28	31	35
Colon (C18)	13	14	14	12	12	18	3	14	13
Trachea, bronchus and lung (C33, C34)	19	20	18	18	23	24	37	21	20
Breast (C50)	21	24	19	22	19	26	28	30	21
Female genital organs (C51–C58)	12	11	12	12	12	13	22	11	12
Lymphoid, haematopoietic and related tissue (C81–C96)	14	14	12	15	13	17	15	12	14
Chapter IV Endocrine, nutritional and metabolic diseases (E00–E90)	*13*	*17*	*16*	*18*	*16*	*11*	*46*	*9*	*15*
Diabetes mellitus (E10–E14)	9	13	11	13	12	6	38	8	11
Chapter V Mental and behavioural disorders (F00–F99)	*12*	*13*	*7*	*13*	*11*	*9*	*13*	*14*	*11*
Chapter VI Diseases of the nervous system (G00–G99)	*16*	*16*	*14*	*11*	*20*	*16*	*14*	*11*	*16*
Alzheimer's disease (G30)	7	7	6	3	11	5	3	5	7
Chapter IX Diseases of the circulatory system (I00–I99)	*182*	*160*	*180*	*171*	*148*	*187*	*187*	*187*	*173*
All heart diseases (I05–I09, I11, I13, I20–I25, I26, I27, I30–I52)	117	104	118	114	97	119	120	120	112
Ischaemic heart diseases (I20–I25)	86	75	96	85	73	85	88	88	84
Acute myocardial infarction (I21)	46	44	56	53	41	48	49	53	48
Pulmonary heart disease and diseases of pulmonary circulation and other forms of heart disease (I26–I52)	27	25	19	25	20	30	17	28	24
Heart failure (I50)	11	11	7	11	8	13	7	10	10
Cerebrovascular diseases (I60–I69)	52	44	50	47	43	49	54	55	48
Diseases of arteries, arterioles and capillaries (I70–I79)	9	8	9	7	6	13	4	10	9
Chapter X Diseases of the respiratory system (J00–J99)	*38*	*33*	*32*	*41*	*31*	*42*	*76*	*30*	*35*
Chronic lower respiratory diseases (J40–J47)	21	18	18	16	16	26	52	15	19
Chapter XI Diseases of the digestive system (K00–K93)	*15*	*13*	*16*	*16*	*16*	*16*	*26*	*10*	*15*
Diseases of liver (K70–K77)	3	3	2	4	3	5	9	2	3
Chapter XIV Diseases of the genitourinary system (N00–N99)	*11*	*10*	*9*	*10*	*8*	*8*	*57*	*9*	*10*
Chapter XVI Certain conditions originating in the perinatal period (P00–P96)	*4*	*3*	*4*	*2*	*3*	*4*	*9*	*4*	*3*
Chapter XVII Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)	*3*	*3*	*4*	*3*	*2*	*2*	*7*	*3*	*3*
Chapter XX External causes of morbidity and mortality (V01–Y98)	*20*	*24*	*27*	*23*	*26*	*18*	*46*	*18*	*23*
Transport accidents (V01–V99)	5	6	5	6	6	4	18	6	6
Falls (W00–W19)	2	1	3	1	1	2	6	2	2
Accidental drowning and submersion (W65–W74)	—	—	1	—	1	1	—	1	1
Intentional self-harm (X60–X84)	4	5	7	5	6	5	5	2	5
All Causes	**459**	**441**	**447**	**452**	**425**	**491**	**701**	**438**	**451**

— nil or rounded to zero (including null cells)

(a) Deaths per 100,000 population.

(b) Includes Other Territories.

7.27 INFANT DEATHS, Age and Sex at Death

	NEONATAL					POST NEONATAL	TOTAL
	Early neonatal			*Late neonatal*	*Total*		
Selected years	*Under one day*	*One day to six days*	*Total under one week*	*One week and under four weeks*	*Under four weeks*	*Four weeks and under one year*	*Under one year*
			MALES				
1980	515	243	758	157	915	468	1 383
1985	445	235	680	174	854	544	1 398
1990	422	159	581	147	728	496	1 224
1995	313	118	431	103	534	273	807
1996	313	133	446	100	546	297	843
1997	262	132	394	91	485	259	744
1998	228	132	360	114	474	232	706
1999	293	148	441	112	553	259	812
2000	282	104	386	104	490	235	725
			FEMALES				
1980	395	182	577	114	691	343	1 034
1985	353	194	547	131	678	376	1 054
1990	302	153	455	92	547	374	921
1995	241	97	338	85	423	219	642
1996	244	92	336	82	418	199	617
1997	239	94	333	81	414	183	597
1998	198	83	281	87	368	178	546
1999	233	77	310	90	400	196	596
2000	227	84	311	65	376	189	565
			PERSONS				
1980	910	425	1 335	271	1 606	811	2 417
1985	798	429	1 227	305	1 532	920	2 452
1990	724	312	1 036	239	1 275	870	2 145
1995	554	215	769	188	957	492	1 449
1996	557	225	782	182	964	496	1 460
1997	501	226	727	172	899	442	1 341
1998	426	215	641	201	842	410	1 252
1999	526	225	751	202	953	455	1 408
2000	509	188	697	169	866	424	1 290

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

	NEONATAL					POST NEONATAL	TOTAL
	Early neonatal			*Late neonatal*	*Total*		
Selected years	*Under one day*	*One day to six days*	*Total under one week*	*One week and under four weeks*	*Under four weeks*	*Four weeks and under one year*	*Under one year*
			MALES				
1980	4.4	2.1	6.5	1.4	7.9	4.0	11.9
1985	3.5	1.9	5.4	1.4	6.7	4.3	11.0
1990	3.1	1.2	4.3	1.1	5.4	3.7	9.1
1995	2.4	0.9	3.3	0.8	4.1	2.1	6.1
1996	2.4	1.0	3.4	0.8	4.2	2.3	6.5
1997	2.0	1.0	3.1	0.7	3.8	2.0	5.8
1998	1.8	1.0	2.8	0.9	3.7	1.8	5.5
1999	2.3	1.2	3.5	0.9	4.3	2.0	6.4
2000	2.2	0.8	3.0	0.8	3.8	1.8	5.7
			FEMALES				
1980	3.6	1.7	5.3	1.0	6.3	3.1	9.4
1985	2.9	1.6	4.5	1.1	5.6	3.1	8.7
1990	2.4	1.2	3.6	0.7	4.3	2.9	7.2
1995	1.9	0.8	2.7	0.7	3.4	1.8	5.1
1996	2.0	0.7	2.7	0.7	3.4	1.6	5.0
1997	1.9	0.8	2.7	0.7	3.4	1.5	4.9
1998	1.6	0.7	2.3	0.7	3.0	1.5	4.5
1999	1.9	0.6	2.6	0.7	3.3	1.6	4.9
2000	1.9	0.7	2.6	0.5	3.1	1.6	4.7
			PERSONS				
1980	4.0	1.9	5.9	1.2	7.1	3.6	10.7
1985	3.2	1.7	5.0	1.2	6.2	3.7	9.9
1990	2.8	1.2	3.9	0.9	4.9	3.3	8.2
1995	2.2	0.8	3.0	0.7	3.7	1.9	5.7
1996	2.2	0.9	3.1	0.7	3.8	2.0	5.8
1997	2.0	0.9	2.9	0.7	3.6	1.8	5.3
1998	1.7	0.9	2.6	0.8	3.4	1.6	5.0
1999	2.1	0.9	3.0	0.8	3.8	1.8	5.7
2000	2.0	0.8	2.8	0.7	3.5	1.7	5.2

(a) Per 1,000 live births.

7.29 INFANT DEATHS, States and Territories

Selected years	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.(a)
1980	867	582	383	186	241	87	37	34	2 417
1985	860	601	411	188	209	93	58	32	2 452
1990	733	523	345	168	217	63	54	42	2 145
1995	498	308	293	112	129	38	50	21	1 449
1996	499	308	304	94	160	29	41	25	1 460
1997	451	300	272	87	131	39	45	16	1 341
1998	371	283	299	73	123	34	45	24	1 252
1999	504	331	266	78	117	46	42	24	1 408
2000	447	268	291	82	109	33	43	17	1 290

(a) Includes Other Territories.

7.30 INFANT MORTALITY RATES(a), States and Territories

Selected years	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.(b)
1980	10.9	10.0	10.9	10.1	11.7	12.8	14.2	8.0	10.7
1985	9.8	9.8	10.2	9.5	9.0	12.8	17.5	7.8	9.9
1990	8.1	7.8	7.7	8.5	8.6	8.9	15.2	9.4	8.2
1995	5.7	4.9	6.3	5.8	5.1	5.8	13.3	4.8	5.7
1996	5.8	5.0	6.4	4.9	6.5	4.5	11.5	5.7	5.8
1997	5.2	4.9	5.8	4.7	5.3	6.5	12.5	3.8	5.3
1998	4.3	4.7	6.4	4.0	5.0	5.7	12.4	6.0	5.0
1999	5.8	5.6	5.7	4.3	4.7	7.6	11.7	5.6	5.7
2000	5.2	4.5	6.2	4.6	4.3	5.8	11.7	4.2	5.2

(a) Per 1,000 live births.

(b) Includes Other Territories.

7.31 INFANT DEATHS, Age And Sex at Death —States and Territories

	NEONATAL					POST NEONATAL	TOTAL
	Early neonatal			*Late neonatal*	*Total*		
	Under one day	*One day to six days*	*Total under one week*	*One week and under four weeks*	*Under four weeks*	*Four weeks and under one year*	*Under one year*
	MALES						
New South Wales	99	36	135	39	174	86	260
Victoria	67	22	89	16	105	45	150
Queensland	54	22	76	19	95	48	143
South Australia	27	6	33	9	42	12	54
Western Australia	18	7	25	12	37	31	68
Tasmania	5	5	10	5	15	—	17
Northern Territory	10	5	15	—	16	7	23
Australian Capital Territory	3	3	3	3	6	4	10
Australia(a)	**282**	**104**	**386**	**104**	**490**	**235**	**725**
	FEMALES						
New South Wales	80	35	115	16	131	56	187
Victoria	42	16	58	15	73	45	118
Queensland	62	14	76	23	99	49	148
South Australia	14	3	17	3	18	10	28
Western Australia	16	6	22	4	26	15	41
Tasmania	4	4	8	3	9	7	16
Northern Territory	7	4	11	3	13	7	20
Australian Capital Territory	3	3	4	3	7	—	7
Australia(a)	**227**	**84**	**311**	**65**	**376**	**189**	**565**
	PERSONS						
New South Wales	179	71	250	55	305	142	447
Victoria	109	38	147	31	178	90	268
Queensland	116	36	152	42	194	97	291
South Australia	41	9	50	10	60	22	82
Western Australia	34	13	47	16	63	46	109
Tasmania	9	9	18	6	24	9	33
Northern Territory	17	9	26	3	29	14	43
Australian Capital Territory	4	3	7	6	13	4	17
Australia(a)	**509**	**188**	**697**	**169**	**866**	**424**	**1 290**

— nil or rounded to zero (including null cells)

(a) Includes Other Territories.

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

	NEONATAL					POST NEONATAL	TOTAL
	Early neonatal			*Late neonatal*	*Total*		
	Under one day	*One day to six days*	*Total under one week*	*One week and under four weeks*	*Under four weeks*	*Four weeks and under one year*	*Under one year*
New South Wales	2.1	0.8	2.9	0.6	3.5	1.6	5.2
Victoria	1.8	0.6	2.5	0.5	3.0	1.5	4.5
Queensland	2.5	0.8	3.2	0.9	4.1	2.1	6.2
South Australia	2.3	0.5	2.8	0.6	3.4	1.2	4.6
Western Australia	1.4	0.5	1.9	0.6	2.5	1.8	4.3
Tasmania	1.6	1.6	3.2	1.1	4.2	1.6	5.8
Northern Territory	4.6	2.4	7.1	0.8	7.9	3.8	11.7
Australian Capital Territory	1.0	0.7	1.7	1.5	3.2	1.0	4.2
Australia(b)	**2.0**	**0.8**	**2.8**	**0.7**	**3.5**	**1.7**	**5.2**

— nil or rounded to zero (including null cells)

(a) Per 1,000 live births.

(b) Includes Other Territories.

7.33 AUSTRALIAN LIFE TABLE, Males—1998–2000

Age	lx	qx	Lx	e°x	Age	lx	qx	Lx	e°x
0	100 000	0.00592	99 486	76.56	50	94 005	0.00326	93 855	29.47
1	99 408	0.00052	99 380	76.01	51	93 699	0.00358	93 534	28.57
2	99 356	0.00034	99 338	75.05	52	93 364	0.00394	93 183	27.67
3	99 322	0.00026	99 309	74.08	53	92 996	0.00436	92 797	26.77
4	99 296	0.00020	99 286	73.10	54	92 591	0.00484	92 370	25.89
5	99 277	0.00016	99 268	72.11	55	92 143	0.00538	91 899	25.01
6	99 260	0.00015	99 253	71.12	56	91 647	0.00598	91 378	24.15
7	99 246	0.00014	99 239	70.13	57	91 099	0.00666	90 801	23.29
8	99 232	0.00014	99 225	69.14	58	90 492	0.00741	90 162	22.44
9	99 218	0.00015	99 211	68.15	59	89 821	0.00825	89 457	21.60
10	99 204	0.00015	99 197	67.16	60	89 081	0.00917	88 679	20.78
11	99 189	0.00015	99 182	66.17	61	88 264	0.01018	87 822	19.97
12	99 175	0.00015	99 167	65.18	62	87 366	0.01130	86 880	19.17
13	99 160	0.00019	99 151	64.19	63	86 379	0.01254	85 846	18.38
14	99 141	0.00027	99 129	63.20	64	85 296	0.01392	84 711	17.61
15	99 115	0.00040	99 096	62.22	65	84 108	0.01547	83 468	16.85
16	99 076	0.00057	99 049	61.24	66	82 807	0.01718	82 107	16.11
17	99 019	0.00075	98 984	60.28	67	81 385	0.01908	80 619	15.38
18	98 945	0.00092	98 901	59.32	68	79 832	0.02120	78 997	14.67
19	98 854	0.00104	98 804	58.38	69	78 139	0.02353	77 233	13.97
20	98 751	0.00112	98 696	57.44	70	76 301	0.02610	75 318	13.30
21	98 640	0.00117	98 583	56.50	71	74 310	0.02892	73 249	12.64
22	98 525	0.00120	98 467	55.57	72	72 161	0.03200	71 020	12.00
23	98 408	0.00122	98 348	54.63	73	69 852	0.03538	68 629	11.38
24	98 287	0.00125	98 226	53.70	74	67 380	0.03908	66 077	10.78
25	98 164	0.00128	98 102	52.77	75	64 747	0.04317	63 363	10.20
26	98 039	0.00130	97 975	51.83	76	61 952	0.04769	60 488	9.64
27	97 911	0.00132	97 847	50.90	77	58 997	0.05268	57 456	9.10
28	97 782	0.00133	97 717	49.97	78	55 889	0.05819	54 275	8.57
29	97 652	0.00134	97 586	49.03	79	52 637	0.06427	50 956	8.07
30	97 521	0.00136	97 455	48.10	80	49 254	0.07095	47 515	7.59
31	97 388	0.00137	97 322	47.16	81	45 760	0.07830	43 974	7.13
32	97 255	0.00139	97 188	46.23	82	42 176	0.08638	40 358	6.70
33	97 120	0.00140	97 052	45.29	83	38 533	0.09525	36 699	6.28
34	96 984	0.00142	96 915	44.35	84	34 863	0.10494	33 031	5.89
35	96 846	0.00145	96 776	43.42	85	31 204	0.11552	29 396	5.52
36	96 706	0.00148	96 635	42.48	86	27 600	0.12701	25 837	5.18
37	96 563	0.00151	96 490	41.54	87	24 094	0.13946	22 400	4.86
38	96 417	0.00156	96 342	40.60	88	20 734	0.15288	19 131	4.57
39	96 266	0.00162	96 189	39.66	89	17 564	0.16730	16 074	4.30
40	96 111	0.00168	96 030	38.73	90	14 626	0.18256	13 267	4.07
41	95 949	0.00176	95 865	37.79	91	11 956	0.19787	10 746	3.87
42	95 780	0.00185	95 692	36.86	92	9 590	0.21272	8 542	3.70
43	95 602	0.00195	95 510	35.93	93	7 550	0.22507	6 672	3.57
44	95 415	0.00207	95 318	35.00	94	5 851	0.23357	5 141	3.46
45	95 218	0.00220	95 114	34.07	95	4 484	0.23935	3 925	3.37
46	95 009	0.00235	94 898	33.14	96	3 411	0.24496	2 976	3.28
47	94 785	0.00253	94 667	32.22	97	2 575	0.25203	2 237	3.19
48	94 545	0.00274	94 417	31.30	98	1 926	0.25888	1 666	3.10
49	94 286	0.00298	94 148	30.38	99	1 428	0.26574	1 229	3.02
					100	1 048	0.27260	898	2.94

lx number of persons at exact age *x*

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

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

e°x expectation of life at exact age *x*

7.34 AUSTRALIAN LIFE TABLE, Females—1998–2000

Age	lx	qx	Lx	$e^{o}x$	Age	lx	qx	Lx	$e^{o}x$
0	100 000	0.00474	99 588	82.04	50	96 745	0.00211	96 644	33.78
1	99 526	0.00046	99 501	81.43	51	96 540	0.00231	96 430	32.85
2	99 480	0.00025	99 467	80.47	52	96 317	0.00253	96 197	31.93
3	99 455	0.00020	99 445	79.49	53	96 074	0.00277	95 943	31.01
4	99 436	0.00017	99 427	78.50	54	95 808	0.00303	95 665	30.09
5	99 418	0.00015	99 411	77.52	55	95 518	0.00333	95 361	29.18
6	99 404	0.00013	99 397	76.53	56	95 200	0.00365	95 029	28.28
7	99 391	0.00011	99 386	75.54	57	94 853	0.00400	94 666	27.38
8	99 381	0.00009	99 376	74.54	58	94 473	0.00439	94 269	26.49
9	99 371	0.00009	99 367	73.55	59	94 059	0.00481	93 836	25.60
10	99 363	0.00009	99 359	72.56	60	93 606	0.00527	93 363	24.72
11	99 354	0.00010	99 349	71.56	61	93 113	0.00576	92 849	23.85
12	99 344	0.00012	99 339	70.57	62	92 577	0.00631	92 289	22.98
13	99 332	0.00015	99 325	69.58	63	91 993	0.00691	91 680	22.13
14	99 318	0.00019	99 309	68.59	64	91 358	0.00757	91 017	21.28
15	99 299	0.00024	99 287	67.60	65	90 666	0.00832	90 294	20.44
16	99 275	0.00030	99 260	66.62	66	89 911	0.00916	89 506	19.60
17	99 245	0.00035	99 228	65.64	67	89 088	0.01012	88 644	18.78
18	99 210	0.00039	99 190	64.66	68	88 187	0.01121	87 700	17.97
19	99 171	0.00040	99 151	63.69	69	87 198	0.01246	86 664	17.16
20	99 131	0.00040	99 111	62.71	70	86 112	0.01389	85 523	16.38
21	99 092	0.00039	99 072	61.74	71	84 915	0.01552	84 267	15.60
22	99 053	0.00039	99 033	60.76	72	83 597	0.01737	82 882	14.84
23	99 014	0.00040	98 995	59.78	73	82 145	0.01946	81 358	14.09
24	98 975	0.00041	98 955	58.81	74	80 546	0.02180	79 682	13.36
25	98 934	0.00042	98 914	57.83	75	78 790	0.02443	77 842	12.65
26	98 893	0.00043	98 871	56.86	76	76 865	0.02736	75 829	11.95
27	98 850	0.00044	98 828	55.88	77	74 763	0.03067	73 633	11.27
28	98 806	0.00045	98 784	54.91	78	72 470	0.03446	71 239	10.61
29	98 761	0.00047	98 738	53.93	79	69 972	0.03881	68 633	9.97
30	98 715	0.00049	98 691	52.96	80	67 257	0.04380	65 803	9.36
31	98 666	0.00051	98 641	51.98	81	64 311	0.04953	62 738	8.76
32	98 616	0.00054	98 590	51.01	82	61 126	0.05605	59 433	8.19
33	98 563	0.00057	98 535	50.03	83	57 700	0.06345	55 888	7.65
34	98 507	0.00060	98 478	49.06	84	54 038	0.07180	52 116	7.13
35	98 448	0.00064	98 417	48.09	85	50 158	0.08115	48 138	6.64
36	98 385	0.00068	98 352	47.12	86	46 088	0.09157	43 988	6.19
37	98 318	0.00074	98 282	46.15	87	41 868	0.10310	39 715	5.76
38	98 245	0.00079	98 207	45.19	88	37 551	0.11578	35 377	5.36
39	98 168	0.00086	98 126	44.22	89	33 203	0.12964	31 044	5.00
40	98 084	0.00093	98 039	43.26	90	28 899	0.14460	26 795	4.67
41	97 993	0.00101	97 944	42.30	91	24 720	0.16013	22 719	4.38
42	97 894	0.00109	97 841	41.34	92	20 762	0.17574	18 908	4.12
43	97 787	0.00118	97 730	40.39	93	17 113	0.19052	15 448	3.89
44	97 671	0.00128	97 610	39.43	94	13 853	0.20373	12 404	3.69
45	97 546	0.00139	97 479	38.48	95	11 030	0.21554	9 805	3.51
46	97 411	0.00151	97 338	37.54	96	8 653	0.22683	7 639	3.34
47	97 264	0.00164	97 186	36.59	97	6 690	0.23892	5 863	3.17
48	97 105	0.00178	97 020	35.65	98	5 092	0.25216	4 425	3.02
49	96 932	0.00194	96 840	34.71	99	3 808	0.26514	3 282	2.87
					100	2 798	0.27835	2 391	2.74

lx number of persons at exact age x

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

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

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

7.35 EXPECTATION OF LIFE, Australia(a)

	AGE (YEARS)									
Selected years(b)	*0*	*1*	*10*	*20*	*30*	*40*	*50*	*60*	*70*	*80*
					MALES					
1980	70.99	70.85	62.14	52.58	43.30	33.86	24.97	17.13	10.77	6.26
1985	72.40	72.21	63.47	53.86	44.58	35.11	25.99	17.87	11.23	6.36
1990	73.87	73.55	64.78	55.11	45.81	36.40	27.22	18.86	11.99	6.89
1993–1995	74.95	74.48	65.66	55.94	46.57	37.19	27.97	19.45	12.35	6.99
1994–1996	75.22	74.70	65.86	56.15	46.79	37.41	28.18	19.62	12.45	7.04
1995–1997	75.57	75.04	66.20	56.50	47.15	37.77	28.53	19.93	12.69	7.20
1996–1998	75.86	75.31	66.48	56.77	47.43	38.05	28.80	20.18	12.86	7.32
1997–1999	76.22	75.68	66.84	57.12	47.79	38.41	29.16	20.50	13.10	7.50
1998–2000	76.56	76.01	67.16	57.44	48.10	38.73	29.47	20.78	13.30	7.59
					FEMALES					
1980	78.09	77.83	69.06	59.27	49.54	39.89	30.60	21.93	14.16	7.90
1985	78.82	78.52	69.73	59.91	50.19	40.50	31.13	22.38	14.48	8.16
1990	80.08	79.66	70.83	61.00	51.25	41.55	32.10	23.21	15.20	8.70
1993–1995	80.84	80.28	71.43	61.59	51.81	42.11	32.64	23.68	15.56	8.85
1994–1996	81.05	80.46	71.60	61.76	51.98	42.28	32.80	23.83	15.67	8.92
1995–1997	81.27	80.68	71.81	61.97	52.20	42.50	33.01	24.03	15.84	9.02
1996–1998	81.52	80.91	72.04	62.20	52.43	42.73	33.25	24.25	16.01	9.13
1997–1999	81.77	81.17	72.30	62.46	52.70	43.01	33.53	24.49	16.20	9.26
1998–2000	82.04	81.43	72.56	62.71	52.96	43.26	33.78	24.72	16.38	9.36

(a) Based on Annual Life Tables calculated by the Australian Bureau of Statistics until 1994 and from 1999. From 1995 to 1998 the life tables were produced as a joint venture between the Australian Bureau of Statistics and the Australian Government Actuary. See paragraph 24 of the Explanatory Notes for more information.

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

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

	AGE (YEARS)								
	1	*10*	*20*	*30*	*40*	*50*	*60*	*70*	*80*
Selected years(b)	%	%	%	%	%	%	%	%	%
				MALES					
1980	98.8	98.4	97.6	96.2	94.7	91.1	82.0	62.4	31.4
1985	98.9	98.5	97.8	96.4	95.2	92.4	84.5	66.4	35.7
1990	99.1	98.8	98.2	96.9	95.5	93.0	86.4	69.9	40.2
1993–1995	99.3	99.1	98.6	97.4	95.9	93.6	87.8	72.5	43.5
1994–1996	99.4	99.1	98.7	97.4	96.0	93.7	88.1	73.2	44.3
1995–1997	99.4	99.2	98.7	97.4	96.0	93.8	88.3	74.0	45.7
1996–1998	99.4	99.2	98.7	97.4	96.0	93.9	88.6	74.7	46.7
1997–1999	99.4	99.2	98.7	97.5	96.1	93.9	88.8	75.5	48.0
1998–2000	99.4	99.2	98.8	97.5	96.1	94.0	89.1	76.3	49.3
				FEMALES					
1980	99.1	98.7	98.4	97.9	97.2	95.2	90.4	79.4	55.3
1985	99.1	98.8	98.6	98.1	97.4	95.7	91.2	81.0	57.2
1990	99.3	99.1	98.8	98.4	97.7	96.2	92.4	82.9	60.7
1993–1995	99.5	99.3	99.0	98.6	98.0	96.6	93.0	84.2	63.1
1994–1996	99.5	99.3	99.1	98.7	98.1	96.7	93.1	84.5	63.7
1995–1997	99.5	99.3	99.1	98.7	98.1	96.7	93.2	84.9	64.5
1996–1998	99.5	99.4	99.1	98.7	98.1	96.7	93.3	85.2	65.4
1997–1999	99.5	99.4	99.1	98.7	98.1	96.7	93.5	85.7	66.3
1998–2000	99.5	99.4	99.1	98.7	98.1	96.7	93.6	86.1	67.3

(a) Based on Annual Life Tables calculated by the Australian Bureau of Statistics until 1994 and from 1999. From 1995 to 1998 the life tables were produced as a joint venture between the Australian Bureau of Statistics and the Australian Government Actuary. See paragraph 24 of the Explanatory Notes for more information.

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

7.37 AUSTRALIAN LIFE TABLE, 2051—Standard Assumption(a): Males

Age	lx	qx	Lx	$e^{o}x$	Age	lx	qx	Lx	$e^{o}x$
0	100 000	0.00136	99 880	83.32	50	97 032	0.00139	96 965	34.85
1	99 864	0.00013	99 856	82.43	51	96 897	0.00149	96 825	33.90
2	99 851	0.00009	99 847	81.45	52	96 752	0.00162	96 674	32.95
3	99 842	0.00007	99 839	80.45	53	96 596	0.00176	96 511	32.00
4	99 835	0.00006	99 832	79.46	54	96 426	0.00192	96 333	31.06
5	99 829	0.00005	99 827	78.46	55	96 240	0.00211	96 139	30.12
6	99 824	0.00005	99 822	77.47	56	96 037	0.00233	95 926	29.18
7	99 819	0.00004	99 817	76.47	57	95 814	0.00261	95 689	28.25
8	99 815	0.00004	99 813	75.47	58	95 564	0.00296	95 423	27.32
9	99 811	0.00004	99 809	74.48	59	95 281	0.00338	95 120	26.40
10	99 807	0.00005	99 805	73.48	60	94 959	0.00390	94 774	25.49
11	99 802	0.00006	99 799	72.48	61	94 588	0.00446	94 377	24.59
12	99 796	0.00006	99 793	71.49	62	94 166	0.00505	93 929	23.69
13	99 790	0.00008	99 786	70.49	63	93 691	0.00568	93 425	22.81
14	99 782	0.00011	99 777	69.50	64	93 159	0.00634	92 864	21.94
15	99 771	0.00017	99 763	68.50	65	92 568	0.00702	92 243	21.08
16	99 754	0.00025	99 742	67.52	66	91 918	0.00780	91 560	20.22
17	99 729	0.00034	99 712	66.53	67	91 201	0.00872	90 804	19.38
18	99 695	0.00042	99 674	65.56	68	90 406	0.00975	89 966	18.54
19	99 653	0.00048	99 630	64.58	69	89 525	0.01097	89 034	17.72
20	99 606	0.00051	99 581	63.61	70	88 543	0.01235	87 996	16.91
21	99 555	0.00054	99 528	62.65	71	87 449	0.01388	86 842	16.12
22	99 501	0.00056	99 473	61.68	72	86 235	0.01555	85 565	15.34
23	99 445	0.00058	99 417	60.71	73	84 894	0.01738	84 157	14.57
24	99 388	0.00062	99 357	59.75	74	83 419	0.01939	82 610	13.82
25	99 326	0.00068	99 293	58.79	75	81 801	0.02164	80 916	13.08
26	99 259	0.00073	99 223	57.82	76	80 031	0.02433	79 058	12.36
27	99 186	0.00076	99 149	56.87	77	78 084	0.02758	77 007	11.66
28	99 111	0.00079	99 072	55.91	78	75 930	0.03151	74 734	10.97
29	99 032	0.00081	98 992	54.95	79	73 538	0.03624	72 206	10.31
30	98 952	0.00082	98 912	54.00	80	70 873	0.04192	69 388	9.68
31	98 871	0.00082	98 831	53.04	81	67 902	0.04831	66 262	9.09
32	98 790	0.00083	98 749	52.08	82	64 622	0.05543	62 831	8.52
33	98 708	0.00085	98 666	51.13	83	61 040	0.06336	59 106	7.99
34	98 624	0.00085	98 582	50.17	84	57 172	0.07214	55 110	7.50
35	98 540	0.00088	98 497	49.21	85	53 048	0.08181	50 878	7.04
36	98 454	0.00089	98 410	48.26	86	48 708	0.09191	46 470	6.63
37	98 366	0.00091	98 321	47.30	87	44 231	0.10240	41 967	6.25
38	98 276	0.00093	98 231	46.34	88	39 702	0.11321	37 455	5.90
39	98 185	0.00095	98 139	45.38	89	35 207	0.12417	33 022	5.59
40	98 092	0.00096	98 045	44.43	90	30 836	0.13465	28 760	5.31
41	97 998	0.00099	97 950	43.47	91	26 684	0.14534	24 745	5.06
42	97 901	0.00101	97 852	42.51	92	22 805	0.15573	21 030	4.84
43	97 802	0.00102	97 752	41.55	93	19 254	0.16574	17 659	4.64
44	97 702	0.00105	97 651	40.60	94	16 063	0.17459	14 661	4.46
45	97 599	0.00107	97 547	39.64	95	13 258	0.18292	12 046	4.30
46	97 495	0.00111	97 441	38.68	96	10 833	0.19129	9 797	4.15
47	97 387	0.00115	97 331	37.72	97	8 761	0.19952	7 887	4.01
48	97 275	0.00121	97 216	36.76	98	7 013	0.20626	6 290	3.88
49	97 157	0.00129	97 095	35.81	99	5 566	0.21329	4 973	3.76
					100	4 379	0.21965	3 898	3.65

lx number of persons at exact age x

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

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

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

(a) The 1970–1998 rate of improvement in life expectancy of 0.30 years per year for males continues until 2003 and then gradually declines.

See *Population Projections, Australia, 1999 to 2101* (Cat. no. 3222.0).

7.38 AUSTRALIAN LIFE TABLE, 2051—Standard Assumption(a): Females

Age	lx	qx	Lx	$e^{o}x$	Age	lx	qx	Lx	$e^{o}x$
0	100 000	0.00124	99 891	86.55	50	98 385	0.00108	98 332	37.42
1	99 876	0.00011	99 869	85.66	51	98 278	0.00121	98 219	36.46
2	99 865	0.00007	99 862	84.67	52	98 160	0.00133	98 095	35.51
3	99 858	0.00006	99 855	83.68	53	98 029	0.00147	97 957	34.55
4	99 852	0.00005	99 850	82.68	54	97 885	0.00160	97 807	33.60
5	99 847	0.00004	99 845	81.69	55	97 728	0.00173	97 644	32.66
6	99 843	0.00004	99 841	80.69	56	97 559	0.00189	97 467	31.71
7	99 839	0.00004	99 837	79.69	57	97 375	0.00206	97 275	30.77
8	99 835	0.00003	99 834	78.69	58	97 174	0.00226	97 065	29.83
9	99 832	0.00004	99 830	77.70	59	96 955	0.00250	96 834	28.90
10	99 828	0.00004	99 826	76.70	60	96 712	0.00277	96 578	27.97
11	99 824	0.00005	99 822	75.70	61	96 444	0.00307	96 296	27.05
12	99 819	0.00005	99 817	74.71	62	96 148	0.00338	95 986	26.13
13	99 814	0.00007	99 811	73.71	63	95 823	0.00371	95 646	25.22
14	99 807	0.00009	99 803	72.72	64	95 468	0.00407	95 274	24.31
15	99 798	0.00011	99 793	71.72	65	95 079	0.00445	94 868	23.41
16	99 787	0.00013	99 781	70.73	66	94 656	0.00489	94 425	22.51
17	99 774	0.00016	99 766	69.74	67	94 193	0.00538	93 940	21.62
18	99 758	0.00017	99 750	68.75	68	93 686	0.00592	93 409	20.73
19	99 741	0.00018	99 732	67.76	69	93 132	0.00652	92 829	19.85
20	99 723	0.00018	99 714	66.77	70	92 525	0.00718	92 193	18.98
21	99 705	0.00018	99 696	65.79	71	91 860	0.00800	91 493	18.11
22	99 687	0.00018	99 678	64.80	72	91 125	0.00903	90 714	17.25
23	99 669	0.00019	99 660	63.81	73	90 303	0.01031	89 838	16.41
24	99 651	0.00020	99 641	62.82	74	89 372	0.01194	88 838	15.57
25	99 631	0.00022	99 620	61.83	75	88 304	0.01398	87 687	14.75
26	99 609	0.00024	99 597	60.85	76	87 070	0.01632	86 360	13.96
27	99 585	0.00026	99 572	59.86	77	85 649	0.01900	84 836	13.18
28	99 559	0.00028	99 545	58.88	78	84 022	0.02203	83 097	12.43
29	99 531	0.00031	99 516	57.89	79	82 171	0.02547	81 125	11.69
30	99 500	0.00033	99 484	56.91	80	80 078	0.02931	78 905	10.99
31	99 467	0.00034	99 450	55.93	81	77 731	0.03378	76 418	10.30
32	99 433	0.00036	99 416	54.95	82	75 105	0.03900	73 641	9.65
33	99 398	0.00039	99 379	53.97	83	72 176	0.04509	70 549	9.02
34	99 359	0.00041	99 339	52.99	84	68 921	0.05223	67 122	8.42
35	99 318	0.00043	99 297	52.01	85	65 322	0.06060	63 343	7.86
36	99 275	0.00046	99 253	51.03	86	61 363	0.06980	59 222	7.33
37	99 230	0.00049	99 206	50.06	87	57 080	0.07988	54 800	6.84
38	99 181	0.00051	99 156	49.08	88	52 520	0.09062	50 141	6.39
39	99 131	0.00053	99 105	48.11	89	47 761	0.10185	45 329	5.98
40	99 078	0.00054	99 052	47.13	90	42 897	0.11322	40 469	5.60
41	99 025	0.00057	98 997	46.16	91	38 040	0.12553	35 653	5.25
42	98 968	0.00058	98 940	45.18	92	33 265	0.13871	30 958	4.94
43	98 911	0.00062	98 880	44.21	93	28 651	0.15278	26 462	4.65
44	98 849	0.00065	98 817	43.24	94	24 273	0.16731	22 243	4.40
45	98 785	0.00068	98 752	42.26	95	20 212	0.18219	18 371	4.18
46	98 718	0.00073	98 682	41.29	96	16 530	0.19592	14 911	4.00
47	98 646	0.00080	98 607	40.32	97	13 291	0.20892	11 903	3.86
48	98 567	0.00088	98 524	39.35	98	10 514	0.22206	9 347	3.74
49	98 480	0.00097	98 433	38.39	99	8 180	0.23468	7 220	3.67
					100	6 260	0.24695	5 487	3.64

lx number of persons at exact age x

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

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

$e^{0}x$ expectation of life at exact age x

(a) The 1970–1998 rate of improvement in life expectancy of 0.22 years per year for females continues until 2003 and then gradually declines.

See *Population Projections, Australia, 1999 to 2101* (Cat. no. 3222.0).

7.39 AUSTRALIAN LIFE TABLE, 2051—High Assumption(a): Males

Age	lx	qx	Lx	$e^{o}x$	Age	lx	qx	Lx	$e^{o}x$
0	100 000	0.00089	99 922	92.12	50	98 648	0.00061	98 618	42.94
1	99 911	0.00008	99 906	91.20	51	98 588	0.00066	98 556	41.97
2	99 903	0.00006	99 900	90.21	52	98 523	0.00072	98 488	40.99
3	99 897	0.00005	99 895	89.22	53	98 452	0.00078	98 414	40.02
4	99 892	0.00004	99 890	88.22	54	98 375	0.00086	98 333	39.06
5	99 888	0.00003	99 887	87.22	55	98 290	0.00094	98 244	38.09
6	99 885	0.00003	99 884	86.23	56	98 198	0.00105	98 147	37.12
7	99 882	0.00002	99 881	85.23	57	98 095	0.00118	98 037	36.16
8	99 880	0.00002	99 879	84.23	58	97 979	0.00135	97 913	35.20
9	99 878	0.00002	99 877	83.23	59	97 847	0.00156	97 771	34.25
10	99 876	0.00003	99 875	82.23	60	97 694	0.00182	97 605	33.30
11	99 873	0.00003	99 872	81.24	61	97 516	0.00209	97 415	32.36
12	99 870	0.00003	99 869	80.24	62	97 313	0.00238	97 197	31.43
13	99 867	0.00004	99 865	79.24	63	97 081	0.00268	96 951	30.50
14	99 863	0.00006	99 860	78.24	64	96 821	0.00299	96 676	29.58
15	99 857	0.00008	99 853	77.25	65	96 531	0.00330	96 372	28.67
16	99 849	0.00012	99 843	76.25	66	96 213	0.00366	96 037	27.77
17	99 837	0.00016	99 829	75.26	67	95 861	0.00409	95 665	26.87
18	99 821	0.00020	99 811	74.28	68	95 469	0.00457	95 251	25.97
19	99 801	0.00023	99 790	73.29	69	95 032	0.00513	94 789	25.09
20	99 778	0.00024	99 766	72.31	70	94 545	0.00578	94 272	24.22
21	99 754	0.00025	99 742	71.32	71	93 998	0.00647	93 694	23.36
22	99 729	0.00026	99 716	70.34	72	93 390	0.00721	93 054	22.50
23	99 703	0.00026	99 690	69.36	73	92 717	0.00798	92 347	21.66
24	99 677	0.00027	99 664	68.38	74	91 977	0.00880	91 572	20.83
25	99 651	0.00029	99 637	67.40	75	91 167	0.00967	90 727	20.01
26	99 622	0.00030	99 607	66.42	76	90 286	0.01070	89 803	19.21
27	99 592	0.00031	99 577	65.44	77	89 320	0.01195	88 786	18.41
28	99 561	0.00032	99 545	64.46	78	88 252	0.01345	87 659	17.62
29	99 529	0.00033	99 513	63.48	79	87 065	0.01525	86 402	16.86
30	99 496	0.00034	99 479	62.50	80	85 738	0.01740	84 992	16.11
31	99 462	0.00035	99 445	61.52	81	84 246	0.01977	83 413	15.39
32	99 428	0.00036	99 410	60.54	82	82 580	0.02237	81 657	14.69
33	99 392	0.00037	99 374	59.56	83	80 733	0.02522	79 715	14.01
34	99 355	0.00037	99 337	58.58	84	78 697	0.02833	77 582	13.36
35	99 318	0.00038	99 299	57.60	85	76 467	0.03170	75 255	12.74
36	99 280	0.00039	99 261	56.63	86	74 043	0.03527	72 738	12.14
37	99 242	0.00040	99 222	55.65	87	71 432	0.03904	70 038	11.56
38	99 202	0.00041	99 182	54.67	88	68 643	0.04301	67 167	11.01
39	99 161	0.00041	99 141	53.69	89	65 691	0.04712	64 144	10.48
40	99 121	0.00042	99 100	52.71	90	62 596	0.05117	60 995	9.98
41	99 079	0.00043	99 058	51.74	91	59 393	0.05523	57 753	9.49
42	99 036	0.00044	99 015	50.76	92	56 112	0.05906	54 455	9.02
43	98 993	0.00045	98 971	49.78	93	52 798	0.06263	51 145	8.55
44	98 948	0.00047	98 925	48.80	94	49 492	0.06562	47 868	8.09
45	98 902	0.00047	98 879	47.83	95	46 244	0.06830	44 665	7.62
46	98 855	0.00049	98 831	46.85	96	43 085	0.07115	41 553	7.14
47	98 807	0.00051	98 782	45.87	97	40 020	0.07412	38 537	6.65
48	98 757	0.00053	98 731	44.89	98	37 054	0.07664	35 634	6.14
49	98 704	0.00057	98 676	43.92	99	34 214	0.07945	32 855	5.61
					100	31 496	0.08215	30 202	5.05

lx number of persons at exact age x

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

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

$e^{0}x$ expectation of life at exact age x

(a) The 1986–1996 rate of improvement in life expectancy at birth for males continues unabated. See *Population Projections, Australia, 1999 to 2101* (Cat. no. 3222.0).

7.40 AUSTRALIAN LIFE TABLE, 2051—High Assumption: Females

Age	lx	qx	Lx	$e^{o}x$	Age	lx	qx	Lx	$e^{o}x$
0	100 000	0.00085	99 925	93.40	50	99 171	0.00054	99 145	43.91
1	99 915	0.00008	99 910	92.48	51	99 118	0.00061	99 088	42.93
2	99 907	0.00005	99 905	91.48	52	99 057	0.00067	99 024	41.96
3	99 902	0.00004	99 900	90.49	53	98 991	0.00074	98 955	40.98
4	99 898	0.00003	99 897	89.49	54	98 918	0.00081	98 878	40.01
5	99 895	0.00003	99 894	88.49	55	98 838	0.00088	98 795	39.05
6	99 892	0.00002	99 891	87.50	56	98 751	0.00097	98 703	38.08
7	99 890	0.00002	99 889	86.50	57	98 655	0.00106	98 603	37.12
8	99 888	0.00002	99 887	85.50	58	98 550	0.00117	98 493	36.16
9	99 886	0.00002	99 885	84.50	59	98 435	0.00130	98 371	35.20
10	99 884	0.00002	99 883	83.50	60	98 307	0.00145	98 236	34.24
11	99 882	0.00003	99 881	82.51	61	98 164	0.00162	98 085	33.29
12	99 879	0.00003	99 878	81.51	62	98 005	0.00179	97 918	32.35
13	99 876	0.00004	99 874	80.51	63	97 830	0.00196	97 734	31.40
14	99 872	0.00005	99 870	79.51	64	97 638	0.00215	97 533	30.46
15	99 867	0.00006	99 864	78.52	65	97 428	0.00235	97 314	29.53
16	99 861	0.00007	99 858	77.52	66	97 199	0.00257	97 075	28.60
17	99 854	0.00008	99 850	76.53	67	96 950	0.00281	96 814	27.67
18	99 846	0.00009	99 842	75.53	68	96 677	0.00309	96 528	26.74
19	99 837	0.00009	99 833	74.54	69	96 378	0.00339	96 215	25.83
20	99 828	0.00009	99 824	73.55	70	96 052	0.00373	95 873	24.91
21	99 819	0.00009	99 815	72.55	71	95 693	0.00413	95 496	24.00
22	99 810	0.00009	99 806	71.56	72	95 298	0.00464	95 077	23.10
23	99 801	0.00009	99 797	70.57	73	94 856	0.00526	94 607	22.21
24	99 792	0.00010	99 787	69.57	74	94 357	0.00604	94 072	21.32
25	99 782	0.00010	99 777	68.58	75	93 787	0.00700	93 459	20.45
26	99 772	0.00011	99 767	67.59	76	93 131	0.00809	92 754	19.59
27	99 761	0.00012	99 755	66.59	77	92 377	0.00930	91 948	18.74
28	99 749	0.00013	99 743	65.60	78	91 518	0.01065	91 031	17.92
29	99 736	0.00014	99 729	64.61	79	90 543	0.01214	89 994	17.10
30	99 722	0.00015	99 715	63.62	80	89 444	0.01377	88 829	16.31
31	99 707	0.00016	99 699	62.63	81	88 213	0.01565	87 523	15.53
32	99 691	0.00018	99 682	61.64	82	86 832	0.01782	86 059	14.77
33	99 673	0.00019	99 664	60.65	83	85 285	0.02034	84 418	14.03
34	99 655	0.00020	99 645	59.66	84	83 550	0.02327	82 578	13.31
35	99 635	0.00021	99 625	58.67	85	81 606	0.02669	80 517	12.61
36	99 614	0.00023	99 603	57.69	86	79 428	0.03048	78 218	11.94
37	99 591	0.00024	99 579	56.70	87	77 007	0.03469	75 671	11.30
38	99 567	0.00025	99 555	55.71	88	74 335	0.03924	72 877	10.69
39	99 542	0.00026	99 529	54.73	89	71 418	0.04408	69 844	10.11
40	99 516	0.00027	99 503	53.74	90	68 270	0.04909	66 595	9.55
41	99 489	0.00028	99 475	52.75	91	64 919	0.05445	63 152	9.02
42	99 461	0.00029	99 447	51.77	92	61 384	0.06015	59 538	8.51
43	99 433	0.00030	99 418	50.78	93	57 692	0.06616	55 784	8.02
44	99 403	0.00032	99 387	49.80	94	53 875	0.07229	51 928	7.55
45	99 371	0.00034	99 354	48.81	95	49 980	0.07848	48 019	7.10
46	99 337	0.00036	99 319	47.83	96	46 058	0.08430	44 117	6.67
47	99 301	0.00039	99 282	46.85	97	42 175	0.08997	40 278	6.23
48	99 263	0.00044	99 241	45.87	98	38 381	0.09586	36 542	5.80
49	99 219	0.00048	99 195	44.89	99	34 702	0.10172	32 937	5.36
					100	31 172	0.10761	29 495	4.91

lx number of persons at exact age x

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

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

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

(a) The 1986–1996 rate of improvement in life expectancy at birth for females continues unabated. See *Population Projections, Australia, 1999 to 2101* (Cat. no. 3222.0).

7.41 DEATHS, Indigenous People

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.(a)
DEATHS REGISTERED AS INDIGENOUS									
1990	201	42	4	118	322	—	393	—	1 082
1991	206	50	—	135	401	3	412	—	1 208
1992	165	53	—	107	346	5	397	—	1 074
1993	194	50	—	111	386	6	376	9	1 134
1994	207	50	—	123	377	3	380	10	1 153
1995	224	50	—	121	384	3	387	9	1 182
1996	177	49	258	118	370	—	328	5	1 306
1997	88	93	531	132	351	5	458	4	1 662
1998	462	123	593	127	378	13	415	3	2 114
1999	435	130	529	116	350	11	399	6	1 976
2000	473	108	535	144	407	8	450	—	2 127
PROJECTED INDIGENOUS DEATHS (1991 Census-based experimental projections)(b)									
1995	518	113	604	126	385	54	374	10	2 185
1996	528	114	613	128	390	56	379	10	2 220
1997	537	116	623	131	394	57	386	11	2 257
1998	547	118	634	133	400	59	391	11	2 295
1999	556	121	644	135	406	61	397	12	2 334
2000	567	123	655	137	411	62	404	13	2 374
PROJECTED INDIGENOUS DEATHS (1996 Census-based experimental estimates and projections)									
1995(c)	932	209	887	186	488	119	446	18	3 289
1996(c)	950	211	900	189	494	124	452	18	3 341
1997(d)	966	215	915	193	499	126	460	20	3 397
1998(d)	984	219	936	199	509	130	471	21	3 472
1999(d)	1 010	222	960	202	518	133	482	22	3 552
2000(d)	1 035	225	983	208	529	139	491	22	3 634
ESTIMATED COVERAGE OF INDIGENOUS DEATHS (1991 Census-based) (%)									
1995	43	44	—	96	100	6	103	90	54
1996	34	43	42	92	95	—	87	50	59
1997	16	80	85	101	89	9	119	36	74
1998	84	104	94	95	95	22	106	27	92
1999	78	107	82	86	86	18	101	50	85
2000	83	88	82	105	99	13	111	—	90
ESTIMATED COVERAGE OF INDIGENOUS DEATHS (1996 Census-based) (%)									
1995	24	24	—	65	79	3	87	50	36
1996	19	23	29	63	75	—	73	28	39
1997	9	43	58	68	70	4	100	20	49
1998	47	56	63	64	74	10	88	14	61
1999	43	59	55	57	68	8	83	27	56
2000	46	48	54	69	77	6	92	—	59

— nil or rounded to zero (including null cells)

(a) Includes 'Other Territories' from 1993.

(b) *Source: Experimental Projections of the Aboriginal and Torres Strait Islander Population, 1991–2001* (Cat. no. 3231.0), medium series.

(c) *Source*: *Experimental Estimates of the Aboriginal and Torres Strait Islander Population, 1991–1996,* ABS data available on request.

(d) *Source: Experimental Projections of the Aboriginal and Torres Strait Islander Population, 1996–2006* (Cat. no. 3231.0), low series.

7.42 MEDIAN AGE AT DEATH, Males(a)

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.(b)
INDIGENOUS(c)									
1990	n.p.	n.p.	n.p.	42.0	52.0	n.p.	46.4	n.p.	47.5
1991	n.p.	n.p.	n.p.	41.8	49.3	n.p.	46.8	n.p.	46.2
1992	n.p.	n.p.	n.p.	37.5	51.8	n.p.	49.3	n.p.	49.7
1993	n.p.	n.p.	n.p.	40.5	48.5	n.p.	47.0	n.p.	47.7
1994	n.p.	n.p.	n.p.	51.3	51.8	n.p.	46.6	n.p.	48.3
1995	n.p.	n.p.	n.p.	45.3	49.3	n.p.	50.1	n.p.	48.6
1996	n.p.	n.p.	49.3	47.3	48.5	n.p.	47.0	n.p.	47.9
1997	n.p.	n.p.	50.6	50.3	48.6	n.p.	48.7	n.p.	49.8
1998	50.3	56.5	46.9	44.0	45.0	n.p.	45.5	n.p.	47.7
1999	51.3	51.0	48.9	46.5	49.3	n.p.	47.5	n.p.	48.9
2000	53.9	51.5	53.9	49.5	46.6	n.p.	46.2	n.p.	50.8
NON-INDIGENOUS									
1990	n.p.	n.p.	n.p.	72.3	72.0	n.p.	56.6	n.p.	72.0
1991	n.p.	n.p.	n.p.	73.7	72.8	n.p.	58.1	n.p.	72.3
1992	n.p.	n.p.	n.p.	73.5	72.9	n.p.	59.2	n.p.	72.7
1993	n.p.	n.p.	n.p.	73.8	73.1	n.p.	57.4	n.p.	73.0
1994	n.p.	n.p.	n.p.	74.4	73.6	n.p.	59.9	n.p.	73.6
1995	n.p.	n.p.	n.p.	74.4	73.6	n.p.	58.1	n.p.	73.6
1996	n.p.	n.p.	73.4	74.7	74.2	n.p.	57.4	n.p.	74.2
1997	n.p.	n.p.	73.6	75.4	74.2	n.p.	61.7	n.p.	74.4
1998	74.7	75.1	74.4	75.6	74.1	n.p.	56.3	n.p.	74.7
1999	75.0	75.3	74.5	76.0	74.8	n.p.	60.4	n.p.	75.0
2000	75.5	75.9	75.3	76.3	75.1	n.p.	61.1	n.p.	75.5
TOTAL									
1990	71.9	72.4	71.9	72.2	71.5	72.4	51.4	66.9	71.9
1991	72.0	72.6	71.9	73.5	72.2	73.1	53.3	67.3	72.2
1992	72.5	73.2	72.1	73.4	72.5	74.1	54.2	69.1	72.6
1993	72.8	73.5	72.6	73.7	72.6	73.1	53.5	69.8	72.9
1994	73.5	74.0	73.2	74.3	73.1	74.0	53.8	69.3	73.5
1995	73.7	73.9	73.0	74.3	73.3	73.8	54.0	70.5	73.5
1996	74.1	74.7	73.2	74.5	73.7	74.2	54.1	71.4	74.0
1997	74.3	74.7	73.3	75.2	73.6	75.2	56.3	72.5	74.2
1998	74.5	75.0	74.0	75.4	73.7	75.0	52.2	72.7	74.5
1999	74.8	75.2	74.2	75.8	74.3	75.4	55.5	72.3	74.8
2000	75.3	75.8	75.0	76.1	74.4	75.1	55.7	73.5	75.3

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

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

(b) Includes Other Territories.

(c) See table 7.41 and Explanatory Notes 10–15 for the estimated coverage of Indigenous deaths.

7.43 MEDIAN AGE AT DEATH, Females(a)

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.(b)
INDIGENOUS(c)									
1990	n.p.	n.p.	n.p.	57.0	53.0	n.p.	56.7	n.p.	56.1
1991	n.p.	n.p.	n.p.	49.0	59.4	n.p.	52.8	n.p.	55.5
1992	n.p.	n.p.	n.p.	56.0	58.1	n.p.	55.6	n.p.	56.8
1993	n.p.	n.p.	n.p.	56.0	61.5	n.p.	52.0	n.p.	57.4
1994	n.p.	n.p.	n.p.	49.5	62.7	n.p.	60.2	n.p.	59.7
1995	n.p.	n.p.	n.p.	52.0	59.3	n.p.	56.6	n.p.	57.6
1996	n.p.	n.p.	59.0	55.0	58.0	n.p.	54.0	n.p.	57.7
1997	n.p.	n.p.	57.7	52.5	57.8	n.p.	52.3	n.p.	56.8
1998	58.0	63.3	59.3	50.5	57.0	n.p.	49.7	n.p.	57.0
1999	60.8	65.0	60.3	50.5	55.3	n.p.	56.3	n.p.	58.8
2000	59.4	55.5	61.3	56.3	56.0	n.p.	54.0	n.p.	57.4
NON-INDIGENOUS									
1990	n.p.	n.p.	n.p.	79.0	78.8	n.p.	60.5	n.p.	78.8
1991	n.p.	n.p.	n.p.	79.7	78.9	n.p.	57.0	n.p.	78.9
1992	n.p.	n.p.	n.p.	79.9	79.4	n.p.	68.2	n.p.	79.4
1993	n.p.	n.p.	n.p.	80.0	80.1	n.p.	66.0	n.p.	79.6
1994	n.p.	n.p.	n.p.	81.0	80.1	n.p.	69.6	n.p.	80.2
1995	n.p.	n.p.	n.p.	80.8	80.6	n.p.	66.0	n.p.	80.4
1996	n.p.	n.p.	80.2	81.2	81.2	n.p.	65.3	n.p.	80.8
1997	n.p.	n.p.	80.7	81.6	81.2	n.p.	66.0	n.p.	81.1
1998	81.0	81.8	80.6	82.1	81.1	n.p.	68.0	n.p.	81.2
1999	81.4	81.8	81.4	82.2	81.8	n.p.	71.3	n.p.	81.6
2000	82.1	82.0	81.7	82.3	81.6	n.p.	63.0	n.p.	81.9
TOTAL									
1990	78.7	79.2	78.0	79.0	78.4	78.7	58.0	75.6	78.7
1991	78.8	79.1	78.4	79.5	78.4	78.9	54.1	74.7	78.8
1992	79.3	80.1	78.7	79.8	79.0	79.4	59.4	75.3	79.3
1993	79.5	80.1	79.0	79.9	79.8	79.0	56.7	77.3	79.5
1994	80.1	80.6	79.7	80.9	79.7	79.3	63.9	78.3	80.2
1995	80.2	80.9	79.7	80.7	80.3	79.7	60.3	75.9	80.3
1996	80.6	81.3	80.1	81.1	80.8	79.8	60.8	77.5	80.7
1997	81.1	81.4	80.4	81.5	80.8	80.2	57.5	78.8	81.0
1998	80.9	81.7	80.3	82.0	80.8	80.9	58.0	78.8	81.0
1999	81.3	81.8	81.2	82.2	81.5	80.5	61.7	79.5	81.4
2000	81.9	82.0	81.4	82.2	81.1	81.0	57.8	79.9	81.7

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

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

(b) Includes Other Territories.

(c) See table 7.41 and Explanatory Notes 10–15 for estimated coverage of Indigenous deaths.

7.44 INDIGENOUS, NON-INDIGENOUS AND TOTAL DEATHS, Australia(a)

		INDIGENOUS			*NON-INDIGENOUS*	TOTAL(b)
		Males	*Females*	*Persons*	*Persons*	*Persons*
Total deaths	no.	**1 174**	**953**	**2 127**	**122 661**	**128 291**
Age at death (years)						
0	no.	79	69	148	1 092	1 290
1–14	no.	30	27	57	558	641
15–24	no.	77	38	115	1 477	1 664
25–34	no.	119	68	187	2 257	2 550
35–44	no.	171	100	271	3 367	3 767
45–54	no.	191	135	326	6 057	6 580
55–64	no.	195	174	369	10 637	11 305
65 and over	no.	308	342	650	97 200	100 474
Not stated	no.	4	—	4	16	20
Median age at death	years	50.8	57.4	53.5	78.4	78.2
Indirect standardised death rate (ISDR)(c)	rate	18.6	12.4	15.2	5.7	5.9
Infant mortality rate(d)	rate	14.3	12.9	13.6	4.6	5.2
Leading causes of death						
Malignant neoplasms (C00–C97)	no.	184	151	335	34 402	35 628
Digestive organs (C15–C26)	no.	55	38	93	9 717	10 055
Trachea, bronchus and lung (C33,C34)	no.	56	27	83	6 641	6 878
Endocrine, nutrional and metabolic diseases (E00–E90)	no.	86	113	199	3 874	4 157
Diabetes mellitus (E10–E14)	no.	66	108	174	2 775	3 006
Mental and behavioural disorders (F00–F99)	no.	46	17	63	2 900	3 074
Diseases of the circulatory system (I00–I99)	no.	326	274	600	47 777	49 687
Ischaemic heart diseases (I20–I25)	no.	213	147	360	25 458	26 521
Cerebrovascular diseases (I60–I69)	no.	42	62	104	11 898	12 300
Diseases of the respiratory system (J00–J99)	no.	89	72	161	10 444	10 907
Influenza and pneumonia (J10–J18)	no.	30	16	46	2 816	2 937
Chronic lower respiratory diseases (J40–J47)	no.	44	49	93	5 699	5 962
Diseases of the digestive system (K00–K93)	no.	36	34	70	3 954	4 141
Diseases of the liver (K70–K77)	no.	28	18	46	1 082	1 162
Certain conditions originating in the perinatal period (P00–P96)	no.	33	33	66	556	642
Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)	no.	22	23	45	540	610
All other medical conditions (remainder of (A00–R99)	no.	147	143	290	11 855	12 498
External causes of morbidity and mortality (V01–Y98)	no.	225	98	323	7 458	8 098
Transport accidents (V01–V99)	no.	54	26	80	1 839	2 015
Intentional self-harm (X60–X84)	no.	70	16	86	2 196	2 363
Assault (X85–Y09)	no.	28	22	50	253	313
Other external causes (remainder of (V01–Y98)	no.	73	34	107	3 170	3 407

— nil or rounded to zero (including null cells)

(a) 2000 coverage of Indigenous deaths Australia-wide has been estimated at 90% on 1991 Census-based projections and 59% on 1996 Census-based projections. See table 7.41.

(b) Includes not stated.

(c) Per 1,000 population. See Glossary. The Indigenous population used for the ISDR is the 2000 Indigenous population from the *Experimental Projections of the Aboriginal and Torres Strait Islander Population, 30 June 1996 – 30 June 2006* (Cat. no. 3231.0), low series. Standardised using age-specific death rates for the 1991 Australian population in 5 year age groups from 0–4 years to 75 years and over. The ISDR is derived using the ratio of observed deaths to expected deaths. Due to the undercoverage of Indigenous observed deaths, the ISDRs presented here are likely to be conservative estimates.

(d) Per 1,000 live births.

7.45 INDIGENOUS, NON-INDIGENOUS AND TOTAL DEATHS, New South Wales(a)

		INDIGENOUS			*NON-INDIGENOUS*	TOTAL(b)
		Males	*Females*	*Persons*	*Persons*	*Persons*
Total deaths	no.	**259**	**214**	**473**	**43 914**	**45 409**
Age at death (years)						
0	no.	20	17	37	393	447
1–14	no.	4	4	8	201	222
15–24	no.	12	6	18	494	533
25–34	no.	18	13	31	738	792
35–44	no.	36	22	58	1 177	1 264
45–54	no.	45	31	76	2 080	2 207
55–64	no.	53	36	89	3 830	4 029
65 and over	no.	71	85	156	34 993	35 907
Not stated	no.	—	—	—	8	8
Median age at death	years	53.9	59.4	55.9	78.5	78.4
Indirect standardised death rate (ISDR)(c)	rate	14.6	9.9	12.0	5.8	6.0
Infant mortality rate(d)	rate	12.9	11.8	12.4	4.7	5.2
Leading causes of death						
Malignant neoplasms (C00–C97)	no.	41	45	86	11 819	12 201
Endocrine, nutrional and metabolic diseases (E00–E90)	no.	15	16	31	1 160	1 215
Diabetes mellitus (E10–E14)	no.	11	13	24	806	846
Mental and behavioural disorders (F00–F99)	no.	14	6	20	1 084	1 140
Diseases of the circulatory system (I00–I99)	no.	92	72	164	17 797	18 351
Ischaemic heart diseases (I20–I25)	no.	64	40	104	9 231	9 541
Cerebrovascular diseases (I60–I69)	no.	7	12	19	4 604	4 713
Diseases of the respiratory system (J00–J99)	no.	20	14	34	3 900	4 007
Chronic lower respiratory diseases (J40–J47)	no.	11	11	22	2 115	2 180
Diseases of the digestive system (K00–K93)	no.	4	7	11	1 427	1 473
External causes of morbidity and mortality (V01–Y98)	no.	40	21	61	2 351	2 486

— nil or rounded to zero (including null cells)

(a) 2000 coverage of Indigenous deaths in New South Wales has been estimated at 83% on 1991 Census-based projections and 46% on 1996 Census-based projections. See table 7.41.

(b) Includes not stated.

(c) Per 1,000 population. See Glossary. The Indigenous population used for the ISDR is the 2000 Indigenous population from the *Experimental Projections of the Aboriginal and Torres Strait Islander Population, 30 June 1996 – 30 June 2006* (Cat. no. 3231.0), low series. Standardised using age-specific death rates for the 1991 Australian population in 5 year age groups from 0–4 years to 75 years and over. The ISDR is derived using the ratio of observed deaths to expected deaths. Due to the undercoverage of Indigenous observed deaths, the ISDRs presented here are likely to be conservative estimates.

(d) Per 1,000 live births.

7.46 INDIGENOUS, NON-INDIGENOUS AND TOTAL DEATHS, Victoria(a)

		INDIGENOUS			NON-INDIGENOUS	TOTAL(b)
		Males	Females	Persons	Persons	Persons
Total deaths	no.	**57**	**51**	**108**	**29 997**	**32 018**
Age at death (years)						
0	no.	3	3	6	241	268
1–14	no.	—	4	5	125	135
15–24	no.	7	5	12	332	376
25–34	no.	4	5	9	559	625
35–44	no.	5	5	10	796	874
45–54	no.	15	3	18	1 417	1 538
55–64	no.	9	12	21	2 488	2 657
65 and over	no.	13	14	27	24 033	25 539
Not stated	no.	—	—	—	6	6
Median age at death	years	51.5	55.5	52.5	78.8	78.7
Indirect standardised death rate (ISDR)(c)	rate	14.3	10.3	12.1	5.4	5.7
Infant mortality rate(d)	rate	n.p.	n.p.	n.p.	4.2	4.5
Leading causes of death						
Malignant neoplasms (C00–C97)	no.	14	9	23	8 625	9 131
Endocrine, nutrional and metabolic diseases (E00–E90)	no.	3	7	10	1 189	1 251
Diabetes mellitus (E10–E14)	no.	3	6	8	885	928
Mental and behavioural disorders (F00–F99)	no.	3	—	5	851	911
Diseases of the circulatory system (I00–I99)	no.	20	10	30	11 176	11 917
Ischaemic heart diseases (I20–I25)	no.	13	3	16	5 848	6 248
Cerebrovascular diseases (I60–I69)	no.	3	4	7	2 699	2 862
Diseases of the respiratory system (J00–J99)	no.	4	3	7	2 403	2 590
Chronic lower respiratory diseases (J40–J47)	no.	4	3	7	1 380	1 491
Diseases of the digestive system (K00–K93)	no.	3	3	5	896	967
External causes of morbidity and mortality (V01–Y98)	no.	9	6	15	1 773	1 953

— nil or rounded to zero (including null cells)

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

(a) 2000 coverage of Indigenous deaths in Victoria has been estimated at 88% on 1991 Census-based projections and 48% on 1996 Census-based projections. See table 7.41.

(b) Includes not stated.

(c) Per 1,000 population. See Glossary. The Indigenous population used for the ISDR is the 2000 Indigenous population from the *Experimental Projections of the Aboriginal and Torres Strait Islander Population, 30 June 1996 – 30 June 2006* (Cat. no. 3231.0), low series. Standardised using age-specific death rates for the 1991 Australian population in 5 year age groups from 0–4 years to 75 years and over. The ISDR is derived using the ratio of observed deaths to expected deaths. Due to the undercoverage of Indigenous observed deaths, the ISDRs presented here are likely to be conservative estimates.

(d) Per 1,000 live births.

7.47 INDIGENOUS, NON-INDIGENOUS AND TOTAL DEATHS, Queensland(a)

		INDIGENOUS			*NON-INDIGENOUS*	TOTAL(b)
		Males	*Females*	*Persons*	*Persons*	*Persons*
Total deaths	no.	**291**	**244**	**535**	**21 730**	**22 425**
Age at death (years)						
0	no.	15	19	34	256	291
1–14	no.	8	4	12	110	123
15–24	no.	19	7	26	278	305
25–34	no.	19	17	36	431	472
35–44	no.	40	17	57	619	679
45–54	no.	51	37	88	1 144	1 241
55–64	no.	44	38	82	1 997	2 095
65 and over	no.	95	105	200	16 895	17 219
Not stated	no.	—	—	—	—	—
Median age at death	years	53.9	61.3	56.7	78.1	77.8
Indirect standardised death rate (ISDR)(c)	rate	16.9	11.6	14.0	5.7	5.9
Infant mortality rate(d)	rate	9.4	12.0	10.7	6.0	6.2
Leading causes of death						
Malignant neoplasms (C00–C97)	no.	64	35	99	6 200	6 333
Endocrine, nutrional and metabolic diseases (E00–E90)	no.	26	39	65	690	759
Diabetes mellitus (E10–E14)	no.	21	39	60	492	555
Mental and behavioural disorders (F00–F99)	no.	5	3	8	340	352
Diseases of the circulatory system (I00–I99)	no.	78	75	153	8 564	8 783
Ischaemic heart diseases (I20–I25)	no.	53	43	96	4 884	5 011
Cerebrovascular diseases (I60–I69)	no.	13	20	33	2 112	2 163
Diseases of the respiratory system (J00–J99)	no.	22	22	44	1 725	1 786
Chronic lower respiratory diseases (J40–J47)	no.	11	14	25	1 021	1 058
Diseases of the digestive system (K00–K93)	no.	3	8	10	706	721
External causes of morbidity and mortality (V01–Y98)	no.	56	21	77	1 614	1 700

— nil or rounded to zero (including null cells)

(a) 2000 coverage of Indigenous deaths in Queensland has been estimated at 82% on 1991 Census-based projections and 54% on 1996 Census-based projections. See table 7.41.

(b) Includes not stated.

(c) Per 1,000 population. See Glossary. The Indigenous population used for the ISDR is the 2000 Indigenous population from the *Experimental Projections of the Aboriginal and Torres Strait Islander Population, 30 June 1996 – 30 June 2006* (Cat. no. 3231.0), low series. Standardised using age-specific death rates for the 1991 Australian population in 5 year age groups from 0–4 years to 75 years and over. The ISDR is derived using the ratio of observed deaths to expected deaths. Due to the undercoverage of Indigenous observed deaths, the ISDRs presented here are likely to be conservative estimates.

(d) Per 1,000 live births.

7.48 INDIGENOUS, NON-INDIGENOUS AND TOTAL DEATHS, South Australia(a)

		INDIGENOUS			*NON-INDIGENOUS*	TOTAL(b)
		Males	*Females*	*Persons*	*Persons*	*Persons*
Total deaths	no.	**79**	**65**	**144**	**11 461**	**11 843**
Age at death (years)						
0	no.	5	3	7	72	82
1–14	no.	4	3	5	40	47
15–24	no.	5	5	10	110	128
25–34	no.	9	5	14	190	211
35–44	no.	12	8	20	271	303
45–54	no.	14	9	23	560	599
55–64	no.	12	15	27	883	923
65 and over	no.	18	20	38	9 335	9 550
Not stated	no.	—	—	—	—	—
Median age at death	years	49.5	56.3	51.2	79.0	78.8
Indirect standardised death rate (ISDR)(c)	rate	21.9	14.9	18.1	5.8	6.0
Infant mortality rate(d)	rate	n.p.	n.p.	n.p.	4.3	4.6
Leading causes of death						
Malignant neoplasms (C00–D97)	no.	9	8	17	3 124	3 185
Endocrine, nutrional and metabolic diseases (E00–E90)	no.	8	13	21	384	407
Diabetes mellitus (E10–E14)	no.	5	13	18	265	285
Mental and behavioural disorders (F00–F99)	no.	6	—	6	271	287
Diseases of the circulatory system (I00–I99)	no.	21	16	37	4 561	4 689
Ischaemic heart diseases (I20–I25)	no.	12	12	24	2 480	2 551
Cerebrovascular diseases (I60–I69)	no.	—	3	3	1 088	1 116
Diseases of the respiratory system (J00–J99)	no.	5	8	13	1 161	1 197
Chronic lower respiratory diseases (J40–J47)	no.	—	6	8	488	502
Diseases of the digestive system (K00–K93)	no.	3	—	5	410	423
External causes of morbidity and mortality (V01–Y98)	no.	14	10	24	608	665

— nil or rounded to zero (including null cells)

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

(a) 2000 coverage of Indigenous deaths in South Australia has been estimated at 105% on 1991 Census-based projections and 69% on 1996 Census-based projections. See table 7.41.

(b) Includes not stated.

(c) Per 1,000 population. See Glossary. The Indigenous population used for the ISDR is the 2000 Indigenous population from the *Experimental Projections of the Aboriginal and Torres Strait Islander Population, 30 June 1996 – 30 June 2006* (Cat. no. 3231.0), low series. Standardised using age-specific death rates for the 1991 Australian population in 5 year age groups from 0–4 years to 75 years and over. The ISDR is derived using the ratio of observed deaths to expected deaths. Due to the undercoverage of Indigenous observed deaths, the ISDRs presented here are likely to be conservative estimates.

(d) Per 1,000 live births.

7.49 INDIGENOUS, NON-INDIGENOUS AND TOTAL DEATHS, Western Australia(a)

		INDIGENOUS			*NON-INDIGENOUS*	TOTAL(b)
		Males	*Females*	*Persons*	*Persons*	*Persons*
Total deaths	no.	**237**	**170**	**407**	**10 119**	**10 668**
Age at death (years)						
0	no.	19	10	29	76	109
1–14	no.	9	10	19	47	70
15–24	no.	8	8	16	173	196
25–34	no.	38	14	52	216	280
35–44	no.	38	16	54	322	390
45–54	no.	30	24	54	520	590
55–64	no.	30	32	62	924	996
65 and over	no.	61	56	117	7 839	8 031
Not stated	no.	4	—	4	3	6
Median age at death	years	46.6	56.0	50.5	77.9	77.3
Indirect standardised death rate (ISDR)(c)	rate	25.3	15.2	19.8	5.4	5.6
Infant mortality rate(d)	rate	21.9	11.7	16.9	3.3	4.3
Leading causes of death						
Malignant neoplasms (C00–C97)	no.	26	18	44	3 042	3 114
Endocrine, nutrional and metabolic diseases (E00–E90)	no.	17	24	41	315	358
Diabetes mellitus (E10–E14)	no.	15	24	39	231	271
Mental and behavioural disorders (F00–F99)	no.	7	—	9	265	280
Diseases of the circulatory system (I00–I99)	no.	48	52	100	3 616	3 760
Ischaemic heart diseases (I20–I25)	no.	31	29	60	1 968	2 055
Cerebrovascular diseases (I60–I69)	no.	10	14	24	890	923
Diseases of the respiratory system (J00–J99)	no.	19	6	25	784	815
Chronic lower respiratory diseases (J40–J47)	no.	6	3	8	411	422
Diseases of the digestive system (K00–K93)	no.	17	7	24	342	367
External causes of morbidity and mortality (V01–Y98)	no.	58	26	84	744	860

— nil or rounded to zero (including null cells)

(a) 2000 coverage of Indigenous deaths in Western Australia has been estimated at 99% on 1991 Census-based projections and 77% on 1996 Census-based projections. See table 7.41.

(b) Includes not stated.

(c) Per 1,000 population. See Glossary. The Indigenous population used for the ISDR is the 2000 Indigenous population from the *Experimental Projections of the Aboriginal and Torres Strait Islander Population, 30 June 1996 – 30 June 2006* (Cat. no. 3231.0), low series. Standardised using age-specific death rates for the 1991 Australian population in 5 year age groups from 0–4 years to 75 years and over. The ISDR is derived using the ratio of observed deaths to expected deaths. Due to the undercoverage of Indigenous observed deaths, the ISDRs presented here are likely to be conservative estimates.

(d) Per 1,000 live births.

7.50 INDIGENOUS, NON-INDIGENOUS AND TOTAL DEATHS, Northern Territory(a)

		INDIGENOUS			*NON-INDIGENOUS*	TOTAL(b)
		Males	*Females*	*Persons*	*Persons*	*Persons*
Total deaths	no.	**246**	**204**	**450**	**439**	**909**
Age at death (years)						
0	no.	17	18	35	8	43
1–14	no.	4	4	8	—	11
15–24	no.	26	7	33	21	55
25–34	no.	31	13	44	32	78
35–44	no.	40	31	71	38	112
45–54	no.	36	30	66	66	134
55–64	no.	45	40	85	72	158
65 and over	no.	47	61	108	200	318
Not stated	no.	—	—	—	—	—
Median age at death	years	46.2	54.0	50.0	61.4	56.5
Indirect standardised death rate (ISDR)(c)	rate	28.6	20.1	24.0	6.5	10.5
Infant mortality rate(d)	rate	21.9	23.9	22.9	3.7	11.7
Leading causes of death						
Malignant neoplasms (C00–C97)	no.	28	33	61	127	194
Endocrine, nutrional and metabolic diseases (E00–E90)	no.	17	14	31	17	48
Diabetes mellitus (E10–E14)	no.	12	13	25	10	35
Mental and behavioural disorders (F00–F99)	no.	11	4	15	3	18
Diseases of the circulatory system (I00–I99)	no.	66	49	115	104	226
Ischaemic heart diseases (I20–I25)	no.	39	20	59	57	123
Cerebrovascular diseases (I60–I69)	no.	8	10	18	21	39
Diseases of the respiratory system (J00–J99)	no.	18	19	37	33	73
Chronic lower respiratory diseases (J40–J47)	no.	9	13	22	23	47
Diseases of the digestive system (K00–K93)	no.	8	7	15	23	39
External causes of morbidity and mortality (V01–Y98)	no.	47	14	61	85	149

— nil or rounded to zero (including null cells)

(a) 2000 coverage of Indigenous deaths in the Northern Territory has been estimated at 111% on 1991 Census -based projections and 92% on 1996 Census-based projections. See table 7.41.

(b) Includes not stated.

(c) Per 1,000 population. See Glossary. The Indigenous population used for the ISDR is the 2000 Indigenous population from the *Experimental Projections of the Aboriginal and Torres Strait Islander Population, 30 June 1996 – 30 June 2006* (Cat. no. 3231.0), low series. Standardised using age-specific death rates for the 1991 Australian population in 5 year age groups from 0–4 years to 75 years and over. The ISDR is derived using the ratio of observed deaths to expected deaths. Due to the undercoverage of Indigenous observed deaths, the ISDRs presented here are likely to be conservative estimates.

(d) Per 1,000 live births.

7.51 INTERNATIONAL COMPARISON, Life Expectancy At Birth

	INDIGENOUS....		NON-INDIGENOUS...		TOTAL.....	
Reference year	*Male*	*Female*	*Male*	*Female*	*Male*	*Female*
			AUSTRALIA(a)			
1997–1999(b)	55.6	63.0	n.a.	n.a.	76.2	81.8
1998–2000(b)	56.0	62.7	n.a.	n.a.	76.6	82.0
			NEW ZEALAND(c)			
1950–1952	54.0	55.9	68.3	72.4	67.2	71.3
1955–1957	57.2	58.7	68.9	73.9	68.2	73.0
1960–1962	59.0	61.4	69.2	74.5	68.4	73.8
1965–1967	61.4	64.8	68.7	74.8	68.2	74.3
1970–1972	61.0	65.0	69.1	75.2	68.6	74.6
1975–1977	63.4	67.8	69.4	75.9	69.0	75.4
1980–1982	65.1	69.5	70.8	76.9	70.4	76.4
1985–1987	67.4	72.3	71.4	77.4	71.1	77.1
1990–1992(d)	68.0	73.0	73.4	79.2	72.9	78.7
1995–1997(e)	67.2	71.6	75.3	80.6	74.3	79.6
			UNITED STATES OF AMERICA(f)			
1972–1974(g)	63.5		n.a.		71.4	
1983–1985(g)	72.9		n.a.		74.7	
1994–1996(g)	(h) 71.1		n.a.		75.8	

n.a. not available

Sources: *Statistics New Zealand (1998), New Zealand Life Tables, 1995–97; U.S. Department of Health and Human Services Indian Health Service, Trends in Indian Helath 1998–99.*

(a) Indigenous data are for the Australian Aboriginal and Torres Strait Islander population, and include an adjustment for undercoverage of Indigenous deaths.

(b) Indigenous life expectancy excludes Tasmania and the Australian Capital Territory.

(c) Indigenous data are for the New Zealand Maori population.

(d) Prior to 1990–1992, the Maori figures relate to the population with "half or more" degree of Maori blood or of 'solely' Maori origin, whereas the 1990–1992 figures relate to the population who identified as belonging to the Maori ethnic group irrespective of their degree of Maori blood.

(e) In September 1995 a change in the ethnicity question on the New Zealand birth and death registration forms was introduced. The 1995–1997 life tables for Maori and non-Maori have been constructed using data drawn from the new birth and death registration forms, and are not comparable with earlier life tables.

(f) Data is for persons. Indigenous data are for those American Indians and Alaska Natives who are eligible for Indian Health Service (IHS) services.

(g) American Indian and Alaska Native life expectancy is based on the three year periods specified. Life expectancy for the total population is based on the single year in the middle of the three year reference period.

(h) Includes an adjustment for miscoding of Indian race on death certificates.

7.52 INTERNATIONAL COMPARISON, Infant Mortality Rate(a)

Reference year	*Indigenous*	*Non-Indigenous*	*Total*
		AUSTRALIA(b)	
1998(c)	15.2	n.a.	5.0
1999	14.1	5.0	5.7
2000	13.6	4.6	5.2
		NEW ZEALAND(d)	
1996	11.6	n.a.	7.3
1997	10.7	n.a.	6.8
1998	7.2	n.a.	5.4
		UNITED STATES OF AMERICA(e)	
1987–1989	12.7	n.a.	10.0
1988–1990	12.5	n.a.	9.8
1989–1991	12.1	n.a.	9.2
1990–1992	11.7	n.a.	8.9
1991–1993	10.9	n.a.	8.5
1992–1994	10.9	n.a.	8.4
1993–1995	9.7	n.a.	8.0
1994–1996	9.3	n.a.	7.6
1996–1998	8.9	n.a.	7.2

n.a. not available

Sources: *New Zealand Health and Information Service; U.S. Department of Health and Human Services Indian Health Service, Trends in Indian Helath 1998–99; U.S. Department of Health and Human Services Indian Health Service, Regional Differences in Indian Health 2000–01.*

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

(b) Indigenous data are for the Australian Aboriginal and Torres Strait Islander population.

(c) Indigenous data is for Queensland, South Australia, Western Australia and the Northern Territory.

(d) Indigenous data are for the the New Zealand Maori population.

(e) Indigenous data are for those American Indians and Alaska Natives who are eligible for Indian Health Service (IHS) services, and include an adjustment for miscoding of Indian race on death certificates. American Indian and Alaska Native rates are for the three year periods specified. Rates for the total population are for the the single year in the middle of the three year reference period.

EXPLANATORY NOTES

INTRODUCTION

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

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

DEATHS REGISTERED IN THE SAME YEAR AS THEY OCCURRED

Year	*%*	*Year*	*%*
1989	93.8	1995	95.2
1990	92.8	1996	95.2
1991	93.6	1997	95.6
1992	94.3	1998	96.0
1993	94.8	1999	95.8
1994	95.6	2000	95.8

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

STATES AND TERRITORIES

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

5 Table 7.7 shows the number of deaths cross-classified by State or Territory of usual residence and State or Territory of registration.

6 In 2000 there were 377 deaths registered in Australia of persons usually resident overseas. These deaths have been included in this publication and classified according to the State or Territory in which the death was registered. Australian residents who die overseas are not included.

STATES AND TERRITORIES *continued*

Deaths of overseas visitors

State or Territory of registration	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*
New South Wales	108	135	130	120	145	127
Victoria	52	61	55	49	64	55
Queensland	92	106	98	91	90	110
South Australia	19	22	16	21	14	17
Western Australia	48	48	55	61	50	41
Tasmania	4	4	4	4	7	7
Northern Territory	—	15	11	17	16	17
Australian Capital Territory	6	2	6	8	4	3
Australia	**329**	**393**	**375**	**371**	**390**	**377**

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

EXCLUSIONS

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

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

INDIGENOUS DEATHS

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

Coverage of Indigenous Deaths

11 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.

INDIGENOUS DEATHS *continued*

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

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

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

14 The estimated coverage of Indigenous deaths is a comparison of the number of deaths registered as Indigenous with the Census based estimates and projections of Indigenous deaths. For example, the total number of Indigenous deaths registered in 2000 (2,100) was around 90% of the number projected in the 1991 Census-based experimental projections, and 59% of the number of deaths projected in the 1996 Census-based experimental projections (see table 7.41). The variation between the 1991 and 1996 Census-based coverages can be primarily attributed to two factors: the change in propensity to identify as Indigenous on census forms between the 1991 and 1996 Censuses, and the method used to estimate the death rates applied in the projections. In particular, the method used to estimate the death rates is very sensitive to the inputs used so that the resulting projected deaths are quite volatile.

15 Given this volatility, and the experimental nature of the base populations, the estimates of coverage in table 7.41 are only indicative. Actual coverage of death registrations is likely to lie within the 1991 Census base to 1996 Census base range provided, although possibly outside it. Given this uncertainty, the assessment of the completeness of coverage of Indigenous deaths should be interpreted with caution. Over-precise analysis based on Indigenous death registrations, Indigenous deaths coverage or projected Indigenous deaths should be avoided.

CAUSES OF DEATH

16 For deaths registered in 1999, the 10th revision of the World Health Organisation's International Classification of Diseases (ICD–10) was introduced for the coding of causes of death. Deaths registered in 1997 and 1998 have since been coded to ICD–10. Causes of death descriptions and corresponding codes used in this publication relate to particular causes or groups of causes as classified in ICD–10. The introduction of ICD–10 has broken the underlying cause of death series, particularly at the more detailed level of classification. For information on the differences between ICD–9 and ICD–10, please refer to *Causes of Death, Australia* (Cat. no. 3303.0).

CAUSES OF DEATH *continued*

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

18 The time-series summary table (table 7.1) includes causes of death data. Data prior to 1997 is coded to ICD–9 and is not directly comparable with later years presented in the table. The pre 1997 data in this table relates to:
Malignant neoplasms (140–208);
Ischaemic heart diseases (410–414);
Cerebrovascular diseases (430–438);
Chronic obstructive pulmonary disease and allied conditions (including asthma, emphysema and bronchitis (490–496);
Accidents (E800–E949);
from the ICD–9 classification.

LIFE TABLES

19 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 mortality rates and the resulting values are used to measure mortality, survivorship and life expectancy.

20 The life tables in this publication are current or period life tables, based on mortality rates for a short period of time during which mortality has remained much the same. Mortality rates for the Australian, State and Territory, and Indigenous life tables are based on 1998–2000 data.

21 A life table may be complete or abridged, depending on the age interval used in the compilation. Complete life tables such as those for Australian population contain data by single years of age, while abridged life tables, such as those for the Indigenous population, contain data for five-year age groups.

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

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

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

l_x — the number of survivors at exact age x;

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

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

Australian life tables

24 The 1998–2000 life tables were produced by the ABS. The tables differ from those published prior to the 1995 edition of this publication in a number of important respects. Firstly, they are based on three years of population and deaths data. This is designed to reduce the impact of year-to-year statistical variations, particularly at younger ages where there is a small number of deaths and at very old ages where the population at risk is small. Secondly, the population and deaths data are based on Australian residents who are physically present in Australia over the three-year period i.e. Australian residents temporarily overseas are excluded. Thirdly, they have been actuarially graduated on the same principles which were used for the quinquennial Australian life tables prepared by the Australian Government Actuary. Life tables for the States and Territories are produced on the same principles as these tables and are available on request or in the *Demography, State* publications (Cat. nos 3311.1–8).

Small area life tables

25 Expectation of life for statistical divisions (table 7.6) have been calculated with reference to State and Territory life tables, using Brass' Logit System. Small area life tables are based on age-specific death rates for each area, some of which may be zero as no deaths were recorded at those ages. Brass' Logit technique enables the calculation of smooth abridged life tables for regions which have defective age-specific death rates, by adjusting them with reference to a standard life table. The technique does not alter the overall level of mortality, but the age-specific functions of the life table are smoothed.

26 Essentially, the technique compares mortality between the regional and standard life tables across ages, then a line of best fit is calculated to describe that relationship by age. The line of best fit is then used in conjunction with the standard life table to determine mortality 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*.

TIME SERIES

27 Time series data from 1901 to 1995 is available in the 1995 issue of *Deaths, Australia* (Cat. no. 3302.0), in *Australian Demographic Trends, 1997* (Cat. no. 3102.0) and in Australian Historical Population Statistics (available through AusStats, see Explanatory note 30).

ACKNOWLEDGEMENT

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

RELATED PUBLICATIONS

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

AusStats — electronic data (see Explanatory Note 30)
Australian Demographic Statistics (Cat. no. 3101.0) — issued quarterly
Australian Demographic Trends (Cat. no. 3102.0) — issued irregularly
Births, Australia (Cat. no. 3301.0) — issued annually
Causes of Death, Australia (Cat. no. 3303.0) — issued annually
Perinatal Deaths, Australia (Cat. no. 3304.0) — issued annually to 1993
Population Projections, Australia 1999–2101 (Cat. no. 3222.0)

RELATED PUBLICATIONS *continued*

Experimental Projections of the Aboriginal and Torres Strait Islander Population (Cat. no. 3231.0) — issued irregularly.

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

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

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

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

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

ADDITIONAL STATISTICS AVAILABLE

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

APPENDIX 1 CHARACTERISTICS AVAILABLE

RELATED TO THE DEATH

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

RELATED TO THE PERSON

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

APPENDIX 2 FEATURE ARTICLES LIST

DEATHS, AUSTRALIA (Cat. no. 3302.0)

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

Death of older people, 1998, p.46

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

Life tables, 1996, p.59

The years of living dangerously, 1997, p.28

AUSTRALIAN SOCIAL TRENDS (Cat. no. 4102.0)

Accidental death of children, 1996, p.59

Accidental drowning, 2000, p.69

Cancer trends, 1995, p.68

Drug-related deaths, 2001, p.71

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

Suicide, 2000, p.65

Youth suicide, 1994, p.55

GLOSSARY

Age-specific death rate Age-specific death rates are the number of deaths (occurred or registered) during the calendar year at a specified age per 1,000 of the estimated resident population of the same age at mid-point of the year (30 June). The infant mortality rate is used for the age-specific death rate for children under one year of age. Pro rata adjustment is made in respect of deaths for which the age of the deceased is not given.

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

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

Crude death rate The crude death rate is the number of deaths registered during the calendar year per 1,000 estimated resident population at 30 June. For years prior to 1992, the crude death rate was based on the mean estimated resident population for the calendar year.

Death For the purposes of the Deaths and Causes of Death collections conducted by the ABS, a death refers to any death which occurs in, or en route to Australia and is registered with a State or Territory Registry of Births, Deaths and Marriages.

Estimated resident population The concept of estimated resident population (ERP) links people to a place of usual residence within Australia. Usual residence is that place where each person has lived or intends to live for six months or more in a reference year.

The ERP is an estimate of the Australian population obtained by adding to the estimated population at the beginning of each period the components of natural increase (on a usual residence basis) and net overseas migration. For the States and Territories, account is also taken of the estimated interstate movements involving a change of usual residence.

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

After each census, estimates for the preceding intercensal period are revised by incorporating an additional adjustment (intercensal discrepancy) to ensure that the total intercensal increase agrees with the difference between the ERPs at the two respective census dates.

Indigenous Persons who identify themselves as being of Aboriginal or Torres Strait Islander origin.

Indigenous death The death of a person who is identified as being of Aboriginal or Torres Strait Islander origin on the death information form.

Infant death An infant death is the death of a live-born child who dies before reaching his/her first birthday.

Infant mortality rate The number of deaths of children under one year of age in a calendar year per 1,000 live births in the same calendar year.

Intercensal discrepancy Intercensal discrepancy is the difference between two estimates of a census year population, the first based on the latest census and the second arrived at by updating the previous census date estimate with intercensal components of population change which take account of information available from the latest census. It is caused by errors in the start and/or finish population estimates and/or in estimates of births, deaths or migration in the intervening period which cannot be attributed to a particular source.

Life expectancy Life expectancy refers to the average number of additional years a person of a given age and sex might expect to live if the age-specific death rates of the given period continued throughout his/her lifetime.

Life table death rate The life table death rate represents the annual number of deaths (per 1,000 population) that would occur based on the death rates and population structure of the life table. It is calculated as 1,000/expectation of life at birth.

Marital status Two separate concepts are measured by the Australian Bureau of Statistics. These are registered marital status and social marital status. They have different personal characteristics and are independent variables with separate classifications. Marital status relates to registered marital status which refers to formally registered marriages or divorces for which the partners hold a certificate. Four categories of marital status are identified: never married, married, widowed and divorced.

Median value For any distribution the median value (age, duration, interval) is that value which divides the relevant population into two equal parts, half falling below the value, and half exceeding it. Where the value for a particular record has not been stated, that record is excluded from the calculation.

Natural increase Excess of births over deaths.

Neonatal death For neonatal deaths a birthweight and period of gestation criterion apply:

- A neonatal death is the death within 28 days of birth of a child weighing at least 500 grams at delivery (or of at least 22 weeks gestation, if birthweight was unavailable) who after delivery, breathes or shows any evidence of life such as a heartbeat. Applies to data collected prior to 1997; and
- A neonatal death is the death within 28 days of birth of a child weighing at least 400 grams at delivery (or of at least 20 weeks gestation, if birthweight was unavailable) who after delivery, breathes or shows any evidence of life such as a heartbeat. Applies to data collected from 1997 onwards.

Sex ratio The sex ratio relates to the number of males per 100 females. The sex ratio is defined for total population, at birth, at death and among age groups by appropriately selecting the numerator and denominator of the ratio.

Standardised death rate (SDR)

Standardised death rates enable the comparison of death rates between populations with different age structures by relating them to a standard population. The ABS standard populations relate to the years ending in 1 (e.g. 1991). The current standard population is all persons in the 1991 Australian population. They are expressed per 1,000 or 100,000 persons. There are two methods of calculating standardised death rates:

- The *direct method*—this is used when the populations under study are large and the age-specific death rates are reliable. It is the overall death rate that would have prevailed in the standard population if it had experienced at each age the death rates of the population under study; and
- The *indirect method*—this is used when the populations under study are small and the age-specific death rates are unreliable or not known. It is an adjustment to the crude death rate of the standard population to account for the variation between the actual number of deaths in the population under study and the number of deaths which would have occurred if the population under study had experienced the age-specific death rates of the standard population.

Wherever used, the definition adopted is indicated.

Standardised mortality ratio (SMR)

The ratio of the actual number of deaths in the population under study and the number of deaths which would have occurred if the population under study had experienced the age-specific death rates of the standard population (see also—Standardised death rate, *The indirect method*).

State or Territory of registration

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

State or Territory and Statistical Local Area of usual residence

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

the population (estimated resident population);

the mother (birth collection); or

the deceased (death collection).

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

Year of occurrence

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

Year of registration

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

LIST OF REFERENCES

Australian Bureau of Statistics, 1998a, *Experimental estimates of the Aboriginal and Torres Strait Islander population, 1991–1996*, Cat. no. 3230.0, ABS, Canberra.

Australian Bureau of Statistics, 1998b, *Experimental estimates of the Aboriginal and Torres Strait Islander population, 1996–2006*, Cat. no. 3231.0, ABS, Canberra.

Australian Bureau of Statistics, 1998c, *Information paper: 1996 Census of Population and Housing. Socioeconomic Indexes for Areas,* Cat. no. 2039.0, ABS, Canberra.

Australian Bureau of Statistics, 1999, 'Health and socio-economic disadvantage of area', in *Australian Social Trends,* Cat. no. 4102.0, ABS, Canberra, pp. 62–66.

Australian Bureau of Statistics, 2000, *Deaths, Australia* 1999, Cat. no. 3302.0, ABS, Canberra.

Australian Bureau of Statistics, 2000, *Population Projections, Australia 1999 to 2101*, Cat. no. 3222.0, ABS, Canberra.

Australian Bureau of Statistics, 2000, *Suicides, 1921–1998*, Cat. no. 3309.0, ABS, Canberra.

Australian Bureau of Statistics, 2001, *Births, Australia* 2000, Cat. no. 3301.0, ABS, Canberra.

Australian Bureau of Statistics, 2001, *Causes of Death*, 2000, Cat. no. 3303.0, ABS, Canberra.

Australian Bureau of Statistics, 2001, *Demography Working Paper 2001/2—Aboriginal and Torres Strait Islander Mortality: Evaluation of Experimental Indigenous Life Tables,* ABS Website <http://www.abs.gov.au>

Australian Bureau of Statistics, 2001, *Migration Australia, 1999–2000*, Cat. no. 3412.0, ABS, Canberra.

Australian Institute of Health and Welfare, 1996. *Australia's health 1996: the fifth biennial report of the Australian Institute of Health and Welfare.* AIHW, Canberra.

Brass, W., 1975, *Methods for Estimating Fertility and Mortality from Limited and Defective Data*, University of North Carolina at Chapel Hill, Chapel Hill.

Chiang, C.L., 1984, *The life table and its applications,* Krieger, Malabar.

Farr, W., 1858, 'The influence of marriage on the mortality of the French people', in *Transactions of the National Association for the Promotion of Social Sciences*, ed. G.W. Hasting, John W. Parker and Son, London, pp. 504–513.

Grbich, C., 1999, *Health in Australia: sociological concepts and issues,* Prentice Hall, Australia.

Lillard, L. A. & Panis, C.W.A., 1996, 'Marital status and mortality: The role of health', *Demography*, vol. 33(3), pp. 313–327.

Marmot, M., Siegrist, J., Theorell, T., and Feeney, A., 1999, *Social determinants of health*, edited by M. Marmot and R. Wilkinson, Oxford University Press, New York.

Mathers, C., 1994a, *Health Differentials among adult Australians aged 25–64 years*, AIHW: Health Monitoring Series No. 1, AGPS, Canberra.

Mathers, C., 1994b, *Health Differentials among older Australians*, AIHW: Health Monitoring Series No. 2, AGPS, Canberra.

Mathers, C., 1995, *Health Differentials among Australian children*, AIHW: Health Monitoring Series No. 3, AGPS, Canberra.

Mathers, C., 1996 *Health Differentials among young Australian adults*, AIHW: Health Monitoring Series No. 4, AGPS, Canberra.

McCracken, K., 2001, 'Into a SEIFA SES cul-de-sac?' in *Australian and New Zealand Journal of Public Health*, Vol. 25, No. 4, pp. 305–306.

Population Reference Bureau, 2000, *World Population Data Sheet*, PRB, Washington DC.

Reid, J., Trompf, P., 1990 *The Health of Immigrant Australia: a social perspective*, Harcourt Brace Jovanovich Group, Australia.

Statistics New Zealand (1998), *New Zealand Life Tables, 1995–97*, Statistics New Zealand, Wellington.

Taylor, R., Lewis, M., Powles, J. 1998, 'Australian mortality decline: All-cause mortality 1788–1990', in *Australian and New Zealand Journal of Public Health*, Vol. 22, No. 1, pp. 27–36.

United Nations 2000 *Demographic Yearbook 1998, 5th Edition*. United Nations, New York.

U.S. Department of Health and Human Services Indian Health Service, 1998–99, *Trends in Indian Helath 1998–99*.

U.S. Department of Health and Human Services Indian Health Service (unpublished), *Regional Differences in Indian Health 2000–01.*

VandenHeuvel, A., Wooden, M. 1999 *New Settlers Have Their Say: How immigrants fare over the early years of settlement*. Commonwealth of Australia, Canberra.

Waldron, I., 1983, 'The role of genetic and biological factors in sex differences in mortality', in *Sex Differentials in Mortality*, Department of Demography, Australian National University, Canberra.

Yu, Xue Q., Robertson, C., Brett, I., 2000, 'Socioeconomic correlates of mortality differentials by Local Government Area in rural northern New South Wales, 1981–1995', in *Australia and New Zealand Journal of Public Health*, Vol. 24, No. 4, pp. 365–369.

FOR MORE INFORMATION...

INTERNET	**www.abs.gov.au** the ABS web site is the best place to start for access to summary data from our latest publications, information about the ABS, advice about upcoming releases, our catalogue, and Australia Now—a statistical profile.
LIBRARY	A range of ABS publications is available from public and tertiary libraries Australia-wide. Contact your nearest library to determine whether it has the ABS statistics you require, or visit our web site for a list of libraries.
CPI INFOLINE	For current and historical Consumer Price Index data, call 1902 981 074 (call cost 77c per minute).
DIAL-A-STATISTIC	For the latest figures for National Accounts, Balance of Payments, Labour Force, Average Weekly Earnings, Estimated Resident Population and the Consumer Price Index call 1900 986 400 (call cost 77c per minute).

INFORMATION SERVICE

Data which have been published and can be provided within five minutes are free of charge. Our information consultants can also help you to access the full range of ABS information—ABS user-pays services can be tailored to your needs, time frame and budget. Publications may be purchased. Specialists are on hand to help you with analytical or methodological advice.

PHONE	**1300 135 070**
EMAIL	**client.services@abs.gov.au**
FAX	1300 135 211
POST	Client Services, ABS, GPO Box 796, Sydney 1041

WHY NOT SUBSCRIBE?

ABS subscription services provide regular, convenient and prompt deliveries of ABS publications and products as they are released. Email delivery of monthly and quarterly publications is available.

PHONE	1300 366 323
EMAIL	subscriptions@abs.gov.au
FAX	03 9615 7848
POST	Subscription Services, ABS, GPO Box 2796Y, Melbourne 3001

2330200001001
ISSN 1031-0223

RRP $31.00

Produced by the Australian Bureau of Statistics