

Rural, regional and remote health

A study on mortality (2nd edition)

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RURAL HEALTH SERIES

Number 8

Rural, regional and remote health

A study on mortality (2nd edition)

December 2007

Australian Institute of Health and Welfare

Canberra

Cat. no. PHE 95

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This publication is part of the Australian Institute of Health and Welfare's Rural health series. A complete list of the Institute's publications is available from the Institute's website <www.aihw.gov.au>.

ISSN 1448-9775

ISBN 978 174024 743 6

Suggested citation

Australian Institute of Health and Welfare 2007. Rural, regional and remote health: a study on mortality (2nd edition). Rural health series no. 8. Cat. no. PHE 95. Canberra: AIHW.

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Published by the Australian Institute of Health and Welfare

Printed by Union Offset Printers

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Acknowledgments

This report was commissioned by the Rural Health Branch in the Australian Government Department of Health and Ageing.

It is the eighth in a series of AIHW rural health reports developed and written by Andrew Phillips. Fadwa Al-Yaman provided valuable comments on the Indigenous data presented in this report.

Other assistance was provided by Ilona Brockway, Mark Cooper-Stanbury, Amber Summerhill and Sally Bullock.

Abbreviations

ABS	Australian Bureau of Statistics
ACT	Australian Capital Territory
AIHW	Australian Institute of Health and Welfare
ARIA	Accessibility/Remoteness Index of Australia
ASGC	Australian Standard Geographical Classification
CHD	coronary heart disease
COPD	chronic obstructive pulmonary disease
GIS	geographic information systems
GISCA	National Key Centre for the Social Applications of GIS
GP	general practitioner
ICD-10	International Classification of Diseases, 10th revision
IHD	ischaemic heart disease
IPV	interpersonal violence
IR	Inner Regional
LTA	land transport accident
MC	Major Cities
MVA	motor vehicle accident
MVTA	motor vehicle traffic accident
NHMRC	National Health and Medical Research Council
NSW	New South Wales
NT	Northern Territory
OR	Outer Regional
Qld	Queensland
R	Remote
RHD	rheumatic heart disease
RRMA	Rural, Remote and Metropolitan Areas (Classification)
SA	South Australia
SEIFA	Socioeconomic Indexes for Areas
SLA	Statistical Local Area
SMR	standardised mortality ratio
Tas	Tasmania
Vic	Victoria
VR	Very Remote

WA	Western Australia
WHO	World Health Organization

Symbols

–	nil or rounded to zero
..	not applicable
n.a.	not available
n.p.	not published in this report
n.e.c.	not elsewhere classified

Summary

About 6.5 million people live outside Major Cities – about one-third of the Australian population.

Key findings

- For the period 2002–04, death rates in regional areas were about 1.1 times higher than those in Major Cities. Death rates in Remote and Very Remote areas were also higher (about 1.2 and 1.7 times) than those in Major Cities.
- In 2002–04, the specific causes of elevated death rates outside Major Cities were coronary heart disease (19% of ‘excess’ deaths), other diseases of the circulatory system (18%), motor vehicle traffic accidents (9%) and chronic obstructive pulmonary disease (9%).
- A major contributor to elevated rates in remote areas is Indigenous Australian mortality, primarily because Indigenous Australians constitute a large proportion of remote area populations, and the death rate for Indigenous Australians generally is over three times higher than for non-Indigenous Australians in Major Cities.
- Death rates for older people, particularly living in remote areas, were generally lower than for their counterparts in Major Cities; this pattern was the opposite of that seen for younger people.
- While all of the causes of death described in this report are noteworthy, two broad causes stand out as being of particular importance: circulatory disease and injury. Circulatory disease is important because of the large number of ‘excess’ deaths involved, while injury is important because of the large number of ‘excess’ deaths and the young age of many of the people affected.

Other findings

- When all causes of death are considered, the relative difference in mortality rates between Major Cities and regional and remote areas remained unchanged between the periods 1997–99 and 2002–04. With the exception of injury, this pattern was generally consistent across the broad categories of cause of death.
- Between 1992 and 2003, death rates tended to decline in all areas, typically with faster declines in the remote areas where rates tend to be higher.
- As would be expected, death rates within Remoteness Areas are not uniform. New work described in this report shows differences in the death rates of people living in coastal and inland parts of some of the Remoteness Areas outside Major Cities. For example, death rates of people in inland Inner Regional areas were 1.1 times rates for people in Major Cities, while death rates of people in coastal Inner Regional areas were similar to rates for people in Major Cities. Larger differences existed for the smaller populations in the inland and coastal parts of Remote areas.

1 Introduction

1.1 Background

This report expands on an earlier report *Rural, regional and remote health: a study on mortality* which asked the question ‘do mortality rates increase with remoteness?’ and attempted to untangle the influence of Indigenous Australian health outcomes on overall mortality in regional and remote areas.

Although mortality measures do not express the full range of health experiences, they are arguably the most robust way of comparing the health of people living in various areas. As the eighth in a series of reports on the health status of Australians who live outside Major Cities, this report complements other related work on important aspects of health, including how well people feel, prevalence of risk factors such as smoking, measures of disability and disease rates (see AIHW 2005a).

1.2 Purpose, scope and structure of this report

The main objectives of this report are to explain the causes of death in regional and remote areas and to answer the question: are death rates amongst people who live outside Major Cities higher than for those who live in Major Cities?

Besides the Introduction, the main body of this report consists of eight chapters. Chapter 2 provides an overview of the report’s methodology, including information on the quality and interpretation of the data. Chapter 3 presents aggregated data on all causes of death, and chapters 4–8 present data on specific causes of death related to: neoplasms; diseases of the circulatory system; diseases of the respiratory system; injury and poisoning; and other causes of death. Exploratory analysis on the difference in mortality rates in inland and coastal regional and remote areas is provided in chapter 9. The appendixes present accompanying technical notes.

The contribution of factors which influence death rates, such as the personal characteristics of the population, the risk imposed by the environment or accessibility to health services is not addressed.

1.3 Regional and remote Australia

In Australia, more than half of the population live in the Major Cities. However, over 6 million people (about one-third of the population) live in what are loosely referred to as regional and remote areas (see Figure 1.2). Regional and remote areas are not all located in so-called ‘outback’ Australia, and they are not all as subject to the above aspects of disadvantage as some might assume: many are in coastal regions and some are in regions where there is a major industry such as wine production, farming, mining or tourism – but they are all some distance away from major population centres. Measures of health status and other social indicators relating to rural and remote areas need to be interpreted with this in mind.

Geographic classification

The Australian Bureau of Statistics (ABS) Australian Standard Geographical Classification (ASGC) Remoteness Areas classification (see Figure 1.1) has been selected as the geographic basis for reporting in this report.

The ASGC Remoteness classification was developed by the ABS and was based on ARIA+, which was developed earlier by the National Key Centre for the Social Applications of Geographic Information Systems (GISCA) (ABS 2001a).

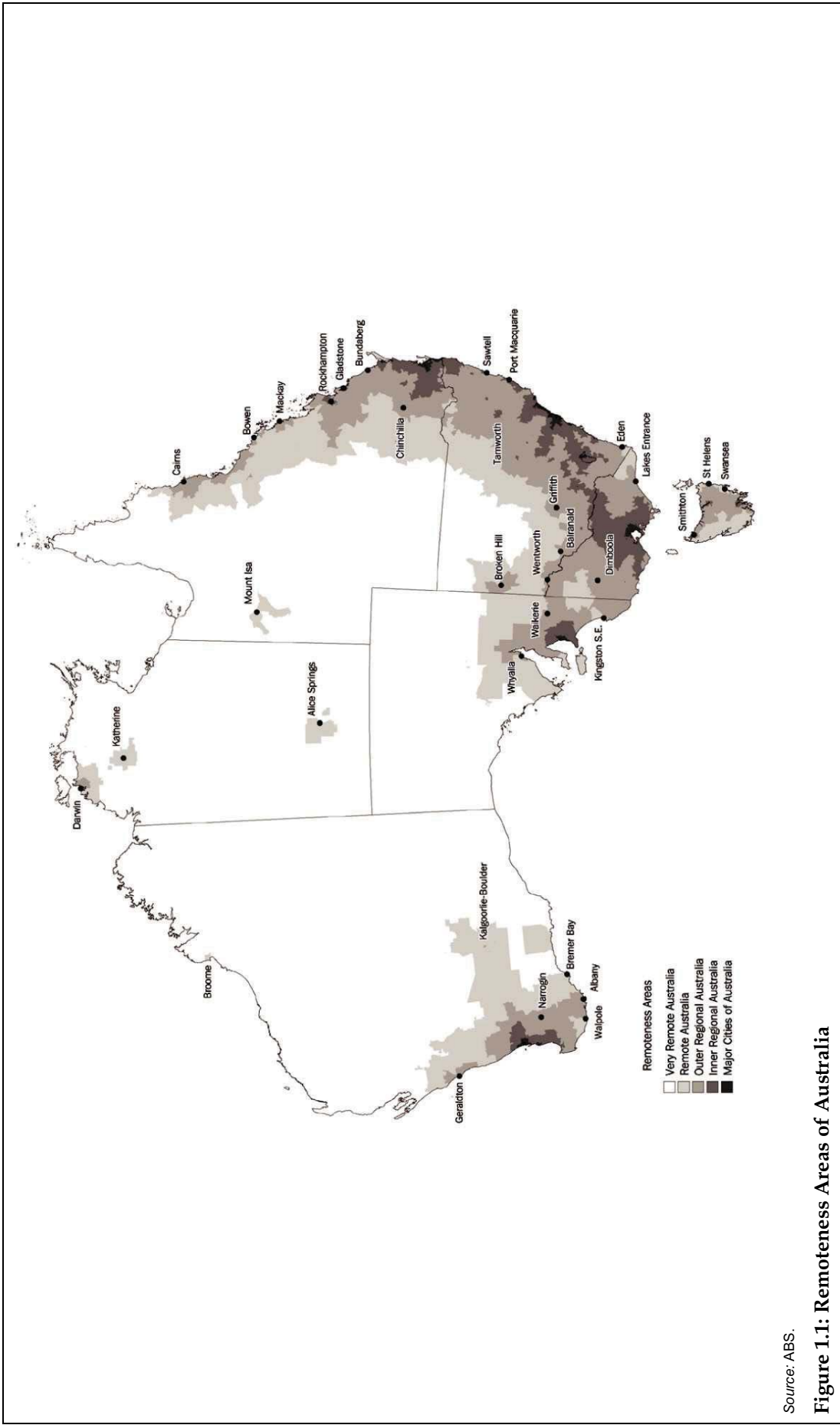
In figures and tables throughout this report, Major Cities, Inner Regional, Outer Regional, Remote and Very Remote categories have been abbreviated as MC, IR, OR, R and VR.

For more information on the various remoteness classifications please refer to the AIHW publication *Rural, regional and remote health: a guide to remoteness classifications* (AIHW 2004a).

Characteristics of regional and remote populations

Although the most visually obvious component of the economy in regional and remote areas is agriculture, the majority of people in these areas derive their income from other industry sectors (Table 1.1).

Levels of income and education are lower in regional and remote areas than in Major Cities. In 2001, over half (55%) of people living in Very Remote areas were classified as being amongst the most disadvantaged people in Australia, and 2% were amongst the least disadvantaged. This compares poorly with those living in Major Cities, where only one-fifth were amongst the most disadvantaged, and just over one-third (34%) were amongst the least disadvantaged.



Source: ABS.

Figure 1.1: Remoteness Areas of Australia

Table 1.1: Indigenous Australian and total populations, and selected characteristics within each ASGC Remoteness Area, 2001

Factor	MC	IR	OR	R	VR	Australia
Percentage of:			Per cent			
the national population living in each area	66	21	10	2	1	100
the Indigenous Australian population living in each area	30	20	23	9	18	100
the population in each area who are Indigenous Australian	1	2	5	12	45	2
adults employed in primary production ^(a) and mining	<1	4	11	20	16	3
adults employed in other industry sectors	58	50	46	45	44	55
adults not in the workforce or unemployed	41	46	43	35	39	42
people living in areas classified as being in the						
–least disadvantaged national SEIFA quartile ^(b) (1996)	34	14	8	10	2	26
–most disadvantaged national SEIFA quartile ^(b) (1996)	20	28	33	26	53	24
youth starting tertiary study ^(c)	39	26	23	12	10	33
non-Indigenous Australian youth starting tertiary study ^(c)	39	27	24	13	21	34
reticulated water supplies adequately fluoridated ^(d)	81	39	34	30	20	49
Costs (average)			Dollars			
Monthly mortgage	985	813	775	786	605	926
Weekly rent	206	155	154	148	122	189

(a) Primary production includes agriculture, forestry and fishing.

(b) The percentages for SEIFA (Socioeconomic Indexes for Areas) relate to the percentage of the population in each area who lived in Census collectors districts that were among the 25% least disadvantaged, and the 25% most disadvantaged in Australia, in 1996.

(c) The percentage commencing tertiary (university and TAFE) study is the apparent percentage of 17-20 year olds from each area that commenced tertiary study in 2001. Limited accuracy of the Indigenous Australian identifier cautions against regional reporting for Indigenous Australians. Nationally, 10% of Indigenous Australians of this age commenced tertiary study.

(d) Fluoride data relate to a rolling survey. Some of the data may be up to 10 years old and do not relate specifically to 2001.

Source: AIHW population database; AIHW 2005a.

About 25% and 10%, respectively, of 17–20 year olds from regional and remote areas commenced university or TAFE in 2001, compared with almost 40% of those from Major Cities (Table 1.2).

The cost of housing in regional and remote areas tends to be, respectively, 75% and 65% of housing costs in Major Cities (Table 1.2), but other costs are higher. For example, the costs of food and petrol increase with increasing remoteness, so that in Very Remote areas they are respectively about 15–20% and 10% more expensive than in Major Cities (AIHW 2005a).

Compared with people in Major Cities, those living elsewhere are more likely to be smokers, to drink alcohol in hazardous quantities, to be overweight or obese and to be physically inactive (AIHW 2005a).

Also, people living outside Major Cities, particularly those living in remote areas, are more likely to be Indigenous Australian.

Australia’s Indigenous population is disadvantaged compared to other Australians in almost all important areas of social concern (Table 1.2): their participation in education and levels of educational attainment are lower than the rest of the population; their labour force participation is lower and their unemployment rate higher; and their infant mortality rate is much higher and life expectancy much lower than the rest of the population (ABS & AIHW 2005). Other measures of their health reflect a similar pattern.

Table 1.2: Comparison of selected characteristics of Indigenous Australians and non-Indigenous Australians

Characteristic	Indigenous Australians	Non-Indigenous Australians
Percentage of 18–64 year olds unemployed (2002)	20%	6%
Percentage older than 17 years who had completed Year 12 (2002)	19%	44%
Percentage older than 24 years possessing bachelor degree or higher (2002)	5%	21%
Median equivalised gross weekly income for people older than 17 years (2002)	\$394	\$665
Own or purchasing own home (2002)	27%	73%

Source: ABS & AIHW 2005.

Regional and remote environments

The environment outside Major Cities is frequently stereotyped as ‘outback’, sparsely populated, hot, dry, populated by farmers, and isolated from population centres. In reality it is extremely diverse.

Non-metropolitan populations can live in coastal or inland areas, within commuting distance of Major Cities, in mixed farming or extensive grazing areas, or in areas visually dominated by forestry, fishing, mining or tourism. Many areas outside Major Cities, predominantly on the coast, attract older people in retirement.

Many of the occupations in regional and remote areas (for example, mining, transport, forestry, commercial fishing and farming) entail higher levels of risk than other occupations (AIHW: Strong et al. 1998).

Also, large travel distances, higher speeds and animals on the road, for example, can increase risks for drivers and their passengers. Greater distances for recovery of those injured in

accidents or who become acutely ill (such as a heart attack) would be expected to increase the risk of death for people living in regional and remote areas.

About 35% and 25% of reticulated water supplies in regional and remote areas respectively were considered to be adequately fluoridated compared with 80% in Major Cities (Table 1.1).

Health services in regional and remote areas

People living in regional and remote areas tend to have lower levels of access to health services (AIHW: Strong et al. 1998). Despite this, immunisation rates for children under 2 years in 2002 appeared similar to, or only slightly lower than, those in Major Cities, and rates of breast cancer and cervical screening in 2001 appeared higher than in Major Cities (AIHW 2005a).

There were more hospital beds per capita in regional and remote areas in 2002-03 (respectively, three beds and five beds per 1,000 residents) than in Major Cities (2.5 beds per 1000 residents). Compared with Major Cities, hospitals in regional and remote areas were less likely to be accredited under a national accreditation scheme, and tended to be a lot smaller. Many hospitals outside Major Cities had fewer than 30 beds, but about 30 had between 100 and 300 beds (AIHW 2005a).

There were differences in the rate at which people from Major Cities, regional and remote areas were admitted to hospital for a range of surgical procedures in 2002-03. Noticeably, the rate of admission for coronary artery bypass graft surgery and coronary angioplasty was lower for residents of regional and especially remote areas than for those in Major Cities. This contrasts with the higher death rates due to coronary heart disease in these areas. Rates of surgical procedure are likely to be affected by issues such as need and access, both physical and financial.

The supply of health workers typically declines with remoteness (Table 1.3).

Table 1.3: Supply of health workers, by ASGC Remoteness Area, 2001–02

Occupation	MC	IR	OR	R	VR
	Number per 100,000 population				
GPs	118	92	85	76	81
Specialists	108	48	30	16	7
Registered nurses	886	836	753	731	756
Enrolled nurses	172	273	303	303	200
Pharmacists	82	63	52	37	28
Physiotherapists	62	37	32	38	14
Podiatrists	11	9	4	4	2

Note: 'GPs' includes general practitioners and other primary care medical practitioners.

Source: AIHW Labour Force Surveys.

However, health workers in regional and especially remote areas tend to work longer hours than those in Major Cities. For example, in 2001, the weekly hours worked by GPs in regional, Remote and Very Remote areas were 10%, 15% and 26% longer than those in Major Cities (AIHW 2005a). This tends to partly compensate for the shortfall in the numbers of health workers in these areas, but, on the downside, longer working hours could impose additional strain on these workers, with resultant difficulties retaining staff in these areas in the longer term.

Those who live away from Major Cities and for whom access to health services is restricted may be disadvantaged because of different access to:

- preventive services such as immunisation and information allowing healthy life choices
- health management and monitoring
- specialist surgery and medical care
- emergency care, for example, ambulance
- rehabilitation services after medical or surgical intervention
- aged care services.

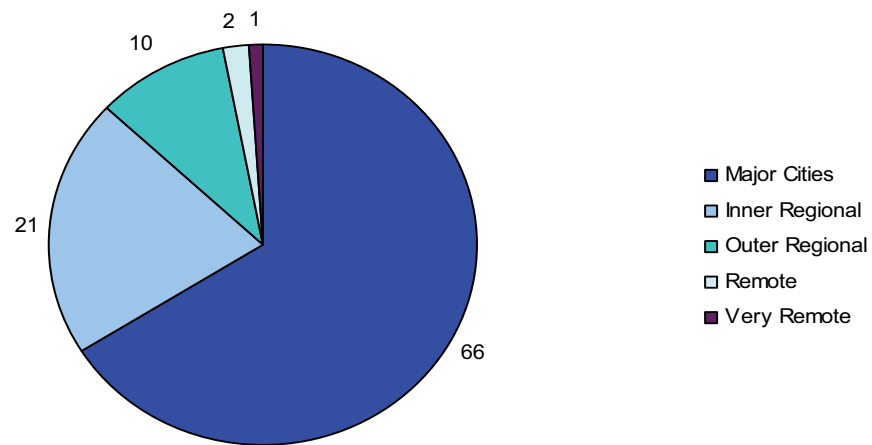
Demography of regional and remote populations

In 2001, the majority (66%) of the Australian population lived in Major Cities. Of the remainder, 21% and 10% lived in Inner and Outer Regional areas, while 2% and 1% lived in Remote and Very Remote areas (Figure 1.2 and Table 1.4).

Non-metropolitan areas include not only inland agricultural and remote areas, but also coastal areas. In fact, of the people who live outside the major cities, but not in remote areas, just under 50% live within 80 km of the coast (Garnaut et al. 2001).

The ASGC Remoteness structure has been used in this description of regional and remote demography. Additional demographic data are provided in Appendix C.

Mortality differences in coastal and inland areas have been described in chapter 9. Details of the coastal and inland populations are provided in the introduction to this chapter.



Source: AIHW population database, based on Statistical Local Area (SLA) resident population estimates compiled by ABS.

Figure 1.2: Population distribution in Australia, by ASGC Remoteness Area, 2001 (per cent)

Table 1.4: Indigenous Australian and total populations within each ASGC Remoteness Area, 2001

Population		MC	IR	OR	R	VR	Total
'000							
Indigenous Australian	Males	68	46	52	20	41	227
	Females	71	46	54	20	40	231
	Persons	138	93	106	40	81	458
Total	Males	6,344	1,995	1,025	172	95	9,631
	Females	6,527	2,030	989	153	83	9,783
	Persons	12,871	4,026	2,014	324	179	19,413
Per cent							
Indigenous Australian							
	% of regional population	1.0	2.0	5.0	12.0	45.0	2.0
	% of national Indigenous Australian population	30.0	20.0	23.0	9.0	18.0	100.0
Total population							
	% of national population	66.0	21.0	10.0	2.0	1.0	100.0

Source: AIHW population database, based on SLA resident population estimates compiled by ABS.

The population of regional areas is smaller than that in Major Cities, but still substantial; the population in remote areas is very small in comparison.

The percentage of the population who are Indigenous Australian varies substantially with remoteness; 1% of the population in Major Cities are Indigenous Australian, 2–5% are Indigenous Australian in regional areas, rising to 12% in Remote areas and 45% in Very Remote areas (Table 1.4).

As well as these differences, there are substantial differences in the age and sex structure of the populations (Figure 1.3). In the Australian population, there are slightly more males than females; only in older age does the situation change as females outlive their male counterparts. However, in Remote (and especially Very Remote) areas, the number of males is substantially greater than the number of females (Table 1.5), with the numbers of males and females tending to become similar in old age.

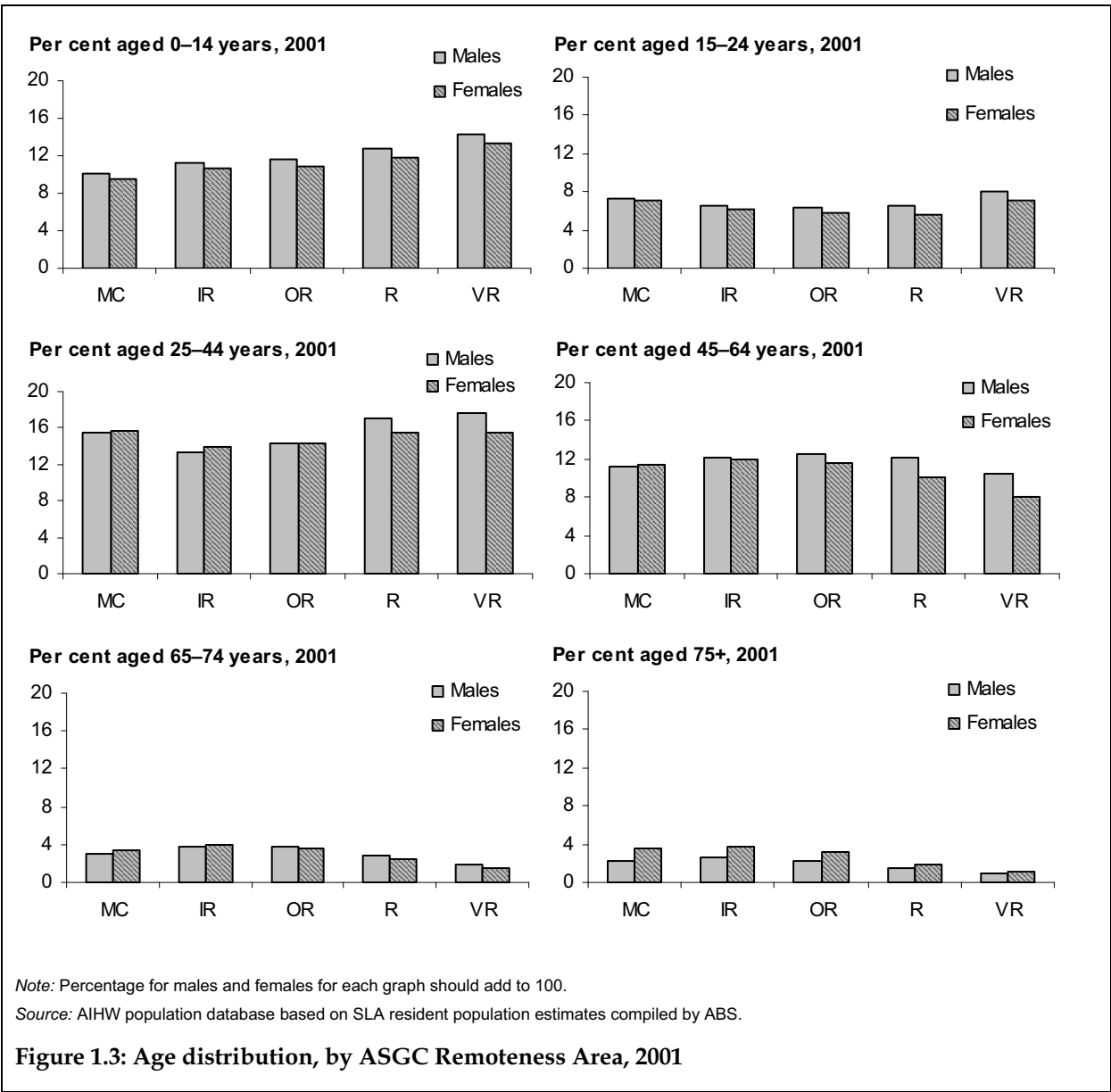


Figure 1.3: Age distribution, by ASGC Remoteness Area, 2001

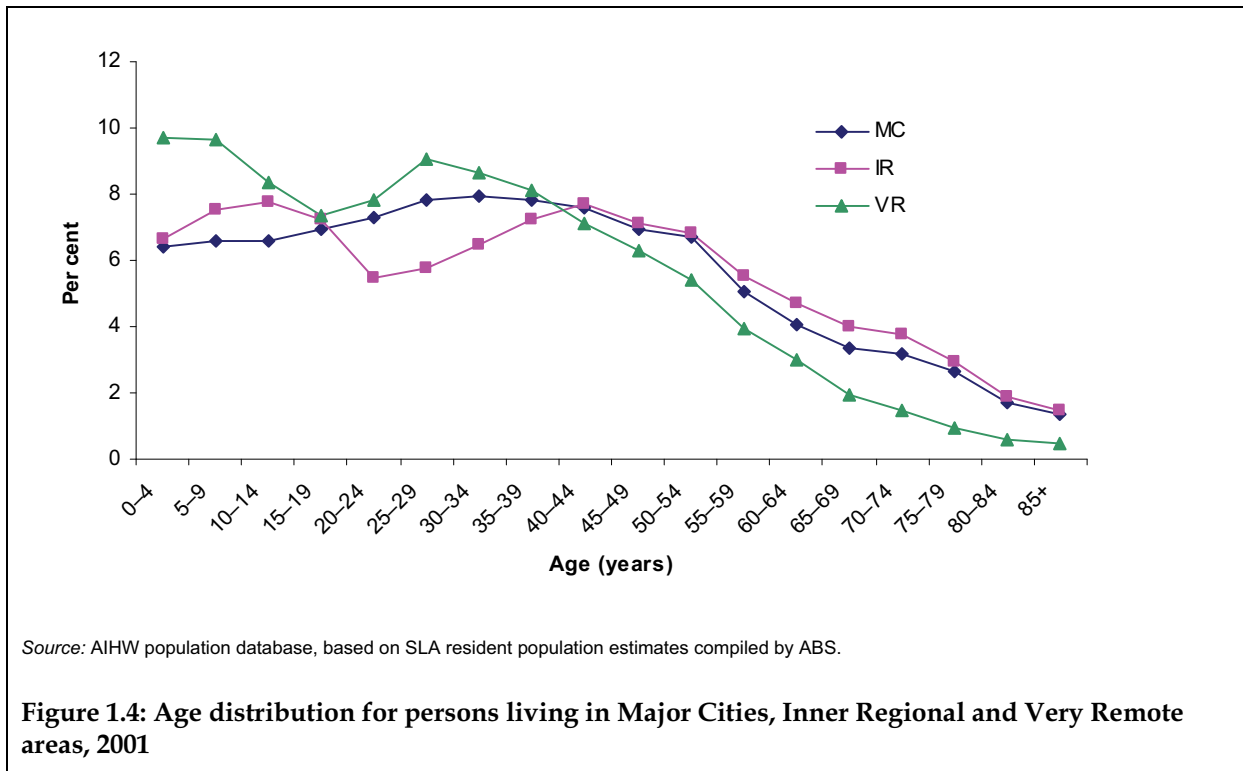
Table 1.5: Male to female population ratio, by ASGC Remoteness Area, 2001

	MC	IR	OR	R	VR	Total
	Ratio					
Non-Indigenous Australian	0.97	0.98	1.04	1.14	1.28	0.98
Indigenous Australian	0.96	1.00	0.98	1.01	1.01	0.99
Total persons	0.97	0.98	1.04	1.12	1.15	0.98

Source: AIHW population database, based on SLA resident population estimates compiled by ABS.

In remote areas, there are proportionally more children, people aged 15–24 years and to a lesser extent people aged 25–44 years, than there are in Major Cities (Figure 1.4). There are proportionally fewer people older than 44 years, and substantially fewer people older than 65 years in Remote areas.

In regional areas the proportion of people in each age group is similar to that in Major Cities, with the exception that there are proportionally more children, but fewer people aged 25–44 years.



Source: AIHW population database, based on SLA resident population estimates compiled by ABS.

Figure 1.4: Age distribution for persons living in Major Cities, Inner Regional and Very Remote areas, 2001

2 Data methodology and interpretation

This chapter discusses key analytical concepts used to compare mortality rates across regions, issues related to the quality and interpretation of the data, and identifies areas of work requiring further improvement and development. This chapter is intended to provide clear guidance about interpreting the findings presented in chapters 3–9.

2.1 Methodology

Several analytical concepts have been used to compare mortality rates across the regions. There are two in particular that are crucial to understanding the discussion that follows. While these and other concepts are explained more fully in Appendix A, they are, briefly:

- **standardised mortality ratio (SMR)** – the ratio of the actual number of deaths in an area to the number expected if Major Cities death rates for the relevant group had applied in that area
- **‘excess’ deaths** – the difference between the actual number of deaths in an area and the number that would have occurred if Major Cities death rates had applied.

Indirect age standardisation involved the use of:

- age-specific death rates for people living in Major Cities as the standard for calculating the expected numbers of deaths in each area
- age-specific death rates for non-Indigenous Australians living in Major Cities as the standard for calculating the expected numbers of deaths of non-Indigenous Australians in each area and of Indigenous Australians in Queensland, Western Australia, South Australia and the Northern Territory.

‘Excess’ deaths have been reported because although SMRs provide a measure of inequity, they do not provide a measure of magnitude (that is, an understanding of the absolute size of disadvantage for particular causes of death in each region in terms of human lives lost).

Reporting of mortality trends relies on previously published analyses (AIHW 2006a). It compares the numbers of deaths in each year 1992 to 2003, with the number that would be expected if Major Cities age-specific rates in the period 2001–03 were applied to the populations in each area in those years. The trend is estimated using weighted least squares.

Mortality for the period 2002–04 is compared with that for 1997–99, both in terms of whether there have been real (absolute) changes in mortality between the two periods, and also in terms of whether there have been changes to the death rates in regional areas relative to those in Major Cities at the time.

In order to assess absolute changes between the two periods (for example, whether Inner Regional rates in 2002–04 were higher compared with what they were in 1997–99), the number of deaths in each area in each period were compared to the number that would have occurred if 2002–04 Major Cities age-specific rates were applied to the populations in each area in each period. In essence this answers the question ‘have death rates increased or declined?’.

To assess changes in the relative difference between areas (for example, whether, death rates in Inner Regional areas have remained similar to those in contemporary Major Cities,

whether they have increased relative to those in contemporary Major Cities or whether they have decreased relative to those in contemporary Major Cities), the number of deaths in each area in each period were compared to the number that would have occurred if contemporary Major Cities age-specific rates were applied to the populations in each area in each period. In essence this answers the question 'has the size of the gap between Major Cities and regional/remote areas changed?'

Reporting of death rates in coastal and inland regional and remote areas in 2001 has used Major Cities age-specific rates in that year as the standard.

Age-specific death rates have been reported throughout the report because summary measures like SMRs can sometimes mask important patterns.

2.2 Indigenous mortality

Previous descriptions of mortality, and other measures of health, have shown poorer outcomes in more remote areas (AIHW: Strong et al. 1998), but it is possible that a lot of this difference is a result of poor Indigenous Australian health. To assess whether the poorer health in more remote areas reflects the influence of remoteness or Indigenous Australian health, mortality for the Indigenous Australian and non-Indigenous Australian populations should be compared with mortality for the total population. However, two issues affect the reporting of data for Indigenous Australians:

- Concerns about the inter-regional differences in the accuracy of the recording of Indigenous Australian deaths prevent reporting on Indigenous Australian mortality separately for the five regions used in this report. If this analysis was completed, any differences between areas may have reflected accuracy of the records rather than real differences in mortality. Consequently, overall, rather than regional, mortality rates for Indigenous Australians are presented.
- Identification of Indigenous Australian mortality was considered to be most reliable in Queensland, Western Australia, South Australia and the Northern Territory during the study period. Overall mortality rates for Indigenous Australians have been calculated using data from these jurisdictions only.

Because a 'non-Indigenous Australian' person has been defined in this report as someone who is not identified as Indigenous Australian, under-identification of Indigenous Australians will necessarily mean over-reporting of non-Indigenous Australians in the mortality data.

For many of the causes of death examined, rates for Indigenous Australians are much higher than for non-Indigenous Australians from any area. Elevated death rates in remote areas may be a consequence of the proportionally large number of Indigenous Australians in those areas, and high overall Indigenous Australian mortality.

Frequently, death rates for elderly non-Indigenous Australians from remote areas appear substantially lower than for their Major Cities counterparts, while rates for younger people from remote areas are higher than for those in Major Cities. It is possible that this effect may be due to elderly people in poorer health migrating to less remote areas where they can access services, leaving the healthier individuals, who have lower death rates. To control for this apparent effect, death rates for some populations younger than 65 years have been presented alongside those for the total population.

2.3 Notes on reading and interpreting the main tables in each chapter

Each set of two tables describes:

- in the first table, death rates for the total population
- in the second table, death rates for the non-Indigenous Australian population in each Remoteness Area and for Indigenous Australians in Queensland, Western Australia, South Australia and the Northern Territory.

The structure of the two tables is similar.

Three sets of columns across the page report for males, females and for persons.

Within each set in the first table (reporting mortality for all people) are five columns which provide details for MC, IR, OR, R and VR areas. In the second of the tables (relating to Indigenous Australian and non-Indigenous Australian mortality) there are six columns each for males, females and persons – the five regional columns for non-Indigenous Australian mortality, and a single column for Indigenous Australian mortality in Queensland, Western Australia, South Australia and the Northern Territory.

The top half of the table

The top half of each table reports death rates, usually as standardised mortality ratios (SMR), ratios which compare the number of deaths in a population with the number that would be expected if age-and sex-specific rates of death in a specified standard population were to apply to the population in each area. For example, if there were 100 deaths in a population, but only 50 expected, then the ratio would be 2.00, and we could say that the death rate in the population was twice that of the standard population. SMRs have the advantage of being useful in comparing death rates in small populations or for causes of death that are relatively uncommon. However, their disadvantages are that the comparison of death rate is, strictly speaking, with the standard population, and that the ratio does not give a measure of the burden due to that cause of death (for example, the SMR for disease X may be 5.5 (and therefore alarming), while for disease Y it may be 1.1 (and therefore less alarming), however disease X may be very rare, killing one person per year, while disease Y may be common, killing 1,000 people per year).

The first column for males, females and persons contains crude death rates for the Major Cities population in 2002–04 (expressed as deaths per 100,000 population). These are provided because, by definition, the SMR for Major Cities is equal to 1.0 in every case (so therefore there is no point reporting it) and because a crude rate, like a count of the number of deaths, provides a measure of the burden of mortality; for example, a crude death rate of 5 per 100,000 population per annum indicates less of a burden than a crude death rate of 2,000 per 100,000 per annum.

Death rates (crude death rates and SMRs) are reported in some detail for the three-year period 2002–04, for each life stage age group, for the total population and for the population younger than 65 years. The SMRs presented here compare the actual number of deaths in each population with the number expected if the age-and sex-specific death rates in Major Cities in 2002–04 had applied to these populations.

A little lower down the table, death rates for the previous reporting period (1997–99) are detailed. The first two rows (shaded) in this section use Major Cities age and sex specific rates in 1997–99 as the standard and compare death rates in each of the areas with that in Major Cities in the same year (1997–99). Consequently, these first two shaded rows can be used to compare regional and remote death rates with those in Major Cities within 1997–99.

The second two (unshaded) rows (marked with a '†') use Major Cities age- and sex-specific rates in 2002–04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997–99 with death rates in Major Cities in 2002–04. These second two (unshaded) rows can be used to compare death rates in each of the areas (including Major Cities) directly with death rates in Major Cities in 2002–04 (and indirectly with death rates in each of the areas in 2002–04).

For example, with reference to Table 5.10 (coronary heart disease (CHD)):

- In 1997–99, CHD death rates in Very Remote areas were 1.4 times those in Major Cities at the time. Several years later in 2002–04, CHD death rates in Very Remote areas were still 1.4 times those in Major Cities at that time.
- In 1997–99 CHD death rates in Major Cities were 1.3 times what they were to become in 2002–04 (that is, rates in Major Cities declined substantially between these two periods). In Very Remote areas between 1997–99 and 2002–04, the CHD death rate had declined from 1.9 to 1.4 times the 2002–04 Major City rate.
- Death rates due to CHD have declined in all areas, but the death rate in Very Remote areas due to this cause is still 1.4 times higher than in Major Cities (because rates in Major Cities declined at approximately the same rate as those in Very Remote areas).

SMRs for males, females and persons cannot be compared with one another as they relate to different standards. Similarly, SMRs cannot be compared across age groups for the same reason and comparisons between SMRs for different causes of death cannot validly be made.

The bottom half of the table

The bottom half of the table describes the actual number of deaths and 'excess' deaths that occurred in each population. These provide an understanding of where most of the burden falls, both in terms of the actual number of deaths and 'excess' deaths. 'Excess' deaths are deaths in excess of what would be expected if Major Cities rates had applied in each population.

The first seven rows detail the number of 'excess' deaths in each age group in each area in 2002–04; this provides an understanding of which age groups and genders contribute most towards higher death rates in each area.

The next four rows detail the total number of 'excess' deaths, the total number of deaths, the total number of 'excess' deaths for those younger than 65 years and the total number of deaths of people younger than 65 years, annually, in 2002–04. For example, annually in Very Remote areas, there were 149 deaths due to CHD in 2002–04 (see Table 5.10), of which 45 were 'excess' deaths (in other words, 104 deaths were expected, but 149 occurred on average each year). Of the 75 deaths due to CHD that occurred amongst people younger than 65 years in Very Remote areas, 53 were 'excess' deaths (in other words, 22 deaths were expected, but 75 occurred). 'Excess' deaths in Very Remote areas were mainly among 25–64 year olds, with fewer deaths than expected amongst those 75 years and older.

The last six rows of the table relate to deaths and 'excess' deaths in 1997–99. The first three of these six relate to 'all ages', while the last three of these six relate to people younger than 65 years.

The number of 'excess' deaths has been calculated in two ways:

- Shaded rows 1 and 4 have used 1997–99 Major Cities rates of death as the basis for calculating the number of 'excess' deaths. For example, in Very Remote areas in 1997–99, there were 169 deaths due to CHD, of which 51 were in excess of what would have been expected if Major Cities rates at the time had applied in Very Remote areas. Of these deaths, 84 were of people younger than 65 years, with 59 of these being in excess of what would have been expected if Major Cities rates for the period had applied (that is, 25 expected deaths, with 84 observed).
- Unshaded rows 2 and 5 (marked with a '†') have used 2002–04 Major Cities rates of death as the basis for calculating the number of 'excess' deaths in 1997–99. These numbers of 'excess' deaths are directly comparable to the number of 'excess' deaths calculated for 2002–04. For example, in Very Remote areas in 1997–99, 80 of the 169 deaths due to CHD were in excess of what would have been expected if 2002–04 rates of CHD death had applied. This compares with 45 excess deaths out of 149 deaths due to CHD in 2002–04. The advantage of this form of analysis is that the excess in both periods is based on one standard, and it is clear that the absolute number of deaths has declined by 20 per annum, and the number of 'excess' deaths has declined by 35 (from 80 to 45) per annum.

SMRs that are statistically significantly different from 1.0 (that is, different from Major Cities) are in bold print and accompanied by an asterisk.

The data in the tables are from AIHW analysis of the AIHW mortality database.

Technical notes on data presentation

- Percentages or numbers in tables may not add to 100 or the total due to rounding.
- ICD-10 (International Classification of Diseases, 10th revision) codes for the described causes of death are listed in Appendix B.
- All standardisation of death rates has been indirect using Major Cities rates for males and females for the period 2002–04 (2001 for the coastal analysis), or Major Cities rates for non-Indigenous Australian males and females for the period 2002–04 (2001 for the coastal analysis). The former have been used to standardise rates for the total (Indigenous Australian plus non-Indigenous Australian) population, while the latter have been used to standardise rates for Indigenous Australian and non-Indigenous Australian populations separately.
- In this report, names of specific areas defined by the ASGC Remoteness Areas have been capitalised (for example, Inner Regional, Remote, and Very Remote). Where Inner Regional and Outer Regional areas are taken together, they are referred to as 'regional', when Remote and Very Remote areas are taken together, they are referred to as 'remote'.
- 'Excess' deaths are calculated by subtracting the expected number of deaths from the number observed. Expected deaths are the number of deaths expected annually if death rates found in Major Cities are applied to the populations living in each of the other areas. 'Excess' deaths provide an indication of the extra burden of mortality in each area.

- Where there were fewer deaths than expected, this report states either (for example) fewer deaths than expected annually, or -5 'excess' deaths annually; both expressions mean the same thing.
- All statements about rates of death in this report are based on the ratio of observed to expected deaths. If there are twice as many deaths as expected, then the rate of death can be assumed to be twice that of the comparison population.
- Where rates are statistically significantly different from one another, they are referred to in the text as significantly different. Statistical significance is at the 95% level.
- In the text, where reference is made to 'Major Cities, Inner Regional, Outer Regional, Remote and Very Remote areas', the term 'the five areas' has been used. Where there is reference to 'Inner Regional, Outer Regional, Remote and Very Remote areas', the term 'the four areas outside Major Cities' has been used.
- Graphs are presented as bar charts with error bars (for example, Figure 3.1). These error bars indicate the values of the lower and upper 95% confidence levels. We can be 95% sure that, if the underlying rates remained the same and we calculated the death rate in the preceding year or the next year, the calculated rate would lie somewhere between the two presented error bars. In the graph, the top of the column (between the two error bars) indicates our best point estimate with the available data. There is one chance in 20 that the true value lies outside the error bars. Error bars do not provide any indication of the level of uncertainty due to bias in the data (for example, potential bias as a result of different accuracy in the identification of Indigenous Australian deaths in each area). Columns representing estimates of SMRs for non-Indigenous Australians from Remote and Very Remote areas have a dashed outline, indicating uncertainty about identification issues discussed in Appendix A.
- Statistically significant numbers are indicated in bold and with an asterisk.

2.4 Further developments

This section outlines several areas of this work which require further improvement or development.

- Improvements in the identification of Indigenous Australians in the mortality data collection are crucial to being able to describe differences in mortality across remoteness in the future.
- Estimates of the accuracy of Indigenous Australian identification in each area are critical for the utilisation of current and historical mortality data to assess differences in mortality for Indigenous Australians in each area.
- Descriptions of regional mortality rely on relatively crude allocation of regional category on the basis of Statistical Local Area (SLA), because the boundaries of SLAs and remoteness categories seldom coincide exactly. Geocoding of residential location would allow more precise allocation, and would also facilitate more powerful epidemiological work (for example, identification of disease clusters); however, a move to geocoding would need to incorporate substantial confidentiality safeguards.
- The lower death rates of the aged in remote areas may be due to the migration of the frail aged to less remote areas where they can access services – although little has been published to support this hypothesis. Further work in this field is recommended.

- This report does not include information on deaths specifically due to occupational accidents (although these will be included amongst motor vehicle accidents, other injuries and so on). This is an important issue that requires further investigation.
- The effect of income and education on regional differences in mortality has not been explored in this report. It is possible that these factors would explain some of the regional differences in mortality.
- Although this report describes, amongst others, high death rates due to ischaemic heart disease, 'other' circulatory disease, and motor vehicle accidents, it is not clear whether these differences are due to higher overall risk, or due to lower levels of access to health services or both. Further work to identify the contribution of risk and access would be useful.
- Further refinement of regional analysis to incorporate coastality may be useful in further refining understanding of inter-regional differences and may lead to more constructive allocation of resources and management of rural health issues.
- Further inland/coastal work would benefit from:
 - development of population data to allow analysis over a wide time period and to provide well developed counts of Indigenous Australians and non-Indigenous Australians in each area
 - development of coastality/remoteness concordances for years other than 2001
 - calculation of inland/coastal/remoteness results for years other than 2001
 - calculation of death rates for specific causes of death, so as to better understand the possible cause of the inland/coastal differences
 - building an Indigenous Australian component into the analysis to assess whether the differences disappear or change appreciably if non-Indigenous Australian mortality only is considered
 - assessing the relative importance of a range of factors in predicting higher death rates. This would require some sort of regression or analysis of variance to assess the importance of a range of factors: remoteness, coastality, SEIFA, Indigenous status, access to services, SLA population growth, and so on.

3 All causes of death

Chapter highlights

During the period 2002–04, there were 132,322 deaths annually. Just over half (54%) were male; 63% were in Major Cities, 35% in regional and 2% in remote areas.

Overall, death rates for Indigenous Australians were 3.2 times higher than the rates for non-Indigenous Australians in Major Cities.

In regional areas:

Death rates for males in Inner Regional and Outer Regional areas were 10% (1.10 times) and 15% (1.15 times) higher than in Major Cities, while for females they were 5% and 10% higher than in Major Cities.

For 0–64 year olds, death rates for males in Inner Regional and Outer Regional areas were 15% and 30% higher than in Major Cities, while for females they were 10% and 25% higher than in Major Cities.

For non-Indigenous Australians the comparison between Inner Regional areas and Major Cities was similar to that for the total population. Death rates in Outer Regional areas for males and females were 15% and 5% higher than in Major Cities, while rates for 0–64 year old males and females were 25% and 15% higher than in Major Cities.

Annually there are 31,194 and 14,703 deaths in Inner Regional and Outer Regional areas; about 54% were male.

Annually there were 2,134 and 1,589 ‘excess’ deaths in Inner Regional and Outer Regional areas. About two-thirds (66%) of the ‘excess’ were male. ‘Excess’ deaths occur in all age groups. Most (80%) of the excess occurred amongst those 45 years and older with, in Inner Regional areas, strong contribution from those 75 years and older, while in Outer Regional areas the excess was spread relatively evenly amongst the oldest three age groups. Annually in regional areas, there were almost 80 excess deaths of children younger than 5 years.

Compared with the previous reporting period (1997–99), there were 1,089 more deaths of males and 1,713 more deaths of females annually in 2002–04.

The 12-year trend (AIHW 2006a) is for decreasing death rates for males and females. Rates for males in Inner Regional areas are declining slightly slower than in Major Cities.

Between 1997–99 and 2002–04, the number of ‘excess’ deaths in regional areas declined (as estimated using 2002–04 Major Cities rates as the standard). For example, in 1997–99 there were 2,930 more deaths of Inner Regional males annually than if 2002–04 Major Cities age-specific rates had applied; in 2002–04, this number had reduced to 1,350 more deaths than if 2002–04 Major Cities age-specific rates had applied.

Death rates¹ were lower in the more recent (2002–04) reporting period in all areas (for example, SMRs for Inner Regional males were 1.2 in 1997–99, and became 1.1 in 2002–04 compared with 1.0 for Major Cities males in 2002–04).

¹ As expressed by SMRs calculated for both periods using Major Cities age- and sex-specific rates in 2002–04 as the standard.

However, the relative differences² between Major Cities and regional areas remained. For example, the SMRs for Inner Regional males were 1.1 in 1997–99 (compared with 1.0 for Major Cities males in 1997–99), and 1.1 in 2002–04 (compared with 1.0 for Major Cities males in 2002–04).

In remote areas:

Death rates in Remote and Very Remote areas were 1.2 and 1.7 times those in Major Cities.

For 0–64 year olds, death rates in Remote and Very Remote areas were 1.5 and 2.7 times those in Major Cities.

Death rates for remote area non-Indigenous Australians tended to be similar to those in Major Cities, but specifically, with rates in remote areas 5% higher than in Major Cities, and rates for 0–64 year olds in Very Remote areas being 15% higher than in Major Cities.

Clearly, elevated rates in remote areas are largely influenced by the large proportion of the population in those areas who are Indigenous Australians, coupled with the high mortality experienced by Indigenous Australians generally.

Annually there are 1,801 and 1,019 deaths in Remote and Very Remote areas; about 60% were male.

Annually there were 278 and 417 ‘excess’ deaths in Remote and Very Remote areas. About two-thirds (62%) of the ‘excess’ were male. Excess deaths were distributed mainly among the 25–44 and 45–64 year olds, with contributions from 65–74 year olds, 15–24 year olds and children under 5 years.

Compared with the previous reporting period (1997–99), there were 6 fewer deaths of males and 57 more deaths of females annually in 2002–04.

The 12-year trend (AIHW 2006a) is for decreasing death rates for males and females, with rates in Remote areas declining at about the same rate as in Major Cities, and rates in Very Remote areas declining substantially faster than in Major Cities.

Between 1997–99 and 2002–04, the number of ‘excess’ deaths in remote areas declined (as estimated using 2002–04 Major Cities rates as the standard). For example, in 1997–99 there were 304 more deaths of Remote area males annually than if 2002–04 Major Cities age-specific rates had applied; in 2002–04, this number had reduced to 178 more deaths than if 2002–04 Major Cities age-specific rates had applied.

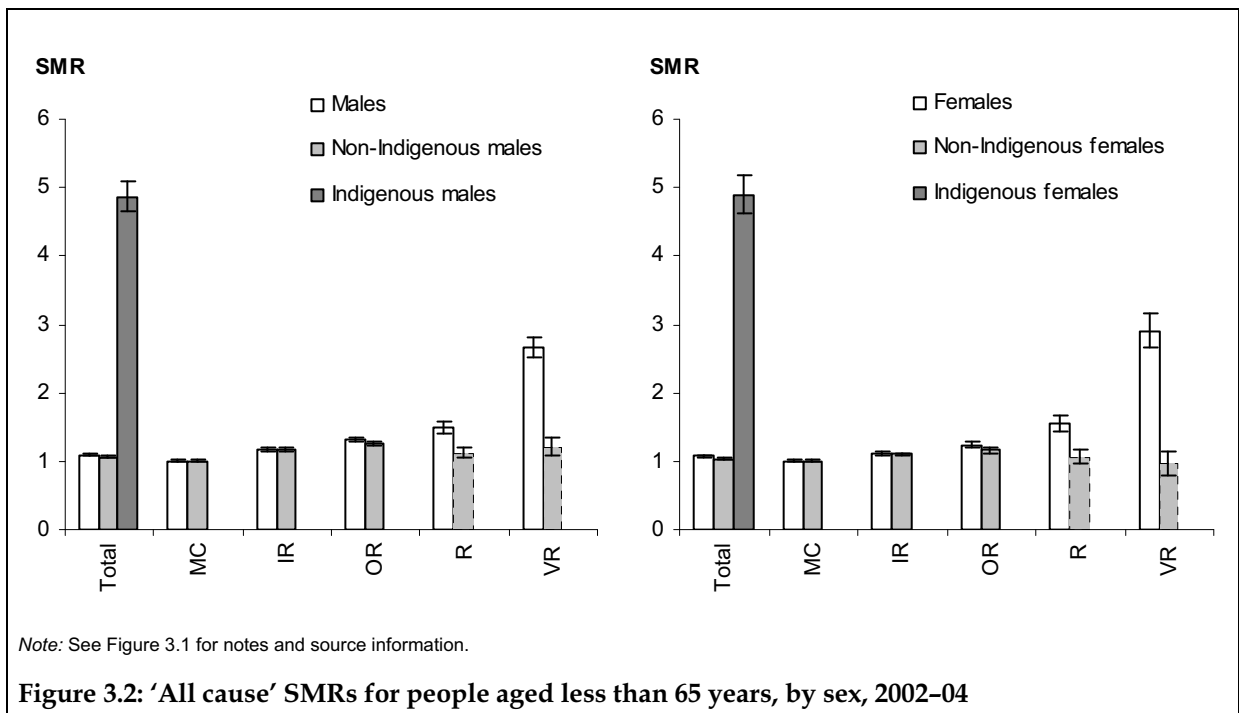
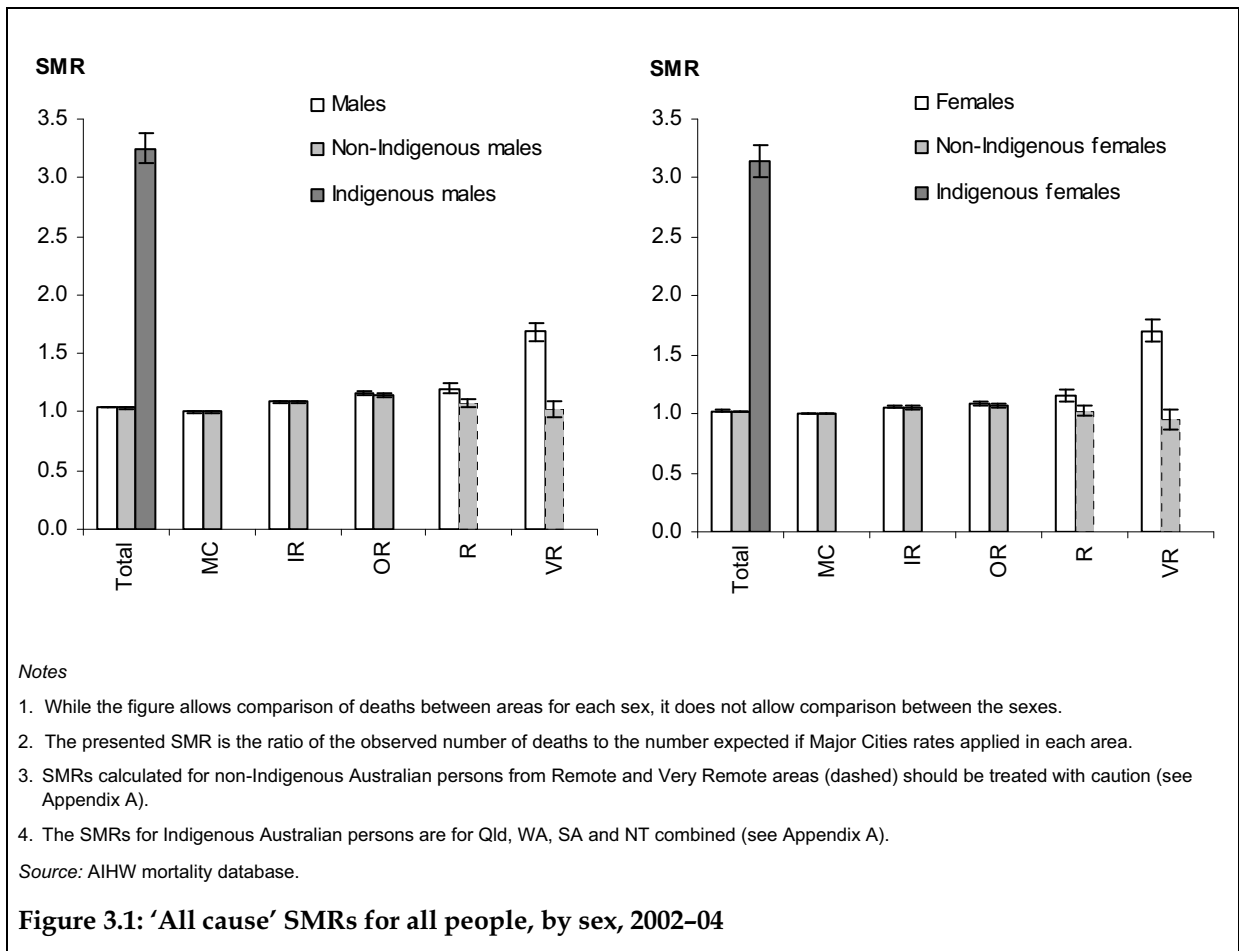
Death rates³ were lower in the more recent (2002–04) reporting period in all areas (for example, SMRs for Remote area males were 1.4 in 1997–99, and became 1.2 in 2002–04 compared with 1.0 for Major Cities males in 2002–04).

However, the relative differences⁴ between Major Cities and regional areas remained. For example, the SMRs (calculated in this way) for Remote area males were 1.2 in 1997–99 (compared with 1.0 for Major Cities males in 1997–99), and 1.2 in 2002–04 (compared with 1.0 for Major Cities males in 2002–04).

² As expressed by SMRs calculated for each period using Major Cities age- and sex-specific rates in each period as the standard.

³ As expressed by SMRs calculated for both periods using Major Cities age- and sex-specific rates in 2002–04 as the standard.

⁴ As expressed by SMRs calculated for each period using Major Cities age- and sex-specific rates in each period as the standard.



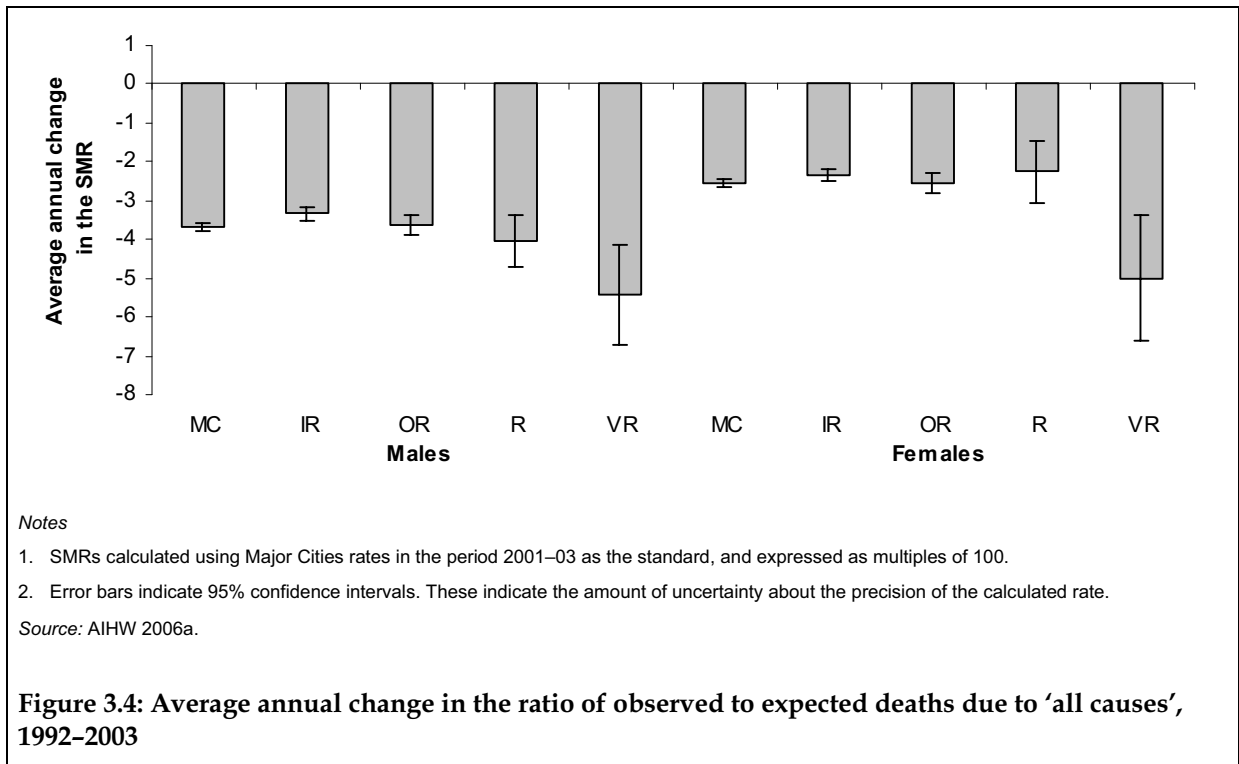
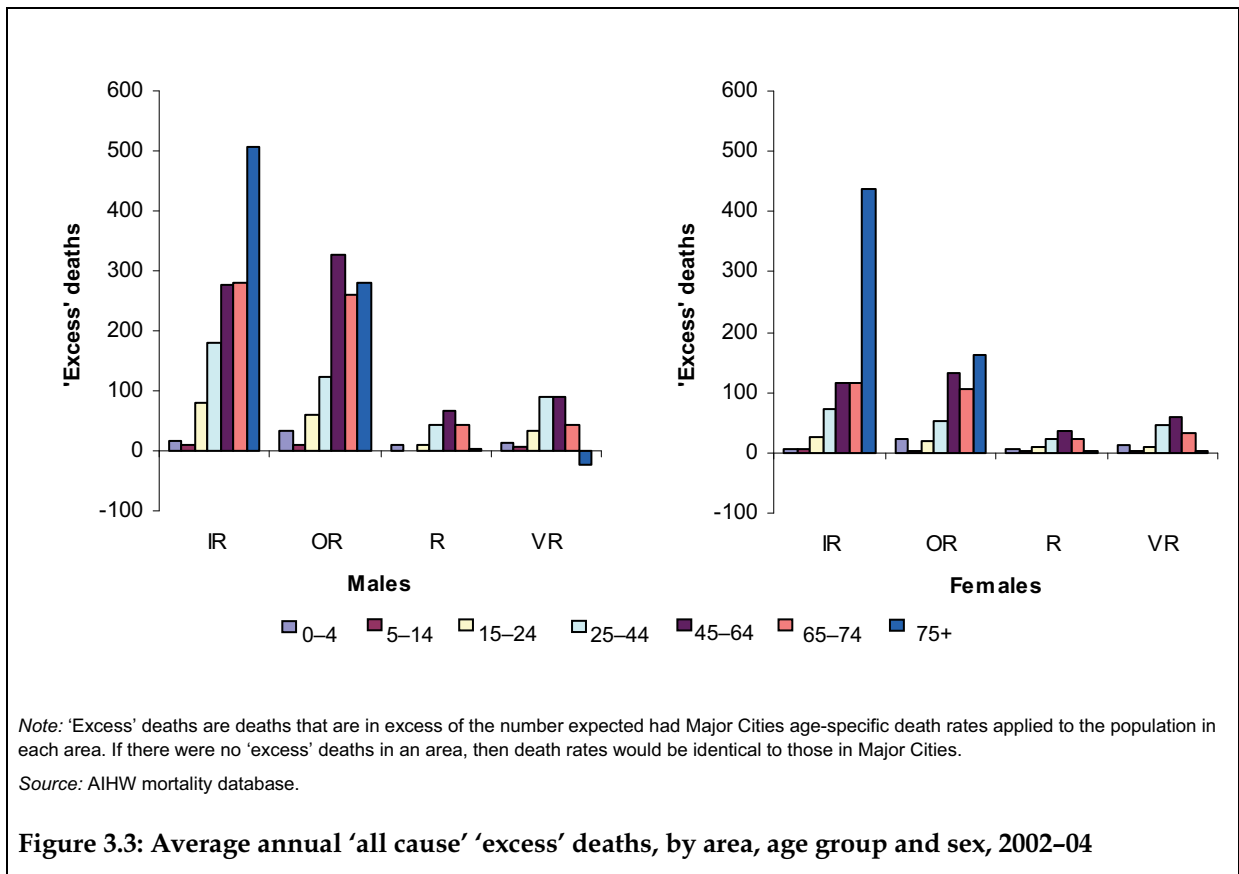


Table 3.1: SMRs, average annual deaths and 'excess' deaths due to all causes, 2002-04 and 1997-99

	Males						Females						Persons								
	MC		IR		OR		R		VR		MC		IR		OR		R		VR		
	Rate		Ratio		Ratio		Ratio		Ratio		Rate		Rate		Ratio		Ratio		Ratio		
2002-04																					
0-4	118	*1.10	*1.39	*1.57	*2.46		96	1.05	*1.35	*1.51	*2.67	107	*1.08	*1.37	*1.55	*2.55					
5-14	12	*1.26	*1.51	1.52	*4.15		9	*1.27	1.17	*2.67	*2.43	10	*1.26	*1.37	*2.00	*3.44					
15-24	59	*1.52	*1.82	*1.91	*4.87		25	*1.44	*1.67	*2.84	*3.94	42	*1.50	*1.78	*2.15	*4.62					
25-44	110	*1.30	*1.39	*1.74	*3.65		55	*1.23	*1.32	*1.83	*4.17	82	*1.27	*1.37	*1.77	*3.80					
45-64	450	*1.12	*1.27	*1.36	*2.04		279	*1.08	*1.19	*1.39	*2.45	364	*1.10	*1.24	*1.37	*2.17					
65-74	2,028	*1.09	*1.17	*1.22	*1.58		1,169	*1.06	*1.13	*1.24	*1.97	1,579	*1.08	*1.15	*1.23	*1.70					
75+	7,641	*1.06	*1.07	1.01	*0.86		6,332	*1.04	*1.04	1.00	1.01	6,843	*1.05	*1.05	1.01	*0.93					
Total	644	*1.09	*1.16	*1.20	*1.68		625	*1.06	*1.08	*1.16	*1.70	635	*1.07	*1.12	*1.18	*1.69					
Total <65	177	*1.17	*1.32	*1.48	*2.66		107	*1.11	*1.24	*1.55	*2.91	142	*1.15	*1.29	*1.50	*2.74					
1997-99																					
Total	643	*1.07	*1.12	*1.20	*1.62		600	*1.03	*1.08	*1.12	*1.66	621	*1.05	*1.10	*1.17	*1.64					
Total <65	191	*1.13	*1.25	*1.48	*2.41		109	*1.09	*1.18	*1.48	*2.86	150	*1.12	*1.23	*1.48	*2.55					
Total†	*1.16	*1.23	*1.29	*1.39	*1.90		*1.07	*1.10	*1.16	*1.21	*1.81	*1.11	*1.17	*1.23	*1.32	*1.87					
Total <65†	*1.18	*1.33	*1.47	*1.74	*2.89		*1.12	*1.22	*1.32	*1.67	*3.29	*1.16	*1.29	*1.42	*1.72	*3.02					

(continued)

Table 3.1 (continued): SMRs, average annual deaths and 'excess' deaths due to all causes, 2002-04 and 1997-99

	Males						Females						Persons						
	MC	IR	OR	R	VR	Ratio	MC	IR	OR	R	VR	Ratio	MC	IR	OR	R	VR	Ratio	
	Rate						Rate						Rate						
Average annual number of excess deaths																			
2002-04																			
0-4	0	16	32	9	15	0	0	6	22	6	13	0	0	22	55	15	27	55	
5-14	0	10	9	2	6	0	7	2	2	4	2	0	0	17	12	5	8	12	
15-24	0	81	61	11	33	0	27	19	19	8	9	0	0	108	80	19	42	80	
25-44	0	180	125	44	90	0	74	51	51	22	46	0	0	253	176	66	135	176	
45-64	0	277	327	67	89	0	115	133	133	36	60	0	0	392	460	103	149	460	
65-74	0	280	259	42	42	0	117	107	107	23	34	0	0	397	365	65	76	365	
75+	0	507	279	3	-22	0	438	162	162	1	2	0	0	945	441	5	-21	441	
Excess total	0	1,350	1,093	178	252	0	783	496	496	100	165	0	0	2,134	1,589	278	417	1,589	
Deaths total	41,935	16,439	8,133	1,063	620	41,670	14,755	6,570	6,570	738	399	83,605	31,194	14,703	14,703	1,801	1,019	14,703	
Excess <65	0	563	555	133	232	0	229	228	228	76	129	0	0	792	783	209	361	783	
Deaths <65	10,249	3,923	2,266	407	372	6,125	2,248	1,193	1,193	215	197	16,374	6,171	3,458	3,458	622	569	3,458	
1997-99																			
Excess total	0	983	850	181	236	0	388	477	477	78	149	0	0	1,372	1,327	259	385	1,327	
Excess total†	5,631	2,930	1,802	304	291	2,698	1,262	875	875	124	168	8,329	4,192	2,677	2,677	428	460	2,677	
Deaths total	41,820	15,561	7,922	1,075	614	40,005	13,321	6,291	6,291	705	375	81,825	28,882	14,212	14,212	1,780	989	14,212	
Excess <65	0	457	471	148	220	0	183	183	183	71	129	0	0	640	654	219	349	654	
Excess <65†	1,702	983	755	195	246	682	393	289	289	87	139	2,384	1,376	1,044	1,044	282	384	1,044	
Deaths <65	11,054	3,963	2,358	457	376	6,235	2,177	1,183	1,183	218	199	17,289	6,140	3,541	3,541	675	575	3,541	

Notes

1. The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
2. The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
3. For further explanation, refer to section 2.3.

Table 3.2: SMRs, average annual deaths and 'excess deaths' due to all causes, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons					
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous		
	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate
2002-04																		
0-4	108	1.08	*1.29	1.29	0.86	*3.22	89	1.02	*1.24	1.18	0.96	*2.95	99	1.05	*1.26	1.24	0.90	*3.10
5-14	11	*1.31	*1.54	1.44	*4.14	*2.96	9	1.16	1.00	*2.16	2.53	*2.61	10	*1.25	*1.31	*1.75	*3.44	*2.81
15-24	55	*1.57	*1.87	*1.73	*2.59	*3.99	23	*1.48	*1.52	1.41	1.68	*4.62	39	*1.55	*1.77	*1.65	*2.39	*4.18
25-44	103	*1.29	*1.29	1.10	*1.34	*6.13	52	*1.20	*1.19	0.86	0.99	*6.56	77	*1.26	*1.26	1.03	*1.24	*6.28
45-64	435	*1.11	*1.23	1.08	1.08	*4.92	269	*1.07	*1.14	1.07	0.88	*5.04	351	*1.09	*1.19	*1.08	1.02	*4.97
65-74	1,974	*1.08	*1.16	*1.14	1.11	*2.85	1,133	*1.06	*1.10	1.08	1.00	*3.90	1,535	*1.07	*1.14	*1.12	1.08	*3.28
75+	7,458	*1.06	*1.08	1.01	*0.84	1.04	6,164	*1.04	*1.04	1.00	0.94	*1.27	6,669	*1.05	*1.06	1.01	*0.88	*1.16
Total	630	*1.09	*1.14	*1.07	1.02	*3.25	612	*1.05	*1.07	1.03	0.95	*3.14	621	*1.07	*1.11	*1.05	1.00	*3.20
Total <65	170	*1.16	*1.27	*1.12	*1.21	*4.86	103	*1.10	*1.16	1.07	0.95	*4.90	136	*1.14	*1.23	*1.10	*1.13	*4.87
1997-99																		
Total	675	*1.07	*1.11	*1.09	*1.08	*3.13	628	*1.04	*1.08	1.00	0.94	*3.24	652	*1.06	*1.10	*1.05	1.03	*3.17
Total <65	197	*1.14	*1.20	*1.20	*1.24	*4.62	112	*1.10	*1.11	1.06	1.15	*4.90	155	*1.12	*1.17	*1.16	*1.22	*4.73
Total†	*1.19	*1.26	*1.31	*1.30	*1.29	n.p.	*1.12	*1.15	*1.20	*1.11	1.05	n.p.	*1.16	*1.21	*1.26	*1.22	*1.20	n.p.
Total <65†	*1.23	*1.39	*1.47	*1.47	*1.53	n.p.	*1.17	*1.28	*1.29	*1.24	*1.35	n.p.	*1.20	*1.35	*1.41	*1.39	*1.47	n.p.

(continued)

Table 3.2 (continued): SMRs, average annual deaths and 'excess' deaths due to all causes, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons								
	Non-Indigenous			Indigenous	Non-Indigenous			Indigenous	Non-Indigenous			Indigenous	Non-Indigenous			Indigenous					
	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR	
	Rate			Rate			Rate			Rate			Rate			Rate			Rate		
Average annual number of excess deaths																					
2002-04																					
0-4	0	11	20	3	-1	43	0	2	13	2	0	30	0	14	32	5	-1	74			
5-14	0	10	8	1	2	8	0	4	0	2	1	5	0	15	8	3	3	12			
15-24	0	80	56	7	6	40	0	27	12	1	1	21	0	107	69	8	7	61			
25-44	0	164	84	5	7	191	0	59	27	-3	0	110	0	223	110	2	7	301			
45-64	0	255	258	14	5	227	0	96	92	6	-3	168	0	352	350	20	2	395			
65-74	0	259	238	25	6	80	0	114	84	7	0	90	0	373	323	32	6	171			
75+	0	490	284	6	-19	4	0	403	171	2	-6	26	0	893	455	7	-25	29			
Excess total	0	1,271	949	60	7	595	0	705	398	16	-8	449	0	1,976	1,347	76	-1	1,044			
Deaths total	40,587	15,847	7,683	867	274	859	40,346	14,204	6,216	597	150	659	80,933	30,051	13,899	1,464	424	1,518			
Excess <65	0	521	427	30	20	510	0	189	143	8	-2	333	0	710	570	38	18	843			
Deaths <65	9,727	3,690	2,010	269	113	643	5,823	2,096	1,034	127	38	419	15,550	5,786	3,045	397	151	1,061			
1997-99																					
Excess total	0	1,053	763	76	22	569	0	496	424	0	-9	430	0	1,549	1,187	76	13	999			
Excess total†	6,491	3,197	1,803	206	65	n.p.	4,315	1,756	989	60	7	n.p.	10,806	4,953	2,791	266	71	n.p.			
Deaths total	40,866	15,280	7,593	903	289	836	39,058	13,099	6,043	580	147	622	79,924	28,379	13,636	1,483	436	1,458			
Excess <65	0	461	354	55	26	498	0	190	104	8	6	324	0	651	458	63	32	821			
Excess <65†	1,980	1,075	679	106	45	n.p.	855	460	237	27	12	n.p.	2,836	1,535	915	133	58	n.p.			
Deaths <65	10,657	3,822	2,130	332	131	635	6,017	2,102	1,043	138	48	407	16,674	5,924	3,173	470	179	1,042			

Notes

- The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
- The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
- For further explanation, refer to section 2.3.

3.1 Broad causes of death

Causes of morbidity and mortality have been categorised in the International Classification of Diseases 10th revision (ICD-10AM). Table 3.3 below provides a key to the ICD-10 chapters described in this section.

Table 3.3: ICD-10 chapters

ICD-10 Chapter abbreviation	ICD-10 Chapter name
Infectious diseases (Ch 1)	Certain infectious and parasitic diseases
Neoplasms (Ch 2)	Neoplasms
Blood (Ch 3)	Diseases of blood and blood-forming organs and certain disorders involving the immune mechanism
Endocrine (Ch 4)	Endocrine, nutritional and metabolic diseases
Mental (Ch 5)	Mental and behavioural disorders
Nervous system (Ch 6)	Diseases of the nervous system
Eye (Ch 7)	Diseases of the eye and adnexa
Ear (Ch 8)	Diseases of the ear and mastoid process
Circulatory Ch 9)	Diseases of the circulatory system
Respiratory (Ch 10)	Diseases of the respiratory system
Digestive (Ch 11)	Diseases of the digestive system
Skin (Ch 12)	Diseases of the skin and subcutaneous tissue
Musculoskeletal (Ch 13)	Diseases of the musculoskeletal system and connective tissue
Genitourinary (Ch 14)	Diseases of the genitourinary system
Pregnancy (Ch 15)	Pregnancy, childbirth and the puerperium
Perinatal (Ch 16)	Certain conditions originating in the perinatal period
Congenital (Ch 17)	Congenital malformations, deformations and chromosomal abnormalities
Not elsewhere classified (NEC) (Ch 18)	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified
Injury (Ch 20)	Injury and poisoning (external causes)

Note: Chapters refer to those for the WHO International Classification of Diseases, 10th revision.

Source: WHO 1992.

For Australia as a whole, four broad disease groupings accounted for over 80% of deaths:

- diseases of the circulatory system 37%
- neoplasms 29%
- diseases of the respiratory system 9%
- external causes of injury and poisoning (referred to as injury) 6%.

In addition, 'endocrine, nutritional and metabolic disorders' and 'diseases of the digestive system' together account for another 7% of all deaths. Between them, these six major causes account for approximately 88% of all deaths.

Compared with the previous reporting period (1997–99), circulatory diseases (37%) are proportionally less important than they were (41%), while neoplasms (29%) and respiratory disease are proportionally more important than they were (28% and 8%).

For males, neoplasms (32%) and injury (8%) are proportionally more important while circulatory diseases (34%) are proportionally less important than for persons. For females, neoplasms (26%) and injury (4%) are proportionally less important, while circulatory diseases (40%) are proportionally more important than for persons.

Tables 3.4–3.15 describe the numbers of deaths and excess deaths in each area due to each major cause of death.

Males

In Major Cities, a similar proportion of males died as a result of neoplasms (32%) and circulatory diseases (34%), and 9% and 7% died as a result of respiratory diseases and injury. This pattern was similar in regional areas, but in Remote and Very Remote areas, neoplasms were relatively less common (27% and 19%), as were circulatory diseases (32% and 27%), and injury was proportionally more common (12% and 20% of deaths).

Excess deaths provide another perspective. The main contributors to higher death rates:

- in regional areas were circulatory diseases (37% and 32% of excess deaths), neoplasms (29% and 23%), injury (21% and 22%), respiratory diseases (6% and 9%), diseases of the digestive system (4% and 5%), and endocrine etc. diseases (2% and 7%)
- in remote areas were injury (32% and 34%), circulatory diseases (29% and 21%), respiratory diseases (12% and 11%), endocrine etc. diseases (13% and 9%) and diseases of the digestive system (10% and 6%).

Indigenous Australian males

The main causes of death for Indigenous Australian males in Queensland, Western Australia South Australia and the Northern Territory and were circulatory diseases (27%), injury (19%), neoplasms (14%), respiratory diseases (9%), endocrine etc. diseases (7%) and diseases of the digestive system (6%). For males younger than 65 years, the order (for the first three causes at least) was the same as for the total population.

Circulatory diseases (27%) and injury (20%) were the leading contributors to the higher rates of death (excess deaths) for Indigenous Australian males, with substantial contributions from respiratory diseases (9%), endocrine etc. diseases (9%), neoplasms (8%) and diseases of the digestive system (7%). The pattern was similar also for those younger than 65 years.

Non-Indigenous Australian males

For non-Indigenous Australian males, the main causes of death in each of the areas were similar to those for all males in Major Cities (see above), with the exception that injury and neoplasms increased in relative importance in remote areas.

The main contributors to higher death rates (excess deaths) in regional areas were similar to those for all males in regional areas (see above). In Remote areas, injury (56%), circulatory diseases (32%), endocrine etc. diseases (16%) and respiratory diseases (15%) were the main contributors to higher death rates. In Very Remote areas, almost all excess deaths were due to injury (364%).

However, excess deaths in remote areas (particularly) are strongly influenced by death rates for the elderly, which were low relative to those of their Major Cities peers (possibly due to the migration of the frail aged to less remote areas). The major contributors to the higher death rates (excess deaths) amongst regional non-Indigenous Australian males younger than 65 years were injury (48% and 44%), neoplasms (28% and 24%) and circulatory diseases (16% and 18%). In remote areas, injury (100% and 107%) was also overwhelmingly the most important contributor, with circulatory diseases (17% and 24%) having a comparatively small impact on total excess deaths.

Females

In Major Cities, 40% of females died as a result of circulatory diseases, while 26% died as a result of neoplasms. Another 9%, 4% and 4% died as a result of respiratory diseases, injury and endocrine, nutritional and metabolic diseases (for example, diabetes). These proportions are about the same in regional areas, but in remote areas, neoplasms (26% and 20%) and circulatory diseases (35% and 31%) tend to be less important, while injury (6% and 9%) and endocrine, nutritional and metabolic diseases (for example, diabetes – 6% and 9%) tend to be relatively more important than in the less remote populations.

Excess deaths provide another perspective. The main contributors to higher death rates:

- in regional areas were circulatory diseases (54% and 44% of excess deaths), neoplasms (17% and 19%), injury (12% and 14%), endocrine etc. diseases (4% and 15%), and diseases of the musculoskeletal system (6% and 5%)
- in remote areas were circulatory diseases (27% and 27%), endocrine etc. diseases (23% and 18%), injury (15% and 14%), diseases of the digestive system (9% and 8%), neoplasms (9% and 4%) and respiratory diseases (3% and 9%).

Indigenous Australian females

The main causes of death for Indigenous Australian females in Queensland, Western Australia, South Australia and the Northern Territory were circulatory diseases (27%), neoplasms (17%), injury (11%), endocrine etc. diseases (11%) and respiratory diseases (8%). For females younger than 65 years, the order (for the first three causes at least) was the same as for the total population.

Circulatory diseases (26%), endocrine etc. diseases (14%), injury (13%), respiratory diseases (10%) and neoplasms (10%) were the leading contributors to the higher rates of death (excess deaths) for Indigenous Australian females. The pattern was similar also for those younger than 65 years.

Non-Indigenous Australian females

For non-Indigenous Australian females, the main causes of death in each of the areas were roughly similar to those for all females in Major Cities (see above).

The main contributors to higher death rates (excess deaths) in regional areas were similar to those for all females in regional areas (see above). There were very few excess deaths in remote areas.

However, excess deaths in remote areas (particularly) are strongly influenced by death rates for the elderly, which are low relative to those of their Major Cities peers (possibly due to the migration of the frail aged to less remote areas). The major contributors to the higher death

rates amongst regional females younger than 65 years were injury (41% and 26%), circulatory diseases (29% and 17%), neoplasms (12% and 34%) and respiratory diseases (12% and 6%). In remote areas there were very few excess deaths (a very small excess was contributed by endocrine etc. diseases, injury, respiratory diseases and diseases of the digestive system).

3.2 Specific causes of death

- Table 3.14 describes the main causes of excess death outside Major Cities organised by specific cause rather than ICD chapter.
- The main causes of higher death rates outside Major Cities are coronary heart disease, other circulatory disease, motor vehicle traffic accidents (MVTA), chronic obstructive pulmonary disease (COPD), 'other' neoplasms and 'other' causes not elsewhere classified (n.e.c.). These account for 70% of all excess deaths outside Major Cities.
- For males in regional areas, prostate cancer was also a large contributor to excess deaths.
- For females in regional areas, diabetes was also a large contributor to excess deaths.
- In remote areas, the largest contributors were 'other' circulatory diseases, 'other causes not elsewhere classified', diabetes, coronary heart disease and motor vehicle traffic accidents.
- For males in remote areas, suicide and 'other' injuries were also large contributors.
- Table 3.15 describes the main causes of excess death for those younger than 65 years living outside Major Cities.
- The main causes of higher death rates for people younger than 65 years living outside Major Cities are motor vehicle traffic accidents, coronary heart disease, suicide, 'other' causes not elsewhere classified and 'other' neoplasms.
- In remote areas 'other' circulatory disease and diabetes are also substantial contributors to excess deaths amongst people younger than 65 years.
- Lung cancer also made a notable contribution to excess deaths amongst regional females younger than 65 years.

Table 3.4: Average annual deaths and 'excess' deaths, by ICD-10 chapter, 2002-04

ICD-10 chapter	Males					Females				
	MC	IR	OR	R	VR	MC	IR	OR	R	VR
Deaths										
Infectious disease (Ch 1)	648	176	94	14	9	592	154	65	14	6
Neoplasms (Ch 2)	13,332	5,272	2,544	285	119	11,006	3,893	1,753	194	79
Blood (Ch 3)	121	48	22	3	2	160	62	28	4	1
Endocrine (Ch 4)	1,476	565	322	55	36	1,462	520	287	45	38
Mental (Ch 5)	776	303	132	17	14	1,352	473	177	19	9
Nervous (Ch 6)	1,296	484	215	20	16	1,626	566	243	21	7
Eye (Ch 7)	1	0	0	0	0	3	0	1	0	0
Ear (Ch 8)	3	0	1	0	0	2	1	0	0	0
Circulatory (Ch 9)	14,337	5,712	2,747	340	168	16,529	5,935	2,584	260	124
Respiratory (Ch 10)	3,788	1,460	730	95	57	3,700	1,252	541	57	34
Digestive (Ch 11)	1,356	539	285	48	27	1,435	521	223	31	21
Skin (Ch 12)	79	25	9	3	1	143	43	15	3	3
Musculoskeletal (Ch1)	189	94	43	3	3	403	183	84	8	4
Genitourinary (Ch	873	304	134	16	10	1,118	349	148	15	14
Pregnancy (Ch 15)	0	0	0	0	0	6	2	1	1	0
Perinatal (Ch 16)	210	70	43	8	10	173	51	34	6	4
Congenital (Ch 17)	186	76	39	5	4	174	67	27	4	4
n.e.c. (Ch 18)	266	88	71	19	19	220	87	63	13	14
Injury (Ch 20)	2,998	1,222	704	130	125	1,565	594	294	43	37
Total	41,935	16,439	8,133	1,063	620	41,670	14,755	6,570	738	399
Excess deaths										
Infectious disease (Ch 1)	0	-53	-14	0	3	0	-44	-21	5	3
Neoplasms (Ch 2)	0	389	249	-3	2	0	134	93	9	7
Blood (Ch 3)	0	5	2	1	1	0	9	5	1	0
Endocrine (Ch 4)	0	26	71	24	23	0	28	74	23	30
Mental (Ch 5)	0	27	5	1	7	0	27	-14	0	2
Nervous (Ch 6)	0	20	-1	-7	5	0	23	7	-4	-2
Eye (Ch 7)	0	0	0	0	0	0	-1	1	0	0
Ear (Ch 8)	0	-1	0	0	0	0	0	0	0	0
Circulatory (Ch 9)	0	495	346	51	53	0	423	220	27	45
Respiratory (Ch 10)	0	76	99	21	28	0	8	5	3	15
Digestive (Ch 11)	0	51	54	19	14	0	39	14	9	13
Skin (Ch 12)	0	-3	-4	2	0	0	-4	-6	1	2
Musculoskeletal (Ch 13)	0	26	11	-1	1	0	48	26	2	2
Genitourinary (Ch 14)	0	-13	-10	0	4	0	-24	-12	0	9
Pregnancy (Ch 15)	0	0	0	0	0	0	1	0	0	0
Perinatal (Ch 16)	0	3	8	1	6	0	-4	6	1	1
Congenital (Ch 17)	0	16	8	0	1	0	11	0	0	2
n.e.c. (Ch 18)	0	1	28	12	15	0	16	31	8	12
Injury (Ch 20)	0	286	240	57	86	0	94	68	15	24
Total	0	1,350	1,093	178	252	0	783	496	100	165

Note: A key to the chapters can be found in Table B1.

Table 3.5: Average annual deaths and 'excess' deaths of non-Indigenous Australians, by ICD-10 chapter, 2002-04

ICD-10 chapter	Males					Females				
	MC	IR	OR	R	VR	MC	IR	OR	R	VR
Deaths										
Infectious disease (Ch 1)	626	170	87	10	1	575	149	59	9	1
Neoplasms (Ch 2)	12,988	5,108	2,452	259	78	10,700	3,762	1,676	172	40
Blood (Ch 3)	118	47	21	3	1	156	61	27	3	0
Endocrine (Ch 4)	1,429	541	293	38	12	1,414	500	257	30	8
Mental (Ch 5)	742	292	122	11	6	1,308	458	170	14	3
Nervous (Ch 6)	1,252	468	202	16	5	1,574	547	232	18	4
Eye (Ch 7)	1	0	0	0	0	3	0	1	0	0
Ear (Ch 8)	3	0	0	0	0	2	1	0	0	0
Circulatory (Ch 9)	13,908	5,521	2,610	285	78	16,020	5,723	2,471	226	52
Respiratory (Ch 10)	3,669	1,411	686	77	23	3,573	1,203	512	45	11
Digestive (Ch 11)	1,302	516	261	33	11	1,385	498	209	20	8
Skin (Ch 12)	77	25	9	3	0	139	42	14	2	1
Musculoskeletal (Ch 13)	181	92	41	3	1	391	175	81	6	2
Genitourinary (Ch 14)	845	295	127	13	3	1,082	334	136	11	5
Pregnancy (Ch 15)	0	0	0	0	0	6	2	1	0	0
Perinatal (Ch 16)	194	61	34	4	0	159	45	27	4	0
Congenital (Ch 17)	170	70	34	5	1	162	60	24	3	1
n.e.c. (Ch 18)	243	77	60	12	3	205	82	57	8	4
Injury (Ch 20)	2,838	1,153	644	96	48	1,493	562	263	26	9
Total	40,587	15,847	7,683	867	274	40,346	14,204	6,216	597	150
Excess deaths										
Infectious disease (Ch 1)	0	-51	-16	-3	-3	0	-43	-24	0	-1
Neoplasms (Ch 2)	0	361	240	-7	-10	0	117	83	3	-9
Blood (Ch 3)	0	5	1	1	1	0	9	4	1	0
Endocrine (Ch 4)	0	20	52	10	3	0	26	54	10	3
Mental (Ch 5)	0	29	3	-3	1	0	27	-13	-3	-1
Nervous (Ch 6)	0	20	-4	-9	-3	0	22	6	-5	-2
Eye (Ch 7)	0	0	0	0	0	0	-1	1	0	0
Ear (Ch 8)	0	-1	0	0	0	0	0	0	0	0
Circulatory (Ch 9)	0	468	303	19	-7	0	389	197	11	-3
Respiratory (Ch 10)	0	72	80	9	2	0	3	-1	-4	-2
Digestive (Ch 11)	0	48	42	6	2	0	34	9	0	2
Skin (Ch 12)	0	-3	-4	1	0	0	-4	-6	0	1
Musculoskeletal (Ch 13)	0	26	11	0	0	0	43	25	0	1
Genitourinary (Ch 14)	0	-12	-10	-3	-2	0	-26	-17	-4	1
Pregnancy (Ch 15)	0	0	0	0	0	0	0	0	0	0
Perinatal (Ch 16)	0	1	5	-1	-2	0	-4	2	0	-1
Congenital (Ch 17)	0	16	7	0	0	0	9	0	-1	0
n.e.c. (Ch 18)	0	-1	22	6	1	0	16	27	5	3
Injury (Ch 20)	0	273	217	34	24	0	87	52	2	1
Total	0	1,271	949	60	7	0	705	398	16	-8

Note: A key to the chapters can be found in Table B1.

Table 3.6: Average annual deaths and 'excess' deaths of persons aged 64 years and under, by ICD-10 chapter, 2002-04

ICD-10 chapter	Males					Females				
	MC	IR	OR	R	VR	MC	IR	OR	R	VR
	Deaths									
Infectious disease (Ch 1)	212	56	30	6	8	85	25	17	7	4
Neoplasms (Ch 2)	3,396	1,314	702	92	50	3,061	1,064	547	74	34
Blood (Ch 3)	35	10	7	2	1	27	9	4	1	1
Endocrine (Ch 4)	311	112	69	19	18	164	57	41	13	20
Mental (Ch 5)	130	40	22	4	8	57	17	8	2	3
Nervous (Ch 6)	305	99	62	6	11	221	80	36	7	4
Eye (Ch 7)	0	0	0	0	0	0	0	0	0	0
Ear (Ch 8)	2	0	0	0	0	0	0	0	0	0
Circulatory (Ch 9)	2,199	848	502	93	85	774	326	173	34	47
Respiratory (Ch 10)	344	147	94	18	22	275	119	60	15	14
Digestive (Ch 11)	444	165	97	24	17	204	76	43	12	13
Skin (Ch 12)	7	3	1	1	0	8	2	2	1	2
Musculoskeletal (Ch 13)	32	12	6	0	1	45	19	12	3	2
Genitourinary (Ch 14)	52	20	13	2	4	45	15	11	3	6
Pregnancy (Ch 15)	0	0	0	0	0	6	2	1	1	0
Perinatal (Ch 16)	210	70	43	8	10	173	51	34	6	4
Congenital (Ch 17)	167	63	33	5	4	147	54	21	4	4
n.e.c. (Ch 18)	187	56	45	14	17	99	27	24	6	10
Injury (Ch 20)	2,217	910	540	110	116	733	304	159	29	31
Total	10,249	3,923	2,266	407	372	6,125	2,248	1,193	215	197
	Excess deaths									
Infectious disease (Ch 1)	0	-13	-5	1	5	0	-3	3	5	3
Neoplasms (Ch 2)	0	151	112	2	7	0	35	59	6	2
Blood (Ch 3)	0	-1	1	1	0	0	1	0	0	1
Endocrine (Ch 4)	0	7	15	10	14	0	3	15	9	18
Mental (Ch 5)	0	0	1	1	6	0	0	-1	1	2
Nervous (Ch 6)	0	0	11	-2	6	0	8	2	2	1
Eye (Ch 7)	0	0	0	0	0	0	0	0	0	0
Ear (Ch 8)	0	-1	0	0	0	0	0	0	0	0
Circulatory (Ch 9)	0	98	122	34	57	0	65	49	16	39
Respiratory (Ch 10)	0	29	34	9	18	0	25	15	9	11
Digestive (Ch 11)	0	15	21	12	11	0	8	11	8	11
Skin (Ch 12)	0	0	0	1	0	0	-1	0	0	1
Musculoskeletal (Ch 13)	0	1	1	-1	1	0	3	5	2	1
Genitourinary (Ch 14)	0	2	4	1	3	0	0	4	2	5
Pregnancy (Ch 15)	0	0	0	0	0	0	1	0	0	0
Perinatal (Ch 16)	0	3	8	1	6	0	-4	6	1	1
Congenital (Ch 17)	0	11	6	0	1	0	7	-2	0	1
n.e.c. (Ch 18)	0	-2	15	9	14	0	-4	8	3	9
Injury (Ch 20)	0	263	208	53	83	0	84	52	13	22
Total	0	563	555	133	232	0	229	228	76	129

Note: A key to the chapters can be found in Table B1.

Table 3.7: Average annual deaths and 'excess' deaths of non-Indigenous Australians aged 64 years and under, by ICD-10 chapter, 2002-04

ICD-10 chapter	Males					Females				
	MC	IR	OR	R	VR	MC	IR	OR	R	VR
Deaths										
Infectious disease (Ch 1)	201	52	26	3	1	81	22	13	2	1
Neoplasms (Ch 2)	3,281	1,263	661	76	27	2,965	1,012	510	60	12
Blood (Ch 3)	34	9	6	2	0	25	8	3	0	0
Endocrine (Ch 4)	293	103	54	10	4	152	53	31	6	3
Mental (Ch 5)	119	36	17	2	2	54	16	6	0	0
Nervous (Ch 6)	290	93	53	4	2	208	77	31	5	2
Eye (Ch 7)	0	0	0	0	0	0	0	0	0	0
Ear (Ch 8)	2	0	0	0	0	0	0	0	0	0
Circulatory (Ch 9)	2,093	795	435	58	25	723	298	138	17	6
Respiratory (Ch 10)	323	135	76	9	2	257	110	50	7	2
Digestive (Ch 11)	415	154	83	10	5	193	68	35	4	2
Skin (Ch 12)	6	3	1	1	0	7	2	1	0	0
Musculoskeletal (Ch 13)	29	10	6	0	0	43	16	12	1	0
Genitourinary (Ch 14)	49	20	11	1	0	42	14	7	0	1
Pregnancy (Ch 15)	0	0	0	0	0	6	2	1	0	0
Perinatal (Ch 16)	194	61	34	4	0	159	45	27	4	0
Congenital (Ch 17)	151	58	28	4	1	135	47	18	2	1
n.e.c. (Ch 18)	166	46	35	8	3	88	23	18	2	2
Injury (Ch 20)	2,079	852	486	78	41	685	281	132	16	6
Total	9,727	3,690	2,010	269	113	5,823	2,096	1,034	127	38
Excess deaths										
Infectious disease (Ch 1)	0	-12	-6	-2	-1	0	-4	1	0	0
Neoplasms (Ch 2)	0	145	102	-6	-5	0	22	49	0	-8
Blood (Ch 3)	0	-2	0	1	0	0	0	0	0	0
Endocrine (Ch 4)	0	4	4	3	1	0	3	8	3	2
Mental (Ch 5)	0	0	-2	-1	0	0	0	-1	-1	0
Nervous (Ch 6)	0	-1	6	-3	-1	0	9	0	0	0
Eye (Ch 7)	0	0	0	0	0	0	0	0	0	0
Ear (Ch 8)	0	-1	0	0	0	0	0	0	0	0
Circulatory (Ch 9)	0	84	79	5	5	0	55	24	2	1
Respiratory (Ch 10)	0	25	21	1	-1	0	23	9	2	1
Digestive (Ch 11)	0	15	13	0	1	0	5	5	0	0
Skin (Ch 12)	0	1	0	1	0	0	-1	0	0	0
Musculoskeletal (Ch 13)	0	0	1	-1	0	0	2	5	0	0
Genitourinary (Ch 14)	0	3	3	-1	0	0	0	1	0	1
Pregnancy (Ch 15)	0	0	0	0	0	0	0	0	0	0
Perinatal (Ch 16)	0	1	5	-1	-2	0	-4	2	0	-1
Congenital (Ch 17)	0	12	5	0	0	0	5	-2	-1	0
n.e.c. (Ch 18)	0	-5	10	4	1	0	-4	6	0	2
Injury (Ch 20)	0	252	186	30	21	0	77	37	2	1
Total	0	521	427	30	20	0	189	143	8	-2

Note: A key to the chapters can be found in Table B1.

Table 3.8: Percentage of deaths and 'excess' deaths by ICD-10 chapter, 2002-04

ICD-10 chapter	Males					Females				
	MC	IR	OR	R	VR	MC	IR	OR	R	VR
Per cent of deaths										
Infectious disease (Ch 1)	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	1.0
Neoplasms (Ch 2)	32.0	32.0	31.0	27.0	19.0	26.0	26.0	27.0	26.0	20.0
Blood (Ch 3)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
Endocrine (Ch 4)	4.0	3.0	4.0	5.0	6.0	4.0	4.0	4.0	6.0	9.0
Mental (Ch 5)	2.0	2.0	2.0	2.0	2.0	3.0	3.0	3.0	3.0	2.0
Nervous (Ch 6)	3.0	3.0	3.0	2.0	3.0	4.0	4.0	4.0	3.0	2.0
Eye (Ch 7)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ear (Ch 8)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Circulatory (Ch 9)	34.0	35.0	34.0	32.0	27.0	40.0	40.0	39.0	35.0	31.0
Respiratory (Ch 10)	9.0	9.0	9.0	9.0	9.0	9.0	8.0	8.0	8.0	8.0
Digestive (Ch 11)	3.0	3.0	3.0	5.0	4.0	3.0	4.0	3.0	4.0	5.0
Skin (Ch 12)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
Musculoskeletal (Ch 13)	0.0	1.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0
Genitourinary (Ch 14)	2.0	2.0	2.0	2.0	2.0	3.0	2.0	2.0	2.0	4.0
Pregnancy (Ch 15)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perinatal (Ch 16)	1.0	0.0	1.0	1.0	2.0	0.0	0.0	1.0	1.0	1.0
Congenital (Ch 17)	0.0	0.0	0.0	1.0	1.0	0.0	0.0	0.0	1.0	1.0
n.e.c. (Ch 18)	1.0	1.0	1.0	2.0	3.0	1.0	1.0	1.0	2.0	3.0
Injury (Ch 20)	7.0	7.0	9.0	12.0	20.0	4.0	4.0	4.0	6.0	9.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Per cent of excess deaths										
Infectious disease (Ch 1)	n.a.	-4.0	-1.0	0.0	1.0	n.a.	-6.0	-4.0	5.0	2.0
Neoplasms (Ch 2)	n.a.	29.0	23.0	-2.0	1.0	n.a.	17.0	19.0	9.0	4.0
Blood (Ch 3)	n.a.	0.0	0.0	0.0	0.0	n.a.	1.0	1.0	1.0	0.0
Endocrine (Ch 4)	n.a.	2.0	7.0	13.0	9.0	n.a.	4.0	15.0	23.0	18.0
Mental (Ch 5)	n.a.	2.0	0.0	1.0	3.0	n.a.	3.0	-3.0	0.0	1.0
Nervous (Ch 6)	n.a.	1.0	0.0	-4.0	2.0	n.a.	3.0	1.0	-4.0	-1.0
Eye (Ch 7)	n.a.	0.0	0.0	0.0	0.0	n.a.	0.0	0.0	0.0	0.0
Ear (Ch 8)	n.a.	0.0	0.0	0.0	0.0	n.a.	0.0	0.0	0.0	0.0
Circulatory (Ch 9)	n.a.	37.0	32.0	29.0	21.0	n.a.	54.0	44.0	27.0	27.0
Respiratory (Ch 10)	n.a.	6.0	9.0	12.0	11.0	n.a.	1.0	1.0	3.0	9.0
Digestive (Ch 11)	n.a.	4.0	5.0	10.0	6.0	n.a.	5.0	3.0	9.0	8.0
Skin (Ch 12)	n.a.	0.0	0.0	1.0	0.0	n.a.	-1.0	-1.0	1.0	1.0
Musculoskeletal (Ch 13)	n.a.	2.0	1.0	0.0	0.0	n.a.	6.0	5.0	2.0	1.0
Genitourinary (Ch 14)	n.a.	-1.0	-1.0	0.0	2.0	n.a.	-3.0	-2.0	0.0	5.0
Pregnancy (Ch 15)	n.a.	0.0	0.0	0.0	0.0	n.a.	0.0	0.0	0.0	0.0
Perinatal (Ch 16)	n.a.	0.0	1.0	1.0	2.0	n.a.	-1.0	1.0	1.0	0.0
Congenital (Ch 17)	n.a.	1.0	1.0	0.0	0.0	n.a.	1.0	0.0	0.0	1.0
n.e.c. (Ch 18)	n.a.	0.0	3.0	7.0	6.0	n.a.	2.0	6.0	8.0	7.0
Injury (Ch 20)	n.a.	21.0	22.0	32.0	34.0	n.a.	12.0	14.0	15.0	14.0
Total	n.a.	100.00	100.00	100.00	100.00	n.a.	100.00	100.00	100.00	100.00

Note: A key to the chapters can be found in Table B1.

Table 3.9: Percentage of non-Indigenous Australian deaths and 'excess' deaths by ICD-10 chapter, 2002-04

ICD-10 chapter	Males					Females				
	MC	IR	OR	R	VR	MC	IR	OR	R	VR
Per cent of deaths										
Infectious disease (Ch 1)	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Neoplasms (Ch 2)	32.0	32.0	32.0	30.0	29.0	27.0	26.0	27.0	29.0	26.0
Blood (Ch 3)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
Endocrine (Ch 4)	4.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0
Mental (Ch 5)	2.0	2.0	2.0	1.0	2.0	3.0	3.0	3.0	2.0	2.0
Nervous (Ch 6)	3.0	3.0	3.0	2.0	2.0	4.0	4.0	4.0	3.0	3.0
Eye (Ch 7)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ear (Ch 8)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Circulatory (Ch 9)	34.0	35.0	34.0	33.0	29.0	40.0	40.0	40.0	38.0	35.0
Respiratory (Ch 10)	9.0	9.0	9.0	9.0	9.0	9.0	8.0	8.0	8.0	7.0
Digestive (Ch 11)	3.0	3.0	3.0	4.0	4.0	3.0	4.0	3.0	3.0	5.0
Skin (Ch 12)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
Musculoskeletal (Ch 13)	0.0	1.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0
Genitourinary (Ch 14)	2.0	2.0	2.0	1.0	1.0	3.0	2.0	2.0	2.0	3.0
Pregnancy (Ch 15)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perinatal (Ch 16)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
Congenital (Ch 17)	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0
n.e.c. (Ch 18)	1.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	3.0
Injury (Ch 20)	7.0	7.0	8.0	11.0	18.0	4.0	4.0	4.0	4.0	6.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Per cent of excess deaths										
Infectious disease (Ch 1)	n.a.	-4.0	-2.0	-5.0	-44.0	n.a.	-6.0	-6.0	2.0	10.0
Neoplasms (Ch2)	n.a.	28.0	25.0	-12.0	-154.0	n.a.	17.0	21.0	20.0	115.0
Blood (Ch3)	n.a.	0.0	0.0	2.0	8.0	n.a.	1.0	1.0	5.0	3.0
Endocrine (Ch4)	n.a.	2.0	6.0	16.0	44.0	n.a.	4.0	13.0	60.0	-37
Mental (Ch5)	n.a.	2.0	0.0	-5.0	22.0	n.a.	4.0	-3.0	-17.0	17.0
Nervous (Ch6)	n.a.	2.0	0.0	-15.0	-46.0	n.a.	3.0	2.0	-29.0	24.0
Eye (Ch7)	n.a.	0.0	0.0	0.0	0.0	n.a.	0.0	0.0	0.0	0.0
Ear (Ch8)	n.a.	0.0	0.0	0.0	0.0	n.a.	0.0	0.0	0.0	0.0
Circulatory (Ch9)	n.a.	37.0	32.0	32.0	-112.0	n.a.	55.0	49.0	70.0	40.0
Respiratory (Ch10)	n.a.	6.0	8.0	15.0	28.0	n.a.	0.0	0.0	-27	23.0
Digestive (Ch11)	n.a.	4.0	4.0	10.0	28.0	n.a.	5.0	2.0	3.0	-33
Skin (Ch12)	n.a.	0.0	0.0	2.0	-2.0	n.a.	-1.0	-2.0	0.0	-10
Musculoskeletal	n.a.	2.0	1.0	0.0	-1.0	n.a.	6.0	6.0	1.0	-8.0
Genitourinary (Ch14)	n.a.	-1.0	-1.0	-4.0	-29.0	n.a.	-4.0	-4.0	-23.0	-11.0
Pregnancy (Ch15)	n.a.	0.0	0.0	0.0	0.0	n.a.	0.0	0.0	2.0	0.0
Perinatal (Ch16)	n.a.	0.0	0.0	-1	-23.0	n.a.	-1.0	1.0	-1.0	16.0
Congenital (Ch17)	n.a.	1.0	1.0	1.0	-6.0	n.a.	1.0	0.0	-4.0	1.0
n.e.c. (Ch18)	n.a.	0.0	2.0	10.0	21.0	n.a.	2.0	7.0	29.0	-38
Injury (Ch20)	n.a.	21.0	23.0	56.0	364.0	n.a.	12.0	13.0	10.0	-14
Total	n.a.	100.0	100.0	100.0	100.0	n.a.	100.0	100.0	100.0	100.0

Note: A key to the chapters can be found in Table B1.

Table 3.10: Percentage of annual deaths and 'excess' deaths of persons aged 64 years and under, by ICD-10 chapter, 2002-04

ICD-10 chapter	Males					Females				
	MC	IR	OR	R	VR	MC	IR	OR	R	VR
Per cent of deaths										
Infectious disease (Ch 1)	2.0	1.0	1.0	2.0	2.0	1.0	1.0	1.0	3.0	2.0
Neoplasms (Ch 2)	33.0	33.0	31.0	23.0	14.0	50.0	47.0	46.0	34.0	17.0
Blood (Ch 3)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Endocrine (Ch 4)	3.0	3.0	3.0	5.0	5.0	3.0	3.0	3.0	6.0	10.0
Mental (Ch 5)	1.0	1.0	1.0	1.0	2.0	1.0	1.0	1.0	1.0	2.0
Nervous (Ch 6)	3.0	3.0	3.0	2.0	3.0	4.0	4.0	3.0	3.0	2.0
Eye (Ch 7)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ear (Ch 8)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Circulatory (Ch 9)	21.0	22.0	22.0	23.0	23.0	13.0	15.0	15.0	16.0	24.0
Respiratory (Ch 10)	3.0	4.0	4.0	4.0	6.0	4.0	5.0	5.0	7.0	7.0
Digestive (Ch 11)	4.0	4.0	4.0	6.0	5.0	3.0	3.0	4.0	6.0	6.0
Skin (Ch 12)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
Musculoskeletal (Ch 13)	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0
Genitourinary (Ch 14)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	3.0
Pregnancy (Ch 15)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perinatal (Ch 16)	2.0	2.0	2.0	2.0	3.0	3.0	2.0	3.0	3.0	2.0
Congenital (Ch 17)	2.0	2.0	1.0	1.0	1.0	2.0	2.0	2.0	2.0	2.0
n.e.c. (Ch 18)	2.0	1.0	2.0	4.0	5.0	2.0	1.0	2.0	3.0	5.0
Injury (Ch 20)	22.0	23.0	24.0	27.0	31.0	12.0	14.0	13.0	14.0	16.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Per cent of excess deaths										
Infectious disease (Ch 1)	n.a.	-2.0	-1.0	0.0	2.0	n.a.	-1.0	2.0	6.0	3.0
Neoplasms (Ch 2)	n.a.	27.0	20.0	1.0	3.0	n.a.	15.0	26.0	8.0	2.0
Blood (Ch 3)	n.a.	0.0	0.0	1.0	0.0	n.a.	0.0	0.0	0.0	0.0
Endocrine (Ch 4)	n.a.	1.0	3.0	8.0	6.0	n.a.	1.0	7.0	12.0	14.0
Mental (Ch 5)	n.a.	0.0	0.0	1.0	3.0	n.a.	0.0	0.0	1.0	2.0
Nervous (Ch 6)	n.a.	0.0	2.0	-1.0	3.0	n.a.	3.0	1.0	2.0	1.0
Eye (Ch 7)	n.a.	0.0	0.0	0.0	0.0	n.a.	0.0	0.0	0.0	0.0
Ear (Ch 8)	n.a.	0.0	0.0	0.0	0.0	n.a.	0.0	0.0	0.0	0.0
Circulatory (Ch 9)	n.a.	17.0	22.0	26.0	24.0	n.a.	28.0	22.0	22.0	30.0
Respiratory (Ch 10)	n.a.	5.0	6.0	7.0	8.0	n.a.	11.0	7.0	12.0	8.0
Digestive (Ch 11)	n.a.	3.0	4.0	9.0	5.0	n.a.	4.0	5.0	10.0	8.0
Skin (Ch 12)	n.a.	0.0	0.0	1.0	0.0	n.a.	0.0	0.0	1.0	1.0
Musculoskeletal (Ch 13)	n.a.	0.0	0.0	-1.0	0.0	n.a.	1.0	2.0	3.0	1.0
Genitourinary (Ch 14)	n.a.	0.0	1.0	1.0	1.0	n.a.	0.0	2.0	2.0	4.0
Pregnancy (Ch 15)	n.a.	0.0	0.0	0.0	0.0	n.a.	0.0	0.0	1.0	0.0
Perinatal (Ch 16)	n.a.	1.0	1.0	1.0	2.0	n.a.	-2.0	2.0	1.0	0.0
Congenital (Ch 17)	n.a.	2.0	1.0	0.0	1.0	n.a.	3.0	-1.0	0.0	1.0
n.e.c. (Ch 18)	n.a.	0.0	3.0	7.0	6.0	n.a.	-2.0	4.0	5.0	7.0
Injury (Ch 20)	n.a.	47.0	37.0	40.0	36.0	n.a.	37.0	23.0	17.0	17.0
Total	n.a.	100.0	100.0	100.0	100.0	n.a.	100.0	100.0	100.0	100.0

Note: A key to the chapters can be found in Table B1.

Table 3.11: Percentage annual deaths and 'excess' deaths of non-Indigenous Australians aged 64 years and under, by ICD chapter, 2002-04

ICD-10 chapter	Males					Females				
	MC	IR	OR	R	VR	MC	IR	OR	R	VR
Per cent of deaths										
Infectious disease (Ch 1)	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	1.0
Neoplasms (Ch 2)	34.0	34.0	33.0	28.0	24.0	51.0	48.0	49.0	47.0	32.0
Blood (Ch 3)	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
Endocrine (Ch 4)	3.0	3.0	3.0	4.0	4.0	3.0	3.0	3.0	5.0	8.0
Mental (Ch 5)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0
Nervous (Ch 6)	3.0	3.0	3.0	1.0	2.0	4.0	4.0	3.0	4.0	4.0
Eye (Ch 7)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ear (Ch 8)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Circulatory (Ch 9)	22.0	22.0	22.0	21.0	22.0	12.0	14.0	13.0	13.0	16.0
Respiratory (Ch 10)	3.0	4.0	4.0	3.0	2.0	4.0	5.0	5.0	5.0	6.0
Digestive (Ch 11)	4.0	4.0	4.0	4.0	4.0	3.0	3.0	3.0	3.0	5.0
Skin (Ch 12)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Musculoskeletal (Ch 13)	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	0.0
Genitourinary (Ch 14)	1.0	1.0	1.0	0.0	0.0	1.0	1.0	1.0	0.0	3.0
Pregnancy (Ch 15)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perinatal (Ch 16)	2.0	2.0	2.0	2.0	0.0	3.0	2.0	3.0	3.0	0.0
Congenital (Ch 17)	2.0	2.0	1.0	2.0	1.0	2.0	2.0	2.0	2.0	2.0
n.e.c. (Ch 18)	2.0	1.0	2.0	3.0	2.0	2.0	1.0	2.0	2.0	6.0
Injury (Ch 20)	21.0	23.0	24.0	29.0	36.0	12.0	13.0	13.0	12.0	15.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Per cent of excess deaths										
Infectious disease (Ch 1)	n.a.	-2.0	-1.0	-8.0	-5.0	n.a.	-2.0	1.0	6.0	3.0
Neoplasms (Ch 2)	n.a.	28.0	24.0	-21.0	-25.0	n.a.	12.0	34.0	3.0	401.0
Blood (Ch 3)	n.a.	0.0	0.0	4.0	0.0	n.a.	0.0	0.0	-3.0	6.0
Endocrine (Ch 4)	n.a.	1.0	1.0	11.0	7.0	n.a.	2.0	6.0	36.0	-100.0
Mental (Ch 5)	n.a.	0.0	0.0	-4.0	2.0	n.a.	0.0	-1.0	-11.0	10.0
Nervous (Ch 6)	n.a.	0.0	2.0	-11.0	-5.0	n.a.	5.0	0.0	4.0	-11.0
Eye (Ch 7)	n.a.	0.0	0.0	0.0	0.0	n.a.	0.0	0.0	0.0	0.0
Ear (Ch 8)	n.a.	0.0	0.0	1.0	0.0	n.a.	0.0	0.0	0.0	0.0
Circulatory (Ch 9)	n.a.	16.0	18.0	17.0	24.0	n.a.	29.0	17.0	26.0	-72.0
Respiratory (Ch 10)	n.a.	5.0	5.0	2.0	-4.0	n.a.	12.0	6.0	22.0	-36.0
Digestive (Ch 11)	n.a.	3.0	3.0	-1.0	4.0	n.a.	2.0	3.0	3.0	-22.0
Skin (Ch 12)	n.a.	0.0	0.0	2.0	1.0	n.a.	0.0	0.0	2.0	2.0
Musculoskeletal (Ch 13)	n.a.	0.0	0.0	-2.0	0.0	n.a.	1.0	3.0	3.0	14.0
Genitourinary (Ch 14)	n.a.	1.0	1.0	-2.0	-2.0	n.a.	0.0	0.0	-6.0	-37.0
Pregnancy (Ch 15)	n.a.	0.0	0.0	0.0	0.0	n.a.	0.0	0.0	4.0	2.0
Perinatal (Ch 16)	n.a.	0.0	1.0	-3.0	-8.0	n.a.	-2.0	2.0	-3.0	62.0
Congenital (Ch 17)	n.a.	2.0	1.0	1.0	-1.0	n.a.	3.0	-1.0	-11.0	18.0
n.e.c. (Ch 18)	n.a.	-1.0	2.0	13.0	6.0	n.a.	-2.0	4.0	1.0	-89.0
Injury (Ch 20)	n.a.	48.0	44.0	100.0	107.0	n.a.	41.0	26.0	24.0	-50.0
Total	n.a.	100.0	100.0	100.0	100.0	n.a.	100.0	100.0	100.0	100.0

Note: A key to the chapters can be found in Table B1.

Table 3.12: Average annual deaths and 'excess' deaths of Indigenous Australians in Qld, WA, SA and NT, by broad cause of death, 2002-04

ICD-10 chapter	Males		Females	
	Total population	0-64 years	Total population	0-64 years
Infectious disease (Ch 1)	18	16	15	12
Neoplasms (Ch 2)	120	71	111	68
Blood (Ch 3)	2	2	3	2
Endocrine (Ch 4)	62	39	70	34
Mental (Ch 5)	21	14	14	6
Nervous (Ch 6)	25	20	12	10
Eye (Ch 7)	0	0	0	0
Ear (Ch 8)	1	1	0	0
Circulatory (Ch 9)	232	160	180	97
Respiratory (Ch 10)	74	44	60	32
Digestive (Ch 11)	50	40	37	29
Skin (Ch 12)	1	1	4	3
Musculoskeletal (Ch 13)	4	3	8	6
Genitourinary (Ch 14)	15	8	24	12
Pregnancy (Ch 15)	0	0	1	1
Perinatal (Ch 16)	23	23	15	15
Congenital (Ch 17)	11	11	9	9
n.e.c. (Ch 18)	35	33	21	18
Injury (Ch 20)	165	159	74	65
Total	859	643	659	419
		Excess deaths		
Infectious disease (Ch 1)	14	13	12	11
Neoplasms (Ch 2)	47	39	45	35
Blood (Ch 3)	2	1	3	2
Endocrine (Ch 4)	55	36	64	32
Mental (Ch 5)	16	12	9	5
Nervous (Ch 6)	17	16	5	7
Eye (Ch 7)	0	0	0	0
Ear (Ch 8)	1	1	0	0
Circulatory (Ch 9)	160	138	120	89
Respiratory (Ch 10)	56	40	45	29
Digestive (Ch 11)	42	36	31	27
Skin (Ch 12)	1	1	4	3
Musculoskeletal (Ch 13)	4	2	6	6
Genitourinary (Ch 14)	11	8	20	11
Pregnancy (Ch 15)	0	0	1	1
Perinatal (Ch 16)	15	15	8	8
Congenital (Ch 17)	7	7	5	5
n.e.c. (Ch 18)	31	30	18	16
Injury (Ch 20)	123	121	58	52
Total	601	515	453	337

Note: A key to the chapters can be found in Table B1. Deaths and excess deaths in this table refer to annual deaths in Qld, WA, SA and NT, whose population of 274,000 Indigenous Australians is 60% of the national Indigenous Australian population of 458,000. If death rates in the other states and territories were comparable to those in Qld, WA, SA and NT, the numbers of deaths and excess deaths nationally may be approximately 1.7 times greater than that indicated for Qld, WA, SA and NT in this table.

Table 3.13: Percentage of deaths and 'excess' deaths of Indigenous Australians in Qld, WA, SA and NT, by broad cause of death, 2002–04

ICD-10 chapter	Males		Females	
	Total population	0–64 years	Total population	0–64 years
	Per cent of deaths			
Infectious disease (Ch 1)	2.0	2.0	2.0	3.0
Neoplasms (Ch 2)	14.0	11.0	17.0	16.0
Blood (Ch 3)	0.0	0.0	0.0	0.0
Endocrine (Ch 4)	7.0	6.0	11.0	8.0
Mental (Ch 5)	2.0	2.0	2.0	1.0
Nervous (Ch 6)	3.0	3.0	2.0	2.0
Eye (Ch 7)	0.0	0.0	0.0	0.0
Ear (Ch 8)	0.0	0.0	0.0	0.0
Circulatory (Ch 9)	27.0	25.0	27.0	23.0
Respiratory (Ch 10)	9.0	7.0	9.0	8.0
Digestive (Ch 11)	6.0	6.0	6.0	7.0
Skin (Ch 12)	0.0	0.0	1.0	1.0
Musculoskeletal (Ch 13)	0.0	0.0	1.0	1.0
Genitourinary (Ch 14)	2.0	1.0	4.0	3.0
Pregnancy (Ch 15)	0.0	0.0	0.0	0.0
Perinatal (Ch 16)	3.0	4.0	2.0	4.0
Congenital (Ch 17)	1.0	2.0	1.0	2.0
n.e.c. (Ch 18)	4.0	5.0	3.0	4.0
Injury (Ch 20)	19.0	25.0	11.0	16.0
Total	100.0	100.0	100.0	100.0
	Per cent of excess deaths			
Infectious disease (Ch 1)	2.0	3.0	3.0	3.0
Neoplasms (Ch 2)	8.0	8.0	10.0	10.0
Blood (Ch 3)	0.0	0.0	1.0	1.0
Endocrine (Ch 4)	9.0	7.0	14.0	9.0
Mental (Ch 5)	3.0	2.0	2.0	1.0
Nervous (Ch 6)	3.0	3.0	1.0	2.0
Eye (Ch 7)	0.0	0.0	0.0	0.0
Ear (Ch 8)	0.0	0.0	0.0	0.0
Circulatory (Ch 9)	27.0	27.0	26.0	26.0
Respiratory (Ch 10)	9.0	8.0	10.0	9.0
Digestive (Ch 11)	7.0	7.0	7.0	8.0
Skin (Ch 12)	0.0	0.0	1.0	1.0
Musculoskeletal (Ch 13)	1.0	0.0	1.0	2.0
Genitourinary (Ch 14)	2.0	2.0	4.0	3.0
Pregnancy (Ch 15)	0.0	0.0	0.0	0.0
Perinatal (Ch 16)	2.0	3.0	2.0	2.0
Congenital (Ch 17)	1.0	1.0	1.0	1.0
n.e.c. (Ch 18)	5.0	6.0	4.0	5.0
Injury (Ch 20)	20.0	23.0	13.0	15.0
Total	100.0	100.0	100.0	100.0

Note: A key to the chapters can be found in Table B1. Deaths and excess deaths in this table refer to annual deaths in Qld, WA, SA and NT, whose population of 274,000 Indigenous Australians is 60% of the national Indigenous Australian population of 458,000. If death rates in the other states and territories were comparable to those in Qld, WA, SA and NT, the numbers of deaths and excess deaths nationally may be approximately 1.7 times greater than that indicated for Qld, WA, SA and NT in this table.

Table 3.14: Percentage of leading causes of 'excess' death outside Major Cities, 2002–04

Cause of death	Males			Females			Persons		
	Regional	Remote	Regional and remote	Regional	Remote	Regional and remote	Regional	Remote	Regional and remote
Per cent									
Coronary heart disease	20.0	13.0	19.0	21.0	10.0	19.0	21.0	12.0	19.0
Other circulatory disease	13.0	12.0	13.0	30.0	20.0	28.0	19.0	15.0	18.0
MVTA	10.0	11.0	10.0	8.0	7.0	8.0	9.0	10.0	9.0
COPD	11.0	9.0	10.0	6.0	5.0	6.0	9.0	7.0	9.0
Other neoplasms	9.0	2.0	8.0	7.0	8.0	7.0	8.0	4.0	7.0
Other causes n.e.c.	4.0	14.0	5.0	7.0	18.0	9.0	5.0	15.0	7.0
Diabetes	3.0	9.0	4.0	8.0	17.0	9.0	5.0	12.0	6.0
Other injuries	5.0	8.0	5.0	5.0	5.0	5.0	5.0	7.0	5.0
Suicide	6.0	9.0	6.0	0.0	0.0	0.0	4.0	6.0	4.0
Prostate cancer	8.0	-1.0	6.0	0.0	0.0	0.0	5.0	0.0	4.0
Lung cancer	4.0	1.0	4.0	5.0	2.0	4.0	4.0	1.0	4.0
Total	92.0	87.0	92.0	96.0	91.0	95.0	95.0	89.0	93.0

Table 3.15: Percentage of leading causes of 'excess' death outside Major Cities for persons aged 64 years and under, 2002–04

Cause of death	Males			Females			Persons		
	Regional	Remote	Regional and remote	Regional	Remote	Regional and remote	Regional	Remote	Regional and remote
Per cent									
MVTA	20.0	13.0	18.0	20.0	8.0	16.0	20.0	11.0	18.0
Coronary heart disease	13.0	15.0	14.0	12.0	12.0	12.0	13.0	14.0	13.0
Suicide	12.0	10.0	12.0	2.0	1.0	2.0	9.0	7.0	9.0
Other causes n.e.c.	5.0	15.0	7.0	6.0	21.0	11.0	5.0	17.0	8.0
Other neoplasms	11.0	2.0	9.0	3.0	5.0	3.0	9.0	3.0	7.0
Other circulatory disease	4.0	7.0	5.0	7.0	12.0	8.0	5.0	9.0	6.0
Lung cancer	5.0	2.0	4.0	9.0	2.0	7.0	6.0	2.0	5.0
COPD	4.0	3.0	4.0	7.0	3.0	6.0	5.0	3.0	4.0
Diabetes	1.0	6.0	2.0	5.0	11.0	6.0	2.0	8.0	4.0
Liver disease	2.0	5.0	3.0	2.0	6.0	3.0	2.0	5.0	3.0
Other LTA	2.0	2.0	2.0	1.0	0.0	1.0	2.0	2.0	2.0
Total	80.0	81.0	80.0	73.0	82.0	76.0	78.0	81.0	79.0

4 Neoplasms

Chapter highlights

Neoplasms were responsible for about 29% of all deaths, and up to 25% of excess deaths in regional areas but only 2% of excess deaths in remote areas.

Half (51%) of all neoplasms deaths were due to 'other neoplasms' (that is, not specifically described in this report), 19% were due to lung cancer and 12% were due to colorectal cancer.

About 40% of excess neoplasm deaths were due to 'other neoplasms', 21% due to prostate cancer, 20% due to lung cancer and 14% due to colorectal cancer.

'Other neoplasms' contribute 9% of all excess deaths in Inner Regional areas, declining with remoteness to about 3% in Very Remote areas. Prostate, colorectal and lung cancers contribute between 4% and 6% of all excess deaths in Inner Regional areas to approximately 0% in remote areas. As such, at least in regional areas, these are substantial contributors to overall higher rates of death outside Major Cities.

Most of the excess deaths were amongst males and also amongst people aged 45–64 years, 65–74 years and 75 years and older.

Indigenous Australians had injury death rates that were 1.7 times higher than the rates for non-Indigenous Australians in Major Cities.

SMRs are 1.1 in regional areas, and about 1.0 in remote areas. The inter-regional pattern for people younger than 65 years was similar.

For non-Indigenous Australians, SMRs were also 1.1 in regional areas, 1.0 in Remote areas and 0.9 in Very Remote areas. The inter-regional pattern was similar for people younger than 65 years.

Death rates appear to be declining in Major Cities and remote areas, and (at a slower rate) in regional areas.

This chapter discusses mortality due to the broad category of neoplasms (including cancers and benign neoplasms, ICD-10, chapter 2, codes C00–D48). It then provides further analysis of specific diseases within this broad category. The specific neoplasms included are:

- lung cancer
- colorectal cancer
- breast cancer
- cervical cancer
- prostate cancer
- melanoma
- 'other' neoplasms.

These neoplasms were chosen because they tend to be the most frequently occurring causes of neoplasm death.

In the period, neoplasms were responsible for 38,557 deaths annually – this is 29% of all deaths. Over half (56%) were male; 63% were in Major Cities, 35% in regional and 2% in remote areas.

Overall neoplasm death rates for Indigenous Australians were 1.7 times higher than the rates for non-Indigenous Australians in Major Cities.

In regional areas:

Death rates were about 10% (1.10 times) higher for males and about 5% (1.05 times) higher for females than in Major Cities.

For 0–64 year olds, death rates for males were 15–20% what they were in Major Cities, while for females they were, compared to Major Cities, similar in Inner Regional areas and about 10% higher in Outer Regional areas.

The inter-regional pattern for non-Indigenous Australians was similar to that above.

Annually there are 9,166 and 4,298 deaths in Inner Regional and Outer Regional areas; about 58% were male.

Annually there were 523 and 342 'excess' deaths in Inner Regional and Outer Regional areas; this is 25% and 22% of all 'excess' deaths in Inner Regional and Outer Regional areas. About three-quarters (74%) of the 'excess' were male. The excess was relatively evenly distributed between 45–64 year olds, 65–74 year olds and those older than 75 years.

Compared with the previous reporting period (1997–99), there were 815 more deaths of males and 744 more deaths of females annually in 2002–04.

The 12-year trend (AIHW 2006a) is for decreasing death rates for males and females. However, the decline is slower in regional areas for both males and females than in Major Cities.

Between 1997–99 and 2002–04, the number of excess deaths in regional areas tended to decrease for males and increase slightly for females (as estimated using 2002–04 Major Cities rates as the standard). For example, in 1997–99 there were 602 and 129 more deaths of Inner Regional males and females annually than if 2002–04 Major Cities age-specific rates had applied; in 2002–04, this number had decreased to 389 (for males) and increased to 134 (for females) more deaths than if 2002–04 Major Cities age-specific rates had applied.

Death rates⁵ appeared to decrease for regional males but to change little for regional females between the previous (1997–99) and the more recent (2002–04) reporting periods.

However, the relative differences⁶ between Major Cities and regional areas appear to have increased.

In remote areas:

Death rates in remote areas were not significantly different from those in Major Cities. The pattern for 0–64 year olds is similar.

Death rates for non-Indigenous Australians in Remote areas were not significantly different from those in Major Cities, while in Very Remote areas death rates were 0.8 times those in Major Cities.

Annually there are 480 and 198 deaths in Remote and Very Remote areas; about 60% were male.

⁵ As expressed by SMRs calculated for both periods using Major Cities age- and sex-specific rates in 2002–04 as the standard.

⁶ As expressed by SMRs calculated for each period using Major Cities age- and sex-specific rates in each period as the standard.

Annually there were 6 and 9 'excess' deaths in Remote and Very Remote areas, this is 2% and 2% of all 'excess' deaths in Remote and Very Remote areas. The excess were distributed amongst those aged 45-74 years, while for males older than 75 years there were substantially fewer deaths than expected.

Compared with the previous reporting period (1997-99), there were the same number of deaths of males and 31 more deaths of females annually in 2002-04.

The 12-year trend (AIHW 2006a) is for death rates to decrease at rates that are indistinguishable from those in Major Cities.

Between 1997-99 and 2002-04, the number of excess deaths in remote areas decreased for males and increased slightly or changed little for females (as estimated using 2002-04 Major Cities rates as the standard). For example, in 1997-99 there were 40 and 2 more deaths of Remote area males and females annually than if 2002-04 Major Cities age-specific rates had applied; in 2002-04, this number had decreased for males to 3 fewer deaths than if 2002-04 Major Cities age-specific rates had applied, and increased for females to 9 more deaths than if 2002-04 Major Cities age-specific rates had applied.

Death rates⁷ appeared to have decreased for males and to have changed little for females between the previous (1997-99) and the more recent (2002-04) reporting periods.

However, the relative differences⁸ between Major Cities and remote areas appear to have decreased slightly for males and changed little for females.

'Other neoplasms' contributed about half of all neoplasm deaths, but a lower proportion of the excess deaths. Lung cancer and colorectal cancer contributed substantially to the total numbers of deaths and to the total number of excess deaths, as did prostate cancer for males and breast cancer for females.

⁷ As expressed by SMRs calculated for both periods using Major Cities age-and sex-specific rates in 2002-04 as the standard.

⁸ As expressed by SMRs calculated for each period using Major Cities age-and sex-specific rates in each period as the standard.

Table 4.1: Average annual deaths and 'excess' deaths, by type of neoplasm, 2002-04

Cause of death	Males					Females				
	MC	IR	OR	R	VR	MC	IR	OR	R	VR
Deaths										
Lung cancer	2,885	1,122	559	60	33	1,606	585	275	31	11
Colorectal cancer	1,453	590	281	27	8	1,318	490	211	19	6
Breast cancer	9	4	2	1	0	1,754	604	280	28	13
Cervical cancer	0	0	0	0	0	143	45	32	3	2
Prostate cancer	1,684	745	344	33	10	0	0	0	0	0
Melanoma	459	193	99	11	3	240	87	35	2	1
Other neoplasm	6,842	2,618	1,260	154	66	5,945	2,082	920	112	46
Total neoplasms	13,332	5,272	2,544	285	119	11,006	3,893	1,753	194	79
Excess deaths										
Lung cancer	0	53	55	-3	8	0	29	29	3	1
Colorectal cancer	0	56	29	-5	-5	0	40	14	-2	-2
Breast cancer	0	1	0	0	0	0	7	12	-4	0
Cervical cancer	..	..	..	..	..	0	-3	11	0	1
Prostate cancer	0	125	60	0	-3	..	..	..	..	..
Melanoma	0	29	20	0	-2	0	6	-1	-2	-1
Other neoplasm	0	126	84	4	4	0	55	29	14	8
Total neoplasms	0	389	249	-3	2	0	134	93	9	7

Table 4.2: Average annual deaths and 'excess' deaths of persons aged 64 years and under, by type of neoplasm, 2002-04

Cause of death	Males					Females				
	MC	IR	OR	R	VR	MC	IR	OR	R	VR
Deaths										
Lung cancer	701	272	154	21	15	430	167	91	13	5
Colorectal cancer	393	155	92	7	3	290	105	54	7	2
Breast cancer	1	0	0	0	1	784	267	137	15	7
Cervical cancer	..	..	..	..	..	67	25	18	1	0
Prostate cancer	129	59	28	3	1	..	..	..	..	..
Melanoma	183	74	38	5	1	94	29	14	1	0
Other neoplasm	1,986	752	389	55	30	1,398	471	232	37	19
Total neoplasms	3,396	1,314	702	92	50	3,061	1,064	547	74	34
Excess deaths										
Lung cancer	0	27	30	3	6	0	19	22	3	1
Colorectal cancer	0	19	23	-3	-2	0	7	7	0	-1
Breast cancer	0	0	0	0	0	0	6	13	-3	-1
Cervical cancer	..	..	..	..	..	0	3	8	0	0
Prostate cancer	0	13	5	0	0	..	..	..	..	..
Melanoma	0	14	8	0	-1	0	-2	-1	-1	-1
Other neoplasm	0	78	47	2	5	0	2	10	6	4
Total neoplasms	0	151	112	2	7	0	35	59	6	2

Table 4.3: Average annual deaths and 'excess' deaths of non-Indigenous Australians, by type of neoplasm, 2002–04

Cause of death	Males					Females				
	MC	IR	OR	R	VR	MC	IR	OR	R	VR
Deaths										
Lung cancer	2,809	1,086	539	55	21	1,558	567	254	27	6
Colorectal cancer	1,412	575	273	24	7	1,280	474	203	17	4
Breast cancer	n.p.	n.p.	n.p.	n.p.	n.p.	1,704	581	273	25	6
Cervical cancer	..	..	..	..	..	138	43	28	3	0
Prostate cancer	1,645	724	334	31	10	..	..	..	..	..
Melanoma	447	185	96	11	2	230	84	34	2	1
Other neoplasm	6,666	2,533	1,208	138	39	5,791	2,013	883	98	23
Total neoplasms	12,988	5,108	2,452	259	78	10,700	3,762	1,676	172	40
Excess deaths										
Lung cancer	0	48	53	-3	2	0	29	19	3	-1
Colorectal cancer	0	57	31	-5	-3	0	38	13	-2	-2
Breast cancer	n.p.	n.p.	n.p.	n.p.	n.p.	0	4	16	-4	-3
Cervical cancer	..	..	..	..	..	0	-3	8	0	0
Prostate cancer	0	119	60	0	0	..	..	..	..	..
Melanoma	0	26	21	1	-1	0	7	0	-2	0
Other neoplasm	0	110	74	-1	-7	0	43	26	8	-2
Total neoplasms	0	361	240	-7	-10	0	117	83	3	-9

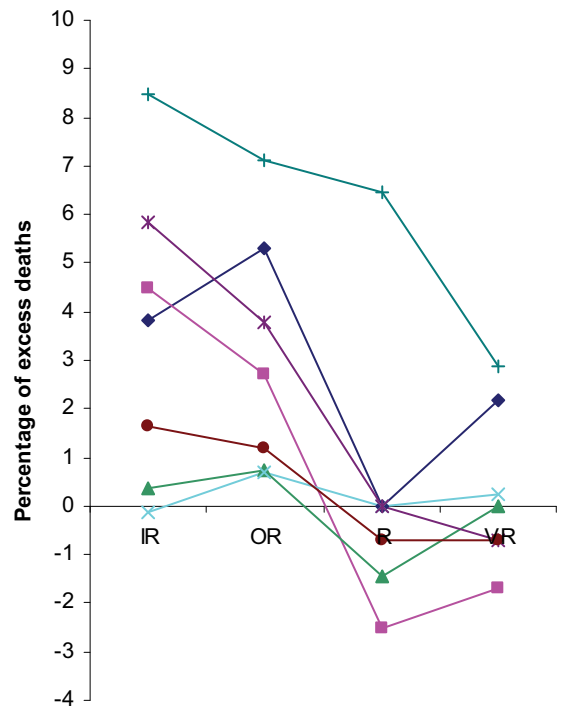
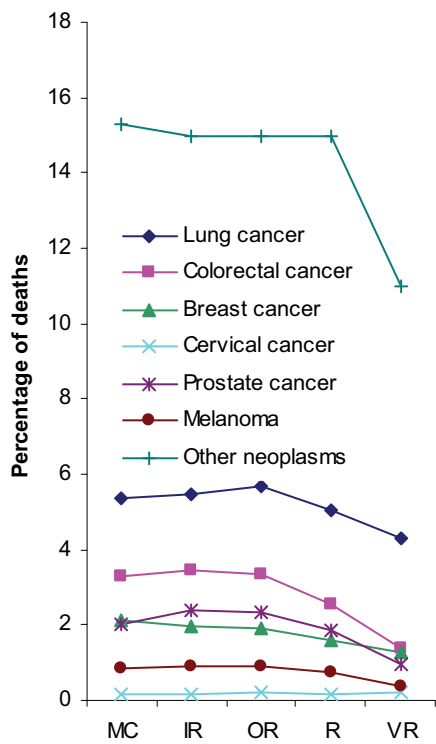
Table 4.4: Average annual deaths and 'excess' deaths of non-Indigenous Australians aged 64 years and under, by type of neoplasm, 2002–04

Cause of death	Males					Females				
	MC	IR	OR	R	VR	MC	IR	OR	R	VR
Deaths										
Lung cancer	680	260	145	18	7	409	159	82	10	2
Colorectal cancer	380	150	88	5	2	281	102	50	6	1
Breast cancer	n.p.	n.p.	n.p.	n.p.	n.p.	764	253	132	13	4
Cervical cancer	..	..	..	..	..	64	24	16	1	0
Prostate cancer	126	57	27	3	1	..	..	..	..	..
Melanoma	176	72	37	5	1	89	28	14	1	0
Other neoplasm	1,917	724	364	45	16	1,359	447	216	30	6
Total neoplasms	3,281	1,263	661	76	27	2,965	1,012	510	60	12
Excess deaths										
Lung cancer	0	23	26	1	0	0	19	17	2	-1
Colorectal cancer	0	19	23	-4	-2	0	7	6	0	-1
Breast cancer	n.p.	n.p.	n.p.	n.p.	n.p.	0	0	14	-3	-1
Cervical cancer	..	..	..	..	..	0	3	7	0	0
Prostate cancer	0	13	5	0	0	..	..	..	..	..
Melanoma	0	13	8	0	-1	0	-1	0	-1	0
Other neoplasm	0	76	41	-3	-2	0	-7	5	2	-4
Total neoplasms	0	145	102	-6	-5	0	22	49	0	-8

Table 4.5: Average annual deaths and 'excess' deaths of Indigenous Australians in Qld, WA, SA and NT, by type of neoplasm, 2002–04

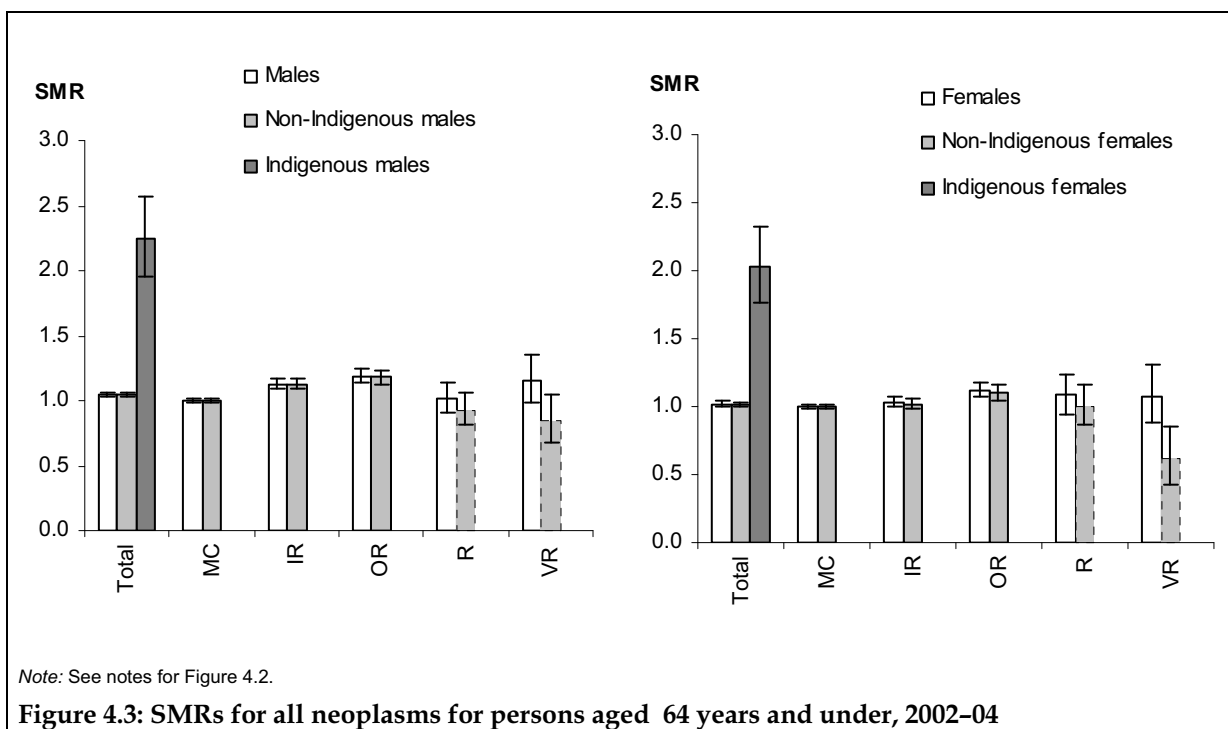
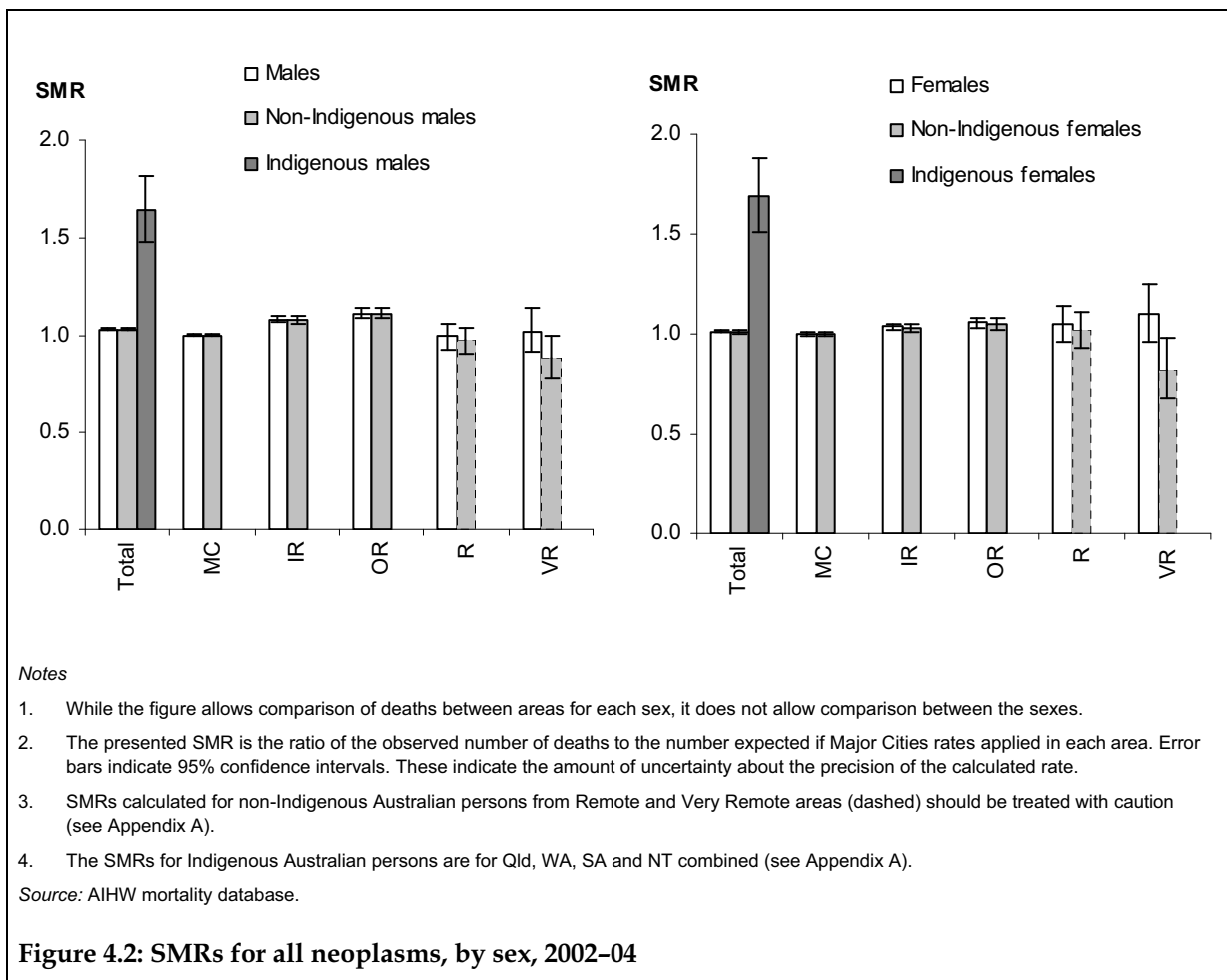
Cause of death	Males		Females	
	Total population	0–64 years	Total population	0–64 years
	Deaths			
Lung cancer	33	19	23	16
Colorectal cancer	6	n.p.	6	n.p.
Breast cancer	n.p.	n.p.	16	9
Cervical cancer	..	..	6	n.p.
Prostate cancer	n.p.	n.p.	..	..
Melanoma	n.p.	n.p.	0	0
Other neoplasm	76	46	60	36
Total neoplasms	120	71	111	68
	Excess deaths			
Lung cancer	18	13	16	12
Colorectal cancer	0	n.p.	n.p.	n.p.
Breast cancer	n.p.	n.p.	n.p.	n.p.
Cervical cancer	..	..	5	n.p.
Prostate cancer	–3	0	..	..
Melanoma	0	0	0	0
Other neoplasm	36	27	27	21
Total neoplasms	52	41	51	37

Note: Deaths and excess deaths in this table refer to annual deaths in Qld, WA, SA and NT, whose population of 274,000 Indigenous Australians is 60% of the national Indigenous Australian population of 458,000. If death rates in the other states and territories were comparable to those in Qld, WA, SA and NT, the numbers of deaths and excess deaths nationally may be approximately 1.7 times greater than that indicated for Qld, WA, SA and NT in this table.



Source: AIHW mortality database.

Figure 4.1: Deaths as a percentage of all deaths and 'excess' deaths, by type of neoplasm and Remoteness Area, 2002-04



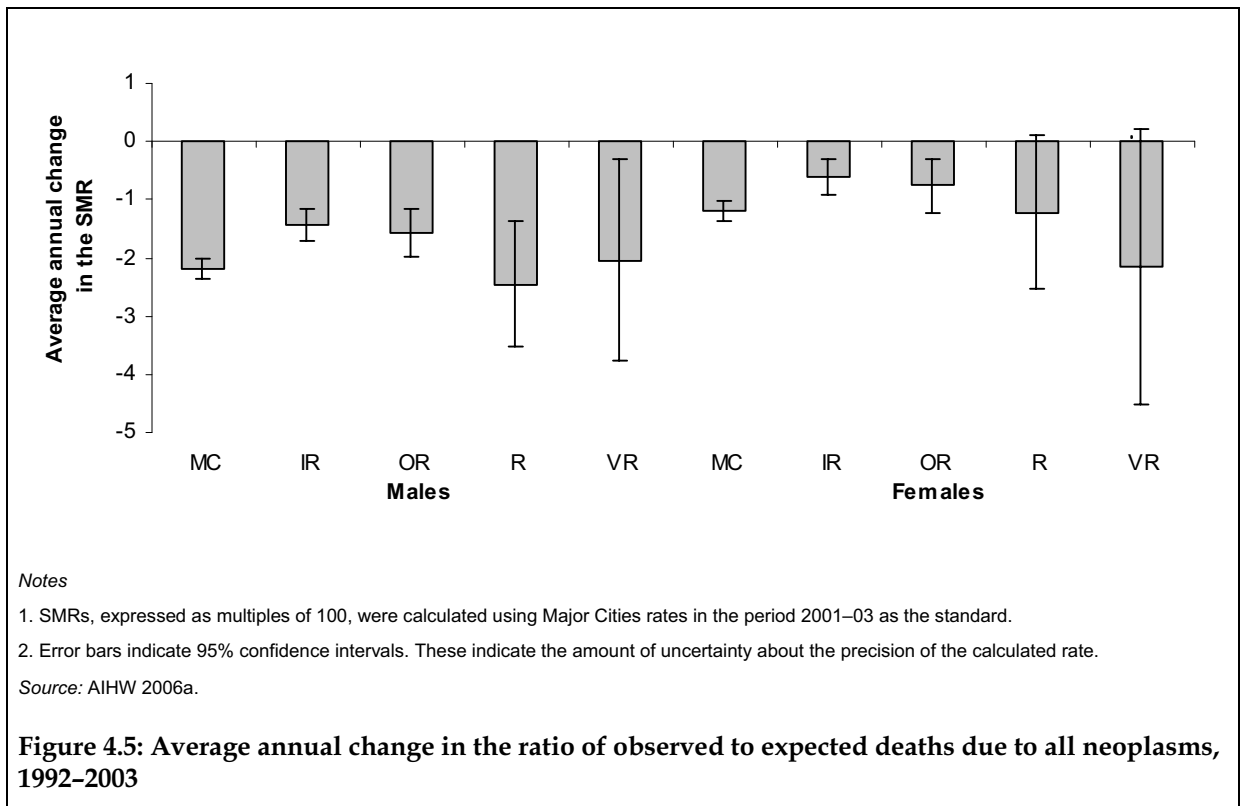
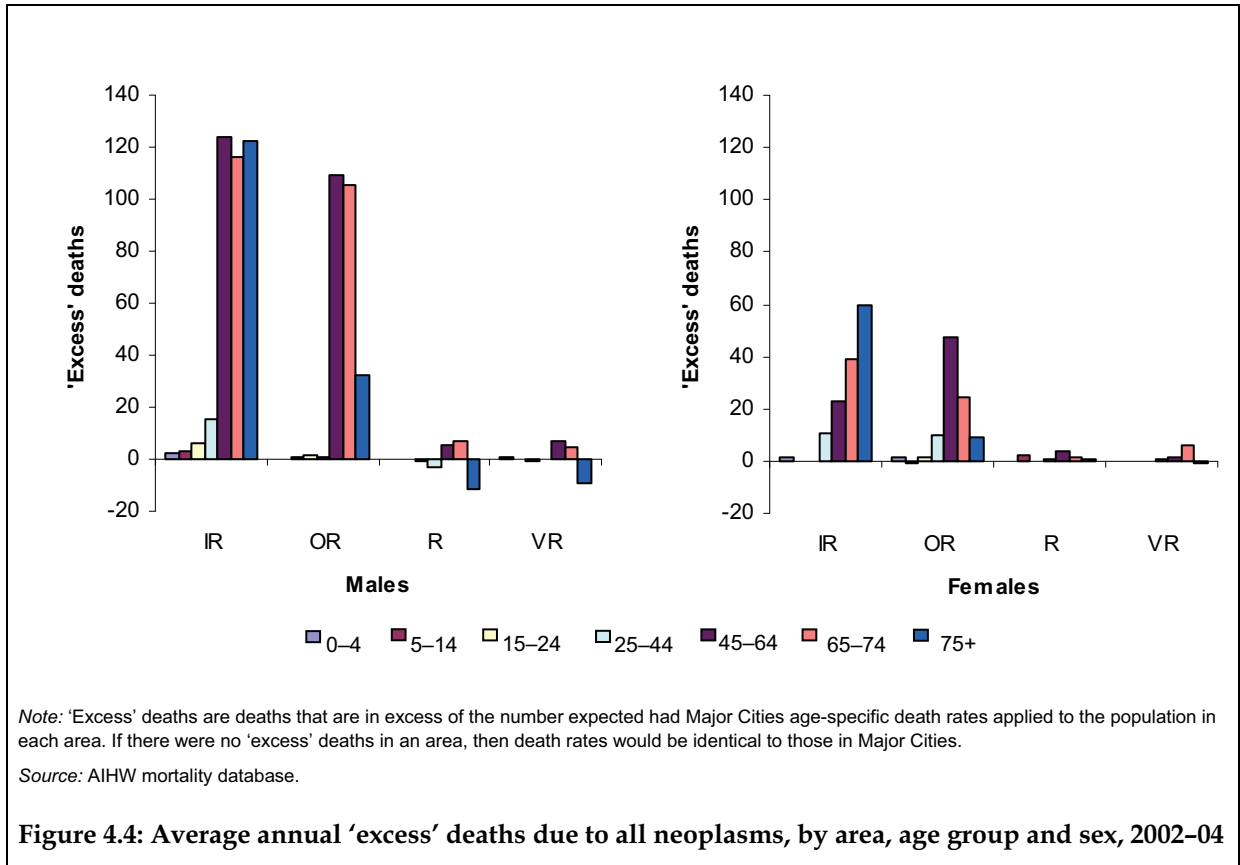


Table 4.6: SMRs, average annual deaths and 'excess' deaths due to neoplasms, 2002-04 and 1997-99

	Males						Females						Persons					
	MC	IR	OR	R	VR		MC	IR	OR	R	VR		MC	IR	OR	R	VR	
	Rate					Rate	Rate					Rate	Rate					Rate
2002-04																		
0-4	4	1.49	0.90	0.82	2.29	3	1.36	1.56	1.08	1.50	3	*1.43	1.19	0.93	1.94			
5-14	3	1.36	1.19	0.67	0.75	2	1.03	0.76	*4.00	0.15	3	1.21	0.99	2.19	0.47			
15-24	5	*1.47	1.20	0.19	0.42	3	1.03	1.36	0.47	1.59	4	*1.29	1.26	0.30	0.87			
25-44	18	*1.15	1.02	0.72	1.03	21	1.08	*1.15	1.08	1.17	20	*1.11	1.09	0.90	1.10			
45-64	193	*1.12	*1.21	1.07	1.19	165	1.03	*1.12	1.06	1.06	179	*1.08	*1.17	1.07	1.14			
65-74	880	*1.08	*1.16	1.08	1.15	529	*1.05	*1.06	1.04	*1.36	697	*1.07	*1.12	1.07	*1.22			
75+	2,070	*1.05	1.03	0.90	*0.77	1,165	*1.03	1.01	1.01	0.96	1,518	*1.04	1.02	0.94	*0.84			
Total	205	*1.08	*1.11	0.99	1.02	165	*1.04	*1.06	1.05	1.10	185	*1.06	*1.09	1.01	1.05			
Total <65	59	*1.13	*1.19	1.02	1.16	53	1.03	*1.12	1.09	1.08	56	*1.09	*1.16	1.05	1.13			
1997-99																		
Total	207	*1.05	*1.06	1.05	1.06	165	0.99	1.00	0.96	1.13	186	*1.02	*1.04	1.02	1.09			
Total <65	61	*1.12	*1.14	1.08	*1.31	54	1.03	1.03	0.98	*1.30	58	*1.08	*1.09	1.04	*1.30			
Total†	*1.10	*1.15	*1.17	*1.16	*1.18	*1.05	*1.04	*1.05	1.02	*1.21	*1.08	*1.10	*1.12	*1.10	*1.19			
Total <65	*1.13	*1.28	*1.29	*1.22	*1.50	*1.08	*1.12	*1.12	1.07	*1.44	*1.11	*1.20	*1.21	*1.15	*1.47			

(continued)

Table 4.6 (continued): SMRs, average annual deaths and 'excess' deaths due to neoplasms, 2002-04 and 1997-99

	Males						Females						Persons					
	MC	IR	OR	R	VR	Ratio	MC	IR	OR	R	VR	Ratio	MC	IR	OR	R	VR	Ratio
	Rate						Rate						Rate					
Average annual number of excess deaths																		
2002-04																		
0-4	0	2	0	0	0	0	1	1	1	0	0	0	4	1	1	0	1	1
5-14	0	3	1	0	0	0	0	0	-1	2	0	0	3	0	0	2	0	0
15-24	0	6	1	-1	0	0	0	0	1	0	0	0	6	3	3	-1	0	0
25-44	0	15	1	-3	0	0	11	10	10	1	1	1	26	11	11	-2	1	1
45-64	0	124	109	6	7	0	23	48	48	3	2	0	147	157	157	9	8	8
65-74	0	116	105	7	5	0	39	25	25	2	6	0	155	130	130	9	10	10
75+	0	122	32	-12	-10	0	60	9	9	1	-1	0	182	41	41	-11	-11	-11
Excess total	0	389	249	-3	2	0	134	93	93	9	7	0	523	342	342	6	9	9
Deaths total	13,332	5,272	2,544	285	119	11,006	3,893	1,753	1,753	194	79	24,338	9,166	4,298	4,298	480	198	198
Excess <65	0	151	112	2	7	0	35	59	59	6	2	0	186	171	171	8	9	9
Deaths <65	3,396	1,314	702	92	50	3,061	1,064	547	547	74	34	6,457	2,378	1,249	1,249	166	84	84
1997-99																		
Excess total	0	202	134	14	6	0	-32	-1	-1	-7	9	0	170	132	132	7	15	15
Excess total†	1,120	602	333	40	18	488	129	74	74	2	13	1,608	731	407	407	42	31	31
Deaths total	12,661	4,685	2,316	287	117	10,327	3,357	1,545	1,545	168	74	22,988	8,042	3,861	3,861	455	191	191
Excess <65	0	134	80	7	13	0	31	15	15	-1	9	0	165	96	96	6	22	22
Excess <65†	394	267	152	18	19	227	104	51	51	4	12	621	370	203	203	22	30	30
Deaths <65	3,333	1,237	673	99	56	2,950	987	491	491	65	38	6,283	2,224	1,163	1,163	164	94	94

Notes

- The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
- The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
- For further explanation, refer to section 2.3.

Table 4.7: SMRs, average annual deaths and 'excess' deaths due to neoplasms, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons										
	Non-Indigenous			Indige- nous	Non-Indigenous			Indige- nous	Non-Indigenous			Indige- nous	Non-Indigenous			Indige- nous							
	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR			
	Rate	Ratio					Rate	Ratio					Rate	Ratio									
2002-04																							
0-4	3	1.54	1.04	1.07	3.03	1.06	1.12	1.27	1.18	0.89	1.26	1.35	1.14	1.12	2.08	1.75							
5-14	3	*1.46	1.33	0.18	1.99	1.45	0.96	0.69	*3.80	0.36	0.78	1.21	1.02	1.93	1.19	1.13							
15-24	4	*1.57	1.26	0.09	0.00	0.62	1.07	1.42	0.61	2.10	<i>n.p.</i>	*1.36	1.33	0.29	0.73	0.62							
25-44	17	*1.18	1.01	*0.58	0.32	*2.06	1.05	1.13	0.91	0.53	*2.07	*1.10	1.07	0.75	*0.42	*2.06							
45-64	188	*1.12	*1.20	0.98	0.91	*2.38	1.02	*1.10	0.99	*0.62	*2.08	*1.07	*1.16	0.99	*0.80	*2.23							
65-74	861	*1.08	*1.16	1.09	1.06	*1.57	*1.05	*1.07	1.04	0.85	*1.93	*1.06	*1.12	1.07	*1.72	*1.72							
75+	2,026	*1.05	1.04	0.92	*0.79	0.85	1,138	*1.03	1.01	1.03	0.85	*1.04	1.03	0.96	0.88	0.85							
Total	202	*1.08	*1.11	0.97	0.88	*1.64	*1.03	*1.05	1.02	*0.82	*1.69	*1.06	*1.08	0.99	*0.86	*1.66							
Total <65	57	*1.13	*1.18	0.93	0.85	*2.25	1.02	*1.11	1.00	*0.61	*2.03	*1.08	*1.15	0.96	*0.76	*2.13							
1997-99																							
Total	205	*1.05	*1.07	1.05	0.94	*1.56	1.00	1.01	0.93	0.93	*1.57	*1.03	*1.04	1.00	0.94	*1.57							
Total <65	60	*1.13	*1.13	1.02	1.04	*2.14	*1.04	1.03	0.89	0.98	*1.90	*1.09	*1.09	0.97	1.02	*2.02							
Total†	*1.11	*1.15	*1.17	*1.15	1.03	<i>n.p.</i>	*1.07	*1.05	0.99	0.99	<i>n.p.</i>	*1.10	*1.12	*1.08	1.02	<i>n.p.</i>							
Total <65†	*1.15	*1.25	*1.26	1.13	1.14	<i>n.p.</i>	*1.12	*1.18	1.01	1.12	<i>n.p.</i>	*1.22	*1.22	1.08	1.13	<i>n.p.</i>							

(continued)

Table 4.7 (continued): SMRs, average annual deaths and 'excess' deaths due to neoplasms, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males										Females										Persons																			
	Non-Indigenous					Indigenous					Non-Indigenous					Indigenous					Non-Indigenous					Indigenous														
	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR										
	Rate					Rate					Rate					Rate					Rate																			
Average annual number of excess deaths																																								
2002-04																																								
0-4	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-14	0	4	1	0	0	0	0	-1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-24	0	7	1	-1	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-44	0	17	0	-4	-2	5	0	6	8	-1	8	0	8	-1	-2	8	0	23	8	-4	8	0	23	8	-4	8	0	23	8	-4	8	0	23	8	-4	8	0	23	8	-4
45-64	0	115	99	-1	-3	34	0	15	40	0	40	0	15	40	-6	27	0	130	139	-2	27	0	130	139	-2	27	0	130	139	-2	27	0	130	139	-2					
65-74	0	105	102	7	2	11	0	38	25	2	25	2	38	25	-2	13	0	143	127	9	13	0	143	127	9	13	0	143	127	9	13	0	143	127	9					
75+	0	111	36	-8	-7	-3	0	57	8	1	8	1	57	8	1	-3	0	169	44	-7	-3	0	169	44	-7	-3	0	169	44	-7										
Excess total	0	361	240	-7	-10	47	0	117	83	3	83	3	117	83	-9	45	0	478	322	-4	45	0	478	322	-4	45	0	478	322	-4										
Deaths total	12,988	5,108	2,452	259	78	120	10,700	3,762	1,676	172	172	172	3,762	1,676	40	111	23,688	8,871	4,128	432	111	23,688	8,871	4,128	432	111	23,688	8,871	4,128	432										
Excess <65	0	145	102	-6	-5	39	0	22	49	0	49	0	22	49	-8	35	0	166	151	-6	35	0	166	151	-6	35	0	166	151	-6										
Deaths <65	3,281	1,263	661	76	27	71	2,965	1,012	510	60	60	60	1,012	510	12	68	6,246	2,276	1,171	136	68	6,246	2,276	1,171	136	68	6,246	2,276	1,171	136										
1997-99																																								
Excess total	0	228	145	12	-5	38	0	-6	9	-11	9	-11	-6	9	-3	33	0	222	154	0	33	0	222	154	0	33	0	222	154	0										
Excess total†	1,275	591	325	34	2	n.p.	631	148	82	-2	82	-2	148	82	0	n.p.	1,907	739	406	32	n.p.	1,907	739	406	32	n.p.	1,907	739	406	32										
Deaths total	12,424	4,622	2,266	268	77	107	10,116	3,306	1,506	150	150	150	3,306	1,506	41	89	22,540	7,928	3,772	418	89	22,540	7,928	3,772	418															
Excess <65	0	140	76	2	1	34	0	39	15	-7	15	-7	39	15	0	27	0	179	91	-4	27	0	179	91	-4															
Excess <65†	424	245	131	10	4	n.p.	307	145	67	1	67	1	145	67	2	n.p.	731	390	198	11	n.p.	731	390	198	11															
Deaths <65	3,256	1,213	645	87	33	63	2,882	968	470	54	54	54	968	470	19	57	6,138	2,182	1,114	141	57	6,138	2,182	1,114	141															

Notes

- The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
- The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
- For further explanation, refer to section 2.3.

4.1 Lung cancer

Highlights

Lung cancer was responsible for 5% of all deaths, and about 4% and about 1% of excess deaths in regional and remote areas, respectively. There were fewer deaths than expected for older age groups in remote areas and this figure of 1% understates the burden for many of the other age groups.

Death rates for males were about double that for females.

Death rates for Indigenous Australians were about 2–3 times higher than the rates for non-Indigenous Australians in Major Cities.

SMRs increased with remoteness from 1.1 in regional areas, to 1.3 in Very Remote areas. For 0–64 year olds, SMRs were 1.1 and 1.3 in regional areas to 1.5 in Very Remote areas. SMRs for non-Indigenous Australians in remote areas were about 1.0.

Since 1992, death rates for males have decreased in almost all areas, but for females they have tended to increase in all (except remote) areas.

Lung cancer is the leading cause of cancer death in Australia.

Smoking is the main cause of lung cancer (ICD-10 codes C33, C34). People who live outside Major Cities are more likely to be smokers than those living in Major Cities (AIHW 2005a), and Indigenous Australians are twice as likely to smoke as the total population (ABS & AIHW 2005).

In the period, lung cancer was responsible for 7,181 deaths annually – this is 5% of all deaths. Two-thirds (65%) were male; 63% were in Major Cities, 35% in regional and 2% in remote areas.

Overall lung cancer death rates for Indigenous Australians were two to three times higher than the rates for non-Indigenous Australians in Major Cities.

In regional areas:

Death rates were 5–10% higher than in Major Cities.

For 0–64 year olds, death rates were 10–30% higher than in Major Cities.

The inter-regional pattern for non-Indigenous Australians was similar to that above.

Annually there are 1,707 and 834 deaths in Inner Regional and Outer Regional areas; about 66% were male.

Annually there were 82 and 85 ‘excess’ deaths in Inner Regional and Outer Regional areas; this is 4% and 5% of all ‘excess’ deaths in Inner Regional and Outer Regional areas. About two-thirds (65%) of the ‘excess’ were male. The bulk of the excess was among 45–74 year olds.

Compared with the previous reporting period (1997–99), there were 79 more deaths of males and 221 more deaths of females annually in 2002–04.

The 12-year trend (AIHW 2006a) is for decreasing death rates for males (possibly slower in regional areas than in Major Cities), and increasing death rates for females (possibly faster in regional areas than in Major Cities).

In remote areas:

Death rates in Very Remote areas were about 25% higher than in Major Cities; death rates in Remote areas were not significantly different from those in Major Cities.

For 0–64 year olds, death rates in Very Remote areas appeared to be about 50% higher than in Major Cities. This higher rate appears to be entirely a reflection of the relative large numbers of Indigenous Australians in these areas (coupled with overall higher mortality for Indigenous Australians).

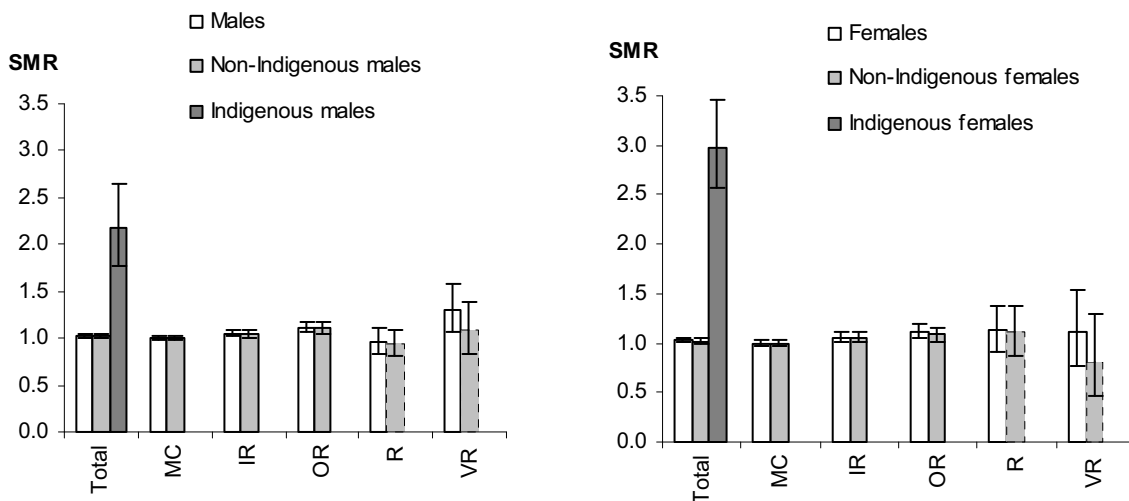
Death rates for remote area non-Indigenous Australians were not significantly different from those in Major Cities.

Annually there are 91 and 44 deaths in Remote and Very Remote areas; about 70% were male.

Annually there were 1 and 9 'excess' deaths in Remote and Very Remote areas, this is 0.4% and 2% of all 'excess' deaths in Remote and Very Remote areas. In Remote areas; there were fewer deaths than expected amongst older people, but more than expected amongst 45–64 year olds (yielding 1 'excess' death annually for Remote areas). Almost all of the 9 'excess' deaths in Very Remote areas were male and aged 45–64 years.

Compared with the previous reporting period (1997–99), there were 12 fewer deaths of males and 3 more deaths of females annually in 2002–04.

The 12-year trend (AIHW 2006a) is for decreasing death rates for males (clear and strong in Remote areas, less certain in Very Remote areas), while for females the trend was unclear.

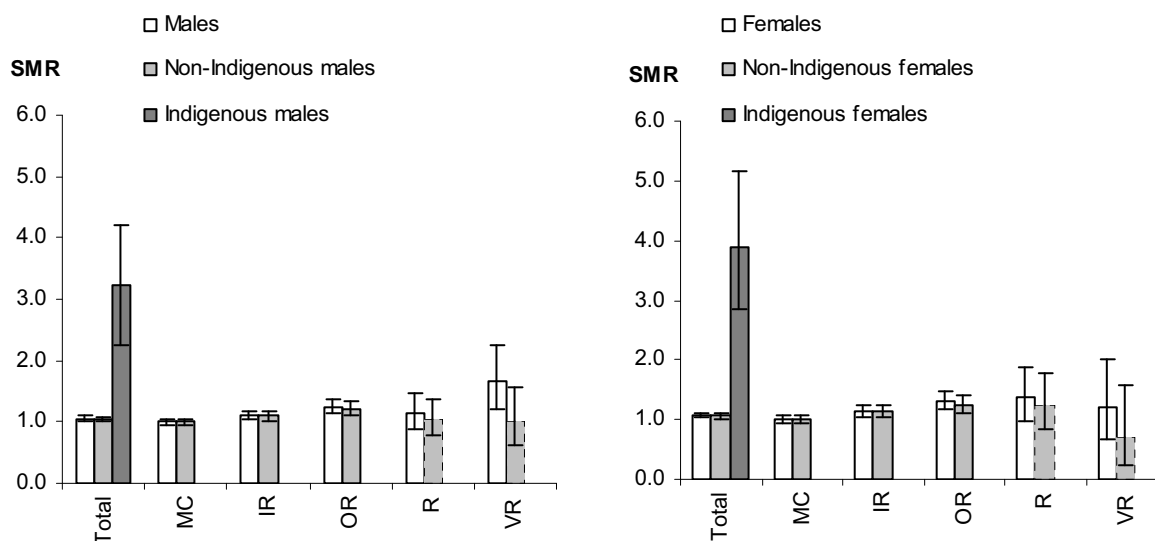


Notes

1. While the figure allows comparison of deaths between areas for each sex, it does not allow comparison between the sexes.
2. The presented SMR is the ratio of the observed number of deaths to the number expected if Major Cities rates applied in each area. Error bars indicate 95% confidence intervals. These indicate the amount of uncertainty about the precision of the calculated rate.
3. SMRs calculated for non-Indigenous Australian persons from Remote and Very Remote areas (dashed) should be treated with caution (see Appendix A).
4. The SMRs for Indigenous Australian persons are for Qld, WA, SA and NT combined (see Appendix A).

Source: AIHW mortality database.

Figure 4.6: Lung cancer SMRs, by sex, 2002-04



Note: See notes for Figure 4.6.

Figure 4.7: Lung cancer SMRs for persons aged 64 years and under, by sex, 2002-04

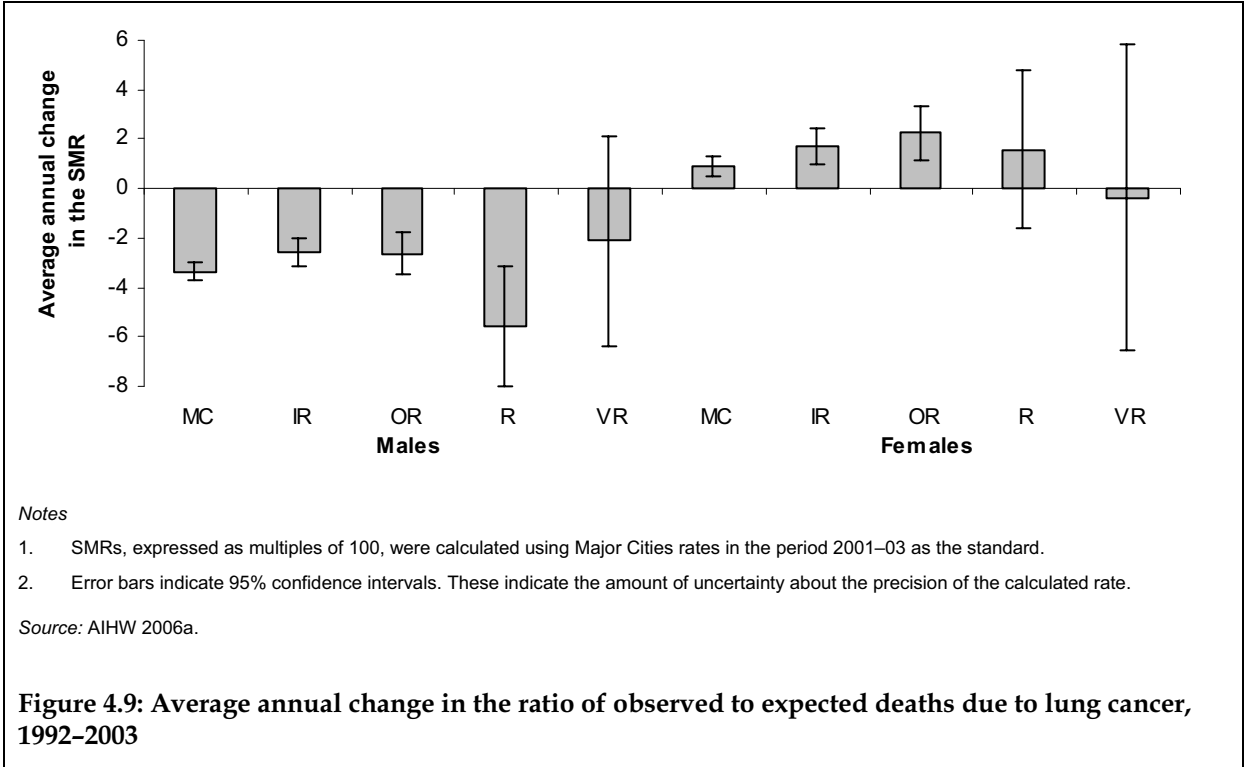
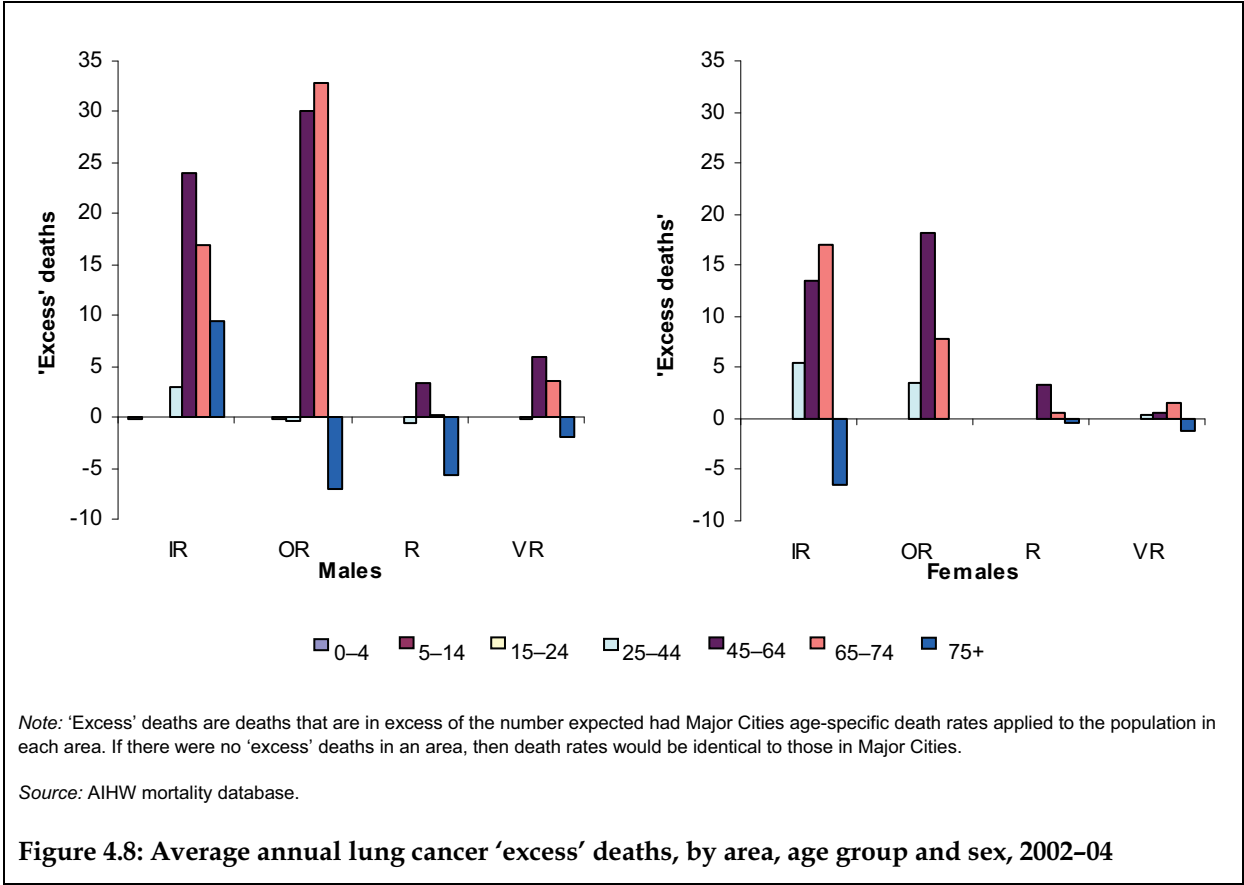


Table 4.8: SMRs, average annual deaths and 'excess' deaths due to lung cancer, 2002-04 and 1997-99

	Males						Females						Persons					
	MC	IR	OR	R	VR		MC	IR	OR	R	VR		MC	IR	OR	R	VR	
	Rate		Ratio			Rate	Rate		Ratio			Rate	Rate		Ratio			
2002-04																		
0-4	0	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00
5-14	0	2.20	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0	2.20	0.00	0.00	0.00	0.00	0.00
15-24	0	1.35	*0.04	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0	1.05	0.03	0.00	0.00	0.00	0.00
25-44	2	1.31	0.94	0.44	0.72	1	*1.64	*1.86	1.05	2.15	1.32	1	*1.47	1.36	0.70	1.32	1.32	1.32
45-64	44	*1.10	*1.25	1.19	*1.72	26	1.10	*1.28	1.39	1.14	1.54	35	*1.10	*1.26	*1.25	*1.54	*1.54	*1.54
65-74	229	1.05	*1.19	1.01	*1.44	95	*1.11	1.11	1.07	1.52	159	*1.06	*1.16	1.03	*1.46	*1.46	*1.46	*1.46
75+	407	1.02	0.97	*0.75	0.77	157	0.97	1.00	0.95	0.62	254	1.00	0.98	0.81	0.73	0.73	0.73	0.73
Total	44	*1.05	*1.11	0.96	*1.30	24	*1.05	*1.12	1.13	1.11	34	*1.05	*1.11	1.01	*1.24	*1.24	*1.24	*1.24
Total <65	12	*1.11	*1.24	1.15	*1.67	7	*1.13	*1.31	1.36	1.22	10	*1.12	*1.26	1.22	*1.52	*1.52	*1.52	*1.52
1997-99																		
Total	48	1.01	*1.08	1.13	*1.38	22	0.96	0.93	1.18	*1.45	33	0.99	1.03	*1.14	*1.40	*1.40	*1.40	*1.40
Total <65	13	*1.11	*1.27	1.20	*2.10	7	1.08	0.95	1.30	*2.16	9	*1.10	*1.17	*1.23	*2.12	*2.12	*2.12	*2.12
Total†	*1.16	*1.18	*1.26	*1.33	*1.65	*0.96	*0.92	*0.89	1.14	*1.44	*1.09	*1.09	*1.14	*1.27	*1.58	*1.58	*1.58	*1.58
Total <65	*1.22	*1.36	*1.56	*1.46	*2.60	0.99	1.07	0.94	1.29	*2.18	*1.13	*1.13	*1.33	*1.41	*2.46	*2.46	*2.46	*2.46

(continued)

Table 4.8 (continued): SMRs, average annual deaths and 'excess' deaths due to lung cancer, 2002-04 and 1997-99

	Males						Females						Persons					
	MC	IR	OR	R	VR	Ratio	MC	IR	OR	R	VR	Ratio	MC	IR	OR	R	VR	Ratio
	Rate						Rate						Rate					
Average annual number of excess deaths																		
2002-04																		
0-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-44	0	3	0	0	0	0	0	5	4	0	0	0	0	8	3	0	0	0
45-64	0	24	30	3	6	0	0	13	18	3	1	0	0	37	48	7	6	0
65-74	0	17	33	0	4	0	0	17	8	1	1	0	0	34	41	1	5	0
75+	0	9	-7	-6	-2	0	0	-6	0	-1	-1	0	0	3	-7	-6	-3	0
Excess total	0	53	55	-3	8	0	0	29	29	3	1	0	0	82	85	1	9	0
Deaths total	2,885	1,122	559	60	33	1,606	585	275	275	31	11	4,492	1,707	834	834	91	44	0
Excess <65	0	27	30	3	6	0	0	19	22	3	1	0	46	51	51	6	7	0
Deaths <65	701	272	154	21	15	430	167	91	91	13	5	1,131	439	245	245	34	20	0
1997-99																		
Excess total	0	11	40	8	10	0	-20	-15	-15	4	4	0	-9	25	25	12	13	0
Excess total†	412	158	113	18	14	-64	-39	-23	-23	3	4	348	119	90	90	21	17	0
Deaths total	2,919	1,054	548	71	34	1,391	443	196	196	27	12	4,311	1,497	744	744	99	47	0
Excess <65	0	26	35	4	10	0	10	-3	-3	2	4	0	36	33	33	6	14	0
Excess <65†	130	70	59	7	11	-3	9	-3	-3	2	4	127	79	56	56	10	15	0
Deaths <65	718	268	165	24	19	374	133	58	58	11	7	1,092	401	224	224	34	26	0

Notes

1. The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
2. The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
3. For further explanation, refer to section 2.3.

Table 4.9 (continued): SMRs, average annual deaths and 'excess' deaths due to lung cancer, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons						
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			
	MC	IR	OR	R	VR	VR	MC	IR	OR	R	VR	VR	MC	IR	OR	R	VR	VR	
Average annual number of excess deaths																			
2002-04																			
0-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-44	0	4	0	0	0	0	0	5	2	0	0	2	0	9	2	-1	0	2	2
45-64	0	19	26	1	0	13	0	14	14	2	2	14	0	33	41	4	-1	23	23
65-74	0	14	32	0	3	5	0	17	6	1	0	4	0	31	37	1	2	9	9
75+	0	11	-5	-4	-1	0	0	-7	-3	0	0	0	0	5	-7	-5	-1	0	0
Excess total	0	48	53	-3	2	18	0	29	19	3	-1	16	0	77	73	-1	0	33	33
Deaths total	2,809	1,086	539	55	21	33	1,558	567	254	27	6	23	4,367	1,653	793	82	26	56	56
Excess <65	0	23	26	1	0	13	0	19	17	2	-1	12	0	42	43	3	-1	25	25
Deaths <65	680	260	145	18	7	19	409	159	82	10	2	16	1,089	418	226	28	8	35	35
1997-99																			
Excess total	0	13	41	9	5	14	0	-18	-16	2	1	12	0	-5	26	11	6	26	26
Excess total†	432	140	104	16	8	n.p.	-38	-35	-23	2	0	n.p.	394	105	81	18	8	n.p.	n.p.
Deaths total	2,867	1,036	536	68	24	29	1,360	434	187	24	6	18	4,226	1,470	723	92	30	47	47
Excess <65	0	26	34	2	6	11	0	10	-5	1	1	9	0	36	29	3	7	20	20
Excess <65†	123	55	50	5	7	n.p.	12	15	-3	1	1	n.p.	135	70	47	6	8	n.p.	n.p.
Deaths <65	00	261	159	21	13	16	362	129	53	8	3	13	1,062	390	212	29	16	29	29

Notes

- The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
- The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
- For further explanation, refer to section 2.3.

4.2 Colorectal cancer

Highlights

Colorectal cancer was responsible for 3% of all deaths, and about 4% of excess deaths in regional areas. There were fewer deaths than expected in remote areas.

Death rates for males were similar to those for females.

Death rates for Indigenous Australians were not significantly different from the rates for non-Indigenous Australians in Major Cities.

SMRs were about 1.1 in regional areas and 0.7 in Very Remote areas. This pattern was the same for non-Indigenous Australians.

Since 1992, death rates for males and females have decreased in almost all areas.

Colorectal cancer (ICD-10 code C18–C21) is the most commonly diagnosed cancer in Australia (AIHW 2002). 'A large proportion of colorectal cancer cases are preventable given its association with modifiable risk factors such as poor diet and physical inactivity. This proportion may be as high as 66–75%. Also if detected in its early stages, colorectal cancer is highly manageable and treatable' (AIHW 2002).

Age and having a family history of colorectal cancer are major predisposing factors, while lifestyle factors include diet, physical inactivity and excess weight. Consumption of wholegrain cereal fibres, fruit and vegetables, a reduced fat intake and a moderate calorific intake tend to protect against the disease (AIHW 2002).

People who live outside Major Cities were more likely to be overweight or obese and more likely to be physically inactive (AIHW 2006b). Indigenous Australians are likely to have diets that are less healthy than those of non-Indigenous Australians for a range of reasons (ABS 2001b).

In the period, colorectal cancer was responsible for 4,407 deaths annually – this is 3.3% of all deaths. Half (54%) were male; 63% were in Major Cities, 36% in regional and 1% in remote areas.

Overall colorectal cancer death rates for Indigenous Australians were not significantly different from death rates for non-Indigenous Australians in Major Cities.

In regional areas:

Death rates were 10% higher than in Major Cities.

For 0–64 year old males, death rates were 15–35% higher than in Major Cities. For females, while not significantly higher in Inner Regional or Outer Regional areas, death rates were 10% higher in regional areas than in Major Cities.

The inter-regional pattern for non-Indigenous Australians was similar to that above.

Annually there are 1,080 and 493 deaths in Inner Regional and Outer Regional areas; about 56% were male.

Annually there were 95 and 43 'excess' deaths in Inner Regional and Outer Regional areas; this is 4% and 3% of all 'excess' deaths in Inner Regional and Outer Regional areas. About two thirds (60–70%) of the 'excess' deaths were male. Almost all of the excess deaths in Inner Regional areas was among 45–74 year olds, while in Outer Regionals areas most of the 'excess' deaths were amongst the 45–64 year olds.

Compared with the previous reporting period (1997–99), there were 10 fewer deaths of males and 21 fewer deaths of females annually in 2002–04.

The 12-year trend (AIHW 2006a) is for decreasing death rates for males and females at rates that are indistinguishable from those in Major Cities.

In remote areas:

Death rates in remote areas were lower, but not significantly lower, than those in Major Cities, with the exception that rates for males in Very Remote areas were about 0.6 times what they were in Major Cities. The pattern was similar for 0–64 year olds.

Death rates for non-Indigenous Australians from Remote and Very Remote areas were 0.8⁹ and 0.7 times those in Major Cities.

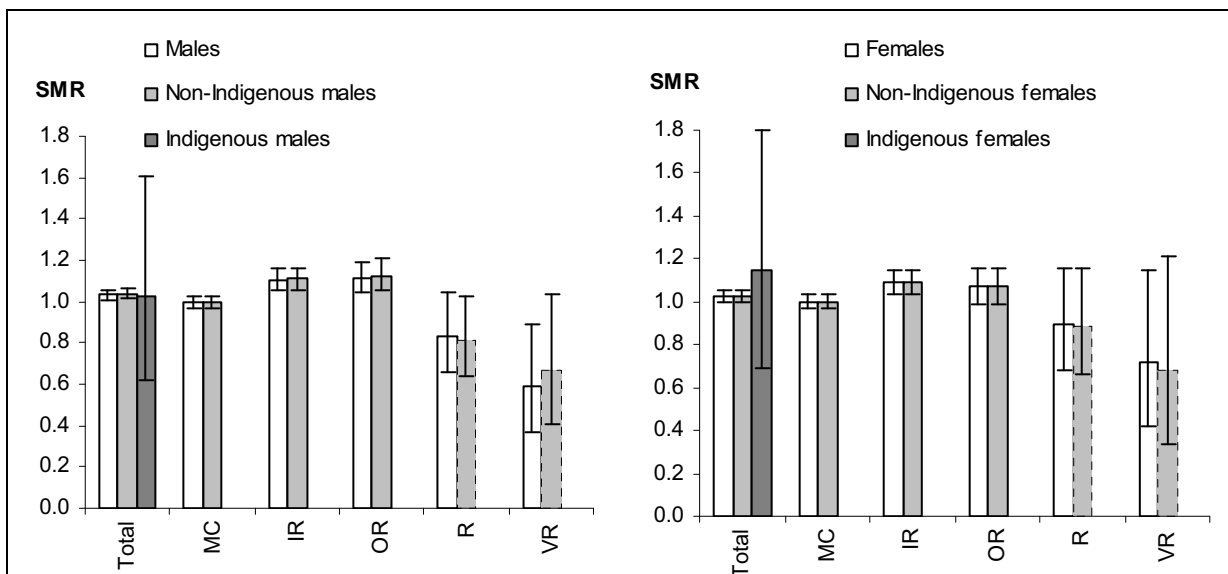
Annually there are 46 and 13 deaths in Remote and Very Remote areas; about 60% were male.

Annually there were 7 and 8 fewer deaths than expected in Remote and Very Remote areas. This tendency for fewer deaths than expected was reflected in essentially all age groups.

Compared with the previous reporting period (1997–99), there were 11 fewer deaths of males and 3 fewer deaths of females annually in 2002–04.

The 12-year trend (AIHW 2006a) is for decreasing death rates for males and females at rates indistinguishable from those for Major Cities (although the trend for females is less clear than for males).

⁹ 95% Confidence interval 0.70–1.00

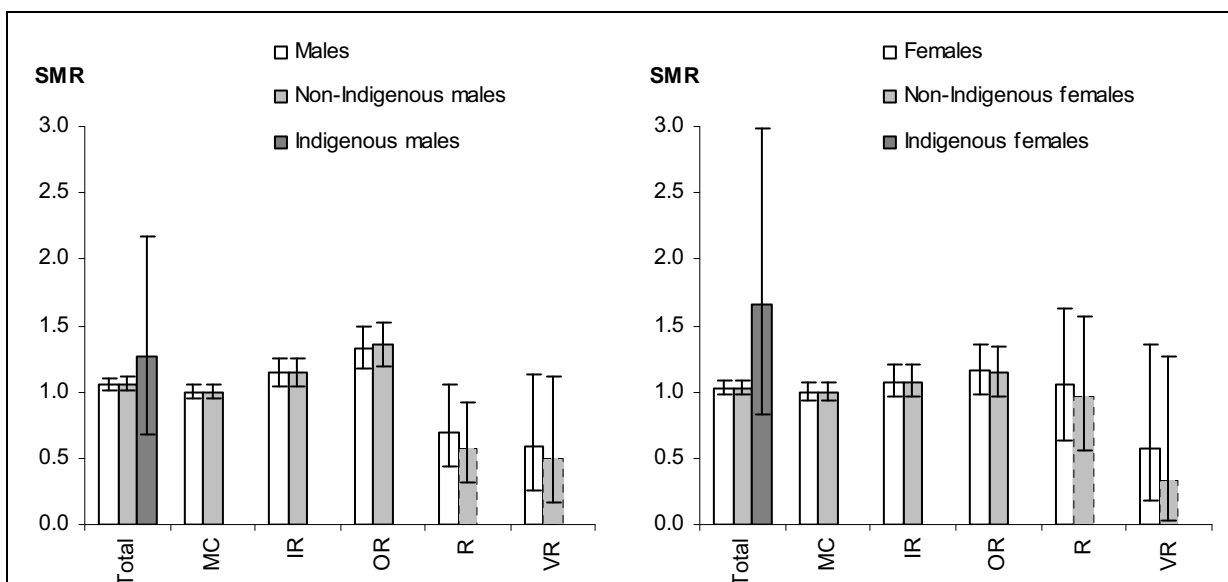


Notes

1. While the figure allows comparison of deaths between areas for each sex, it does not allow comparison between the sexes.
2. The presented SMR is the ratio of the observed number of deaths to the number expected if Major Cities rates applied in each area. Error bars indicate 95% confidence intervals. These indicate the amount of uncertainty about the precision of the calculated rate.
3. SMRs calculated for non-Indigenous Australian persons from Remote and Very Remote areas (dashed) should be treated with caution (see Appendix A).
4. The SMRs for Indigenous Australian persons are for Qld, WA, SA and NT combined (see Appendix A).

Source: AIHW mortality database.

Figure 4.10: Colorectal cancer SMRs, by sex, 2002-04



Note: See notes for Figure 4.10.

Figure 4.11: Colorectal cancer SMRs for persons aged 64 years and under, by sex, 2002-04

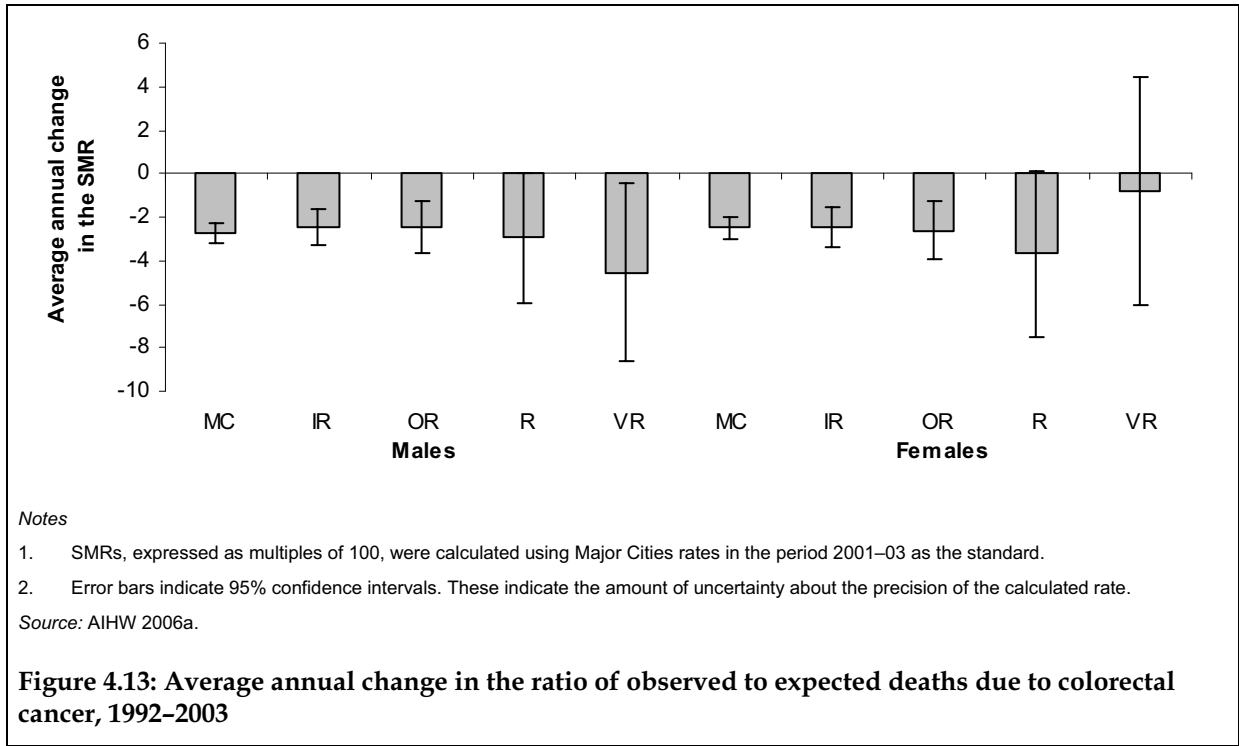
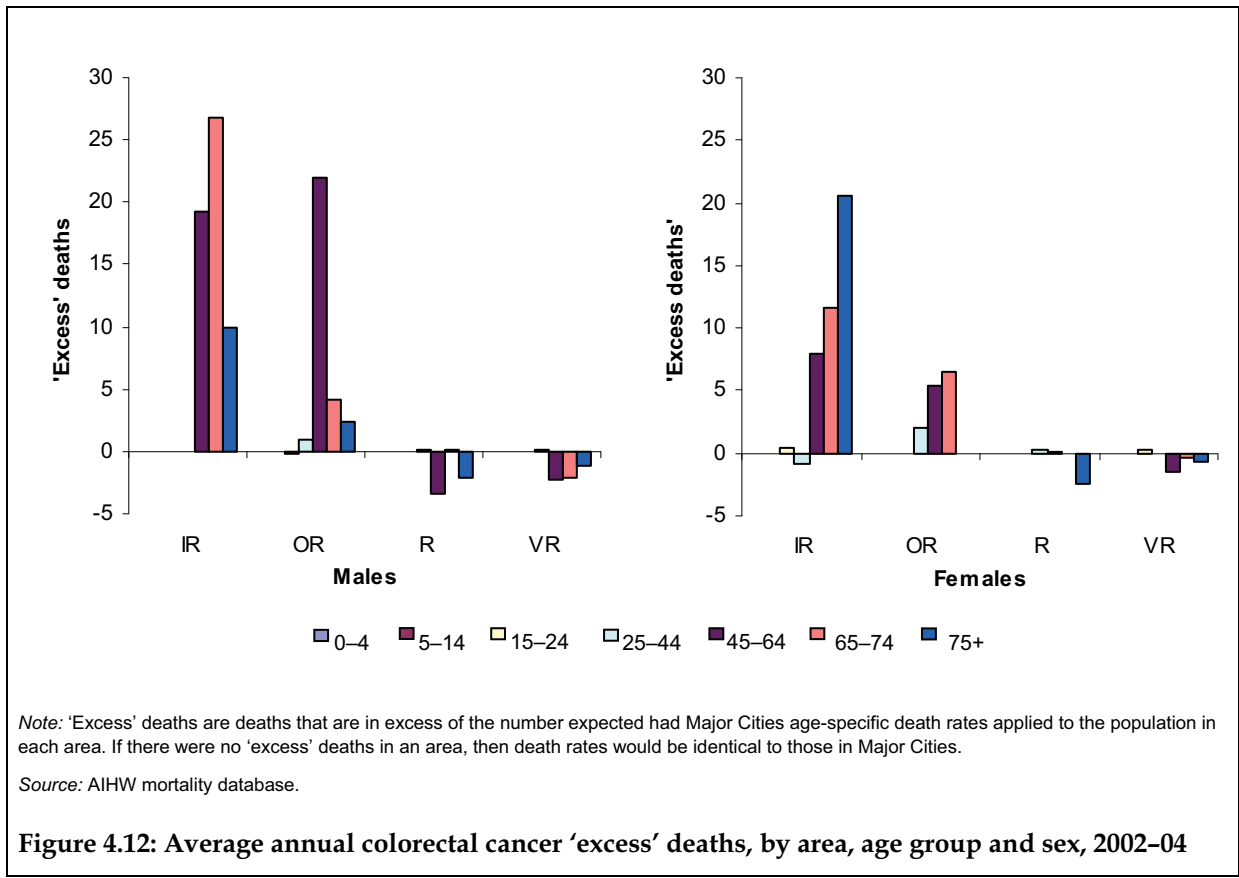


Table 4.10: SMIRs, average annual deaths and 'excess' deaths due to colorectal cancer, 2002-04 and 1997-99

	Males					Females					Persons					
	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR	
	Rate		Ratio			Rate		Ratio			Rate		Ratio			
2002-04																
0-4	0	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
5-14	0	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
15-24	0	0.76	0.39	0.00	0.00	0	2.54	0.00	0.00	25.09	0	1.52	0.23	0.00	9.94	0.00
25-44	2	0.99	1.19	1.18	1.45	2	0.92	1.37	1.23	0.87	2	0.95	1.28	1.21	1.16	1.16
45-64	24	*1.15	*1.35	0.65	0.49	16	1.09	1.13	1.02	0.38	20	*1.13	*1.26	0.78	*0.45	*0.45
65-74	102	*1.16	1.05	1.02	0.45	64	1.11	1.14	0.98	0.81	82	*1.14	1.08	1.00	0.57	0.57
75+	210	1.04	1.02	0.81	0.72	155	*1.08	1.00	0.76	0.79	176	*1.06	1.01	0.79	0.75	0.75
Total	22	*1.10	*1.12	0.84	*0.59	20	*1.09	1.07	0.90	0.72	21	*1.10	*1.10	0.86	*0.64	*0.64
Total <65	7	*1.14	*1.33	0.69	0.58	5	1.08	1.16	1.05	0.58	6	*1.11	*1.26	0.83	*0.58	*0.58
1997-99																
Total	26	*1.06	1.05	1.07	*0.63	22	*1.08	*1.13	0.92	0.85	22	*1.07	*1.09	1.01	*0.71	*0.71
Total <65	8	*1.19	1.09	1.05	*0.47	6	*1.18	*1.23	0.91	1.19	7	*1.19	*1.15	1.00	0.72	0.72
Total†	*1.20	*1.28	*1.27	*1.29	0.77	*1.13	*1.23	*1.29	1.06	0.99	*1.17	*1.26	*1.28	*1.20	0.86	0.86
Total <65†	*1.28	*1.53	*1.40	1.34	0.61	*1.25	*1.48	*1.54	1.13	1.49	*1.27	*1.51	*1.46	1.26	0.92	0.92

(continued)

Table 4.10 (continued): SMRs, average annual deaths and 'excess' deaths due to colorectal cancer, 2002-04 and 1997-99

	Males						Females						Persons					
	MC	IR	OR	R	VR		MC	IR	OR	R	VR		MC	IR	OR	R	VR	
Average annual number of excess deaths																		
2002-04																		
0-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-44	0	0	1	0	0	0	0	-1	2	0	0	0	0	-1	3	0	0	0
45-64	0	19	22	-3	-2	0	0	8	5	0	0	0	-1	27	27	-3	-4	-4
65-74	0	27	4	0	-2	0	0	12	6	0	0	0	38	11	11	0	-2	-2
75+	0	10	2	-2	-1	0	0	21	0	-2	-1	0	31	2	2	-5	-2	-2
Excess total	0	56	29	-5	-5	0	0	40	14	-2	-2	0	95	43	43	-7	-8	-8
Deaths total	1,453	590	281	27	8	1,318	490	211	19	6	2,771	1,080	493	46	46	13	13	13
Excess <65	0	19	23	-3	-2	0	7	7	7	0	0	26	30	30	30	-3	-3	-3
Deaths <65	393	155	92	7	3	290	105	54	7	2	683	260	145	14	14	5	5	5
1997-99																		
Excess total	0	36	14	2	-5	0	38	27	-2	-1	0	73	41	41	0	0	-6	-6
Excess total†	261	129	60	8	-3	163	92	52	1	0	424	220	113	113	9	9	-3	-3
Deaths total	1,573	594	287	37	9	1,377	490	232	21	7	2,950	1,084	519	57	57	16	16	16
Excess <65	0	28	8	1	-3	0	19	12	-1	1	0	47	20	20	0	0	-2	-2
Excess <65†	99	62	25	3	-2	64	40	23	1	1	163	102	48	48	4	4	-1	-1
Deaths <65	451	179	88	13	3	321	124	64	6	4	772	303	152	19	19	6	6	6

Notes

1. The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
2. The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
3. For further explanation, refer to section 2.3.

Table 4.11: SMRs, average annual deaths and 'excess' deaths due to colorectal cancer, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons						
	Non-Indigenous			Indige- nous			Non-Indigenous			Indige- nous			Non-Indigenous			Indige- nous			
	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate	
2002-04																			
0-4	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00
5-14	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00
15-24	0	1.00	0.54	0.00	0.00	0.00	0	4.45	0.00	0.00	0.00	0.00	0	2.24	0.35	0.00	0.00	0.00	0.00
25-44	1	1.02	1.14	0.52	0.00	2.77	2	0.92	1.27	1.31	0.28	2.55	2	0.96	1.21	0.92	0.13	*2.67	
45-64	23	*1.16	*1.37	*0.57	0.54	1.02	16	1.09	1.13	0.92	0.35	1.47	19	*1.13	*1.27	0.70	*0.48	1.19	
65-74	100	*1.18	1.07	1.09	0.58	0.61	62	1.10	1.17	1.06	0.97	1.15	80	*1.15	1.11	1.08	0.70	0.94	
75+	205	1.04	1.02	0.80	0.94	0.80	151	*1.08	0.99	0.74	0.79	0.42	172	*1.06	1.01	0.77	0.88	0.62	
Total	22	*1.11	*1.13	0.81	0.67	1.03	19	*1.09	1.07	0.88	0.68	1.15	21	*1.10	*1.10	0.84	*0.67	1.08	
Total <65	7	*1.15	*1.35	*0.57	0.50	1.27	5	1.08	1.14	0.97	0.34	1.66	6	*1.12	*1.27	0.72	*0.44	1.42	
1997-99																			
Total	26	*1.07	1.06	1.06	0.72	0.81	22	*1.09	*1.16	0.97	0.99	0.87	24	*1.08	*1.10	1.02	0.82	0.83	
Total <65	8	*1.19	1.12	1.06	0.54	0.85	6	*1.20	*1.27	0.99	1.31	0.95	7	*1.20	*1.18	1.04	0.79	0.90	
Total†	*1.27	*1.44	*1.44	*1.44	0.99	n.p.	*1.20	*1.37	*1.46	1.23	1.25	n.p.	*1.23	*1.41	*1.45	*1.35	1.09	n.p.	
Total <65†	*1.36	*1.72	*1.61	*1.52	0.77	n.p.	*1.30	*1.60	*1.68	1.31	1.71	n.p.	*1.34	*1.66	*1.64	*1.44	1.09	n.p.	

(continued)

Table 4.11 (continued): SMRs, average annual deaths and 'excess' deaths due to colorectal cancer, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons						
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			
	MC	IR	OR	R	VR	Indigenous	MC	IR	OR	R	VR	Indigenous	MC	IR	OR	R	VR	Indigenous	
Average annual number of excess deaths																			
2002-04																			
0-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-24	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0
25-44	0	0	1	0	0	1	0	-1	1	0	0	1	0	-1	2	0	0	-1	1
45-64	0	19	22	-4	-2	0	0	8	5	0	0	1	0	27	27	-4	-3	1	1
65-74	0	28	5	1	-1	0	0	10	7	0	0	0	0	38	13	1	-1	0	0
75+	0	10	3	-2	0	0	0	20	-1	-2	0	-1	0	30	2	-5	-1	-1	-1
Excess total	0	57	31	-5	-3	0	0	38	13	-2	0	6	2,691	44	-8	-5	1	13	13
Deaths total	1,412	575	273	24	7	6	1,280	474	203	17	4	4	6	1,049	476	41	10	10	13
Excess <65	0	19	23	-4	-2	1	0	7	6	0	-1	1	0	26	29	-4	-3	2	2
Deaths <65	380	150	88	5	2	4	281	102	50	6	1	4	660	251	138	11	2	8	8
1997-99																			
Excess total	0	36	17	2	-3	-1	0	40	31	-1	0	-1	0	77	48	1	-3	-2	-2
Excess total†	330	178	86	10	0	n.p.	221	132	72	4	1	n.p.	551	309	159	14	1	n.p.	n.p.
Deaths total	1,547	584	283	34	7	5	1,350	483	230	20	6	4	2,896	1,067	513	55	13	10	10
Excess <65	0	29	9	1	-2	0	0	21	13	0	1	0	0	49	23	1	-1	-1	-1
Excess <65†	118	73	33	4	-1	n.p.	73	46	26	2	1	n.p.	191	119	59	6	0	n.p.	n.p.
Deaths <65	442	176	87	12	2	2	314	123	63	6	3	2	756	299	151	19	5	5	5

Notes

1. The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
2. The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
3. For further explanation, refer to section 2.3.

4.3 Breast cancer

Highlights

Breast cancer was responsible for 4% of female deaths, and about 1–2% of excess female deaths in regional areas. There were about as many deaths as expected in remote areas.

Death rates for Indigenous Australian females were not significantly different from the rates for non-Indigenous Australian females from Major Cities.

SMRs in all areas were not significantly different from 1.0.

Since 1992, death rates have decreased in all areas.

Breast cancer (ICD-10 code C50) is the most common invasive cancer detected in women and one of the most common causes of death from cancer for women. A small number of men die from breast cancer. Females are at greater risk than men, and the overall risk increases with age. Early detection (through self-examination and regular mammograms) enhances treatment options and survival (The Cancer Council NSW 2005a).

On average during the period, breast cancer was responsible for 2,700 deaths annually. However, almost all of these (2,684) were deaths of females, being responsible for 4.2% of all female deaths. Of these, 65% were in Major Cities, 33% in regional and 2% in remote areas.

The overall breast cancer death rate for Indigenous Australian women was not significantly different from the rate of death for non-Indigenous Australian women in Major Cities.

In regional areas:

Death rates were not significantly different from those in Major Cities.

For 0–64 year old women, death rates in Inner Regional areas were not significantly different from Major Cities, while in Outer Regional areas they were 10% (1.1 times) higher than in Major Cities.

The inter-regional pattern for non-Indigenous Australian women was similar to that above.

Annually there are 604 and 280 deaths of women in Inner Regional and Outer Regional areas.

Annually there were 7 and 12 'excess' deaths of women in Inner Regional and Outer Regional areas; this is 1% and 2% of all 'excess' deaths for women in Inner Regional and Outer Regional areas. The bulk of the excess was among 25–64 year olds.

Compared with the previous reporting period (1997–99), there were 78 more deaths of females annually in 2002–04.

The 12-year trend (AIHW 2006a) is for death rates for females in regional areas and Major Cities to decrease at similar rates.

In remote areas:

Death rates in remote areas were not significantly different from those in Major Cities.

The inter-regional pattern for 0–64 year old women was similar to that above.

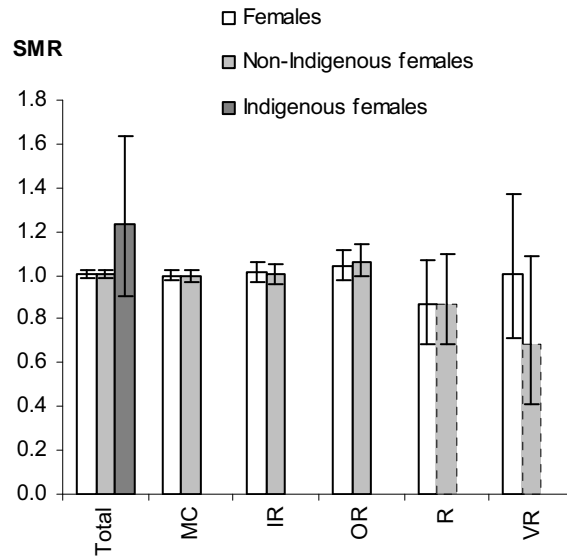
Death rates for non-Indigenous Australian women in remote areas were lower (0.8 times), but not significantly lower than those in Major Cities.

Annually there are 28 and 13 deaths of women in Remote and Very Remote areas.

Annually there were 4 fewer deaths in Remote areas and the same number of deaths in Very Remote areas as expected.

Compared with the previous reporting period (1997-99), there were 3 more deaths of women annually due to breast cancer in 2002-04.

The 12-year trend (AIHW 2006a) suggests a decrease in mortality over time, however, confidence intervals are wide and the exact trend is uncertain, particularly in Very Remote areas.

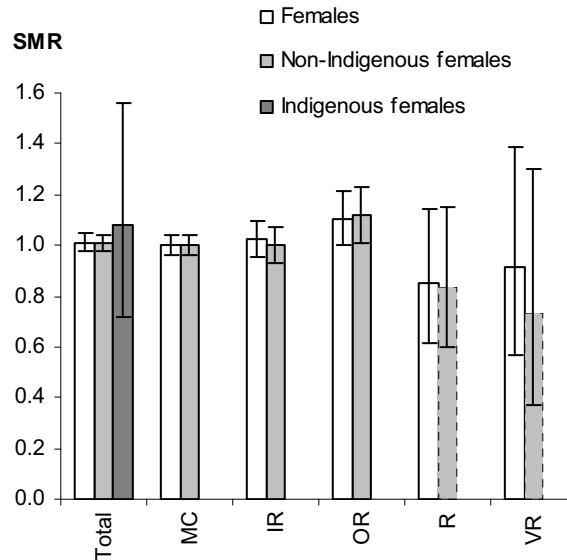


Notes

1. The presented SMR is the ratio of the observed number of deaths to the number expected if Major Cities rates applied in each area. Error bars indicate 95% confidence intervals. These indicate the amount of uncertainty about the precision of the calculated rate.
2. SMRs calculated for non-Indigenous Australian females from Remote and Very Remote areas (dashed) should be treated with caution (see Appendix A).
3. The SMRs for Indigenous Australian females are for Qld, WA, SA and NT combined (see Appendix A).

Source: AIHW National Mortality Database.

Figure 4.14: Breast cancer SMRs for females, by sex, 2002-04



Note: See notes for Figure 4.14.

Figure 4.15: Breast cancer SMRs for females aged 64 years and under, by sex, 2002-04

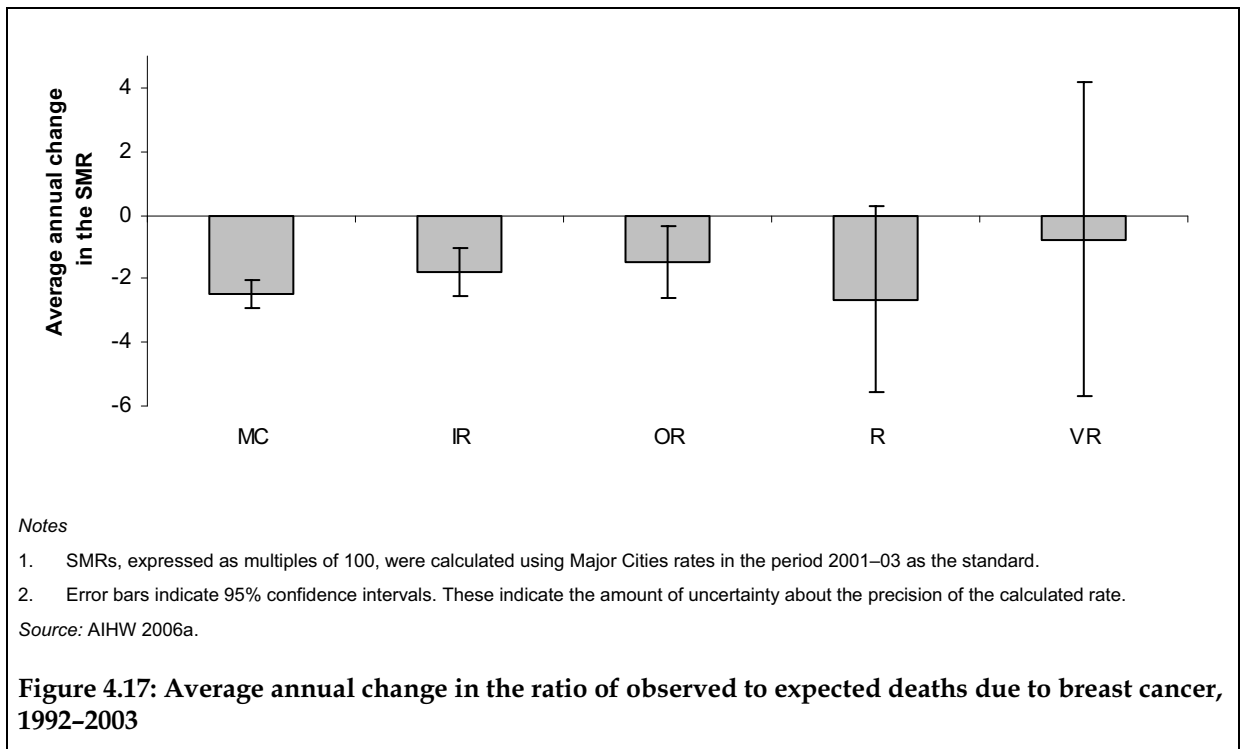
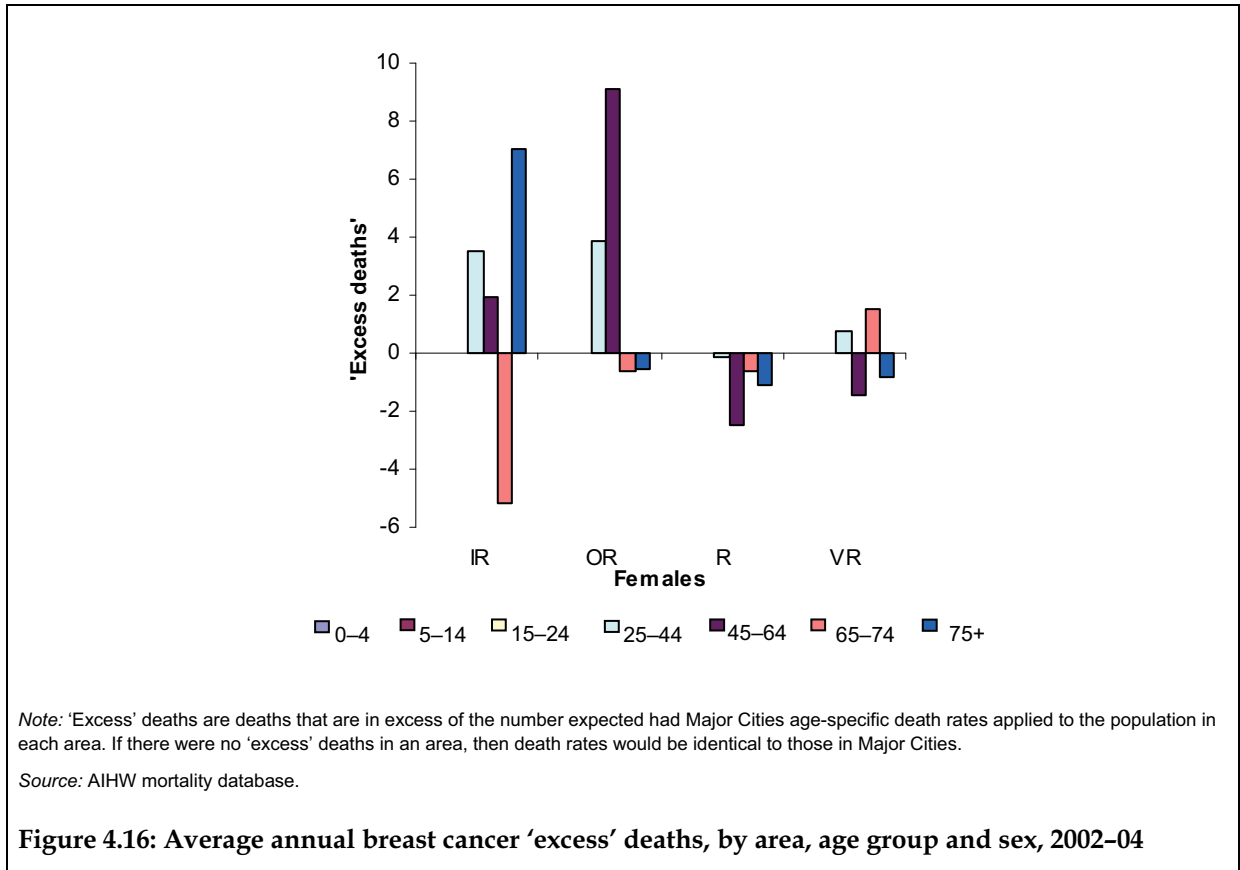


Table 4.12: SMIRs, average annual deaths and 'excess' deaths due to breast cancer, 2002-04 and 1997-99

	Males					Females					Persons				
	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR
	Rate		Ratio			Rate		Ratio			Rate		Ratio		
2002-04															
0-4	n.p.	n.p.	n.p.	n.p.	n.p.	0	0.00	0.00	0.00	0.00	n.p.	n.p.	n.p.	n.p.	n.p.
5-14	n.p.	n.p.	n.p.	n.p.	n.p.	0	0.00	0.00	0.00	0.00	n.p.	n.p.	n.p.	n.p.	n.p.
15-24	n.p.	n.p.	n.p.	n.p.	n.p.	0	0.00	0.00	0.00	0.00	n.p.	n.p.	n.p.	n.p.	n.p.
25-44	n.p.	n.p.	n.p.	n.p.	n.p.	6	1.09	1.20	0.96	1.45	n.p.	n.p.	n.p.	n.p.	n.p.
45-64	n.p.	n.p.	n.p.	n.p.	n.p.	42	1.01	1.09	0.83	0.78	n.p.	n.p.	n.p.	n.p.	n.p.
65-74	n.p.	n.p.	n.p.	n.p.	n.p.	75	0.96	0.99	0.90	1.67	n.p.	n.p.	n.p.	n.p.	n.p.
75+	n.p.	n.p.	n.p.	n.p.	n.p.	132	1.03	0.99	0.87	0.70	n.p.	n.p.	n.p.	n.p.	n.p.
Total	n.p.	n.p.	n.p.	n.p.	n.p.	26	1.01	1.04	0.87	1.00	n.p.	n.p.	n.p.	n.p.	n.p.
Total <65	n.p.	n.p.	n.p.	n.p.	n.p.	14	1.02	*1.10	0.85	0.91	n.p.	n.p.	n.p.	n.p.	n.p.
1997-99															
Total	n.p.	n.p.	n.p.	n.p.	n.p.	27	0.98	0.99	0.89	0.83	n.p.	n.p.	n.p.	n.p.	n.p.
Total <65	n.p.	n.p.	n.p.	n.p.	n.p.	15	1.00	0.98	0.89	0.83	n.p.	n.p.	n.p.	n.p.	n.p.
Total†	n.p.	n.p.	n.p.	n.p.	n.p.	*1.09	*1.07	*1.08	0.97	0.93	n.p.	n.p.	n.p.	n.p.	n.p.
Total <65†	n.p.	n.p.	n.p.	n.p.	n.p.	*1.13	*1.13	1.10	1.00	0.97	n.p.	n.p.	n.p.	n.p.	n.p.

(continued)

Table 4.12 (continued): SMRs, average annual deaths and 'excess' deaths due to breast cancer, 2002-04 and 1997-99

	Males				Females				Persons							
	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR	
Average annual number of excess deaths																
2002-04																
0-4	n.p.	n.p.	n.p.	n.p.	n.p.	0	0	0	0	0	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
5-14	n.p.	n.p.	n.p.	n.p.	n.p.	0	0	0	0	0	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
15-24	n.p.	n.p.	n.p.	n.p.	n.p.	0	0	0	0	0	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
25-44	n.p.	n.p.	n.p.	n.p.	n.p.	0	4	4	4	1	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
45-64	n.p.	n.p.	n.p.	n.p.	n.p.	0	2	9	9	-1	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
65-74	n.p.	n.p.	n.p.	n.p.	n.p.	0	-5	-1	-1	2	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
75+	n.p.	n.p.	n.p.	n.p.	n.p.	0	7	-1	-1	-1	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Excess total	n.p.	n.p.	n.p.	n.p.	n.p.	0	7	12	12	0	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Deaths total	n.p.	n.p.	n.p.	n.p.	n.p.	1,754	604	280	280	28	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Excess <65	n.p.	n.p.	n.p.	n.p.	n.p.	0	6	13	13	-3	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Deaths <65	n.p.	n.p.	n.p.	n.p.	n.p.	784	267	137	137	15	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
1997-99																
Excess total	n.p.	n.p.	n.p.	n.p.	n.p.	0	-9	-2	-4	-2	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Excess total†	n.p.	n.p.	n.p.	n.p.	n.p.	135	34	18	18	-1	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Deaths total	n.p.	n.p.	n.p.	n.p.	n.p.	1,706	548	258	258	28	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Excess <65	n.p.	n.p.	n.p.	n.p.	n.p.	0	1	-3	-2	-1	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Excess <65†	n.p.	n.p.	n.p.	n.p.	n.p.	92	30	11	11	0	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Deaths <65	n.p.	n.p.	n.p.	n.p.	n.p.	795	257	124	124	16	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.

Notes

1. The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
2. The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
3. For further explanation, refer to section 2.3.

Table 4.13: SMIRs, average annual deaths and 'excess' deaths due to breast cancer, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons					
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous		
	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate
2002-04																		
0-4	n.p.	n.p.	n.p.	n.p.	n.p.	0	0.00	0.00	0.00	0.00	0.00	0.00	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
5-14	n.p.	n.p.	n.p.	n.p.	n.p.	0	0.00	0.00	0.00	0.00	0.00	0.00	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
15-24	n.p.	n.p.	n.p.	n.p.	n.p.	0	0.00	0.00	0.00	0.00	0.00	0.00	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
25-44	n.p.	n.p.	n.p.	n.p.	n.p.	6	1.05	1.23	0.74	0.74	0.70	*1.94	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
45-64	n.p.	n.p.	n.p.	n.p.	n.p.	41	0.99	1.09	0.86	0.86	0.74	0.78	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
65-74	n.p.	n.p.	n.p.	n.p.	n.p.	73	0.97	1.02	0.98	0.98	0.58	*2.07	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
75+	n.p.	n.p.	n.p.	n.p.	n.p.	129	1.04	1.02	0.86	0.86	0.65	1.01	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Total	n.p.	n.p.	n.p.	n.p.	n.p.	26	1.01	1.06	0.87	0.87	0.69	1.23	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Total <65	n.p.	n.p.	n.p.	n.p.	n.p.	13	1.00	*1.12	0.84	0.84	0.73	1.08	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
1997-99																		
Total	n.p.	n.p.	n.p.	n.p.	n.p.	27	1.00	1.00	0.87	0.87	0.75	1.18	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Total <65	n.p.	n.p.	n.p.	n.p.	n.p.	15	1.01	0.98	0.84	0.84	0.75	1.22	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Total†	n.p.	n.p.	n.p.	n.p.	n.p.	*1.11	*1.09	*1.10	0.97	0.97	0.85	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Total <65†	n.p.	n.p.	n.p.	n.p.	n.p.	*1.18	*1.23	*1.19	1.03	1.03	0.92	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.

(continued)

Table 4.13 (continued): SMRs, average annual deaths and 'excess' deaths due to breast cancer, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons								
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous					
	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR	
Average annual number of excess deaths																					
2002-04																					
0-4	n.p.	n.p.	n.p.	n.p.	n.p.	0	0	0	0	0	0	n.p.	n.p.	n.p.	0	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
5-14	n.p.	n.p.	n.p.	n.p.	n.p.	0	0	0	0	0	0	n.p.	n.p.	n.p.	0	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
15-24	n.p.	n.p.	n.p.	n.p.	n.p.	0	0	0	0	0	0	n.p.	n.p.	n.p.	0	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
25-44	n.p.	n.p.	n.p.	n.p.	n.p.	0	2	4	-1	0	2	n.p.	n.p.	n.p.	2	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
45-64	n.p.	n.p.	n.p.	n.p.	n.p.	0	-2	9	-2	-1	-1	n.p.	n.p.	n.p.	-1	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
65-74	n.p.	n.p.	n.p.	n.p.	n.p.	0	-4	1	0	0	-1	n.p.	n.p.	n.p.	2	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
75+	n.p.	n.p.	n.p.	n.p.	n.p.	0	8	2	-1	-1	-1	n.p.	n.p.	n.p.	0	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Excess total	n.p.	n.p.	n.p.	n.p.	n.p.	0	4	16	-4	-3	-3	n.p.	n.p.	n.p.	3	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Deaths total	n.p.	n.p.	n.p.	n.p.	n.p.	1,704	581	273	25	6	16	n.p.	n.p.	n.p.	16	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Excess <65	n.p.	n.p.	n.p.	n.p.	n.p.	0	0	14	-3	-1	-1	n.p.	n.p.	n.p.	1	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Deaths <65	n.p.	n.p.	n.p.	n.p.	n.p.	764	253	132	13	4	9	n.p.	n.p.	n.p.	9	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
1997-99																					
Excess total	n.p.	n.p.	n.p.	n.p.	n.p.	0	-1	0	-4	-2	-2	n.p.	n.p.	n.p.	2	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Excess total†	n.p.	n.p.	n.p.	n.p.	n.p.	163	45	23	-1	-1	-1	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Deaths total	n.p.	n.p.	n.p.	n.p.	n.p.	1,670	542	251	25	6	13	n.p.	n.p.	n.p.	13	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Excess <65	n.p.	n.p.	n.p.	n.p.	n.p.	0	3	-2	-3	-1	-1	n.p.	n.p.	n.p.	2	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Excess <65†	n.p.	n.p.	n.p.	n.p.	n.p.	117	47	19	0	0	0	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Deaths <65	n.p.	n.p.	n.p.	n.p.	n.p.	780	252	120	14	4	10	n.p.	n.p.	n.p.	10	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.

Notes

1. The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
2. The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
3. For further explanation, refer to section 2.3.

4.4 Cervical cancer

Highlights

Cervical cancer was responsible for 0.4% of female deaths, about 2% of excess female deaths in Outer Regional areas and up to 1% of excess female deaths in remote areas.

Death rates for Indigenous Australian females were six times the death rate for non-Indigenous Australian females in Major Cities.

SMRs in most areas were not significantly different from 1.0, except in Outer Regional areas where the SMR was 1.5. This pattern was similar for non-Indigenous Australian women (for whom the SMR in Outer Regional areas was 1.4).

Since 1992, death rates for males and females have tended to decrease in almost all areas, with substantial improvements in Very Remote areas.

Cervical cancer (ICD-10 code C53) is not one of the major forms of cancer, but its significance is enhanced by the fact that its precancerous phase can be detected by Pap smear testing, with a very high rate of success in then preventing onset of the cancer. Personal risk is increased by infection with the human papilloma virus, exposure to several sexual partners and smoking, with the probability of onset increasing with age. The risk of developing cervical cancer is substantially greater for women who are not screened regularly (The Cancer Council NSW 2005b). The National Cervical Screening Program recommends two-yearly Pap smears for women from age 20 to 69 years.

On average during the period, cervical cancer was responsible for 226 deaths annually – this is 0.4% of all deaths of women; 64% were in Major Cities, 34% in regional and 2% in remote areas.

Overall cervical cancer death rates for Indigenous Australian women were six times the rates for non-Indigenous Australian females in Major Cities.

In regional areas:

Death rates in Inner Regional areas were similar to, and in Outer Regional areas were 50% higher than (that is, rates were 1.5 times) those in Major Cities.

For 0–64 year olds, death rates were similar in Inner Regional areas and 50% higher in Outer Regional areas compared with (that is, rates were 1.5 times) those in Major Cities.

The inter-regional pattern for non-Indigenous Australians was similar to that above.

Annually there are 45 and 32 deaths in Inner Regional and Outer Regional areas.

Annually there were –3 and 11 ‘excess’ deaths in Inner Regional and Outer Regional areas; this is 0% and 2% of all ‘excess’ deaths of females in Inner Regional and Outer Regional areas. The bulk of the excess was among 45–64 year olds.

Compared with the previous reporting period (1997–99), there were 6 fewer deaths of females annually in 2002–04.

The 12-year trend (AIHW 2006a) is for similarly decreasing death rates in regional areas and in Major Cities.

In remote areas:

Death rates in remote areas were not significantly higher than those in Major Cities.

The inter-regional pattern for 0–64 year old females was similar to that above.

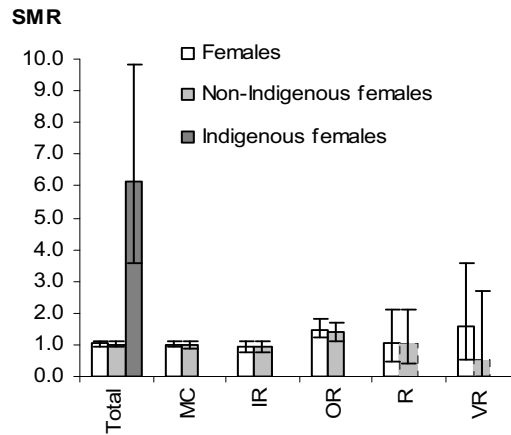
Death rates for remote area non-Indigenous Australian women were not significantly different from those in Major Cities.

Annually there were 3 and 2 deaths in Remote and Very Remote areas.

Annually there were 0 and 1 'excess' deaths in Remote and Very Remote areas; this is 0% and 1% of all 'excess' deaths of females in Remote and Very Remote areas.

Compared with the previous reporting period (1997–99), there were 4 fewer deaths of females annually in 2002–04.

The 12-year trend (AIHW 2006a) is for decreasing death rates. This trend is less clear in Remote areas than in Very Remote areas, where rates decreased substantially more than in Major Cities.

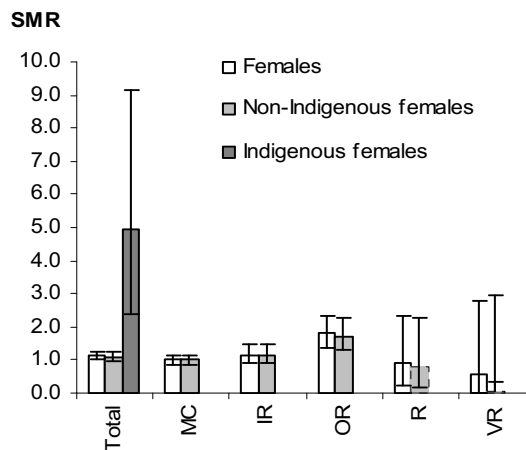


Notes

1. The presented SMR is the ratio of the observed number of deaths to the number expected if Major Cities rates applied in each area. Error bars indicate 95% confidence intervals. These indicate the amount of uncertainty about the precision of the calculated rate.
2. SMRs calculated for non-Indigenous Australian females from Remote and Very Remote areas (dashed) should be treated with caution (see Appendix A).
3. The SMRs for Indigenous Australian females are for Qld, WA, SA and NT combined (see Appendix A).

Source: AIHW mortality database.

Figure 4.18: Cervical cancer SMRs for females, by sex, 2002-04



Note: See notes for Figure 4.18.

Figure 4.19: Cervical cancer SMRs for females aged 64 years and under, by sex, 2002-04

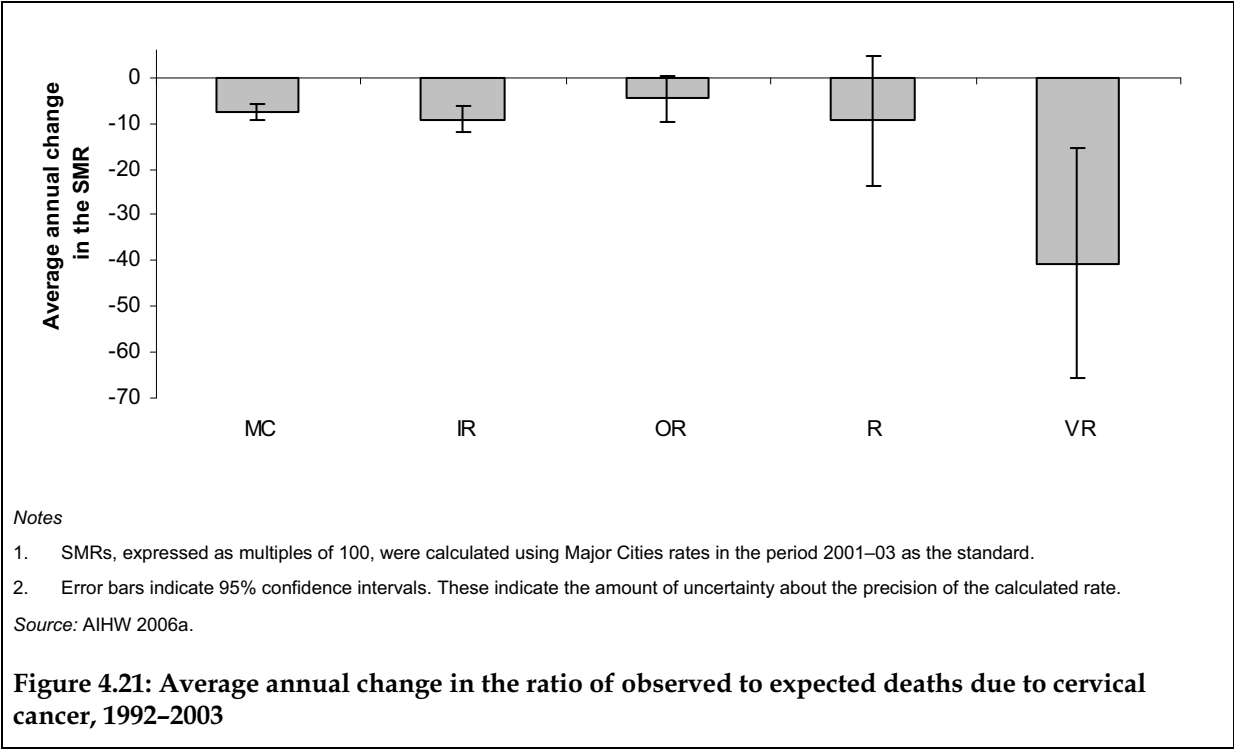
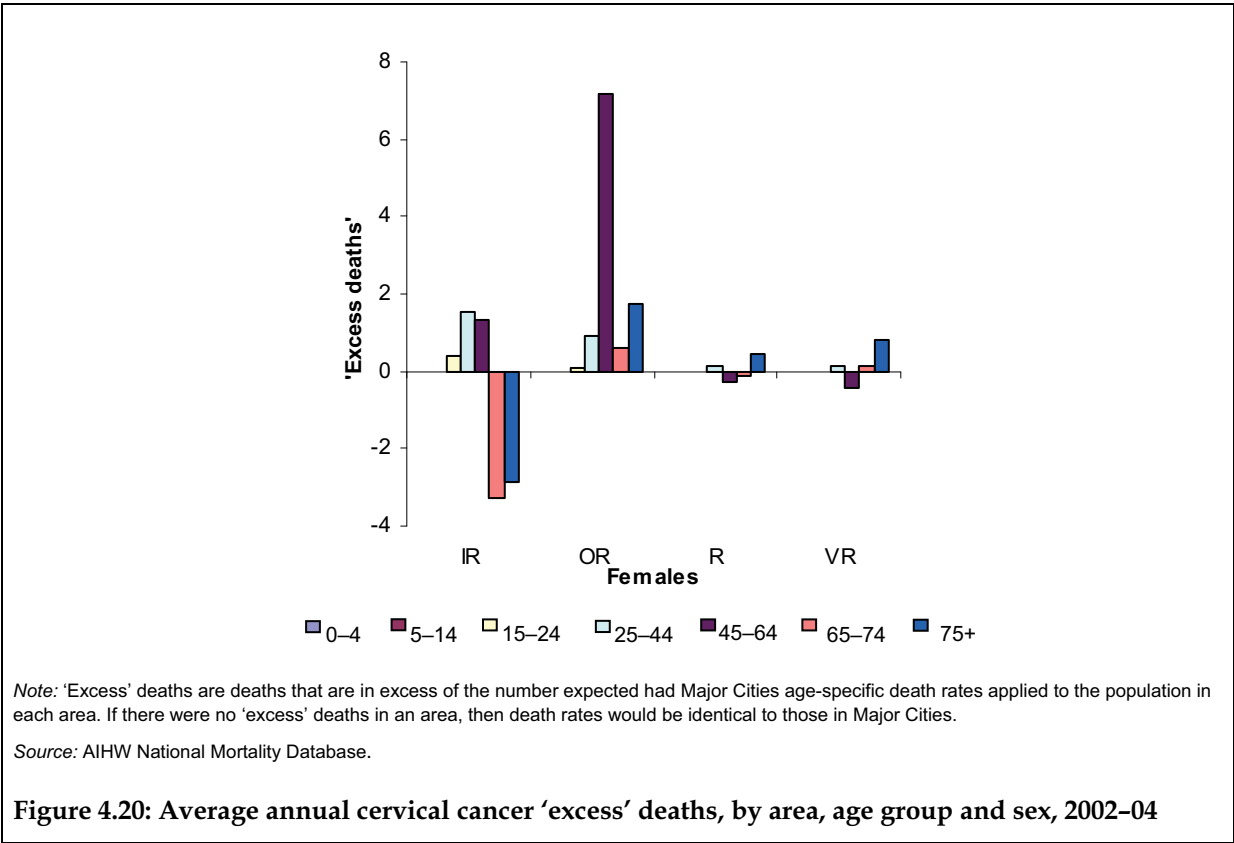


Table 4.14: SMIRs, average annual deaths and 'excess' deaths due to cervical cancer, 2002-04 and 1997-99

	Males						Females						Persons					
	MC		OR		VR		MC		OR		VR		MC		OR		VR	
	Rate		Ratio		Ratio		Rate		Ratio		Ratio		Rate		Ratio		Ratio	
2002-04																		
0-4	0	0.00	0.00	0.00	0.00	0.00	..	..	..	..	..	..
5-14	0	0.00	0.00	0.00	0.00	0.00	..	..	..	..	..	..
15-24	0	4.68	3.08	0.00	0.00	0.00	..	..	..	..	..	..
25-44	1	1.25	1.30	1.29	1.40	1.40	..	..	..	..	..	..
45-64	3	1.09	*2.02	0.72	0.00	0.00	..	..	..	..	..	..
65-74	6	0.66	1.14	0.73	1.91	1.91	..	..	..	..	..	..
75+	11	0.83	1.25	1.67	4.50	4.50	..	..	..	..	..	..
Total	2	0.94	*1.49	1.08	1.55	1.55	..	..	..	..	..	..
Total <65	1	1.15	*1.81	0.92	0.55	0.55	..	..	..	..	..	..
1997-99																		
Total	3	0.95	*1.27	1.57	*3.38	*3.38	..	..	..	..	..	..
Total <65	1	1.05	1.19	1.47	*2.90	*2.90	..	..	..	..	..	..
Total†	*1.27	*1.21	*1.62	*1.98	*4.25	*4.25	..	..	..	..	..	..
Total <65†	*1.27	*1.34	*1.52	1.84	*3.63	*3.63	..	..	..	..	..	..

(continued)

Table 4.14 (continued): SMRs, average annual deaths and 'excess' deaths due to cervical cancer, 2002-04 and 1997-99

	Males				Females				Persons			
	MC	IR	OR	VR	MC	IR	OR	VR	MC	IR	OR	VR
Average annual number of excess deaths												
2002-04												
0-4	0	0	0	0	0	0	0	0
5-14	0	0	0	0	0	0	0	0
15-24	0	0	0	0	0	0	0	0
25-44	0	2	1	0	0	0	0	0
45-64	0	1	7	0	0	0	0	0
65-74	0	-3	1	0	0	0	0	0
75+	0	-3	2	0	1	0	0	0
Excess total	0	-3	11	0	1	0	0	0
Deaths total	143	45	32	3	2	0	0	0
Excess <65	0	3	8	0	0	0	0	0
Deaths <65	67	25	18	1	0	0	0	0
1997-99												
Excess total	0	-3	7	2	3	0	0	0
Excess total†	35	9	12	2	3	0	0	0
Deaths total	166	51	32	5	4	0	0	0
Excess <65	0	1	2	1	2	0	0	0
Excess <65†	17	7	5	1	2	0	0	0
Deaths <65	79	26	15	3	2	0	0	0

Notes

- The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
- The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
- For further explanation, refer to section 2.3.

Table 4.15: SMRs, average annual deaths and 'excess' deaths due to cervical cancer, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons					
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous		
	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate
2002-04																		
0-4	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	..	..	..	..
5-14	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	..	..	..	..
15-24	0	4.76	3.30	0.00	0.00	0.00	0.00	0.00	0.00	..	..	..	..
25-44	1	1.13	1.04	0.86	0.86	0.19	*4.51	..	..	..	..	..	..
45-64	3	1.14	*2.02	0.74	0.74	0.00	*5.50	..	..	..	..	..	..
65-74	6	0.68	0.97	0.81	0.81	0.00	*8.49	..	..	..	..	..	..
75+	10	0.79	1.14	1.80	1.80	2.14	*10.41	..	..	..	..	..	..
Total	2	0.93	*1.38	1.06	1.06	0.51	*6.12	..	..	..	..	..	..
Total <65	1	1.16	*1.73	0.78	0.78	0.07	*4.96	..	..	..	..	..	..
1997-99																		
Total	3	0.96	1.21	1.20	1.20	1.05	*6.80	..	..	..	..	..	..
Total <65	1	1.07	1.13	0.93	0.93	0.68	*6.28	..	..	..	..	..	..
Total†	*1.31	*1.28	*1.62	1.60	1.60	1.40	<i>n.p.</i>	..	..	..	..	..	..
Total <65†	*1.35	*1.55	*1.62	1.32	1.32	0.96	<i>n.p.</i>	..	..	..	..	..	..

(continued)

Table 4.15 (continued): SMRs, average annual deaths and 'excess' deaths due to cervical cancer, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons								
	Non-Indigenous			Indigenous	Non-Indigenous			Indigenous	Non-Indigenous			Indigenous	Non-Indigenous			Indigenous					
	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR	
Average annual number of excess deaths																					
2002-04																					
0-4	0	0	0	0	0	0	0	0	0	0	..	..	..	..	..	..
5-14	0	0	0	0	0	0	0	0	0	0	..	..	..	..	..	..
15-24	0	0	0	0	0	0	0	0	0	0	..	..	..	..	..	..
25-44	0	1	0	0	0	0	1	0	0	1	..	..	..	..	..	..
45-64	0	2	7	0	0	0	1	0	0	1	..	..	..	..	..	..
65-74	0	-3	0	0	0	0	1	0	0	1	..	..	..	..	..	..
75+	0	-3	1	1	0	0	1	0	0	1	..	..	..	..	..	..
Excess total	0	-3	8	0	0	0	5	0	0	5	..	..	..	..	..	..
Deaths total	138	43	28	3	0	3	6	0	0	6	..	..	..	..	..	..
Excess <65	0	3	7	0	0	0	3	0	0	3	..	..	..	..	..	..
Deaths <65	64	24	16	1	0	3	3	0	0	3	..	..	..	..	..	..
1997-99																					
Excess total	0	-2	5	1	0	7	0	0	0	7	..	..	..	..	..	..
Excess total†	39	11	11	1	0	n.p.	0	0	0	n.p.	..	..	..	..	..	..
Deaths total	162	50	29	3	1	8	1	1	1	8	..	..	..	..	..	..
Excess <65	0	2	1	0	0	4	0	0	0	4	..	..	..	..	..	..
Excess <65†	20	9	5	0	0	n.p.	0	0	0	n.p.	..	..	..	..	..	..
Deaths <65	77	26	13	2	0	5	0	0	0	5	..	..	..	..	..	..

Notes

- The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
- The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
- For further explanation, refer to section 2.3.

4.5 Prostate cancer

Highlights

Prostate cancer was responsible for 4% of male deaths, about 9% and 5% of excess male deaths in Inner Regional and Outer Regional areas. There were about as many deaths as expected in remote areas.

Death rates for Indigenous Australian males were indistinguishable from the rates for non-Indigenous Australian males in Major Cities.

SMRs in regional areas were about 1.2, while those in remote areas were about 1.0. The pattern for non-Indigenous Australian males was the same.

Since 1992, death rates for males decreased in all areas except Very Remote areas (in which there was essentially no change).

For men, prostate cancer (ICD-10 code C61) is the second largest cancer-related cause of death after lung cancer. Risk for individuals increases with age and is greater for those with a family history of the disease. It is not currently clear that finding and treating prostate cancer in symptomless men reduces the death rate due to this cause (The Cancer Council NSW 2005c).

On average, prostate cancer was responsible for 2,818 deaths of males annually – this is 4% of all deaths of males. Of these, 60% were in Major Cities, 39% in regional and 2% in remote areas.

Overall prostate cancer death rates for Indigenous Australians were not significantly different from rates of death for non-Indigenous Australians in Major Cities.

In regional areas:

Death rates were 20% (1.2 times) higher than in Major Cities.

For 0–64 year olds, death rates were about 30% higher in Inner Regional areas than in Major Cities, while in Outer Regional areas rates were not significantly different from those in Major Cities.

The inter-regional pattern for non-Indigenous Australians was similar to that above.

Annually there are 745 and 344 deaths of males in Inner Regional and Outer Regional areas. Annually there were 125 and 60 ‘excess’ deaths in Inner Regional and Outer Regional areas, this is 9% and 5% of all ‘excess’ deaths in Inner Regional and Outer Regional areas. The bulk of the excess was among those aged 65 years and older.

Compared with the previous reporting period (1997–99), there were 164 more deaths of males annually in 2002–04.

The 12-year trend (AIHW 2006a) is for decreasing death rates for males in regional areas.

In remote areas:

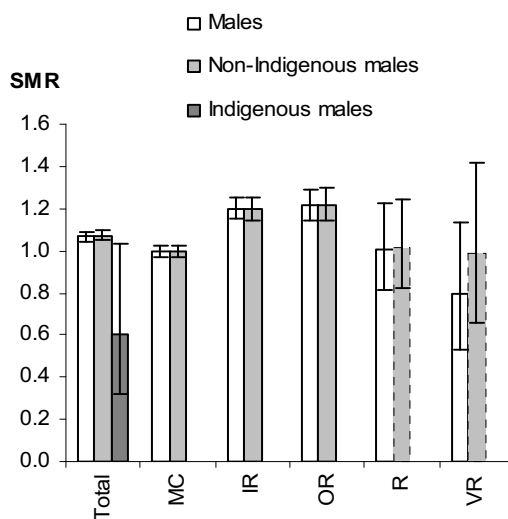
Death rates for the total male population, the non-Indigenous Australian population and the population of 0–64 year olds were not significantly different from those in Major Cities.

Annually there were 33 and 10 deaths of males in Remote and Very Remote areas.

Annually there were as many deaths as expected in Remote areas and 3 fewer deaths than expected in Very Remote areas; this is 0% and -1% of all 'excess' deaths in Remote and Very Remote areas.

Compared with the previous reporting period (1997-99), there were 5 fewer deaths of males annually in 2002-04.

The 12-year trend (AIHW 2006a) is for decreasing death rates for males in Remote areas but for no significant change for males in Very Remote areas.

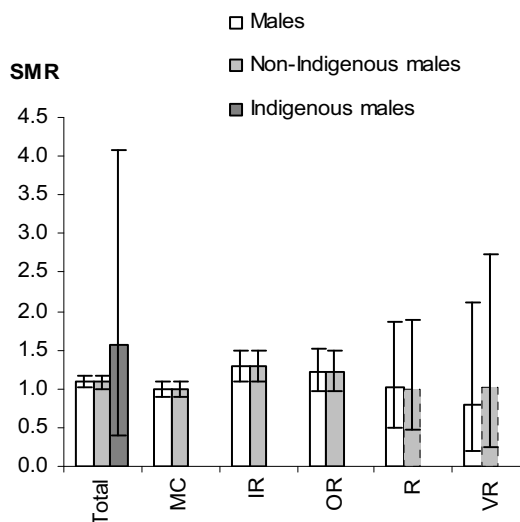


Notes

1. The presented SMR is the ratio of the observed number of deaths to the number expected if Major Cities rates applied in each area. Error bars indicate 95% confidence intervals. These indicate the amount of uncertainty about the precision of the calculated rate.
2. SMRs calculated for non-Indigenous Australian males from Remote and Very Remote areas (dashed) should be treated with caution (see Appendix A).
3. The SMRs for Indigenous Australian males are for Qld, WA, SA and NT combined (see Appendix A).

Source: AIHW mortality database.

Figure 4.22: Prostate cancer SMRs, by sex, 2002-04



Note: See notes for Figure 4.22.

Figure 4.23: Prostate cancer SMRs for persons aged 64 years and under, by sex, 2002-04

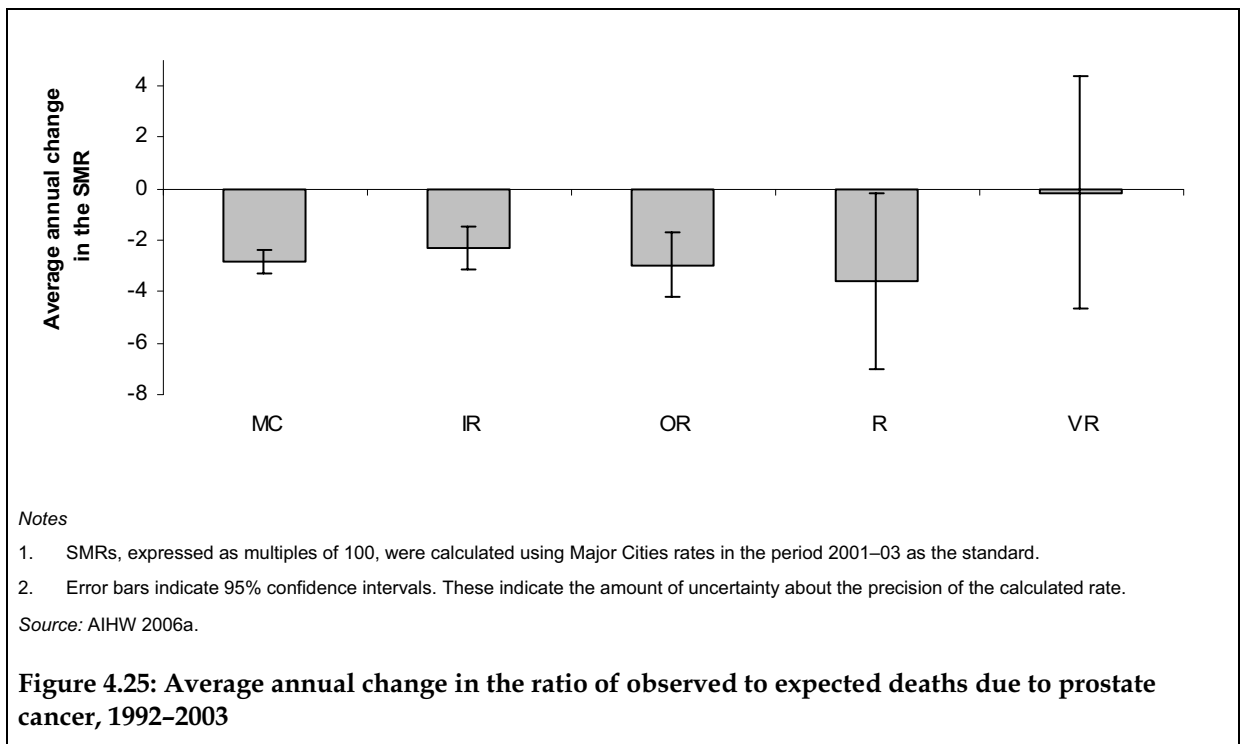
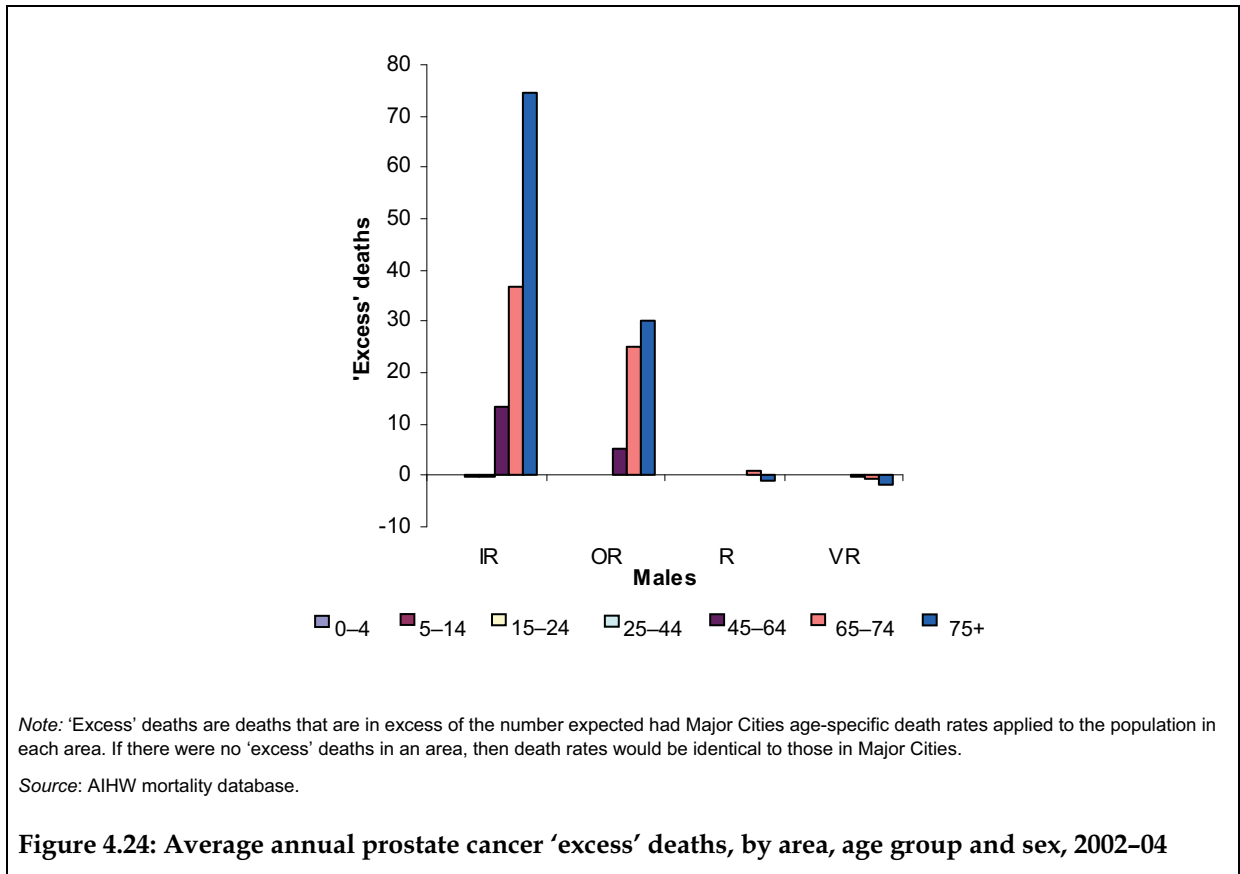


Table 4.16: SMIRs, average annual deaths and 'excess' deaths due to prostate cancer, 2002-04 and 1997-99

	Males					Females					Persons					
	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR	
	Rate		Ratio			Rate		Ratio			Rate		Ratio			
2002-04																
0-4	0	0.00	0.00	0.00	0.00	..	..	..	..	..	..	..	..	..	..	..
5-14	0	0.00	0.00	0.00	0.00	..	..	..	..	..	..	..	..	..	..	..
15-24	0	0.00	0.00	0.00	0.00	..	..	..	..	..	..	..	..	..	..	..
25-44	0	0.77	1.40	0.00	0.00	..	..	..	..	..	..	..	..	..	..	..
45-64	8	*1.29	1.22	1.04	0.80	..	..	..	..	..	..	..	..	..	..	..
65-74	86	*1.27	*1.38	1.13	0.85	..	..	..	..	..	..	..	..	..	..	..
75+	393	*1.17	*1.16	0.95	0.77	..	..	..	..	..	..	..	..	..	..	..
Total	26	*1.20	*1.21	1.00	0.79	..	..	..	..	..	..	..	..	..	..	..
Total <65	2	*1.29	1.22	1.02	0.78	..	..	..	..	..	..	..	..	..	..	..
1997-99																
Total	24	*1.13	*1.21	1.19	1.15	..	..	..	..	..	..	..	..	..	..	..
Total <65	2	*1.38	*1.38	1.54	1.23	..	..	..	..	..	..	..	..	..	..	..
Total†	*1.07	*1.21	*1.29	*1.27	1.23	..	..	..	..	..	..	..	..	..	..	..
Total <65†	1.07	*1.48	*1.47	1.64	1.33	..	..	..	..	..	..	..	..	..	..	..

(continued)

Table 4.16 (continued): SMRs, average annual deaths and 'excess' deaths due to prostate cancer, 2002-04 and 1997-99

	Males				Females				Persons							
	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR	
Average annual number of excess deaths																
2002-04																
0-4	0	0	0	0	0	..	..	..	..	..	..	..	..	..	..	..
5-14	0	0	0	0	0	..	..	..	..	..	..	..	..	..	..	..
15-24	0	0	0	0	0	..	..	..	..	..	..	..	..	..	..	..
25-44	0	0	0	0	0	..	..	..	..	..	..	..	..	..	..	..
45-64	0	13	5	0	0	..	..	..	..	..	..	..	..	..	..	..
65-74	0	37	25	1	0	..	..	..	..	..	..	..	..	..	..	..
75+	0	75	30	-1	-2	..	..	..	..	..	..	..	..	..	..	..
Excess total	0	125	60	0	-3	..	..	..	..	..	..	..	..	..	..	..
Deaths total	1,684	745	344	33	10	..	..	..	..	..	..	..	..	..	..	..
Excess <65	0	13	5	0	0	..	..	..	..	..	..	..	..	..	..	..
Deaths <65	129	59	28	3	1	..	..	..	..	..	..	..	..	..	..	..
1997-99																
Excess total	0	70	53	6	2	..	..	..	..	..	..	..	..	..	..	..
Excess total†	101	107	70	8	2	..	..	..	..	..	..	..	..	..	..	..
Deaths total	1,525	615	310	35	13	..	..	..	..	..	..	..	..	..	..	..
Excess <65	0	14	7	2	0	..	..	..	..	..	..	..	..	..	..	..
Excess <65†	7	16	9	2	0	..	..	..	..	..	..	..	..	..	..	..
Deaths <65	106	50	27	4	2	..	..	..	..	..	..	..	..	..	..	..

Notes

1. The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
2. The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
3. For further explanation, refer to section 2.3.

Table 4.17: SMRs, average annual deaths and 'excess' deaths due to prostate cancer, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons					
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous		
	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate
2002-04																		
0-4	0	0.00	0.00	0.00	0.00	0.00	..	..	..	..	..	..	..	..	..	..	..	..
5-14	0	0.00	0.00	0.00	0.00	0.00	..	..	..	..	..	..	..	..	..	..	..	..
15-24	0	0.00	0.00	0.00	0.00	0.00	..	..	..	..	..	..	..	..	..	..	..	..
25-44	0	0.78	1.46	0.00	0.00	0.00	..	..	..	..	..	..	..	..	..	..	..	..
45-64	8	*1.29	1.21	1.02	1.04	1.57	..	..	..	..	..	..	..	..	..	..	..	..
65-74	84	*1.27	*1.40	1.12	1.04	0.72	..	..	..	..	..	..	..	..	..	..	..	..
75+	384	*1.17	*1.16	0.98	0.96	*0.37	..	..	..	..	..	..	..	..	..	..	..	..
Total	26	*1.20	*1.22	1.02	0.99	0.60	..	..	..	..	..	..	..	..	..	..	..	..
Total <65	2	*1.29	1.21	1.00	1.02	1.57	..	..	..	..	..	..	..	..	..	..	..	..
1997-99																		
Total	25	*1.14	*1.22	1.22	1.32	1.02	..	..	..	..	..	..	..	..	..	..	..	..
Total <65	2	*1.37	*1.38	1.61	1.27	2.39	..	..	..	..	..	..	..	..	..	..	..	..
Total†	*1.10	*1.25	*1.34	*1.33	1.42	n.p.	..	..	..	..	..	..	..	..	..	..	..	..
Total <65†	0.99	1.12	1.13	1.33	1.06	n.p.	..	..	..	..	..	..	..	..	..	..	..	..

(continued)

Table 4.17 (continued): SMRs, average annual deaths and 'excess' deaths due to prostate cancer, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons						
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			
	MC	IR	OR	R	VR	0	MC	IR	OR	R	VR	0	MC	IR	OR	R	VR	0	
Average annual number of excess deaths																			
2002-04																			
0-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45-64	0	13	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65-74	0	36	25	1	0	-1	0	0	0	0	0	0	0	0	0	0	0	0	0
75+	0	71	30	0	0	-3	0	0	0	0	0	0	0	0	0	0	0	0	0
Excess total	0	119	60	0	0	-3	0	0	0	0	0	0	0	0	0	0	0	0	0
Deaths total	1,645	724	334	31	10	4	1,645	724	334	31	10	4	1,645	724	334	31	10	4	4
Excess <65	0	13	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deaths <65	126	57	27	3	1	1	126	57	27	3	1	1	126	57	27	3	1	1	1
1997-99																			
Excess total	0	73	55	6	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Excess total†	136	121	77	8	3	n.p.	136	121	77	8	3	n.p.	136	121	77	8	3	n.p.	n.p.
Deaths total	1,498	608	306	34	11	5	1,498	608	306	34	11	5	1,498	608	306	34	11	5	5
Excess <65	0	13	7	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Excess <65†	-1	5	3	1	0	n.p.	-1	5	3	1	0	n.p.	-1	5	3	1	0	n.p.	n.p.
Deaths <65	104	49	26	4	1	1	104	49	26	4	1	1	104	49	26	4	1	1	1

Notes

- The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
- The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
- For further explanation, refer to section 2.3.

4.6 Melanoma

Highlights

Melanoma was responsible for less than 1% of all deaths and about 2% of excess deaths in regional areas. There were fewer deaths than expected in remote areas, if Major Cities death rates applied in these areas.

Death rates for males were almost double those for females.

Death rates for Indigenous Australians were lower than or not significantly different from the rates for non-Indigenous Australians in Major Cities.

SMRs for males were 1.2 in Inner Regional areas and 1.3 in Outer Regional areas. SMRs for males in remote areas and for females in all areas were not significantly different from 1.0. The pattern for non-Indigenous Australian people was very similar to this pattern for the total population in these areas.

Since 1992, death rates have not changed significantly in most areas. There is a suggestion of lower rates for Major City males and Remote area females, but higher rates for Inner Regional males.

Melanoma (ICD-10 code C43) is one of the most commonly diagnosed cancers, but can frequently be effectively treated. Incidence of, and mortality due to, melanoma in Australia is increasing (AIHW & AACR 2007). The main risk factors for development of melanoma are overexposure to ultraviolet radiation, fair skin and age (The Cancer Council NSW 2005d).

On average during the period, melanoma was responsible for 1,132 deaths annually – just under 1% of all deaths. Two-thirds (68%) were male; 62% were in Major Cities, 37% in regional and 1% in remote areas.

Overall melanoma death rates for Indigenous Australian people were not significantly different from the rates for non-Indigenous Australian people in Major Cities.

In regional areas:

Death rates for males were 15–25% (1.15–1.25 times) higher than in Major Cities, while those for females were not significantly different from those in Major Cities.

For 0–64 year old males, death rates were 20–25% higher than in Major Cities; rates for females were not significantly different from those in Major Cities.

The inter-regional pattern for non-Indigenous Australian people was similar to that above.

Annually there are 280 and 134 deaths in Inner Regional and Outer Regional areas; about 71% were male.

Annually there were 34 and 19 ‘excess’ deaths in Inner Regional and Outer Regional areas; this is 2% and 1% of all ‘excess’ deaths in Inner Regional and Outer Regional areas. Most (92%) of the ‘excess’ deaths were male. The bulk of the excess was among those 45 years and older.

Compared with the previous reporting period (1997–99), there were 62 more deaths of males and 12 more deaths of females annually in 2002–04.

The 12-year trend (AIHW 2006a) is for an increase in mortality for males in Inner Regional areas, but for no significant change for males in Outer Regional areas, or for females in regional areas.

In remote areas:

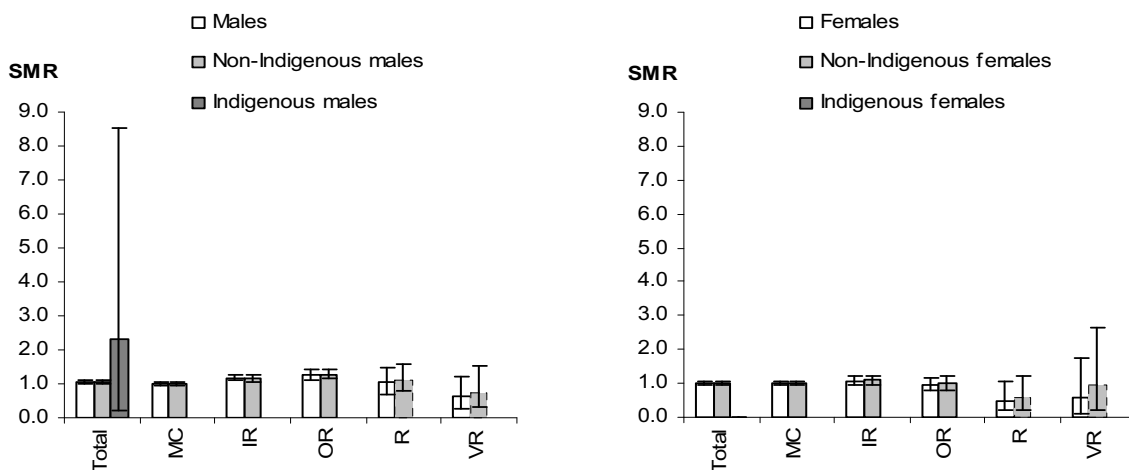
Death rates for the total population, 0–64 year olds and for non-Indigenous Australian people in remote areas were not significantly different from those in Major Cities.

Annually there were 13 and 4 deaths in Remote and Very Remote areas; about 82% were male.

Annually there were 2 fewer deaths than expected in both Remote and Very Remote areas.

Compared with the previous reporting period (1997–99), there were 5 more deaths of males and 3 fewer deaths of females annually in 2002–04.

The 12-year trend (AIHW 2006a) is for a decrease for Remote area females but for no significant change for females in Very Remote areas or for males in remote areas generally.

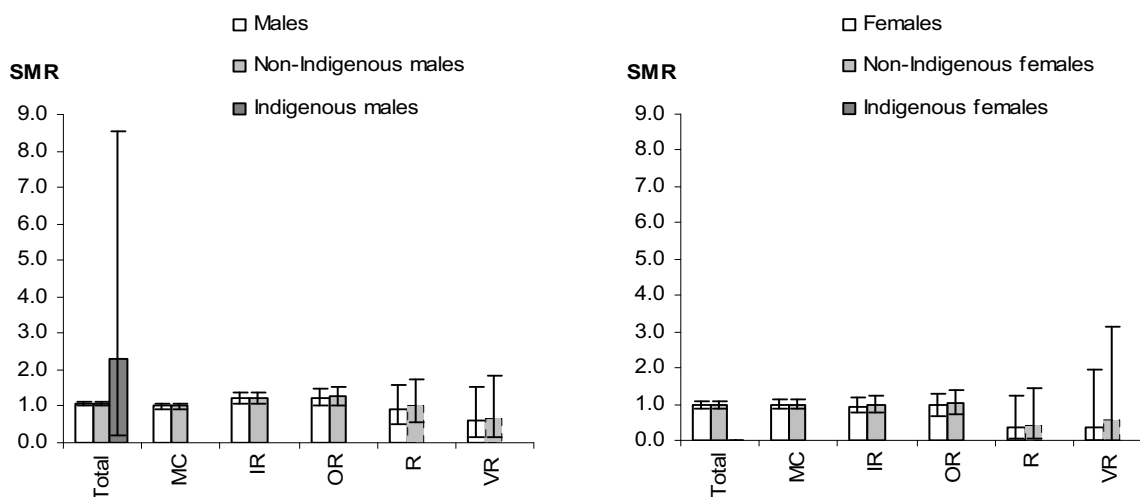


Notes

1. While the figure allows comparison of deaths between areas for each sex, it does not allow comparison between the sexes.
2. The presented SMR is the ratio of the observed number of deaths to the number expected if Major Cities rates applied in each area. Error bars indicate 95% confidence intervals. These indicate the amount of uncertainty about the precision of the calculated rate.
3. SMRs calculated for non-Indigenous Australian persons from Remote and Very Remote areas (dashed) should be treated with caution (see Appendix A).
4. The SMRs for Indigenous Australian persons are for Qld, WA, SA and NT combined (see Appendix A).

Source: AIHW mortality database.

Figure 4.26: Melanoma SMRs, by sex, 2002-04



Note: See notes for Figure 4.26.

Figure 4.27: Melanoma SMRs for persons aged 64 years and under, by sex, 2002-04

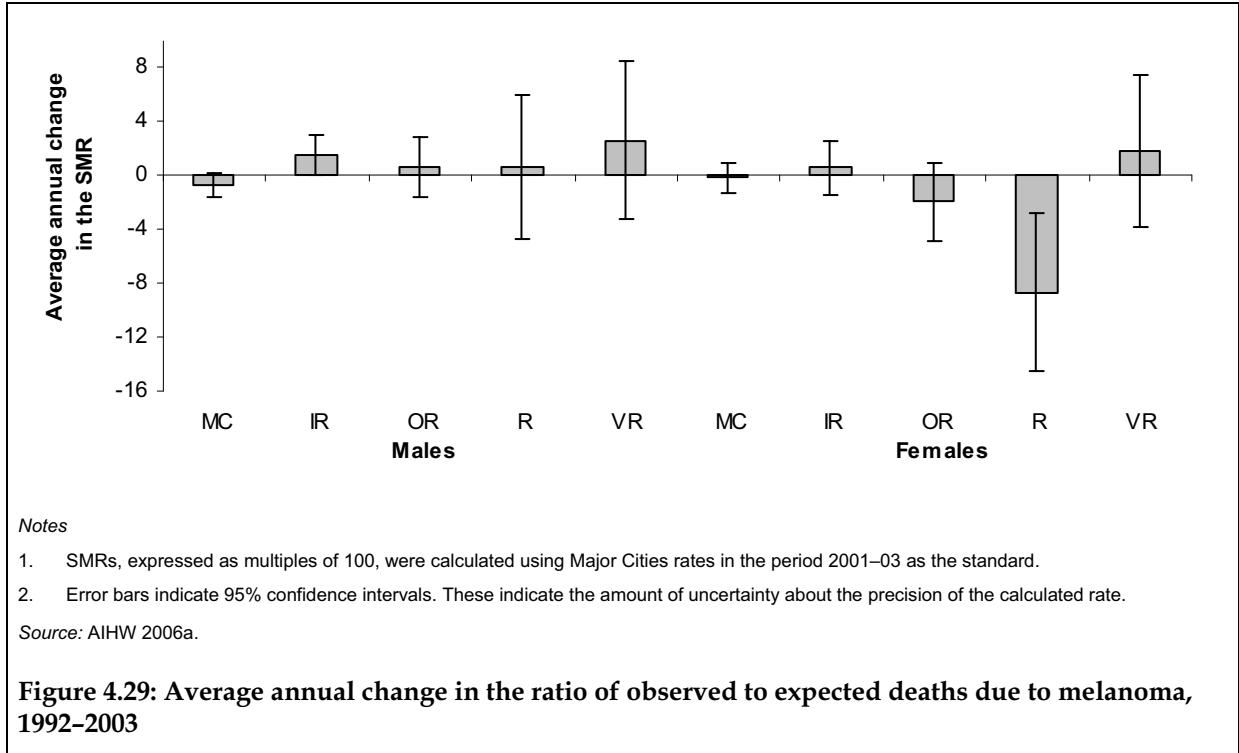
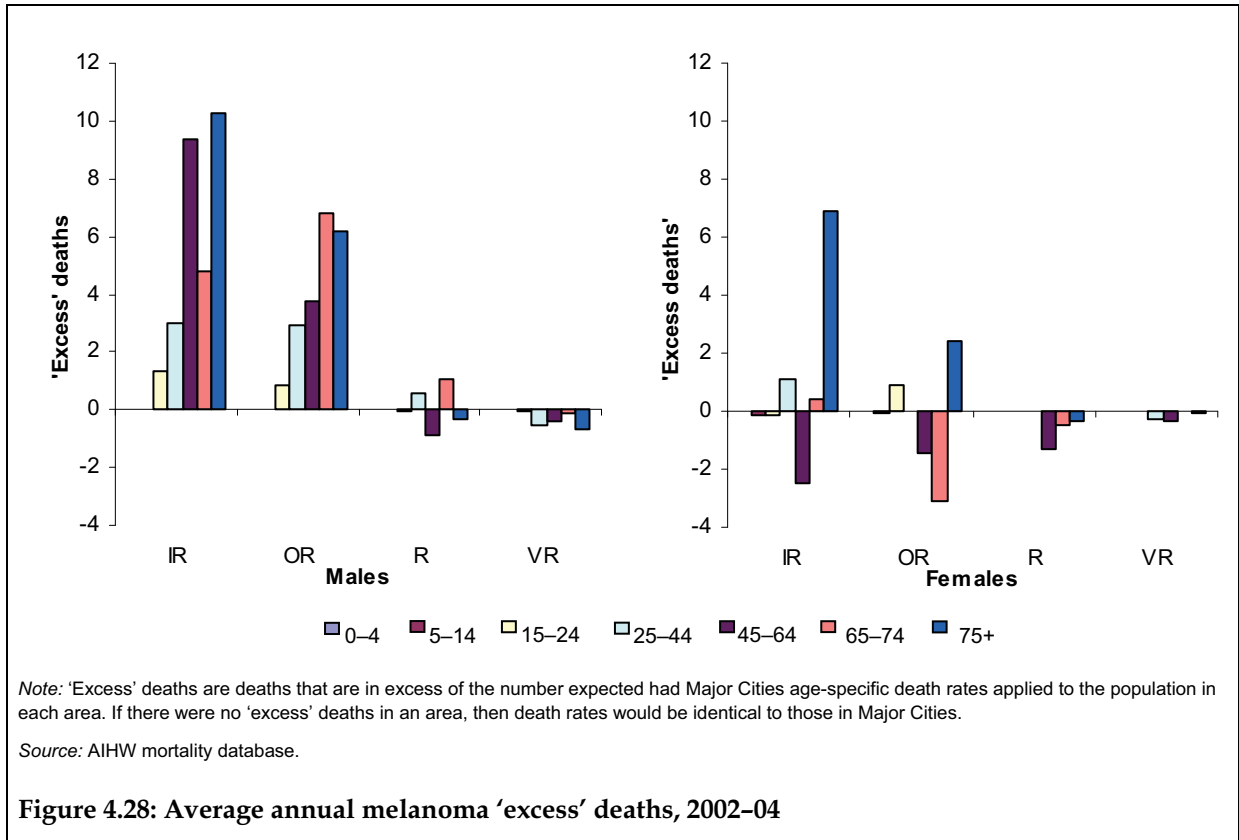


Table 4.18: SMIRs, average annual deaths and 'excess' deaths due to melanoma, 2002-04 and 1997-99

	Males						Females						Persons					
	MC		OR		VR		MC		OR		VR		MC		OR		VR	
	Rate	IR	Ratio	R	Rate	VR	Rate	IR	Ratio	R	Rate	VR	Rate	IR	Ratio	R	Rate	VR
2002-04																		
0-4	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
5-14	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
15-24	0	3.62	4.31	0.00	0.00	0.00	0	0.06	14.21	0.00	0.00	0.00	0	2.81	*6.50	0.00	0.00	0.00
25-44	2	1.28	1.53	1.55	0.09	0.80	1	1.16	1.01	0.97	0.03	0.03	2	1.23	1.33	1.34	0.07	0.07
45-64	9	*1.19	1.15	0.78	0.80	0.80	4	0.89	0.87	0.14	0.51	0.51	7	1.09	1.06	0.60	0.72	0.72
65-74	26	1.12	*1.34	1.42	0.89	0.89	10	1.03	0.59	0.41	1.10	1.10	18	1.09	1.14	1.16	0.94	0.94
75+	56	*1.16	1.22	0.90	0.41	0.41	21	*1.21	1.17	0.76	0.82	0.82	35	*1.18	*1.20	0.86	0.53	0.53
Total	7	*1.17	*1.26	1.04	0.63	0.63	4	1.07	0.97	0.50	0.61	0.61	5	*1.14	*1.17	0.88	0.62	0.62
Total <65	3	*1.22	*1.24	0.93	0.62	0.62	2	0.95	0.96	0.37	0.36	0.36	2	*1.13	1.15	0.76	0.54	0.54
1997-99																		
Total	6	*1.25	1.06	0.84	0.43	0.43	4	1.01	1.01	1.00	0.95	0.95	5	*1.17	1.04	0.89	0.60	0.60
Total <65	3	*1.43	*1.24	0.87	0.44	0.44	2	1.01	1.17	1.15	0.86	0.86	2	*1.27	*1.21	0.96	0.57	0.57
Total†	0.97	*1.21	1.02	0.81	0.43	0.43	1.07	1.08	1.08	1.08	1.06	1.06	1.00	*1.16	1.04	0.90	0.61	0.61
Total <65†	0.99	*1.41	1.22	0.87	0.45	0.45	1.12	1.13	1.31	1.30	1.00	1.00	1.04	*1.31	*1.25	1.00	0.61	0.61

(continued)

Table 4.18 (continued): SMRs, average annual deaths and 'excess' deaths due to melanoma, 2002-04 and 1997-99

	Males					Females					Persons				
	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR
Average annual number of excess deaths															
2002-04															
0-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-24	0	1	1	0	0	0	0	1	0	0	0	1	2	0	0
25-44	0	3	3	1	-1	0	1	0	0	0	0	4	3	1	-1
45-64	0	9	4	-1	0	0	-2	-1	-1	0	0	7	2	-2	-1
65-74	0	5	7	1	0	0	0	-3	0	0	0	5	4	1	0
75+	0	10	6	0	-1	0	7	2	0	0	0	17	9	-1	-1
Excess total	0	29	20	0	-2	0	6	-1	-2	-1	0	34	19	-2	-2
Deaths total	459	193	99	11	3	240	87	35	2	1	699	280	134	13	4
Excess <65	0	14	8	0	-1	0	-2	-1	-1	-1	0	12	7	-2	-2
Deaths <65	183	74	38	5	1	94	29	14	1	0	276	103	52	5	2
1997-99															
Excess total	0	33	4	-1	-2	0	1	0	0	0	0	34	4	-1	-2
Excess total†	-13	28	1	-2	-2	14	5	3	0	0	1	33	4	-1	-2
Deaths total	373	162	68	7	2	227	75	35	4	2	600	237	102	11	3
Excess <65	0	21	6	-1	-1	0	0	3	0	0	0	21	9	0	-1
Excess <65†	-1	20	6	-1	-1	10	3	4	1	0	9	24	10	0	-1
Deaths <65	152	70	32	4	1	93	29	17	2	1	244	99	50	6	2

Notes

- The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
- The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
- For further explanation, refer to section 2.3.

Table 4.19: SMIRs, average annual deaths and 'excess' deaths due to melanoma, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons						
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			
	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate	
	Rate	Ratio	Ratio	Ratio	Ratio	Rate	Rate	Ratio	Ratio	Ratio	Ratio	Rate	Rate	Ratio	Ratio	Ratio	Ratio	Rate	
2002-04																			
0-4	0	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5-14	0	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15-24	0	*3.69	4.56	0.00	0.00	0	0.06	15.26	0.00	0.00	0	2.86	*6.90	0.00	0.00	0.00	0.00	0.00	0.00
25-44	2	1.28	1.55	1.76	0.13	0.00	1	1.26	1.13	1.18	1	1.27	1.39	1.56	0.11	0.00	0.00	0.00	0.00
45-64	9	*1.19	1.17	0.86	0.82	2.32	4	0.91	0.90	0.16	0.78	0.00	0.00	0.67	0.81	2.32	0.00	0.00	0.00
65-74	25	1.09	*1.34	1.51	1.15	0.00	10	1.09	0.64	0.47	1.75	0.00	0.00	1.15	1.28	0.00	0.00	0.00	0.00
75+	55	1.14	*1.25	0.96	0.54	0.00	21	1.19	1.16	0.81	1.12	0.00	0.00	*1.22	0.91	0.70	0.00	0.00	0.00
Total	7	*1.16	*1.28	1.13	0.74	2.32	3	1.09	1.00	0.56	0.93	0.00	0.00	*1.19	0.96	0.79	2.32	0.00	0.00
Total <65	3	*1.23	*1.26	1.03	0.67	2.32	2	0.98	1.02	0.43	0.57	0.00	0.00	*1.18	0.86	0.64	2.32	0.00	0.00
1997-99																			
Total	6	*1.27	1.09	0.89	0.59	0.00	4	1.02	1.03	1.04	1.29	3.07	5	*1.18	1.07	0.94	0.79	3.07	3.07
Total <65	3	*1.44	*1.27	0.93	0.58	0.00	2	0.99	1.16	1.15	1.09	3.07	2	*1.27	*1.23	1.00	0.74	3.07	3.07
Total†	0.94	*1.10	0.94	0.77	0.50	n.p.	*1.09	1.05	1.07	1.10	1.41	n.p.	0.99	*1.08	0.98	0.87	0.72	n.p.	n.p.
Total <65†	0.97	*1.23	1.08	0.79	0.49	n.p.	*1.18	1.08	1.28	1.31	1.27	n.p.	1.04	*1.18	1.14	0.93	0.68	n.p.	n.p.

(continued)

Table 4.19 (continued): SMRs, average annual deaths and 'excess' deaths due to melanoma, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons					
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous		
	MC	IR	OR	R	VR		MC	IR	OR	R	VR		MC	IR	OR	R	VR	
Average annual number of excess deaths																		
2002-04																		
0-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-24	0	1	1	0	0	0	0	0	1	0	0	0	0	1	2	0	0	0
25-44	0	3	3	1	0	0	0	2	0	0	0	0	0	4	3	1	0	0
45-64	0	9	4	0	0	0	0	-2	-1	-1	0	0	0	7	3	-2	0	0
65-74	0	4	7	1	0	0	0	1	-3	0	0	0	0	5	4	1	0	0
75+	0	9	7	0	0	0	0	6	2	0	0	0	0	15	9	0	0	0
Excess total	0	26	21	1	-1	0	0	7	0	-2	0	0	0	33	21	0	-1	0
Deaths total	447	185	96	11	2	1	230	84	34	2	1	0	677	270	130	13	4	1
Excess <65	0	13	8	0	-1	0	0	-1	0	-1	0	0	0	13	8	-1	-1	0
Deaths <65	176	72	37	5	1	1	89	28	14	1	0	0	265	100	51	5	2	1
1997-99																		
Excess total	0	34	5	-1	-1	0	0	1	1	0	0	0	0	35	6	-1	-1	0
Excess total†	-21	14	-4	-2	-2	n.p.	18	3	2	0	0	0	n.p.	-4	18	-2	-1	n.p.
Deaths total	366	161	68	7	2	0	222	73	34	4	1	0	589	233	101	11	3	0
Excess <65	0	21	7	0	-1	0	0	0	2	0	0	0	0	21	9	0	-1	0
Excess <65†	-4	13	3	-1	-1	n.p.	14	2	4	1	0	0	n.p.	10	15	6	0	n.p.
Deaths <65	150	69	32	4	1	0	92	28	16	2	1	0	243	98	49	6	2	0

Notes

- The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
- The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
- For further explanation, refer to section 2.3.

4.7 All other neoplasms

Highlights

All other neoplasms were responsible for 15% of all deaths and about 8% of excess deaths in regional areas and 6% and 3% of excess deaths in Remote and Very Remote areas.

Death rates for males were slightly higher than for females.

Death rates for Indigenous Australians were about double the rates for non-Indigenous Australians in Major Cities.

SMRs were about 1.1 in regional areas. In remote areas, SMRs for males were not significantly different from 1.0, while SMRs for females were approximately 1.2 and 1.3.

For non-Indigenous Australian males, the pattern was different. While SMRs for regional males were about 1.1, those for regional females and most people in remote areas were not significantly different from 1.0 – with SMRs for Very Remote females (0.9) actually significantly lower than 1.0.

Since 1992, death rates have tended to decrease in all areas, although the decreases in remote areas have not been statistically significant.

This group includes all cancers and other neoplasms not already described in previous sections (that is, all cancers and other neoplasms (ICD-10 codes C00–D48) except melanoma and lung, colorectal, breast, cervical and prostate cancer.

As a group, they constitute a relatively large proportion of cancer deaths and any substantial inter-regional differences may suggest further work.

On average during the period, all other neoplasms were responsible for 20,093 deaths annually – this is 15.1% of all deaths. Half (55%) were male; 64% were in Major Cities, 34% in regional and 2% in remote areas.

Overall death rates for Indigenous Australians were about two times the rates for non-Indigenous Australians in Major Cities.

In regional areas:

Death rates were about 5% higher than in Major Cities.

For 0–64 year olds, death rates for males were about 10–15% higher than in Major Cities. For similar aged females, rates were similar to those in Major Cities.

The inter-regional pattern for non-Indigenous Australians was similar to that above.

Annually there are 4,700 and 2,180 deaths in Inner Regional and Outer Regional areas; about 56% were male.

Annually there were 181 and 113 ‘excess’ deaths in Inner Regional and Outer Regional areas; this is 8% and 7% of all ‘excess’ deaths in Inner Regional and Outer Regional areas. About two-thirds (71%) of the ‘excess’ were male. The bulk of the excess was among those 45 years and older.

Compared with the previous reporting period (1997–99), there were 519 more deaths of males and 460 more deaths of females annually in 2002–04.

The 12-year trend (AIHW 2006a) is for decreasing death rates for males and females (at a rate that is slower in Inner Regional areas than in Major Cities).

In remote areas:

Death rates for males in remote areas were similar to those in Major Cities; death rates for females in Remote and Very Remote areas were about 15% and 25% higher than those in Major Cities.

For 0–64 year olds, death rates in remote areas were elevated, but not significantly higher than in Major Cities.

Death rates for Remote area non-Indigenous Australians were not significantly different from those in Major Cities, and were about 15% lower for people from Very Remote areas.

Annually there are 266 and 112 deaths in Remote and Very Remote areas; about 58% were male.

Annually there were 18 and 13 'excess' deaths in Remote and Very Remote areas; this is 6% and 3% of all 'excess' deaths in Remote and Very Remote areas.

Compared with the previous reporting period (1997–99), there were 24 more deaths of males and 38 more deaths of females annually in 2002–04.

The 12-year trend (AIHW 2006a) is for decreases in mortality (that are not significantly different from zero).

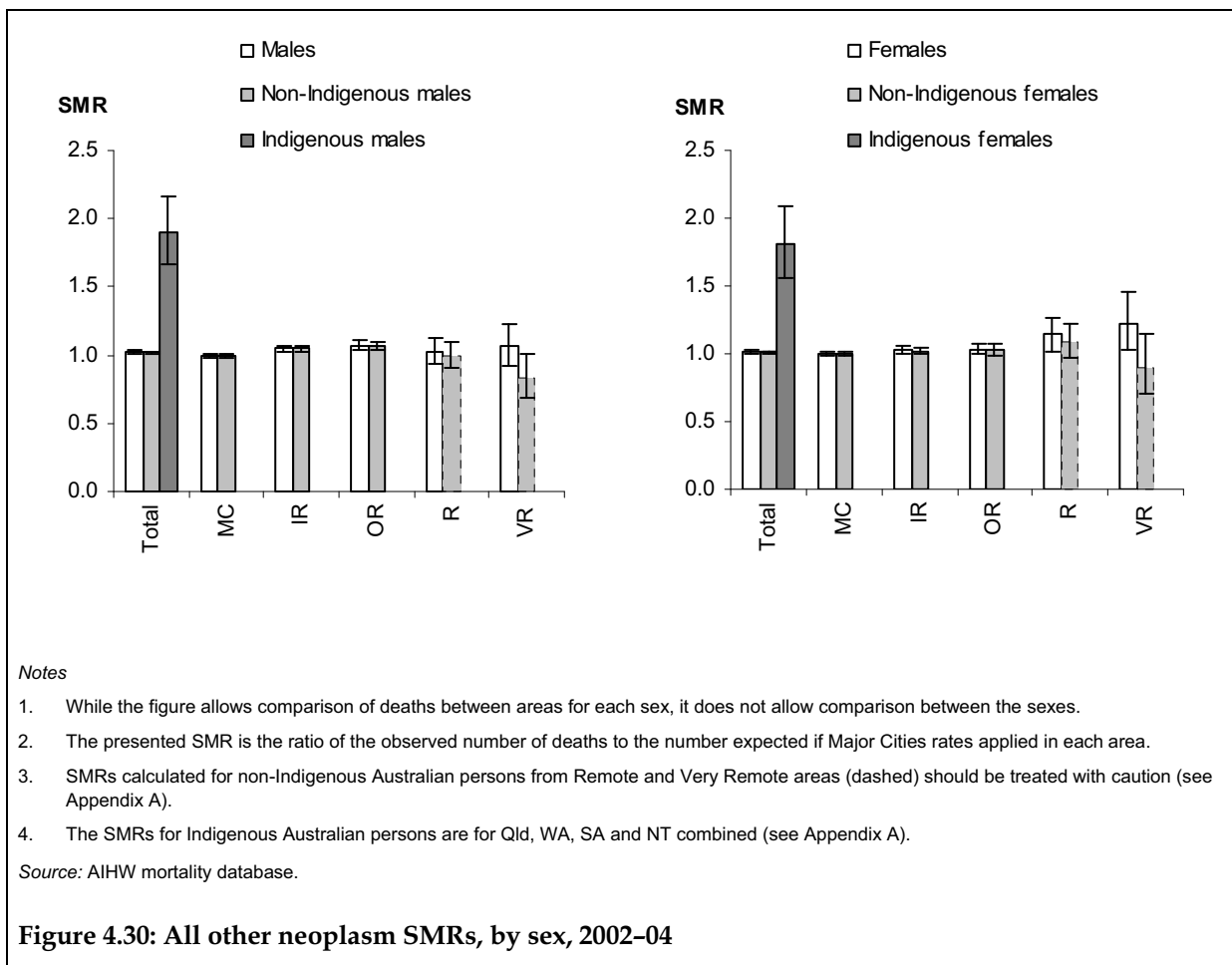


Figure 4.30: All other neoplasm SMRs, by sex, 2002-04

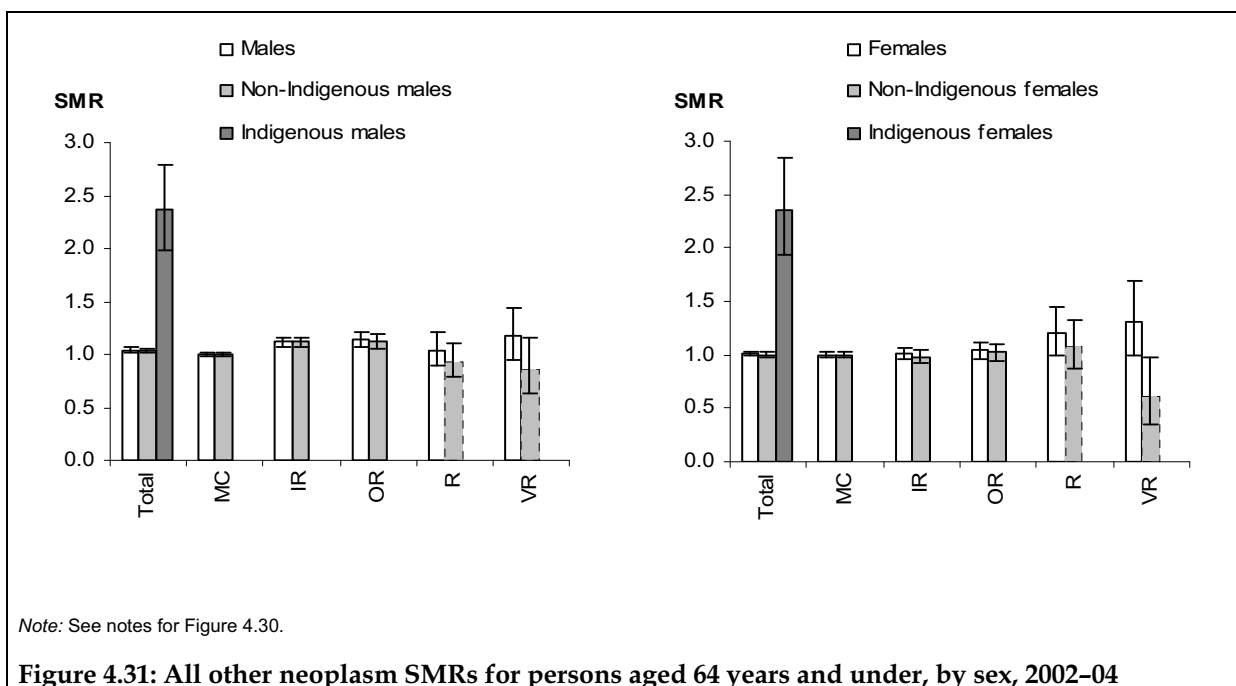


Figure 4.31: All other neoplasm SMRs for persons aged 64 years and under, by sex, 2002-04

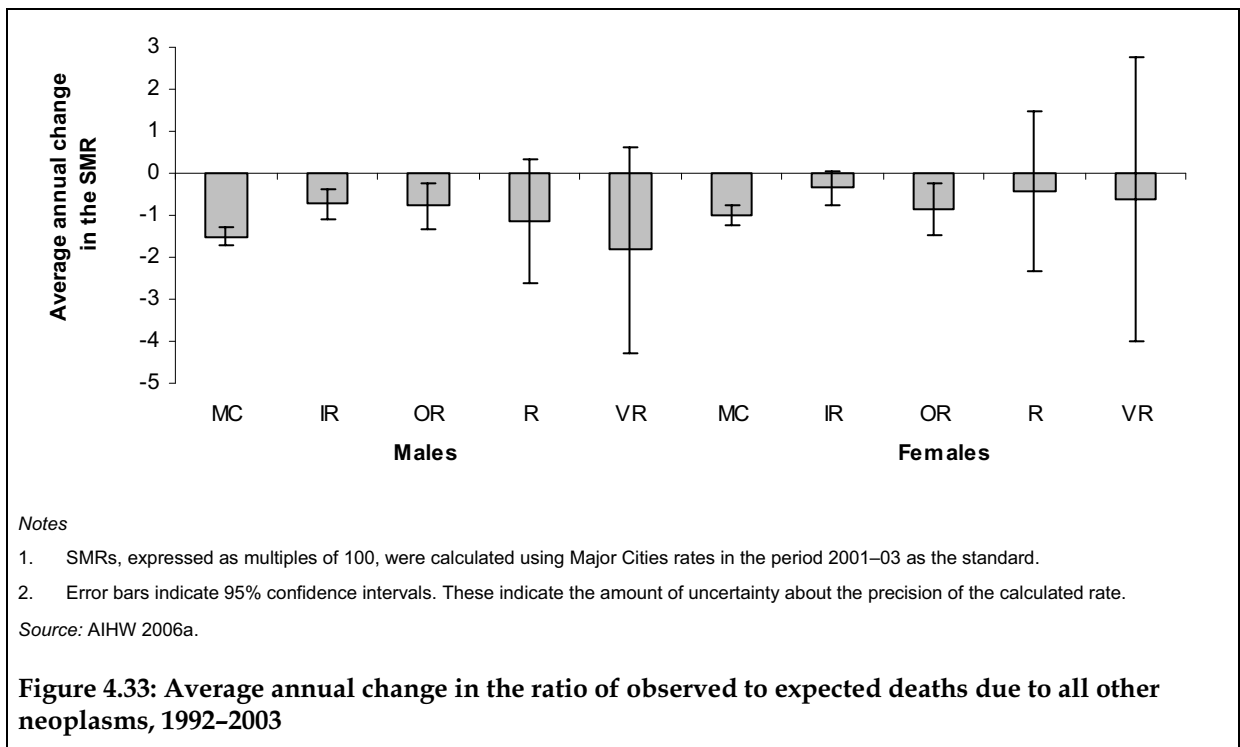
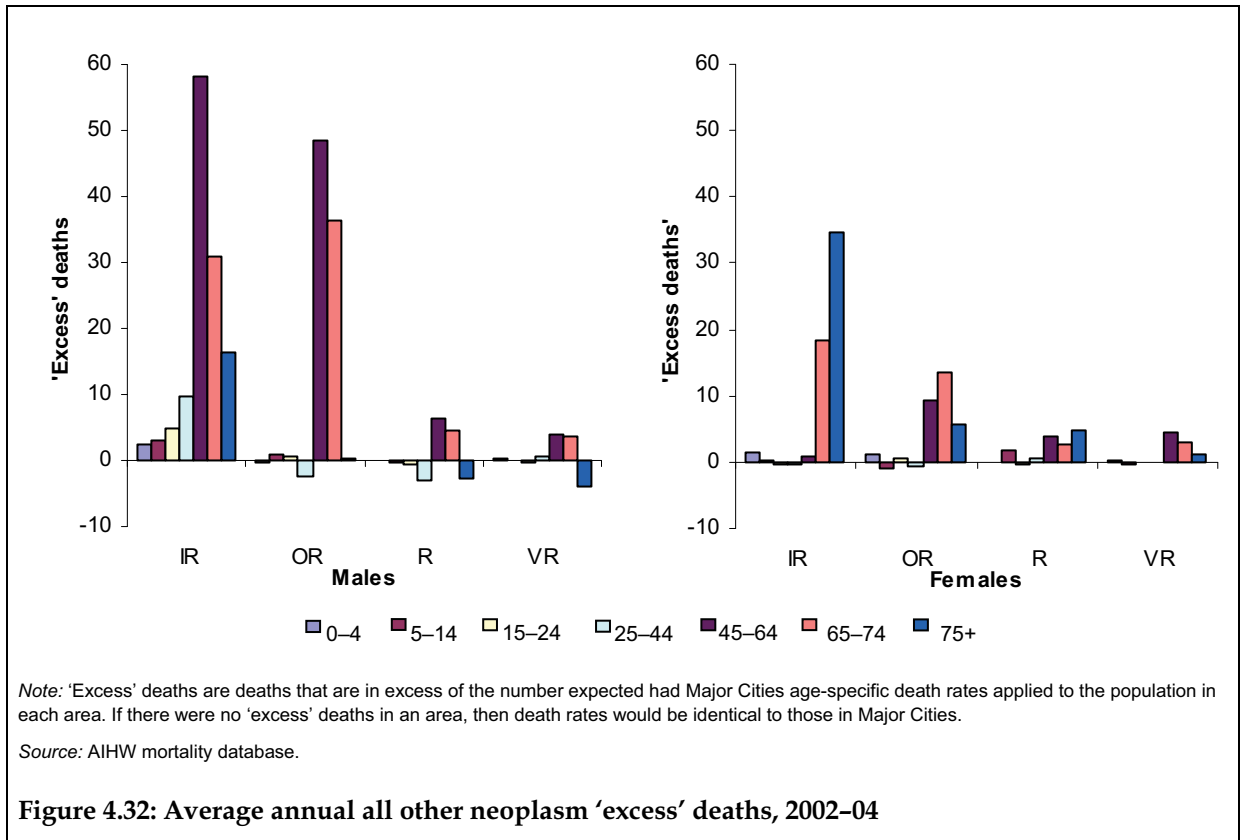


Table 4.20: SMIRs, average annual deaths and 'excess' deaths due to 'other' neoplasms, 2002-04 and 1997-99

	Males						Females						Persons					
	MC	IR	OR	R	VR		MC	IR	OR	R	VR		MC	IR	OR	R	VR	
	Rate		Ratio			Rate	Rate		Ratio			Rate	Rate		Ratio			
2002-04																		
0-4	4	1.53	0.92	0.83	2.34	3	1.40	1.60	1.11	1.54	3	*1.47	1.22	0.95	1.99			
5-14	3	1.36	1.20	0.67	0.75	2	1.04	0.77	*4.07	0.15	3	1.21	1.00	*2.22	0.48			
15-24	4	*1.42	1.12	0.21	0.47	3	0.96	1.15	0.51	0.86	4	1.23	1.13	0.33	0.62			
25-44	13	1.13	0.94	0.59	1.16	10	1.00	0.98	1.12	1.03	11	1.07	0.95	0.80	1.11			
45-64	107	*1.10	*1.17	1.14	1.19	74	1.00	1.05	1.16	*1.43	90	*1.06	*1.12	*1.15	*1.27			
65-74	437	*1.04	*1.11	1.11	1.23	278	1.04	1.07	1.12	1.35	354	*1.04	*1.09	1.11	*1.27			
75+	1,003	1.01	1.00	0.95	0.80	690	1.03	1.01	1.11	1.08	812	1.02	1.01	1.02	0.92			
Total	105	*1.05	*1.07	1.03	1.07	89	*1.03	1.03	*1.14	*1.23	97	*1.04	*1.05	1.07	*1.13			
Total <65	34	*1.12	*1.14	1.04	1.18	24	1.00	1.04	1.20	1.31	29	*1.07	*1.10	1.10	*1.22			
1997-99																		
Total	102	*1.02	1.02	1.00	1.04	87	0.98	0.98	0.92	1.16	89	1.00	1.00	0.97	1.08			
Total <65	35	*1.07	*1.07	1.03	*1.28	24	1.00	1.02	0.92	1.31	28	*1.04	*1.05	0.99	*1.29			
Total†	*1.06	*1.09	*1.09	1.07	1.12	*1.04	1.02	1.02	0.95	*1.22	*1.05	*1.06	*1.06	1.02	*1.16			
Total <65†	*1.09	*1.17	*1.17	1.12	*1.42	*1.04	1.04	1.06	0.96	*1.39	*1.07	*1.12	*1.13	1.06	*1.41			

(continued)

Table 4.20 (continued): SMRs, average annual deaths and 'excess' deaths due to 'other' neoplasms, 2002-04 and 1997-99

	Males						Females						Persons								
	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR	
Average annual number of excess deaths																					
2002-04																					
0-4	0	3	0	0	0	0	2	1	0	0	0	0	0	0	0	0	4	1	0	0	1
5-14	0	3	1	0	0	0	0	-1	2	0	0	0	3	0	0	0	3	0	2	0	0
15-24	0	5	1	-1	0	0	0	1	0	0	0	0	4	1	0	0	4	1	-1	0	0
25-44	0	10	-3	-3	1	0	0	-1	1	0	0	0	9	-3	1	0	9	-3	-2	1	1
45-64	0	58	48	6	4	0	1	9	4	5	0	59	58	10	9	0	59	58	10	9	9
65-74	0	31	36	5	4	0	18	13	3	3	0	49	50	7	7	0	49	50	7	7	7
75+	0	16	0	-3	-4	0	35	6	5	1	0	51	6	2	-3	0	51	6	2	-3	-3
Excess total	0	126	84	4	4	0	55	29	14	8	0	181	113	18	13	0	181	113	18	13	13
Deaths total	6,842	2,618	1,260	154	66	5,945	2,082	920	112	46	12,787	4,700	2,180	266	112	0	12,787	4,700	266	112	112
Excess <65	0	78	47	2	5	0	2	10	6	4	0	80	57	8	9	0	80	57	8	9	9
Deaths <65	1,986	752	389	55	30	1,398	471	232	37	19	3,384	1,223	621	93	49	0	3,384	1,223	93	49	49
1997-99																					
Excess total	0	54	23	0	2	0	-40	-19	-7	5	0	14	4	-8	7	0	14	4	-8	7	7
Excess total†	357	181	88	8	6	205	29	12	-4	7	562	209	99	5	13	0	562	209	99	5	13
Deaths total	6,258	2,257	1,102	137	59	5,460	1,750	792	82	38	11,718	4,007	1,894	220	97	0	11,718	4,007	220	97	97
Excess <65	0	45	24	2	7	0	0	4	-2	4	0	45	28	-1	11	0	45	28	-1	11	11
Excess <65†	163	100	53	6	9	48	15	12	-1	5	210	115	65	5	14	0	210	115	65	5	14
Deaths <65	1,903	670	359	54	32	1,288	417	212	27	17	3,191	1,087	571	81	49	0	3,191	1,087	571	81	49

Notes

- The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
- The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
- For further explanation, refer to section 2.3.

Table 4.21: SMRs, average annual deaths and 'excess' deaths due to 'other' neoplasms, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons						
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			
	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate	
	Rate	Ratio	Ratio	Ratio	Ratio	Rate	Rate	Ratio	Ratio	Ratio	Ratio	Rate	Rate	Ratio	Ratio	Ratio	Ratio	Rate	
2002-04																			
0-4	3	1.58	1.07	1.09	3.11	1.08	3	1.16	1.30	1.21	0.92	1.29	3	1.39	1.17	1.15	2.14	1.18	
5-14	3	1.45	1.34	0.19	2.01	1.46	2	0.97	0.70	*3.86	0.36	0.79	2	1.22	1.03	1.96	1.21	1.14	
15-24	4	*1.48	1.15	0.10	0.00	0.64	3	0.99	1.17	0.65	2.27	0.00	4	1.27	1.16	0.32	0.80	0.64	
25-44	12	*1.15	0.92	*0.43	0.30	*2.34	9	0.95	0.97	0.97	0.60	*2.18	11	1.07	0.94	*0.64	*2.27	*0.41	
45-64	105	*1.10	*1.15	1.03	0.95	*2.55	72	0.99	1.03	1.04	*0.57	*2.58	88	*1.05	*1.10	1.04	0.83	*2.56	
65-74	428	1.04	*1.10	1.11	0.99	*1.90	271	1.04	1.07	1.07	0.88	*1.82	346	*1.04	*1.09	1.09	0.96	*1.86	
75+	983	1.01	1.00	0.97	*0.68	1.11	674	1.03	1.02	1.11	1.18	0.99	795	1.02	1.01	1.03	0.88	1.06	
Total	104	*1.05	*1.07	1.00	0.84	*1.91	88	1.02	1.03	1.09	0.90	*1.81	96	*1.03	*1.05	1.03	*0.86	*1.86	
Total <65	33	*1.12	*1.13	0.93	0.87	*2.36	24	0.98	1.03	1.08	*0.61	*2.36	29	*1.06	*1.09	0.99	*0.78	*2.36	
1997-99																			
Total	101	*1.03	1.03	0.97	*0.79	*1.86	86	0.98	0.98	0.88	0.91	*1.58	94	1.01	1.01	0.94	*0.83	*1.74	
Total <65	34	*1.08	1.06	0.95	0.83	*2.41	23	1.01	1.03	0.81	0.93	*1.93	29	*1.05	1.05	0.90	0.86	*2.20	
Total†	*1.07	*1.07	*1.06	1.01	0.82	<i>n.p.</i>	*1.05	1.00	1.00	0.89	0.93	<i>n.p.</i>	*1.06	*1.03	*1.03	0.96	0.86	<i>n.p.</i>	
Total <65†	*1.11	*1.18	*1.14	1.03	0.90	<i>n.p.</i>	*1.06	*1.07	*1.09	0.86	1.00	<i>n.p.</i>	*1.09	*1.13	*1.12	0.97	0.93	<i>n.p.</i>	

(continued)

Table 4.21 (continued): SMRs, average annual deaths and 'excess' deaths due to 'other' neoplasms, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons						
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			
	MC	IR	OR	R	VR	Indigenous	MC	IR	OR	R	VR	Indigenous	MC	IR	OR	R	VR	Indigenous	
Average annual number of excess deaths																			
2002-04																			
0-4	0	3	0	0	0	0	0	1	1	0	0	0	0	3	1	0	0	0	0
5-14	0	3	1	0	0	0	0	0	-1	1	0	0	0	3	0	1	0	0	0
15-24	0	5	1	-1	0	0	0	0	1	0	0	0	0	5	1	-1	0	0	0
25-44	0	11	-3	-3	-2	5	0	-3	-1	0	-1	3	0	8	-4	-4	-2	8	8
45-64	0	55	41	1	-1	21	0	-4	6	1	-3	17	0	50	47	2	-4	39	39
65-74	0	24	33	4	0	9	0	16	14	1	-1	6	0	40	46	5	-1	15	15
75+	0	10	1	-2	-5	1	0	34	7	5	2	0	0	43	8	3	-3	1	1
Excess total	0	110	74	-1	-7	36	0	43	26	8	-2	27	0	153	101	8	-10	63	63
Deaths total	6,666	2,533	1,208	138	39	76	5,791	2,013	883	98	23	60	12,457	4,546	2,091	235	62	136	136
Excess <65	0	76	41	-3	-2	27	0	-7	5	2	-4	21	0	70	46	-1	-6	47	47
Deaths <65	1,917	724	364	45	16	46	1,359	447	216	30	6	36	3,276	1,170	581	74	22	82	82
1997-99																			
Excess total	0	72	26	-4	-9	31	0	-26	-12	-10	-2	17	0	46	14	-14	-11	48	48
Excess total†	394	136	61	1	-7	n.p.	231	-9	-3	-9	-2	n.p.	625	128	57	-7	-9	n.p.	n.p.
Deaths total	6,134	2,228	1,072	125	33	67	5,352	1,724	774	73	21	45	11,485	3,953	1,846	198	53	173	173
Excess <65	0	51	18	-2	-3	25	0	4	5	-5	-1	13	0	55	23	-7	-4	38	38
Excess <65†	189	98	43	1	-2	n.p.	73	27	17	-3	0	n.p.	262	125	59	-2	-2	n.p.	n.p.
Deaths <65	1,855	658	339	46	15	43	1,257	409	204	21	8	27	3,112	1,068	543	67	23	70	70

Notes

1. The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
2. The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
3. For further explanation, refer to section 2.3.

5 Diseases of the circulatory system

Chapter highlights

Diseases of the circulatory system were responsible for about 37% of all deaths, and for about 40% and 25% of excess deaths in regional and remote areas respectively.

About half of the deaths in this chapter outside Major Cities were due to coronary heart disease, with about 25% contributed by cerebrovascular disease and by 'other' diseases of the circulatory system. By contrast, about half of the excess deaths in this chapter are each contributed by coronary heart disease and 'other' diseases of the circulatory system. These each contribute close to 20% of all excess deaths outside Major Cities. As such, these are the most substantial contributors to overall higher rates of death outside Major Cities.

Most of the excess deaths were amongst people aged 75 years and older; however, there were substantial numbers of excess deaths also amongst those aged 45–64 years and 65–74 years.

Circulatory death rates for Indigenous Australians were three times higher than the rates for non-Indigenous Australians in Major Cities.

SMRs were higher in regional areas (1.1 times) and highest in Very Remote areas (1.5 times). For those younger than 65 years, this pattern expanded to 1.2, 1.3, 1.7 and 3.7 in Inner Regional, Outer Regional, Remote and Very Remote areas respectively.

For non-Indigenous people, SMRs were 1.1 in regional and Remote areas and 1.0 in Very Remote areas. For those younger than 65 years, the SMR was 1.2 in regional areas, 1.0 in Remote areas and 1.3 in Very Remote areas.

Death rates are declining in all areas, fastest for males in Very Remote areas.

This chapter discusses mortality due to the broad category of circulatory disease (ICD-10 chapter 9, codes I00–I99).

This group includes all diseases of the heart and circulatory system. It includes coronary heart disease, cerebrovascular disease (including stroke), heart failure, peripheral vascular disease and rheumatic heart disease. Broad contributing causes include tobacco smoking, insufficient physical activity, poor nutrition (including high fat intake), overweight, high blood pressure, high blood cholesterol and diabetes (AIHW 2006b).

The specific circulatory diseases also discussed include:

1. cerebrovascular disease (stroke)
2. ischaemic heart disease (coronary heart disease)
3. other circulatory diseases.

Rates of ischaemic heart disease and cerebrovascular disease are described because they are the most frequent causes of death in this ICD chapter.

On average during the period, diseases of the circulatory system were responsible for 48,922 deaths annually – this is 37% of all deaths. Half (48%) were male; 63% were in Major Cities, 35% in regional and 2% in remote areas.

Overall death rates for Indigenous Australians were three times higher than the rates for non-Indigenous Australians in Major Cities.

In regional areas:

Death rates for males were about 10% higher than in Major Cities.

For 0–64 year olds, death rates in Inner Regional and Outer Regional areas were 15–35% higher than in Major Cities.

The inter-regional pattern for non-Indigenous Australians was similar to that above, although rates for people in Outer Regional areas younger than 65 years were about 20% higher than in Major Cities.

Annually there are 11,647 and 5,331 deaths in Inner Regional and Outer Regional areas; about 50% were male. Annually there were 918 and 565 'excess' deaths in Inner Regional and Outer Regional areas; this is 43% and 36% of all 'excess' deaths in Inner Regional and Outer Regional areas. Over half (57%) of the 'excess' deaths were male. About half the male 'excess' deaths and about two-thirds of the female 'excess' deaths were amongst those aged older than 75 years, with a substantial proportion of the male and female excess aged 45–74 years.

Compared with the previous reporting period (1997–99), there were 521 fewer deaths of males and 186 fewer deaths of females annually in 2002–04.

The 12-year trend (AIHW 2006a) is for decreasing death rates for males and females at about the same rate as in Major Cities.

Between 1997–99 and 2002–04, the number of excess deaths in regional areas decreased (as estimated using 2002–04 Major Cities rates as the standard). For example, in 1997–99 there were 1,714 and 1,352 more deaths of Inner Regional males and females annually than if 2002–04 Major Cities age-specific rates had applied; in 2002–04, this number had decreased to 495 and 423 more deaths than if 2002–04 Major Cities age-specific rates had applied.

Death rates¹⁰ decreased between the previous (1997–99) and the more recent (2002–04) reporting periods.

However, the relative differences¹¹ between Major Cities and regional areas do not appear to have changed substantially.

In remote areas:

Death rates in Remote and Very Remote areas were 1.2 and 1.5 times those in Major Cities.

For 0–64 year olds, death rates in Remote and Very Remote areas were 1.7 and 3.7 times those in Major Cities. This higher rate appears to be entirely a reflection of the relative large numbers of Indigenous Australians in these areas (coupled with overall higher mortality for Indigenous Australians).

Death rates for non-Indigenous Australians from Remote areas were not significantly different from those in Major Cities, while rates for those in Very Remote areas were 1.2 times those in Major Cities.

Annually there are 601 and 292 deaths in Remote and Very Remote areas; about 57% were male. Annually there were 78 and 98 'excess' deaths in Remote and Very Remote areas; this is 28% and 24% of all 'excess' deaths in Remote and Very Remote areas. Over half (59%) of

¹⁰ As expressed by SMRs calculated for both periods using Major Cities age- and sex- specific rates in 2002–04 as the standard.

¹¹ As expressed by SMRs calculated for each period using Major Cities age- and sex-specific rates in each period as the standard.

the 'excess' deaths were male. The excess was mainly concentrated amongst the 45–64 year olds, but with substantial numbers of excess deaths also amongst 25–44 year olds and 65–74 year olds.

Compared with the previous reporting period (1997–99), there were 50 fewer deaths of males and 11 fewer deaths of females annually in 2002–04. The 12-year trend (AIHW 2006a) is for decreasing death rates for males and females at about the same rate as in Major Cities, although for males in Very Remote areas, the decline appears to be faster.

Between 1997–99 and 2002–04, the number of excess deaths in remote areas decreased (as estimated using 2002–04 Major Cities rates as the standard). For example, in 1997–99 there were 189 more deaths of Remote area people annually than if 2002–04 Major Cities age-specific rates had applied; in 2002–04, this number had decreased to 78 more deaths than if 2002–04 Major Cities age-specific rates had applied.

Death rates¹² appeared to decrease between the previous (1997–99) and the more recent (2002–04) reporting periods (for example, SMRs for Remote area people were 1.4 in 1997–99, and became 1.2 in 2002–04, compared with 1.0 for people in Major Cities in 2002–04).

However, the relative differences¹³ between Major Cities and remote areas appear not to have changed or to have increased slightly.

Coronary heart disease contributed about half to two-thirds of the male deaths and excess deaths and about one-third to one half of the female deaths and excess deaths in this chapter.

Table 5.1: Average annual deaths and 'excess' deaths, by type of circulatory disease, 2002–04

Cause of death	Males					Females				
	MC	IR	OR	R	VR	MC	IR	OR	R	VR
	Deaths									
Cerebrovascular disease	3,102	1,169	505	56	26	4,955	1,654	683	63	24
Coronary heart disease	8,248	3,289	1,59	196	95	7,700	2,753	1,195	117	54
Other circulatory disease	2,986	1,254	645	89	47	3,874	1,528	706	80	46
Total	14,337	5,712	2,74	340	168	16,529	5,935	2,584	260	124
	Excess deaths									
Cerebrovascular disease	0	40	–8	–4	3	0	6	–23	–7	1
Coronary heart disease	0	283	207	27	28	0	182	93	9	17
Other circulatory disease	0	172	147	28	23	0	236	150	25	27
Total	0	495	346	51	53	0	423	220	27	45

¹² As expressed by SMRs calculated for both periods using Major Cities age- and sex-specific rates in 2002–04 as the standard.

¹³ As expressed by SMRs calculated for each period using Major Cities age- and sex-specific rates in each period as the standard.

Table 5.2: Average annual deaths and 'excess' deaths for persons aged 64 years and under, by type of circulatory disease, 2002-04

Cause of death	Males					Females				
	MC	IR	OR	R	VR	MC	IR	OR	R	VR
Deaths										
Cerebrovascular disease	279	114	57	11	10	197	83	40	8	5
Coronary heart disease	1,451	559	339	59	52	330	141	82	13	22
Other circulatory disease	468	174	106	23	23	248	102	51	13	20
Total	2,199	848	502	93	85	774	326	173	34	47
Excess deaths										
Cerebrovascular disease	0	19	9	4	6	0	17	9	3	3
Coronary heart disease	0	61	86	21	34	0	28	29	6	19
Other circulatory disease	0	18	27	10	17	0	19	12	8	17
Total	0	98	122	34	57	0	65	49	16	39

Table 5.3: Average annual deaths and 'excess' deaths for non-Indigenous Australians, by type of circulatory disease, 2002-04

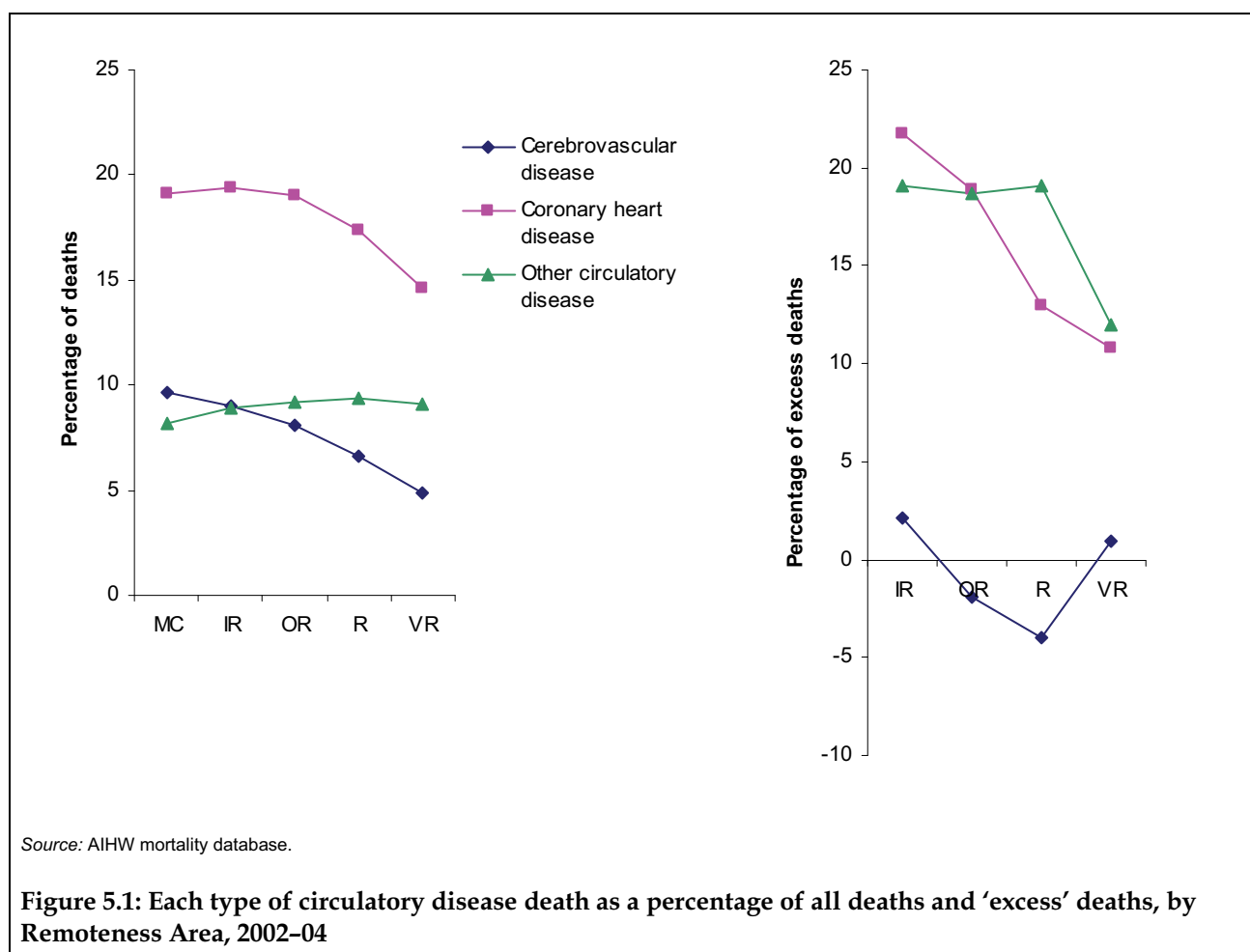
Cause of death	Males					Females				
	MC	IR	OR	R	VR	MC	IR	OR	R	VR
Deaths										
Cerebrovascular disease	3,013	1,135	481	49	15	4,807	1,600	659	54	12
Coronary heart disease	8,002	3,171	1,516	162	42	7,459	2,652	1,141	103	22
Other circulatory disease	2,893	1,216	614	74	21	3,755	1,472	671	69	18
Total	13,908	5,521	2,610	285	78	16,020	5,723	2,471	226	52
Excess deaths										
Cerebrovascular disease	0	40	-14	-7	-3	0	3	-21	-10	-4
Coronary heart disease	0	259	180	7	-8	0	165	81	3	-4
Other circulatory disease	0	169	136	19	3	0	222	137	18	5
Total	0	468	303	19	-7	0	389	197	11	-3

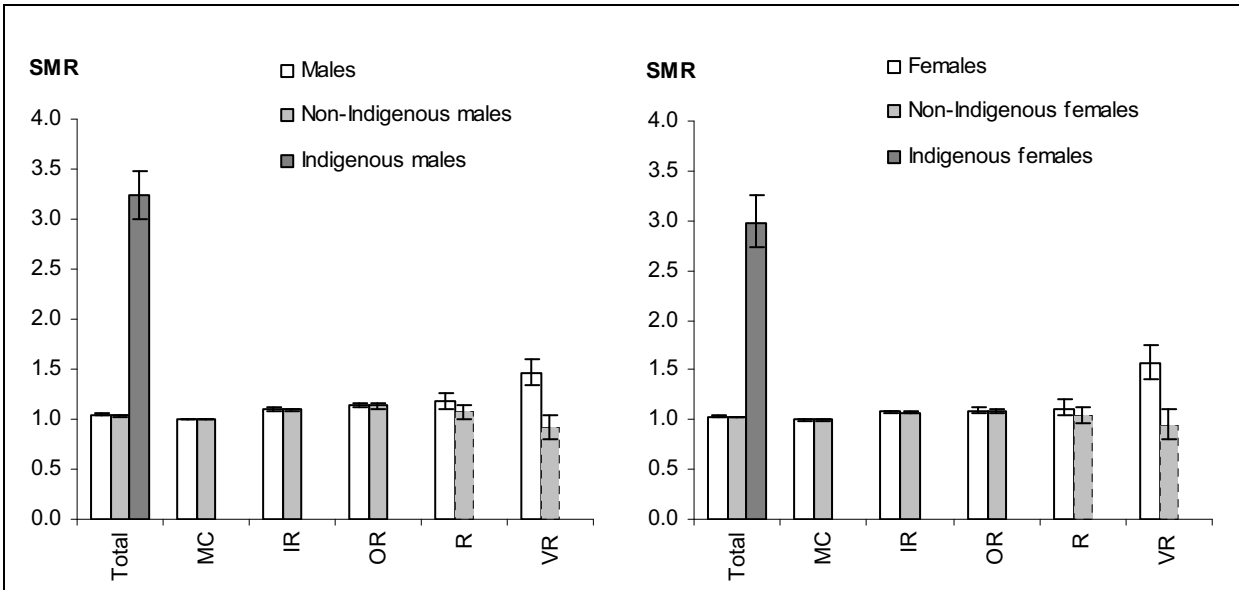
Table 5.4: Average annual deaths and 'excess' deaths for non-Indigenous Australians aged 64 years and under, by type of circulatory disease, 2002-04

Cause of death	Males					Females				
	MC	IR	OR	R	VR	MC	IR	OR	R	VR
Deaths										
Cerebrovascular disease	266	107	49	7	4	183	78	34	4	1
Coronary heart disease	1,382	526	294	35	15	305	129	65	6	2
Other circulatory disease	445	162	92	15	6	235	92	38	7	2
Total	2,093	795	435	58	25	723	298	138	17	6
Excess deaths										
Cerebrovascular disease	0	16	4	1	1	0	17	6	0	0
Coronary heart disease	0	54	57	1	2	0	25	17	0	0
Other circulatory disease	0	14	18	4	2	0	14	2	2	1
Total	0	84	79	5	5	0	55	24	2	1

Table 5.5: Average annual deaths and 'excess' deaths of Indigenous Australians in Qld, WA, SA and NT, by type of circulatory disease, 2002-04

Cause of death	Males		Females	
	Total population	0-64 years	Total population	0-64 years
	Deaths			
Cerebrovascular disease	31	16	34	14
Coronary heart disease	147	107	88	48
Other circulatory disease	54	37	58	35
Total	232	160	180	97
	Excess deaths			
Cerebrovascular disease	17	13	17	12
Coronary heart disease	106	94	60	45
Other circulatory disease	38	31	43	32
Total	160	139	120	89



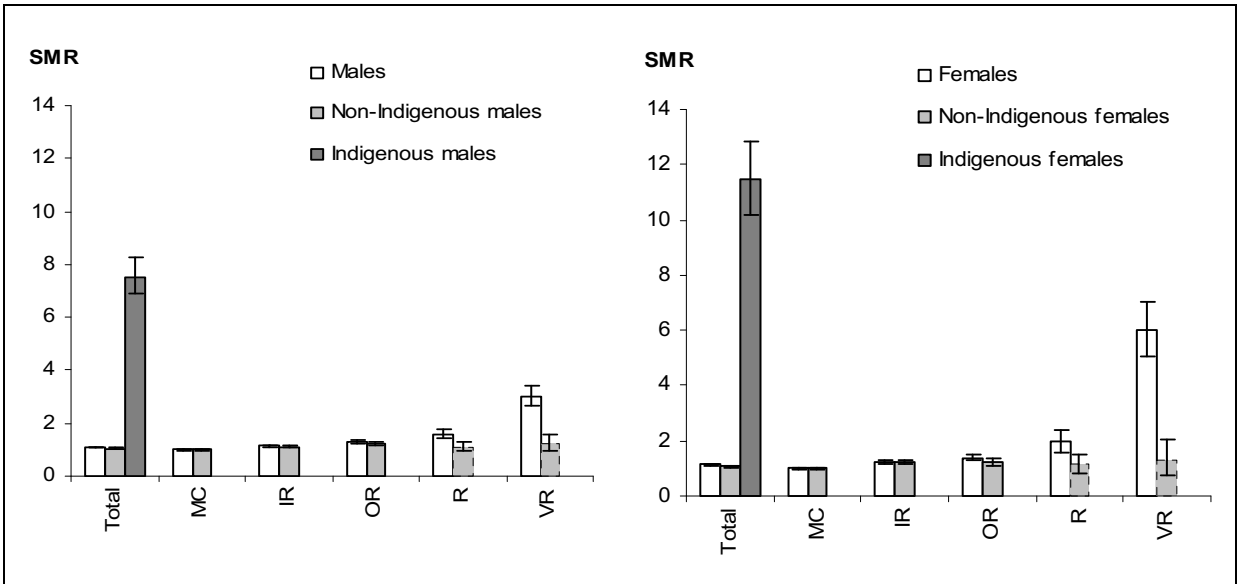


Notes

1. While the figure allows comparison of deaths between areas for each sex, it does not allow comparison between the sexes.
2. The presented SMR is the ratio of the observed number of deaths to the number expected if Major Cities rates applied in each area.
3. SMRs calculated for non-Indigenous Australian persons from Remote and Very Remote areas (dashed) should be treated with caution (see Appendix A).
4. The SMRs for Indigenous Australian persons are for Qld, WA, SA and NT combined (see Appendix A).

Source: AIHW mortality database.

Figure 5.2: Circulatory disease SMRs, by sex, 2002-04



Note: See notes for Figure 5.2.

Figure 5.3: Circulatory disease SMRs for persons aged 64 years and under, by sex, 2002-04

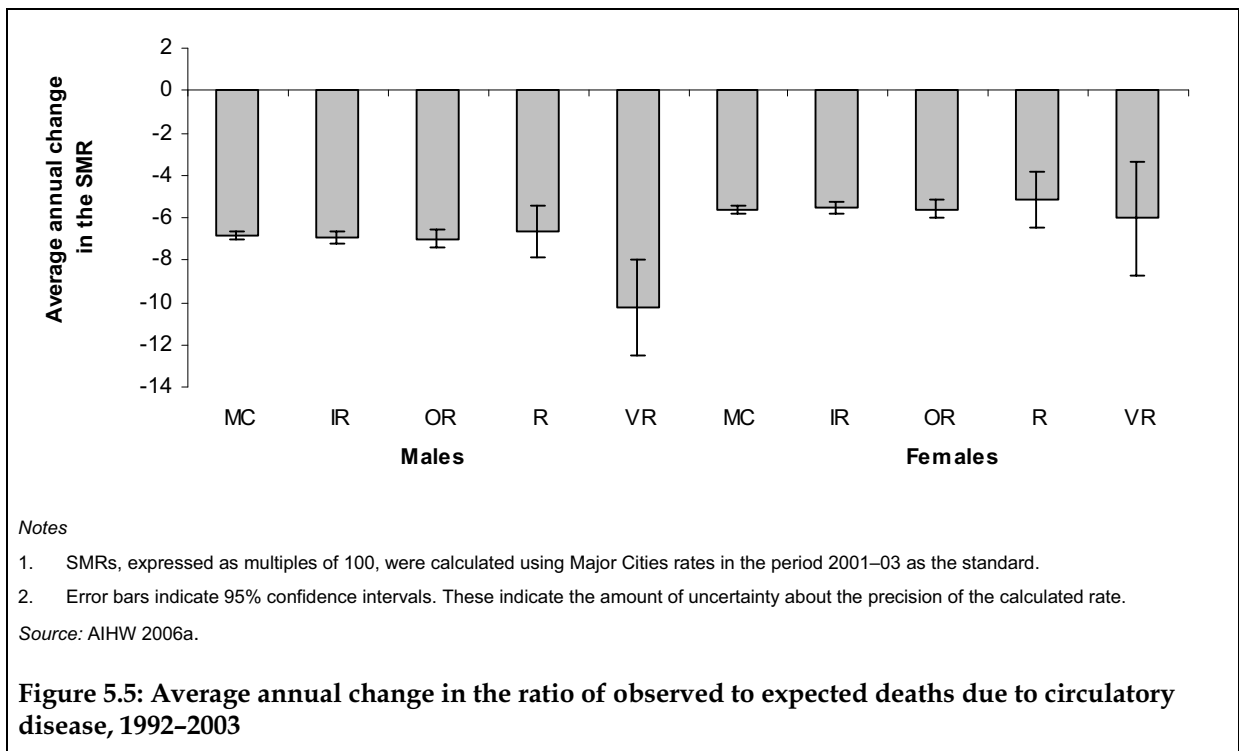
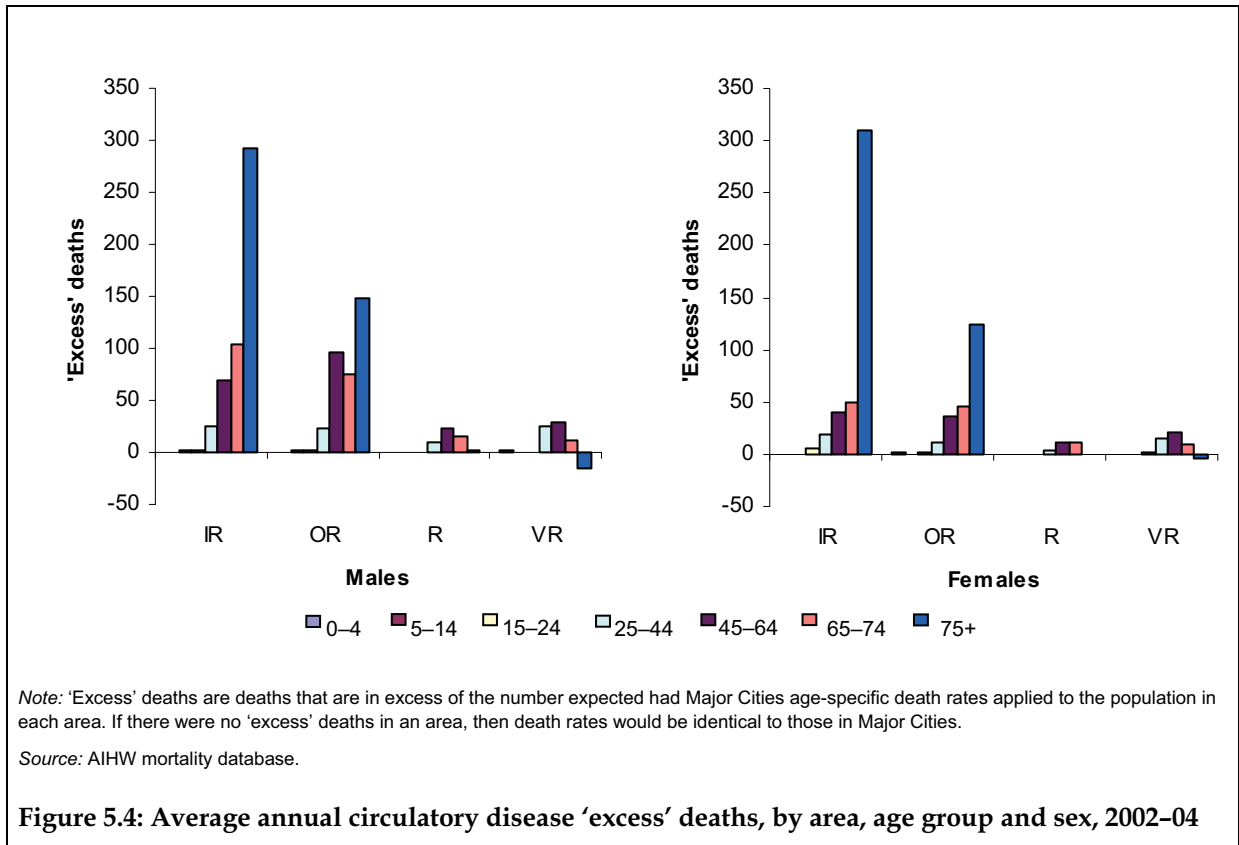


Table 5.6: SMRs, average annual deaths and 'excess' deaths due to diseases of the circulatory system, 2002-04 and 1997-99

	Males						Females						Persons													
	MC		IR		OR		MC		IR		OR		MC		IR		OR		MC		IR		OR			
	Rate		Rate		Ratio		Rate		Ratio		Rate		Ratio		Rate		Ratio		Rate		Ratio		Rate		Ratio	
2002-04																										
0-4	3	0.86	1.21	0.96	*6.39	2	1.17	1.72	0.71	4.57	3	0.97	1.39	0.87	*5.74											
5-14	0	2.05	3.02	5.39	*14.77	1	1.40	0.45	0.00	7.64	0	1.66	1.48	2.15	*10.48											
15-24	2	1.34	1.75	2.65	3.94	1	*3.05	*3.24	4.77	*21.93	2	*1.82	*2.15	*3.18	*8.41											
25-44	14	*1.31	*1.53	*2.19	*6.87	5	*1.57	*1.70	*2.73	*11.67	10	*1.38	*1.58	*2.32	*8.05											
45-64	123	*1.11	*1.29	*1.48	*2.22	42	*1.18	*1.34	*1.83	*4.42	82	*1.13	*1.30	*1.56	*2.68											
65-74	628	*1.10	*1.16	*1.24	*1.55	307	*1.10	*1.21	*1.43	*2.03	460	*1.10	*1.17	*1.30	*1.69											
75+	3,125	*1.08	*1.10	1.01	*0.75	3,004	*1.07	*1.06	1.00	0.95	3,051	*1.07	*1.08	1.01	*0.85											
Total	220	*1.09	*1.14	*1.18	*1.46	248	*1.08	*1.09	*1.12	*1.57	234	*1.09	*1.12	*1.15	*1.51											
Total <65	38	*1.13	*1.32	*1.59	*3.01	13	*1.25	*1.39	*1.96	*5.98	26	*1.16	*1.34	*1.67	*3.65											
1997-99																										
Total	257	*1.08	*1.11	*1.15	*1.54	282	*1.04	*1.09	*1.09	*1.34	270	*1.06	*1.10	*1.12	*1.46											
Total <65	45	*1.12	*1.28	*1.65	*3.09	16	*1.18	*1.49	*2.01	*4.84	31	*1.14	*1.33	*1.73	*3.47											
Total†	*1.29	*1.40	*1.43	*1.47	*1.97	*1.24	*1.29	*1.35	*1.35	*1.67	*1.26	*1.34	*1.39	*1.42	*1.85											
Total <65†	*1.24	*1.40	*1.60	*2.04	*3.85	*1.28	*1.51	*1.90	*2.57	*6.27	*1.25	*1.43	*1.67	*2.16	*4.36											

(continued)

Table 5.6 (continued): SMRs, average annual deaths and 'excess' deaths due to diseases of the circulatory system, 2002-04 and 1997-99

	Males				Females				Persons					
	MC	IR	OR	VR	MC	IR	OR	VR	MC	IR	OR	R	VR	
Average annual number of excess deaths														
2002-04														
0-4	0	-1	0	1	0	0	1	1	0	0	1	0	0	2
5-14	0	1	1	1	0	1	0	1	0	2	1	0	1	1
15-24	0	2	2	1	0	5	2	2	0	7	4	1	3	3
25-44	0	26	23	25	0	18	11	15	0	44	34	14	40	40
45-64	0	70	95	29	0	41	35	21	0	111	130	36	49	49
65-74	0	104	76	12	0	49	46	9	0	153	122	25	22	22
75+	0	292	148	-16	0	310	124	-3	0	602	273	3	-19	-19
Excess total	0	495	346	51	0	423	220	27	0	918	565	78	98	98
Deaths total	14,337	5,712	2,747	340	16,529	5,935	2,584	260	30,866	11,647	5,331	601	292	292
Excess <65	0	98	122	34	0	65	49	16	0	163	171	51	96	96
Deaths <65	2,199	848	502	85	774	326	173	34	2,973	1,174	675	127	132	132
1997-99														
Excess total	0	468	300	46	0	247	226	23	0	716	526	70	98	98
Excess total†	3,481	1,714	893	117	3,397	1,352	715	73	6,878	3,066	1,609	189	143	143
Deaths total	15,687	6,027	2,953	363	17,714	5,952	2,753	280	33,401	11,980	5,706	644	310	310
Excess <65	0	98	122	44	0	53	70	20	0	151	192	64	99	99
Excess <65†	475	258	208	57	192	116	102	24	668	374	310	81	107	107
Deaths <65	2,447	907	556	111	887	344	214	40	3,334	1,250	771	151	139	139

Notes

- The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
- The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
- For further explanation, refer to section 2.3.

Table 5.7: SMRs, average annual deaths and 'excess' deaths due to diseases of the circulatory system, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons						
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			
	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate	
2002-04																			
0-4	3	0.77	1.06	0.99	6.40	2.37	2	1.33	1.74	0.97	0.00	3.34	2	0.96	1.29	0.99	4.25	*2.71	
5-14	0	2.19	2.13	5.05	15.59	*11.10	0	1.20	0.06	0.00	0.00	*7.94	0	1.61	0.92	2.09	6.39	*9.26	
15-24	2	1.35	1.44	2.82	0.80	*4.51	1	*2.67	2.49	3.26	8.47	*13.46	1	*1.73	*1.73	2.93	2.43	*7.20	
25-44	13	*1.25	*1.27	1.01	1.70	*12.68	5	*1.53	1.25	0.62	0.95	*16.38	9	*1.33	*1.26	0.91	1.53	*13.77	
45-64	118	*1.10	*1.21	1.09	1.11	*6.35	39	*1.17	*1.20	1.23	1.31	*10.35	78	*1.12	*1.21	1.12	1.15	*7.46	
65-74	609	*1.11	*1.15	*1.16	0.98	*2.96	296	*1.10	*1.19	1.21	1.06	*4.37	446	*1.10	*1.16	*1.17	1.00	*3.49	
75+	3,050	*1.08	*1.10	1.04	*0.76	0.87	2,924	*1.06	*1.07	1.02	0.89	1.10	2,973	*1.07	*1.08	1.03	*0.82	0.99	
Total	216	*1.09	*1.13	*1.07	0.91	*3.23	243	*1.07	*1.09	1.05	0.95	*2.98	230	*1.08	*1.11	*1.06	0.93	*3.12	
Total<65	37	*1.12	*1.22	1.09	1.23	*7.54	13	*1.23	*1.22	1.14	1.29	*11.44	25	*1.15	*1.22	1.11	*1.24	*8.65	
1997-99																			
Total	254	*1.09	*1.11	1.04	1.06	*3.23	278	*1.05	*1.09	1.00	0.86	*3.12	266	*1.07	*1.10	1.03	0.98	*3.78	
Total <65	44	*1.12	*1.20	*1.22	*1.28	*8.19	16	*1.17	*1.32	1.26	1.45	*10.78	30	*1.13	*1.23	*1.23	*1.31	*8.95	
Total†	*1.33	*1.48	*1.50	*1.41	*1.43	n.p.	*1.28	*1.38	*1.42	*1.31	1.12	n.p.	*1.31	*1.42	*1.46	*1.37	*1.30	n.p.	
Total<65†	*1.30	*1.51	*1.61	*1.64	*1.70	n.p.	*1.35	*1.65	*1.85	*1.73	*1.95	n.p.	*1.31	*1.54	*1.67	*1.66	*1.75	n.p.	

(continued)

Table 5.7 (continued): SMRs, average annual deaths and 'excess' deaths due to diseases of the circulatory system, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons						
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			
	MC	IR	OR	R	VR	Indigenous	MC	IR	OR	R	VR	Indigenous	MC	IR	OR	R	VR	Indigenous	
Average annual number of excess deaths																			
2002-04																			
0-4	0	-1	0	0	1	1	0	1	1	0	0	1	0	0	1	0	1	0	1
5-14	0	1	1	0	0	1	0	0	-1	0	0	1	0	1	0	0	0	0	2
15-24	0	2	1	1	0	2	0	4	1	0	0	3	0	6	2	1	0	5	5
25-44	0	19	10	0	2	51	0	15	3	-1	0	28	0	34	14	-1	2	79	79
45-64	0	63	67	4	2	83	0	35	19	3	1	56	0	98	86	7	3	139	139
65-74	0	104	70	9	0	26	0	48	39	5	0	27	0	152	110	13	0	53	53
75+	0	280	154	6	-12	-5	0	286	133	4	-5	4	0	566	287	10	-16	-1	-1
Excess total	0	468	303	19	-7	160	0	389	197	11	-3	120	0	857	500	30	-10	280	280
Deaths total	13,908	5,521	2,610	285	78	232	16,020	5,723	2,471	226	52	180	29,928	11,245	5,081	511	131	412	412
Excess <65	0	84	79	5	5	138	0	55	24	2	1	89	0	139	103	7	6	227	227
Deaths <65	2,093	795	435	58	25	160	723	298	138	17	6	97	2,816	1,093	572	74	31	257	257
1997-99																			
Excess total	0	491	271	13	6	172	0	298	213	1	-9	129	0	789	484	14	-3	301	301
Excess total†	3,851	1,911	943	90	29	n.p.	3,789	1,604	788	57	6	n.p.	7,640	3,515	1,731	147	35	n.p.	n.p.
Deaths total	15,366	5,932	2,847	309	98	250	17,298	5,862	2,664	241	54	190	32,664	11,794	5,511	550	151	439	439
Excess <65	0	94	82	14	6	150	0	48	43	5	2	86	0	142	125	18	9	237	237
Excess <65†	549	294	188	30	12	n.p.	219	128	82	9	4	n.p.	768	421	270	39	16	n.p.	n.p.
Deaths <65	2,367	874	496	76	30	171	848	325	178	22	8	95	3,215	1,199	674	98	37	267	267

Notes

1. The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
2. The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
3. For further explanation, refer to section 2.3.

5.1 Cerebrovascular disease

Highlights

While cerebrovascular disease was responsible for 9% of all deaths, it was responsible for few or none of the excess deaths in regional and remote areas. SMRs for populations in each of the areas are close to 1.0 (that is, there is no clear change in mortality across areas). However, death rates in the oldest age group (75+) in Outer Regional, Remote and Very Remote areas are significantly lower than for counterparts in Major Cities, while rates in younger age groups tend to be greater than 1.0. This suggests migration of the frail aged may be modifying SMRs for all ages in these areas.

Approximately 10% of deaths due to this cause were in those younger than 75 years, although in remote areas a greater proportion (20–40%) of deaths occur at ages younger than this.

For the population younger than 65 years, SMRs were 1.2 in regional areas, rising to 1.6 and 2.6 in Remote and Very Remote areas.

For the non-Indigenous Australian population, SMRs in regional areas were about 1.0, with SMRs in remote areas 0.8. For those younger than 65 years, the SMR in Inner Regional areas was 1.2, with SMRs in other areas not significantly different from 1.0.

Death rates for Indigenous Australians were about double the rates for non-Indigenous Australians in Major Cities.

Cerebrovascular disease (ICD-10 codes I60–I69) includes a group of diseases that affect the arteries supplying blood to the brain. The disease damages parts of the brain when blood vessels to the brain either become blocked or bleed. The resulting damage can then impair movement or communication, or, in more serious cases, result in death. Tobacco smoking, high alcohol consumption, overweight, insufficient physical activity, diabetes and transient ischaemic attack are major risk factors. Contributing biomedical risk factors include high blood pressure and high blood cholesterol (AIHW 2004b).

Stroke is the second leading cause of death in Australia, a large contributor to disability, and places a heavy burden on family members and care providers (AIHW 2002). People who have experienced atrial fibrillation or transient ischaemic attack are at greater risk.

On average during the period, cerebrovascular disease was responsible for 12,271 deaths annually – this is 9.2% of all deaths. Two-fifths (40%) were male; 66% were in Major Cities, 33% in regional areas and 1% in remote areas.

Overall cerebrovascular disease death rates for Indigenous Australians were two times higher (and six to seven times higher for those younger than 65 years) than the rates for non-Indigenous Australians in Major Cities.

In regional areas:

Overall, death rates were not significantly different from those in Major Cities. Rates for males in Inner Regional areas were 4% higher than in Major Cities. There tended to be fewer deaths than expected in the older age groups, with the result that death rates for 0–64 year olds were 20% higher for males and 25–30% higher for females than for those in Major Cities.

The inter-regional pattern for non-Indigenous Australians was similar to that above, although the rates in Outer Regional areas were less high than for the total population in those areas.

Annually there are 2,823 and 1,188 deaths in Inner Regional and Outer Regional areas; about 42% were male.

Annually there were 46 'excess' deaths in Inner Regional areas and 32 fewer deaths than expected in Outer Regional areas; this is 2% and -2% of all 'excess' deaths in Inner Regional and Outer Regional areas. Most (87%) of the 'excess' deaths in Inner Regional areas were male, while in Outer Regional areas females were mainly responsible for the lower number of deaths than expected.

There tended to be substantially fewer deaths than expected for the older 75+ age groups, especially for females and people in Outer Regional areas. This reduces the expected number of deaths overall. To illustrate the strength of this effect, death rates for 0-64 year olds were 20-30% higher for this age group compared with Major Cities, and annually there were 36 and 17 more deaths than expected in Inner Regional and Outer Regional areas even though the bulk of stroke deaths occur in people older than 64 years. This appears likely to be an effect of the migration of the frail aged.

Compared with the previous reporting period (1997-99), there were 29 and 48 more deaths of males and females in Inner Regional areas, and 43 and 30 fewer deaths of males and females in Outer Regional areas annually in 2002-04.

The 12-year trend (AIHW 2006a) is for decreasing death rates for males and females (at about the same rate as in Major Cities).

In remote areas:

Death rates in remote areas were not significantly different from those in Major Cities. However, there tended to be fewer deaths in the older age groups than expected, with rates for people younger than 65 years 1.6 and 2.6 times those in Major Cities.

Rates for remote area non-Indigenous Australians were 0.8 times those in Major Cities, while for those younger than 65 years, rates were not significantly different from those in Major Cities. The difference between the total and non-Indigenous Australian populations in these areas reflect the prevalence of Indigenous Australians in these areas coupled with higher rates for Indigenous Australians overall.

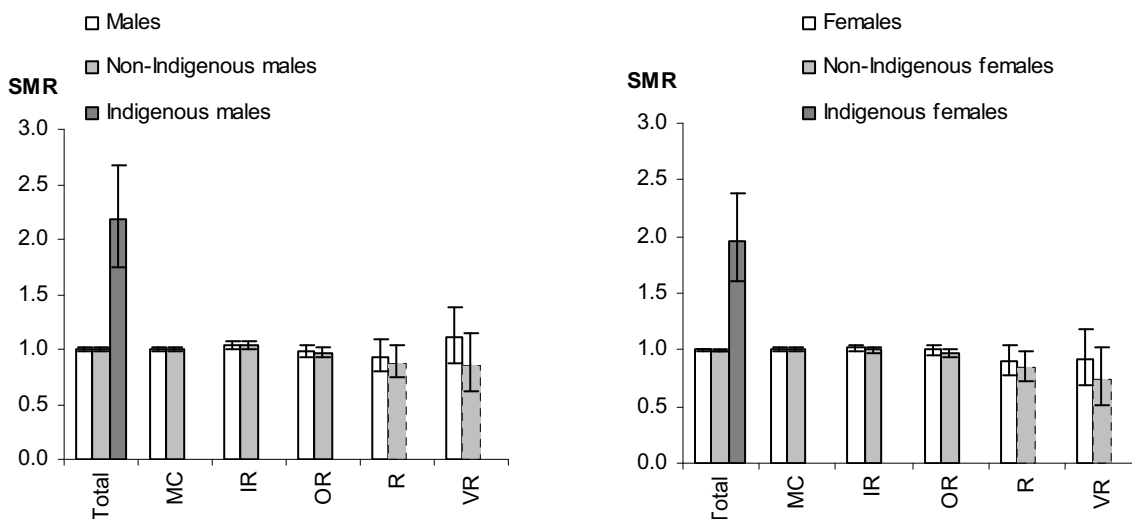
Annually there are 119 and 50 deaths in Remote and Very Remote areas; about 49% were male.

Annually there were 11 fewer and 4 more deaths than expected in Remote and Very Remote areas, this is -4% and 1% of all 'excess' deaths in Remote and Very Remote areas. These apparently positive results are a consequence of low death rates amongst remote area males and females older than 74 years. If analysis is restricted to people younger than 65 years, it is apparent that there were 10 excess deaths of males and 6 excess deaths of females annually in remote areas indicating a death rate 1.5 to 2.5 times that in Major Cities for people younger than 65 years in these areas.

It is likely that a large proportion of these excess deaths are Indigenous Australians, because there are very few excess deaths of non-Indigenous Australians in remote areas.

Compared with the previous reporting period (1997-99), there were 18 fewer deaths of males and 6 fewer deaths of females annually in 2002-04.

The 12-year trend (AIHW 2006a) is for death rates to decrease at the same rate as those in Major Cities, with those for males in Very Remote areas declining at a faster rate than in Major Cities.

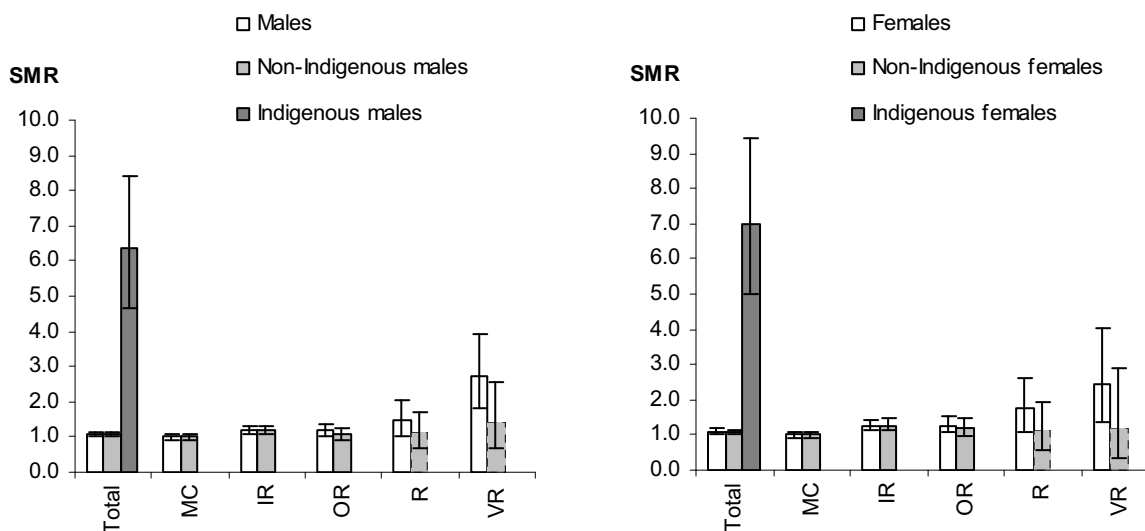


Notes

1. While the figure allows comparison of deaths between areas for each sex, it does not allow comparison between the sexes.
2. The presented SMR is the ratio of the observed number of deaths to the number expected if Major Cities rates applied in each area.
3. SMRs calculated for non-Indigenous persons from Remote and Very Remote areas (dashed) should be treated with caution (see Appendix A).
4. The SMRs for Indigenous Australian persons are for Qld, WA, SA and NT combined (see Appendix A).

Source: AIHW mortality database.

Figure 5.6: Cerebrovascular disease SMRs, by sex, 2002-04



Note: See notes for Figure 5.6.

Figure 5.7: Cerebrovascular disease SMRs for persons aged 64 years and under, by sex, 2002-04

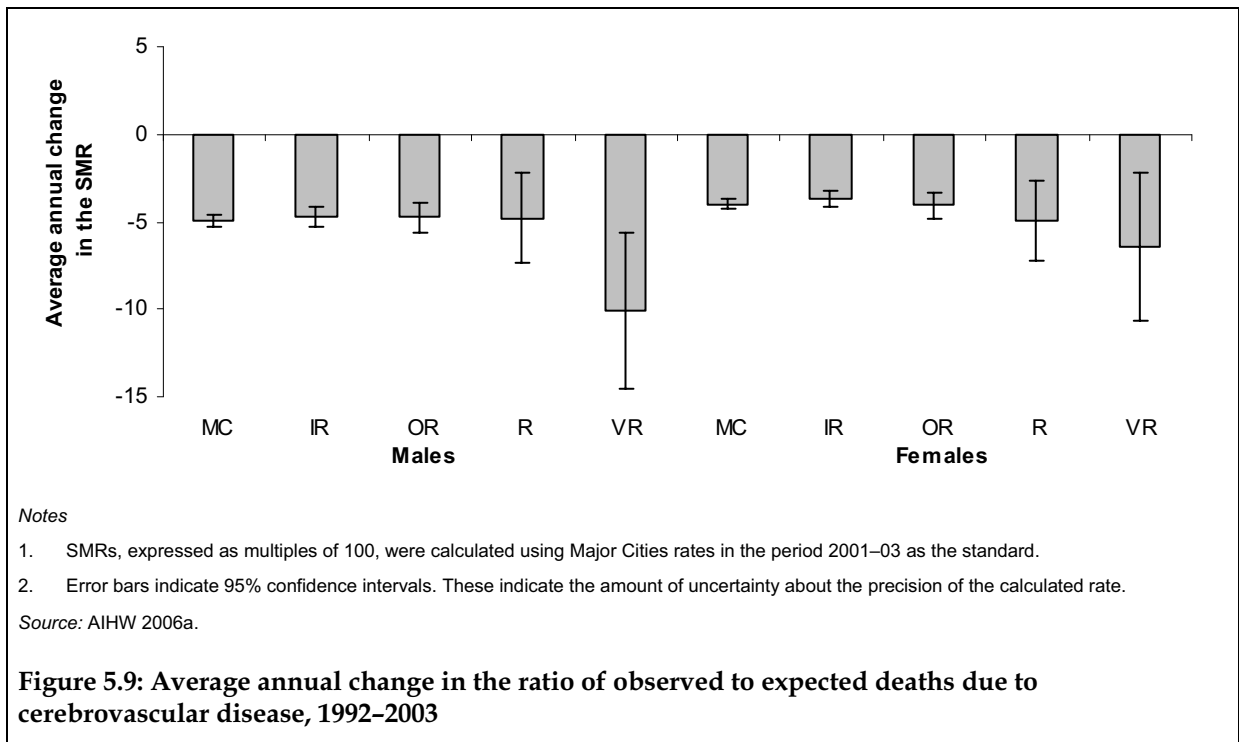
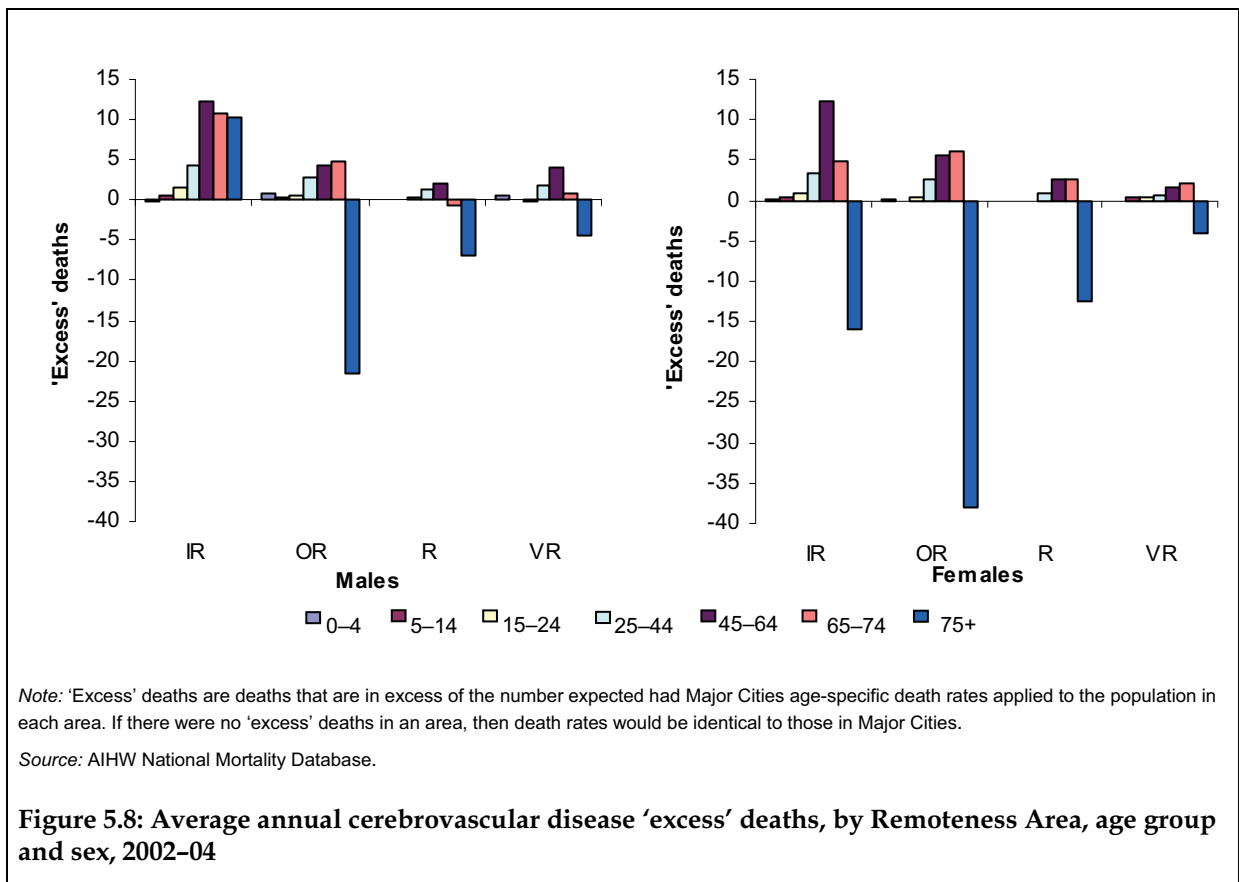


Table 5.8: SMRs, average annual deaths and 'excess' deaths due to cerebrovascular disease, 2002-04 and 1997-99

	Males						Females						Persons					
	MC	IR	OR	R	VR		MC	IR	OR	R	VR		MC	IR	OR	R	VR	
	Rate					Rate	Rate					Rate	Rate					Rate
2002-04																		
0-4	0	0.62	3.81	0.11	20.37	0	1.56	3.00	0.00	0.00	0.00	0	0.89	3.57	0.08			14.49
5-14	0	3.70	2.51	1.33	0.00	0	2.75	0.00	0.00	27.09	0.00	0	3.24	1.29	0.69			12.81
15-24	1	2.01	1.72	2.66	0.10	0	2.45	2.29	0.00	11.15	0.00	0	*2.14	1.88	1.98			2.83
25-44	2	*1.44	*1.55	2.26	*4.30	2	1.30	1.47	1.96	2.27	2.12	2	*1.37	*1.51	*2.12			*3.34
45-64	15	*1.15	1.10	1.34	*2.35	10	*1.23	1.22	*1.73	2.12	2.12	13	*1.18	*1.15	*1.48			*2.27
65-74	110	1.06	1.06	0.94	1.23	78	1.04	1.11	1.41	*1.96	*1.96	93	1.05	1.08	1.11			1.50
75+	775	1.01	0.94	0.84	0.72	921	0.99	*0.94	*0.79	0.78	0.78	864	1.00	*0.94	*0.81			*0.75
Total	48	*1.04	0.98	0.93	1.11	74	1.00	0.97	0.90	1.04	1.04	61	1.02	0.97	0.92			1.08
Total <65	5	*1.20	*1.18	*1.47	*2.73	3	*1.26	*1.28	*1.75	*2.43	*2.43	4	*1.22	*1.22	*1.57			*2.62
1997-99																		
Total	51	1.03	1.05	1.00	*1.61	79	1.01	1.01	0.95	1.06	1.06	61	1.02	1.03	0.97			*1.33
Total <65	6	0.99	1.12	1.29	*3.10	4	*1.16	*1.37	*1.94	*3.56	*3.56	5	1.06	*1.21	*1.52			*3.26
Total†	*1.21	*1.25	*1.27	*1.21	*1.96	*1.17	*1.18	*1.18	1.11	1.24	1.24	*1.18	*1.20	*1.22	*1.16			*1.60
Total <65†	*1.28	*1.26	*1.43	*1.65	*4.01	*1.23	*1.43	*1.68	*2.36	*4.39	*4.39	*1.26	*1.33	*1.52	*1.91			*4.14

(continued)

Table 5.8 (continued): SMRs, average annual deaths and 'excess' deaths due to cerebrovascular disease, 2002-04 and 1997-99

	Males					Females					Persons					
	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR	
Average annual number of excess deaths																
2002-04																
0-4	0	0	1	0	1	0	0	0	0	0	0	0	0	1	0	1
5-14	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0
15-24	0	2	1	0	0	0	1	0	0	0	0	3	1	0	0	0
25-44	0	4	3	1	2	0	3	3	1	1	0	8	5	2	2	2
45-64	0	12	4	2	4	0	12	6	2	2	0	25	10	5	6	6
65-74	0	11	5	-1	1	0	5	6	3	2	0	16	11	2	3	3
75+	0	10	-22	-7	-4	0	-16	-38	-12	-4	0	-6	-60	-19	-9	-9
Excess total	0	40	-8	-4	3	0	6	-23	-7	1	0	46	-32	-11	4	4
Deaths total	3,102	1,169	505	56	26	4,955	1,654	683	63	24	8,057	2,823	1,188	119	50	50
Excess <65	0	19	9	4	6	0	17	9	3	3	0	36	17	7	9	9
Deaths <65	279	114	57	11	10	197	83	40	8	5	476	197	97	19	15	15
1997-99																
Excess total	0	31	24	0	15	0	12	7	-3	1	0	43	31	-4	16	16
Excess total†	540	224	116	11	19	709	243	109	7	5	1,249	467	225	18	24	24
Deaths total	3,126	1,140	548	61	39	4,962	1,606	713	68	25	8,088	2,746	1,261	129	64	64
Excess <65	0	-1	7	3	9	0	11	13	5	6	0	10	20	7	15	15
Excess <65†	72	22	20	5	10	40	24	19	5	6	112	47	39	10	16	16
Deaths <65	332	108	66	12	13	217	82	48	10	8	549	190	113	21	21	21

Notes

- The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
- The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
- For further explanation, refer to section 2.3.

Table 5.9: SMRs, average annual deaths and 'excess' deaths due to cerebrovascular disease, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males					Females					Persons							
	Non-Indigenous		Indigenous	Non-Indigenous		Indigenous	Non-Indigenous		Indigenous	Non-Indigenous		Indigenous	Non-Indigenous		Indigenous			
	MC	IR		OR	R		VR	MC		IR	OR		R	VR		MC	IR	OR
Rate	Rate	Ratio	Rate	Rate	Ratio	Rate	Rate	Ratio	Rate	Rate	Ratio	Rate	Rate	Ratio	Rate	Rate		
2002-04																		
0-4	0	0.64	4.15	0.13	*48.24	0.00	0	1.61	0.00	0.00	0.00	0.00	0	0.92	2.95	0.09	*34.54	11.12
5-14	0	5.25	4.15	2.53	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0	2.14	1.70	1.05	0.00	*51.13
15-24	1	*2.15	0.99	3.28	0.22	3.89	0	2.49	2.46	0.00	0.00	30.79	0	*2.25	1.41	2.43	6.57	3.89
25-44	2	1.36	1.42	1.47	0.11	*9.02	2	1.32	1.45	0.54	0.18	0.18	2	*1.34	*1.43	1.03	0.14	*8.18
45-64	15	*1.14	1.02	1.04	1.34	*5.79	9	*1.26	1.15	1.29	1.11	1.11	12	*1.18	1.07	1.13	1.27	*6.04
65-74	107	1.07	1.03	0.78	0.68	*3.18	75	1.04	1.08	1.35	1.15	1.15	90	1.06	1.05	0.99	0.84	*3.00
75+	756	1.01	0.95	0.86	0.78	0.79	897	0.99	*0.95	*0.78	*0.65	*0.65	842	1.00	*0.95	*0.82	*0.71	0.97
Total	47	*1.04	0.97	0.88	0.85	*2.17	73	1.00	0.97	*0.85	0.73	0.73	60	1.02	0.97	*0.86	*0.80	*2.06
Total <65	5	*1.18	1.09	1.12	1.41	*6.34	3	*1.28	1.21	1.12	1.17	1.17	4	*1.22	1.13	1.12	1.33	*6.62
1997-99																		
Total	51	*1.03	1.04	0.91	1.18	*2.88	78	1.02	1.01	0.90	*0.70	*0.70	64	*1.03	1.03	0.91	0.94	*2.58
Total <65	6	0.99	1.08	0.91	1.59	*6.69	4	*1.16	*1.25	1.41	1.39	1.39	5	1.05	*1.15	1.08	1.53	*7.08
Total†	*1.25	*1.29	*1.31	1.15	*1.50	n.p.	*1.20	*1.23	*1.22	1.09	0.84	0.84	*1.22	*1.25	*1.26	*1.12	1.16	n.p.
Total <65†	*1.39	*1.53	*1.69	1.43	*2.50	n.p.	*1.30	*1.55	*1.67	*1.85	1.80	1.80	*1.35	*1.54	*1.68	*1.59	*2.26	n.p.

(continued)

Table 5.9 (continued): SMRs, average annual deaths and 'excess' deaths due to cerebrovascular disease, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons						
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			
	MC	IR	OR	R	VR	Indigenous	MC	IR	OR	R	VR	Indigenous	MC	IR	OR	R	VR	Indigenous	
Average annual number of excess deaths																			
2002-04																			
0-4	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0
5-14	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
15-24	0	2	0	0	0	0	0	1	0	0	0	0	0	3	0	0	0	0	0
25-44	0	3	2	0	0	4	0	3	2	0	0	3	0	7	4	0	0	-1	7
45-64	0	11	1	0	1	9	0	13	4	1	0	8	0	24	4	1	1	1	17
65-74	0	12	3	-2	-1	5	0	5	5	2	0	4	0	17	7	0	-1	9	9
75+	0	12	-20	-5	-3	-2	0	-19	-31	-12	-5	1	0	-7	-52	-17	-7	-1	-1
Excess total	0	40	-14	-7	-3	17	0	3	-21	-10	-4	17	0	43	-35	-16	-7	33	33
Deaths total	3,013	1,135	481	49	15	31	4,807	1,600	659	54	12	34	7,819	2,735	1,140	103	27	65	65
Excess <65	0	16	4	1	1	13	0	17	6	0	0	12	0	33	10	1	1	1	25
Deaths <65	266	107	49	7	4	16	183	78	34	4	1	14	449	184	83	12	5	30	30
1997-99																			
Excess total	0	38	22	-5	3	28	0	29	8	-7	-5	22	0	67	30	-12	-2	50	50
Excess total†	610	252	125	7	7	n.p.	807	296	125	5	-2	n.p.	1416	548	250	12	5	n.p.	n.p.
Deaths total	3,065	1,123	532	52	21	43	4,846	1,585	693	60	12	38	7,911	2,708	1,225	112	33	81	81
Excess <65	0	-2	5	-1	2	16	0	11	8	2	1	14	0	9	13	1	2	30	30
Excess <65†	91	36	25	2	3	n.p.	48	28	17	3	1	n.p.	139	64	41	5	4	n.p.	n.p.
Deaths <65	322	104	61	8	5	19	210	79	42	6	2	16	532	183	102	14	7	35	35

Notes

1. The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
2. The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
3. For further explanation, refer to section 2.3.

5.2 Coronary heart disease

Highlights

Coronary heart disease was responsible for 19% of all deaths, about 20% of excess deaths in regional areas and about 12% of excess deaths in remote areas.

Death rates for Indigenous Australians were three times higher than the rates for non-Indigenous Australians in Major Cities.

SMRs were about 1.1 in regional areas and 1.2 and 1.5 in Remote and Very Remote areas. In remote areas, there were fewer deaths than expected of people 75 years or older, but more deaths than expected of people younger than this. For people younger than 65 years, SMRs increased with remoteness (being 1.2, 1.4, 1.6 and 3.5 in each of the four areas).

For non-Indigenous Australians, SMRs were still about 1.1 in regional areas, but SMRs in Remote and Very Remote areas were similar to or lower than in Major Cities.

Since 1992, death rates decreased in all areas, and most strongly for males in Very Remote areas.

Coronary heart disease (ischaemic heart disease, ICD-10 codes I20–I25) is the single largest cause of premature death in Australia (AIHW 2002).

Heart attack (acute myocardial infarction) occurs when a coronary artery supplying the heart becomes blocked, resulting in the death of heart muscle downstream. Angina is characterised by chest pain associated with insufficient blood flow in the coronary artery; it causes substantial disability and increases the risk of heart attack. Older people and males are at higher risk from the disease. As is the case for stroke, tobacco smoking, overweight, insufficient physical activity, poor nutrition and diabetes are major risk factors. Contributing biomedical risk factors include high blood pressure and high blood cholesterol (AIHW 2004b).

Annually during 2002–04, coronary heart disease was responsible for 25,259 deaths – this was 19.1% of all deaths. Half (53%) were male; 63% were in Major Cities, 35% in regional areas and 2% in remote areas.

Overall coronary heart disease death rates for Indigenous Australians were 3.4 times higher than the rates for non-Indigenous people in Major Cities.

In regional areas:

Death rates were about 10% higher (1.1 times) than in Major Cities.

For 0–64 year olds, death rates were 15% higher in Inner Regional areas and 40% higher in Outer Regional areas than in Major Cities.

The inter-regional pattern for non-Indigenous Australians was similar to that above (although rates in Outer Regional areas were only 25% higher than in Major Cities).

Annually there are 6,042 and 2,792 deaths in Inner Regional and Outer Regional areas; about 55% were male.

Annually there were 464 and 300 ‘excess’ deaths in Inner Regional and Outer Regional areas; this is 22% and 19% of all ‘excess’ deaths in Inner Regional and Outer Regional areas. About two-thirds (64%) of the ‘excess’ were male. About half of the excess was among people aged 75 years and older, the other half among people aged 45–74 years.

Compared with the previous reporting period (1997–99), there were 547 fewer deaths of males and 303 fewer deaths of females annually in 2002–04.

The 12-year trend (AIHW 2006a) is for decreasing death rates (at about the same rate in regional areas as in Major Cities). SMRs (relative to 2002–04 Major Cities) in regional areas were decreasing from about 1.4 in 1997–99 to 1.1 in 2002–04, equivalent to a saving of 2,868 deaths annually in regional areas. Incidentally, this compares with a decline in Major Cities death rates of 1.3 in 1997–99 to 1.0 in 2002–04, with an annual saving in Major Cities of 4,322 deaths annually.

In remote areas:

Death rates in Remote areas were about 15% higher than in Major Cities; death rates in Very Remote areas were about 40% higher than in Major Cities.

For 0–64 year olds, death rates in Remote areas were about 60% higher than in Major Cities, while in Very Remote areas rates for people younger than 65 years were about 3.5 times those in Major Cities. These higher rates appear to be entirely a reflection of the relative large numbers of Indigenous Australians in these areas (coupled with overall higher mortality for Indigenous Australians).

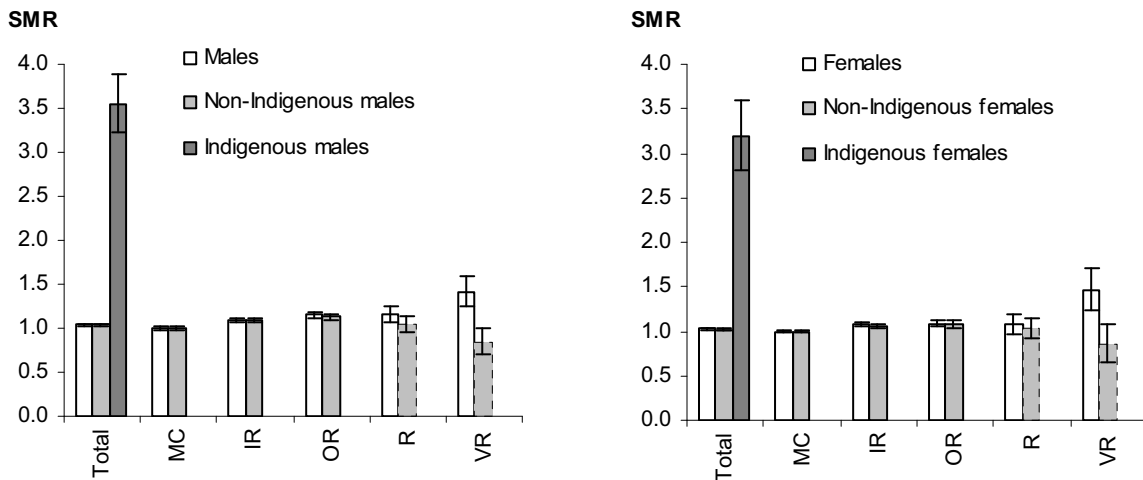
Death rates for remote area non-Indigenous Australians were not significantly different from those in Major Cities.

Annually there are 313 and 149 deaths in Remote and Very Remote areas; about 63% were male.

Annually there were 36 and 45 excess deaths in Remote and Very Remote areas respectively; this is 13% and 11% of all 'excess' deaths in Remote and Very Remote areas. In Remote areas, there were fewer deaths than expected amongst older people, but more than expected amongst 45–64 year olds (yielding 1 'excess' death annually for Remote areas). Almost all of the 9 'excess' deaths in Very Remote areas were males aged 45–64 years.

Compared with the previous reporting period (1997–99), there were 49 fewer deaths of males and 15 fewer deaths of females annually in 2002–04.

The 12-year trend (AIHW 2006a) is for decreasing death rates for males and females. Rates for males in Very Remote areas were slightly faster than for males in other areas. SMRs (relative to 2002–04 Major Cities) in Remote and Very Remote areas respectively, decreased from about 1.5 and 1.8 in 1997–99 to 1.1 and 1.4 in 2002–04, the equivalent to a saving of 194 deaths annually in remote areas.

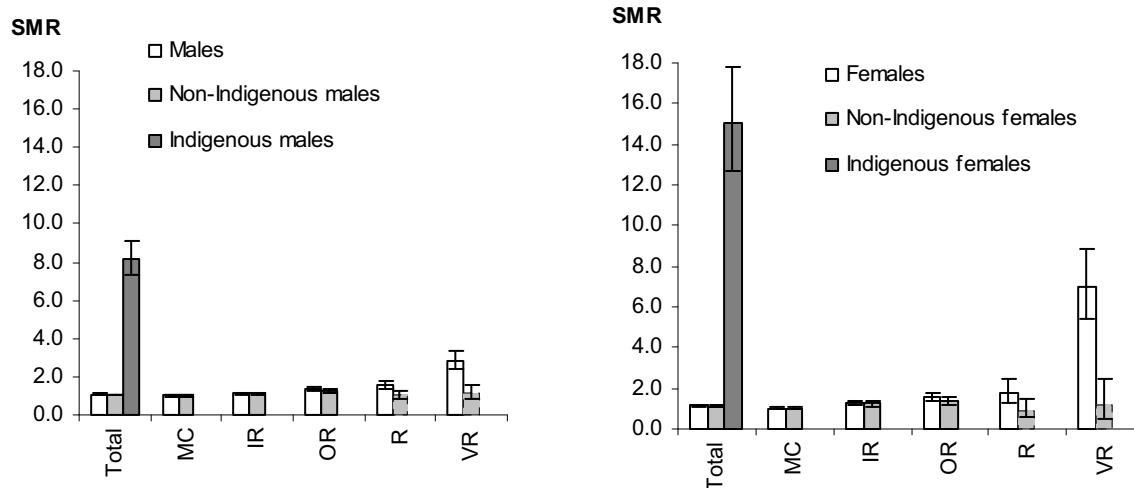


Notes

1. While the figure allows comparison of deaths between areas for each sex, it does not allow comparison between the sexes.
2. The presented SMR is the ratio of the observed number of deaths to the number expected if Major Cities rates applied in each area.
3. SMRs calculated for non-Indigenous Australian persons from Remote and Very Remote areas (dashed) should be treated with caution (see Appendix A).
4. The SMRs for Indigenous Australian persons are for Qld, WA, SA and NT combined (see Appendix A).

Source: AIHW mortality database.

Figure 5.10: Coronary heart disease SMRs, by sex, 2002-04



Note: See notes for Figure 5.10.

Figure 5.11: Coronary heart disease SMRs for persons aged 64 years and under, by sex, 2002-04

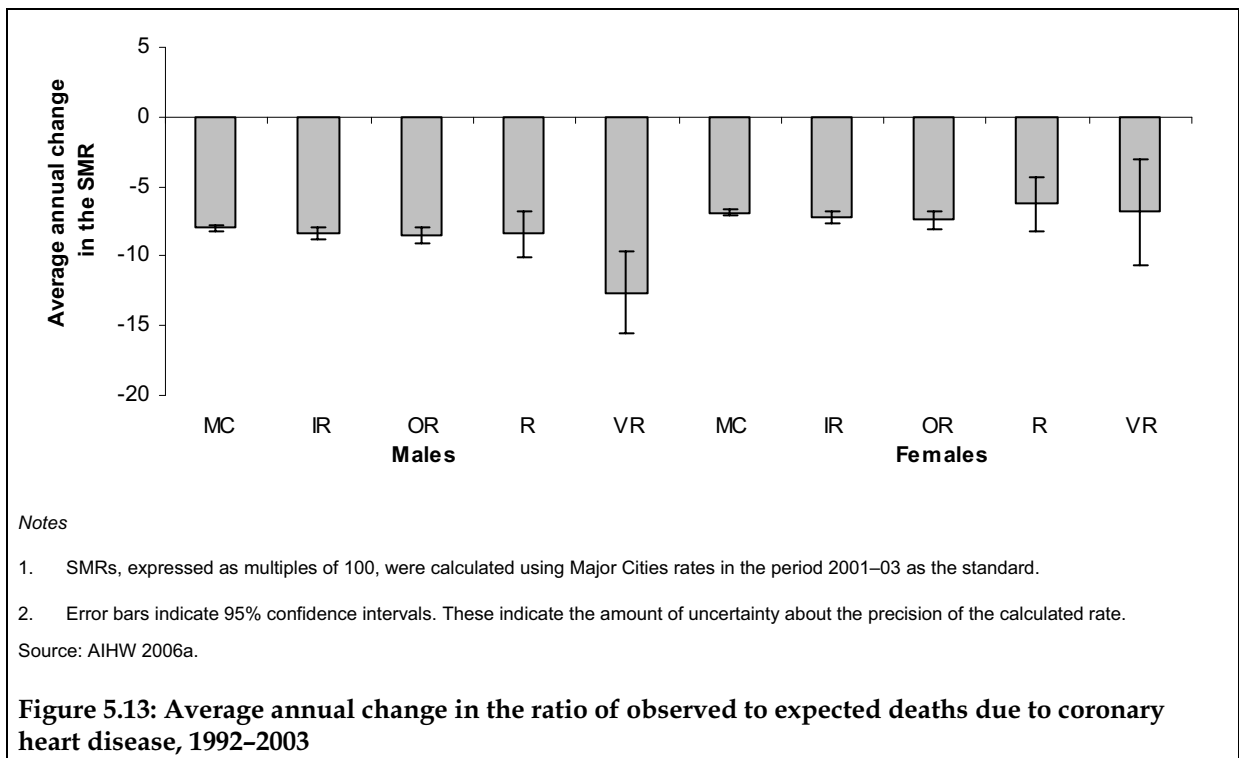
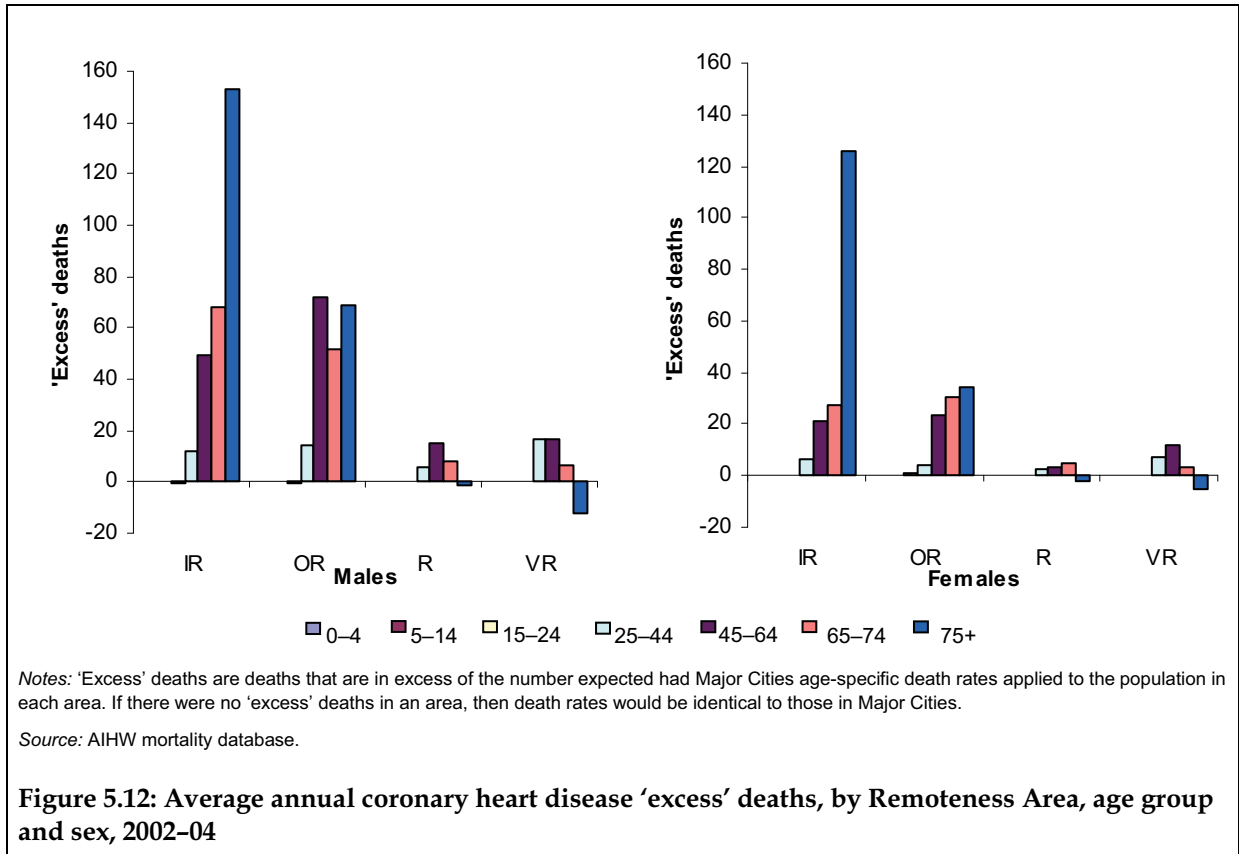


Table 5.10: SMIRs, average annual deaths and 'excess' deaths due to coronary heart disease, 2002-04 and 1997-99

	Males						Females						Persons						
	MC		OR		VR		MC		OR		VR		MC		OR		VR		
	Rate	IR	Rate	Ratio	Rate	Ratio	Rate	IR	Rate	Ratio	Rate	IR	Rate	Ratio	Rate	IR	Rate	Ratio	
2002-04																			
0-4	0	0.00	6.00	0.00	0.00	0.00	0	0.00	6.02	0.08	0.00	0.00	0	0.00	6.01	0.04	0.00	0.00	0.00
5-14	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00
15-24	0	0.75	0.00	0.00	6.70	8.33	0	3.35	8.33	0.00	0.00	0.00	0	1.19	1.34	0.00	5.69	0.00	5.69
25-44	8	*1.26	*1.59	*2.29	*8.24	*1.96	2	*1.68	*1.96	*4.49	*20.26	*1.33	5	*1.33	*1.65	*2.61	*9.96	*2.61	*9.96
45-64	84	*1.11	*1.32	*1.44	*2.02	*1.48	19	*1.21	*1.48	1.46	*5.20	*1.13	52	*1.13	*1.34	*1.44	*2.50	*1.44	*2.50
65-74	396	*1.11	*1.17	*1.21	*1.44	*1.27	152	*1.11	*1.27	*1.43	*1.73	*1.11	269	*1.11	*1.20	*1.26	*1.51	*1.26	*1.51
75+	1,691	*1.08	*1.08	0.99	*0.65	1.04	1,398	*1.06	1.04	0.98	0.81	*1.07	1,512	*1.07	*1.06	0.98	0.72	0.98	0.72
Total	127	*1.09	*1.15	*1.16	*1.42	*1.08	115	*1.07	*1.08	1.08	*1.46	*1.08	121	*1.08	*1.12	*1.13	*1.43	*1.13	*1.43
Total <65	25	*1.12	*1.34	*1.53	*2.83	*1.53	6	*1.25	*1.53	*1.77	*7.00	*1.15	15	*1.15	*1.37	*1.57	*3.44	*1.57	*3.44
1997-99																			
Total	154	*1.10	*1.09	*1.16	*1.52	*1.08	138	*1.04	*1.08	1.06	*1.26	*1.07	137	*1.07	*1.09	*1.12	*1.43	*1.12	*1.43
Total <65	30	*1.13	*1.26	*1.59	*3.01	*1.68	8	*1.25	*1.68	*1.94	*5.50	*1.16	18	*1.16	*1.34	*1.65	*3.39	*1.65	*3.39
Total†	*1.33	*1.47	*1.46	*1.54	*2.01	*1.40	*1.29	*1.35	*1.40	*1.37	*1.65	*1.41	*1.31	*1.41	*1.44	*1.47	*1.88	*1.47	*1.88
Total <65†	*1.30	*1.48	*1.64	*2.07	*3.93	*2.32	*1.37	*1.73	*2.32	*2.67	*7.63	*1.53	*1.31	*1.53	*1.76	*2.16	*4.47	*2.16	*4.47

(continued)

Table 5.10 (continued): SMRs, average annual deaths and 'excess' deaths due to coronary heart disease, 2002-04 and 1997-99

	Males					Females					Persons				
	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR
Average annual number of excess deaths															
2002-04															
0-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-24	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
25-44	0	12	14	6	17	0	6	4	3	7	0	18	18	8	24
45-64	0	50	72	15	16	0	21	23	3	12	0	71	95	18	28
65-74	0	68	52	8	6	0	27	30	5	3	0	95	82	13	10
75+	0	153	69	-1	-12	0	126	34	-2	-6	0	279	103	-3	-18
Excess total	0	283	207	27	28	0	182	93	9	17	0	464	300	36	45
Deaths total	8,248	3,289	1,597	196	95	7,700	2,753	1,195	117	54	15,949	6,042	2,792	313	149
Excess <65	0	61	86	21	34	0	28	29	6	19	0	90	115	26	53
Deaths <65	1,451	559	339	59	52	330	141	82	13	22	1,781	701	421	72	75
1997-99															
Excess total	0	335	152	30	40	0	104	103	7	11	0	439	255	37	51
Excess total†	2,355	1,178	555	78	59	1,967	747	387	36	21	4,322	1,925	943	114	80
Deaths total	9,426	3,679	1,754	223	117	8,683	2,907	1,344	133	53	18,109	6,586	3,098	356	169
Excess <65	0	74	76	27	42	0	34	46	8	17	0	108	122	36	59
Excess <65†	383	204	146	38	47	110	71	64	11	18	493	275	210	49	65
Deaths <65	1,665	628	373	73	63	407	169	113	17	21	2,072	797	486	91	84

Notes

- The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
- The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
- For further explanation, refer to section 2.3.

Table 5.11: SMIRs, average annual deaths and 'excess' deaths due to coronary heart disease, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons					
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous		
	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate
2002-04																		
0-4	0	0.00	6.55	0.00	0.00	0.00	0	0.00	6.55	0.10	0.00	0.00	0	0.00	6.55	0.05	0.00	0.00
5-14	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
15-24	0	0.87	0.00	0.00	0.00	*14.48	0	3.42	8.93	0.00	0.00	0.00	0	1.35	1.58	0.00	0.00	*14.48
25-44	7	*1.20	1.21	0.71	1.41	*16.91	1	*1.65	1.35	0.80	1.51	*28.06	4	*1.27	1.23	0.72	1.43	*18.86
45-64	81	*1.11	*1.25	1.06	1.11	*6.23	18	*1.20	*1.33	0.95	1.19	*12.67	49	*1.12	*1.26	1.04	1.12	*7.52
65-74	385	*1.10	*1.17	1.14	0.92	*2.79	146	*1.11	*1.24	1.22	1.10	*4.82	260	*1.11	*1.19	1.16	0.96	*3.43
75+	1,652	*1.08	*1.09	1.02	*0.64	0.83	1,360	*1.05	*1.04	1.01	0.79	1.01	1,474	*1.06	*1.07	1.02	*0.71	0.92
Total	124	*1.09	*1.13	1.04	*0.84	*3.54	113	*1.07	*1.08	1.03	0.86	*3.18	119	*1.08	*1.11	1.04	*0.84	*3.40
Total <65	24	*1.11	*1.24	1.02	1.14	*8.17	5	*1.24	*1.35	0.93	1.22	*15.09	15	*1.14	*1.26	1.01	1.15	*9.52
1997-99																		
Total	153	*1.11	*1.08	1.06	1.07	*3.36	136	*1.04	*1.08	0.99	0.94	*3.23	144	*1.08	*1.08	1.03	1.02	*3.31
Total <65	30	*1.13	*1.16	*1.23	1.26	*8.58	7	*1.24	*1.46	1.35	*1.91	*14.10	19	*1.15	*1.22	*1.25	*1.34	*9.74
Total†	*1.38	*1.56	*1.53	*1.49	*1.48	<i>n.p.</i>	*1.35	*1.46	*1.50	*1.38	*1.30	<i>n.p.</i>	*1.37	*1.51	*1.52	*1.45	*1.42	<i>n.p.</i>
Total <65†	*1.35	*1.55	*1.60	*1.68	*1.71	<i>n.p.</i>	*1.46	*1.97	*2.32	*2.10	*2.90	<i>n.p.</i>	*1.37	*1.62	*1.71	*1.73	*1.85	<i>n.p.</i>

(continued)

Table 5.11 (continued): SMRs, average annual deaths and 'excess' deaths due to coronary heart disease, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons						
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			
	MC	IR	OR	R	VR	Indigenous	MC	IR	OR	R	VR	Indigenous	MC	IR	OR	R	VR	Indigenous	
Average annual number of excess deaths																			
2002-04																			
0-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
5-14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-24	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1
25-44	0	8	4	-1	1	37	0	5	1	0	0	14	0	14	6	-1	1	51	1
45-64	0	45	53	2	1	56	0	19	14	0	0	31	0	64	67	1	2	87	2
65-74	0	64	50	5	-1	15	0	27	24	2	0	15	0	91	75	7	-1	30	-1
75+	0	141	73	1	-9	-3	0	113	40	1	-4	0	0	254	113	3	-14	-3	-3
Excess total	0	259	180	7	-8	106	0	165	81	3	-4	60	0	423	262	10	-12	166	10
Deaths total	8,002	3,171	1,516	162	42	147	7,459	2,652	1,141	103	22	88	15,461	5,822	2,657	265	64	235	64
Excess <65	0	54	57	1	2	94	0	25	17	0	0	45	0	78	74	0	2	139	2
Deaths <65	1,382	526	294	35	15	107	305	129	65	6	2	48	1,687	655	359	41	18	155	18
1997-99																			
Excess total	0	348	131	11	4	109	0	123	93	-2	-2	66	0	471	224	9	2	175	2
Excess total†	2,564	1,299	583	63	20	n.p.	2,185	898	434	32	6	n.p.	4,749	2,197	1,017	95	26	n.p.	26
Deaths total	9,229	3,619	1,686	191	60	155	8,481	2,858	1,297	116	28	95	17,710	6,477	2,983	307	88	250	88
Excess <65	0	71	46	10	4	102	0	30	29	3	2	47	0	101	75	12	6	148	6
Excess <65†	416	215	123	21	8	n.p.	121	78	52	6	3	n.p.	538	292	175	26	11	n.p.	11
Deaths <65	1,611	604	329	52	20	115	384	158	91	11	4	50	1,994	762	420	62	24	165	24

Notes

1. The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
2. The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
3. For further explanation, refer to section 2.3.

5.3 All other diseases of the circulatory system

Highlights

All other diseases of the circulatory system were responsible for 9% of all deaths, about 19% of excess deaths in regional and remote areas and 12% of excess deaths in Very Remote areas.

Death rates for Indigenous Australians were four times higher than the rates for non-Indigenous Australians in Major Cities.

SMRs in the four areas were 1.2, 1.3, 1.5 and 2.2.

For non-Indigenous Australians SMRs in the four areas were 1.2, 1.3, 1.4 and 1.3.

Since 1992, death rates decreased in all areas, although the decrease in Very Remote areas was not statistically significant.

Other circulatory diseases (ICD-10 codes I00–I99, excluding cerebrovascular disease and coronary heart disease) are included because as a group they are responsible for a large number of deaths. Differences in death rates across areas for this range of diseases may suggest further work to identify potential targets for intervention. Specific causes of death included in this diverse group include hypertensive heart disease and hypertensive renal disease, pulmonary heart disease, pericarditis, valve disorders, endocarditis and myocarditis, cardiomyopathy, heart failure, atherosclerosis, aneurysms and other diseases of blood vessels.

On average during the period, all other diseases of the circulatory system were responsible for 11,291 deaths annually – this is 8.5% of all deaths. Just under half (45%) were male; 61% were in Major Cities, 37% in regional areas and 2% in remote areas.

Overall, death rates for Indigenous Australians were 3.6 times higher (and nine times higher for those younger than 65 years) than the rates for non-Indigenous Australians in Major Cities.

In regional areas:

Death rates were 15–30% higher than in Major Cities for all ages and for people aged 0–64 years.

The inter-regional pattern for non-Indigenous Australians was similar to that above.

Annually there are 2,781 and 1,351 deaths in Inner Regional and Outer Regional areas; about 46% were male.

Annually there were 407 and 297 ‘excess’ deaths in Inner Regional and Outer Regional areas, this is 19% and 19% of all ‘excess’ deaths in Inner Regional and Outer Regional areas. About half (45%) of the ‘excess’ were male. The bulk of the excess was among those older than 75 years.

Compared with the previous reporting period (1997–99), there were 40 more deaths of males and 98 more deaths of females annually in 2002–04.

The 12-year trend (AIHW 2006a) is for most death rates to decline at about the same rate as in Major Cities, but with rates for females in Outer Regional areas declining slower than in Major Cities.

In remote areas:

Death rates in Remote and Very Remote areas were 1.5 to 2.2 times those in Major Cities.

Death rates for people aged less than 65 years in Remote and Very Remote areas were 1.3 and 2.0 times those in Major Cities.

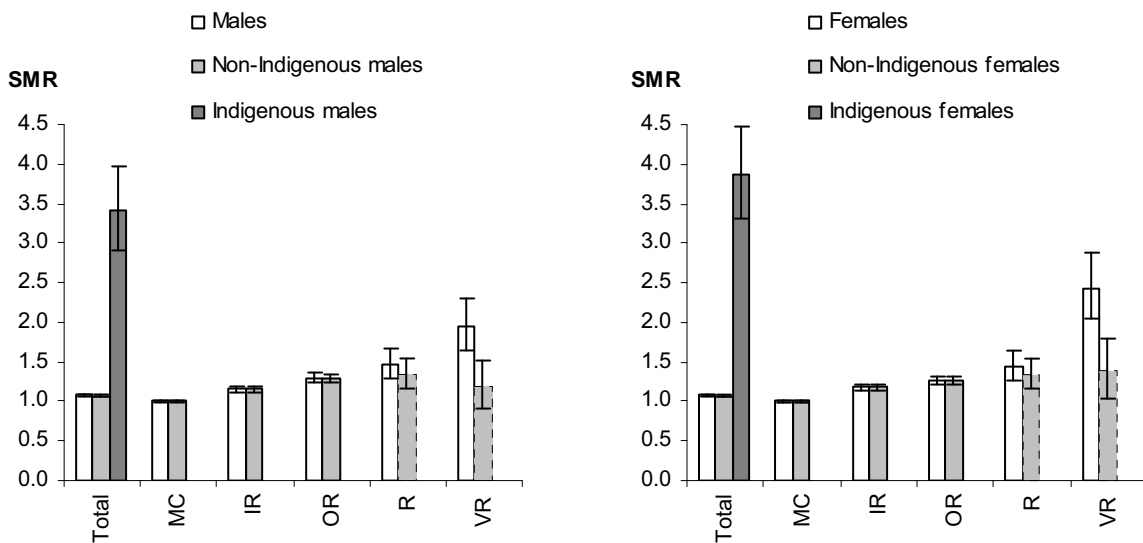
Death rates for non-Indigenous Australians in remote areas were about 1.3 times those in Major Cities.

Annually there are 169 and 93 deaths in Remote and Very Remote areas; about 52% were male.

Annually there were 53 and 50 'excess' deaths in Remote and Very Remote areas; this is 19% and 12% of all 'excess' deaths in Remote and Very Remote areas. Half (50%) of the excess were males. While those older than 75 years were major contributors to the excess deaths, there were very substantial contributions from younger age groups, including those aged 25–44 years in Very Remote areas (who would appear likely to be Indigenous Australians).

Compared with the previous reporting period (1997–99), there were 18 more deaths of males and 10 more deaths of females annually in 2002–04.

The 12-year trend (AIHW 2006a) is for death rates to decline at a pace that is indistinguishable from that in Major Cities.

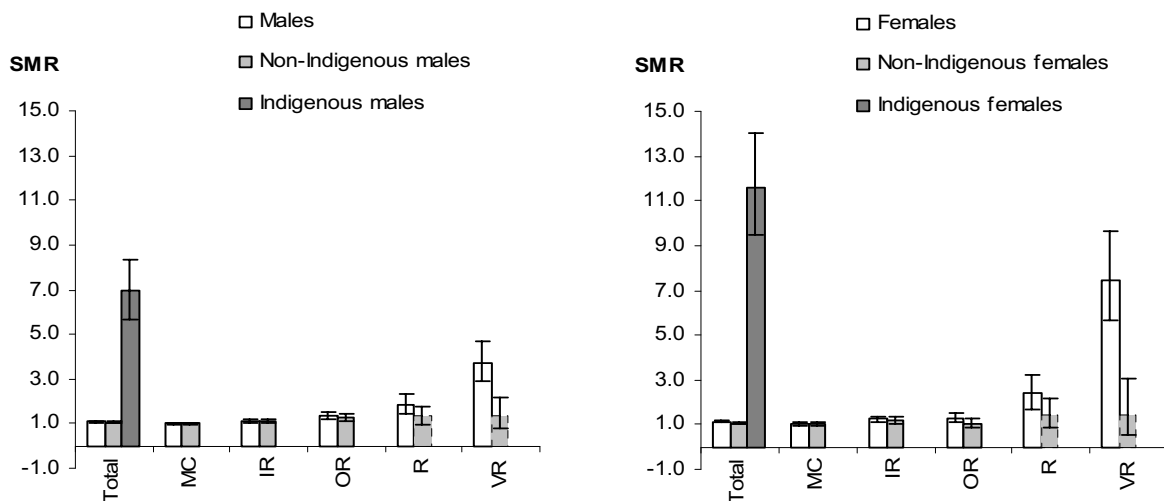


Notes

1. While the figure allows comparison of deaths between areas for each sex, it does not allow comparison between the sexes.
2. The presented SMR is the ratio of the observed number of deaths to the number expected if Major Cities rates applied in each area.
3. SMRs calculated for non-Indigenous Australian persons from Remote and Very Remote areas (dashed) should be treated with caution (see Appendix A).
4. The SMRs for Indigenous Australian persons are for Qld, WA, SA and NT combined (see Appendix A).

Source: AIHW mortality database.

Figure 5.14: All other diseases of the circulatory system SMRs, by sex, 2002-04



Note: See notes for Figure 5.14.

Figure 5.15: All other diseases of the circulatory system SMRs for persons aged 64 years and under, by sex, 2002-04

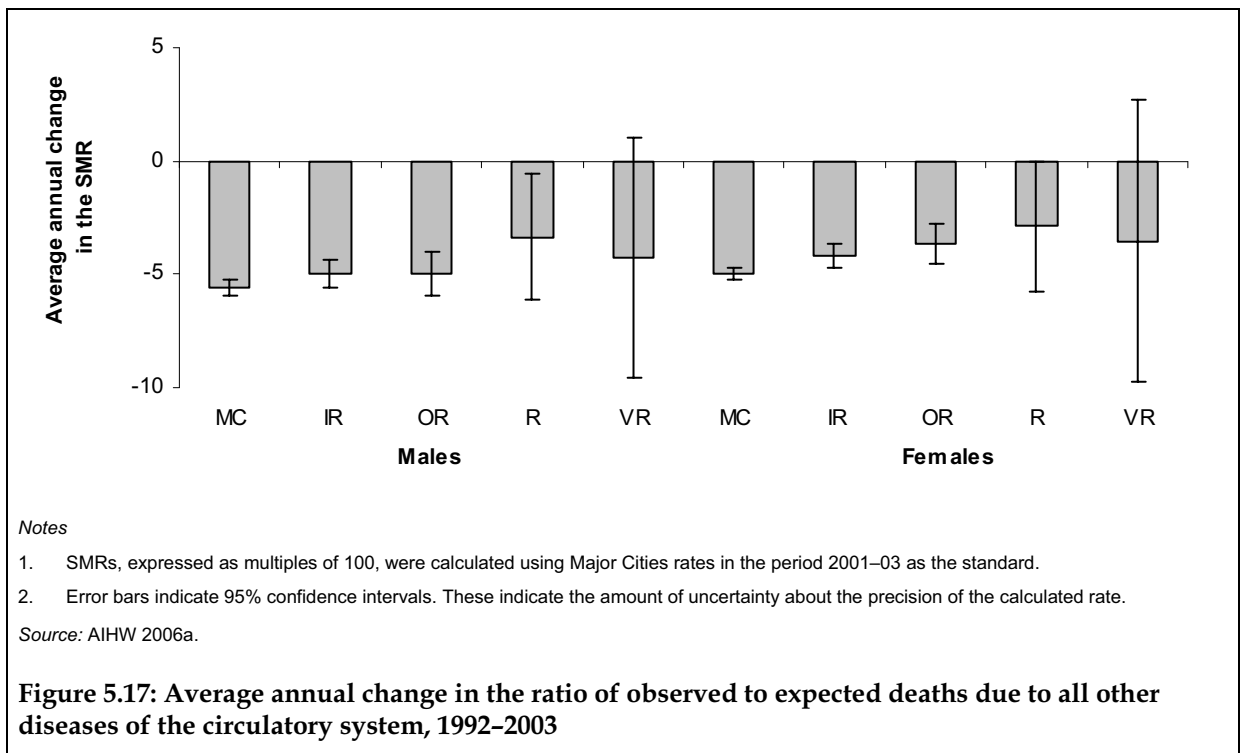
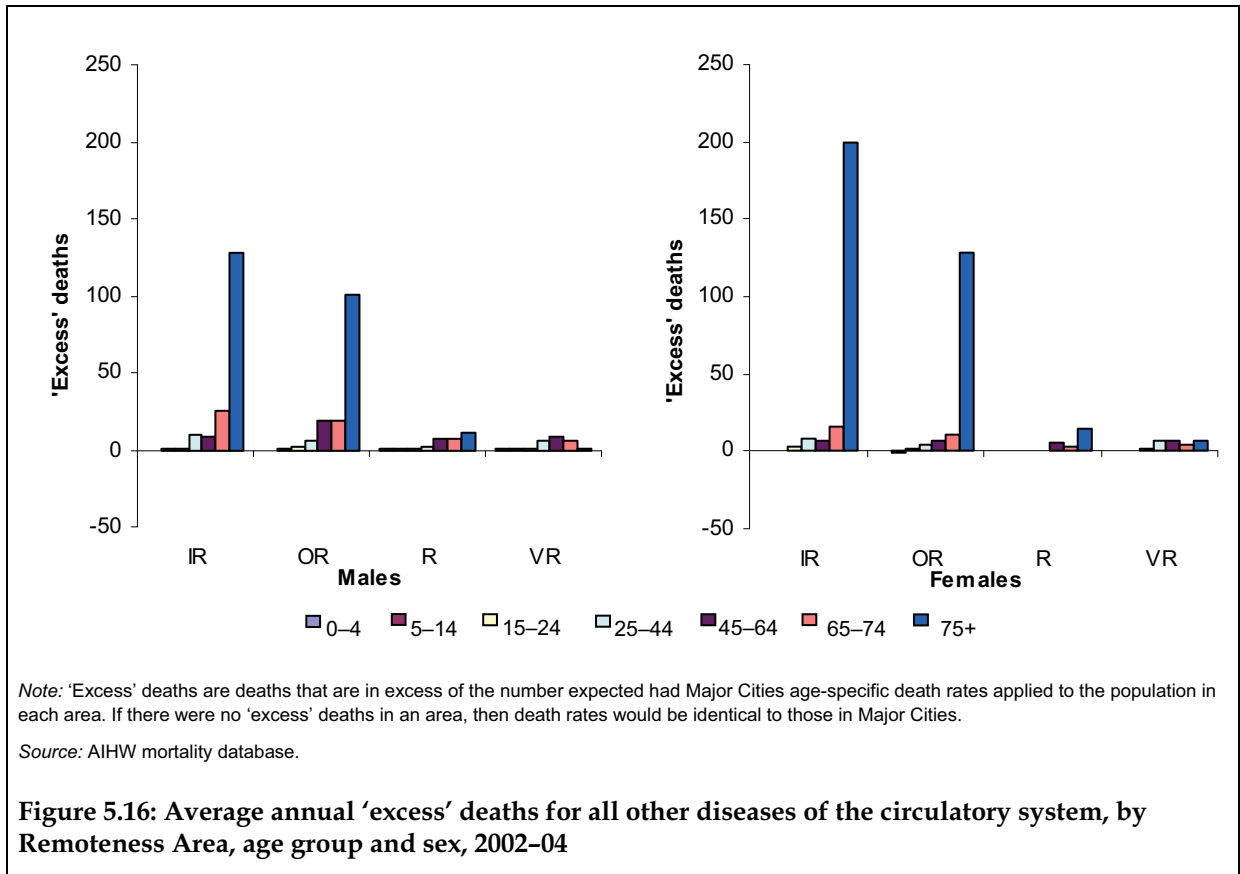


Table 5.12: SMIRs, average annual deaths and 'excess' deaths due to all other diseases of the circulatory system, 2002-04 and 1997-99

	Males						Females						Persons												
	MC		OR		R		VR		MC		OR		R		VR		MC		OR		R		VR		
	Rate		Ratio		Ratio		Ratio		Rate		Ratio		Ratio		Ratio		Rate		Ratio		Ratio		Ratio		
2002-04																									
0-4	3	0.92	0.69	1.11	4.55		2	1.19	1.36	0.82	5.29		2	1.02	0.93	1.01									
5-14	0	1.21	3.08	6.64	*19.38		0	1.17	0.53	0.00	4.45		0	1.19	1.48	2.47									
15-24	1	1.17	*2.27	3.38	5.12		1	*3.30	*3.01	7.61	*29.59		1	*1.81	*2.49	*4.54									
25-44	5	*1.36	*1.43	*1.99	*5.53		2	*1.72	*1.70	2.08	*13.63		3	*1.47	*1.51	*2.02									
45-64	23	1.07	*1.30	*1.73	*2.86		12	1.11	1.21	*2.48	*5.10		18	1.08	*1.27	*1.96									
65-74	122	*1.13	*1.20	*1.63	*2.20		77	*1.13	*1.19	1.44	*2.72		99	1.13	*1.20	*1.57									
75+	659	*1.18	*1.31	*1.30	1.04		685	*1.18	*1.28	*1.34	*1.46		675	*1.18	*1.29	*1.32									
Total	46	*1.16	*1.30	*1.47	*1.94		58	*1.18	*1.27	*1.45	*2.44		52	*1.17	*1.28	*1.46									
Total <65	8	*1.11	*1.34	*1.83	*3.70		4	*1.23	*1.30	*2.38	*7.46		6	*1.15	*1.33	*2.00									
1997-99																									
Total	51	*1.09	*1.24	*1.27	*1.54		65	*1.10	*1.20	*1.33	*1.85		55	*1.10	*1.22	*1.30									
Total <65	8	*1.17	*1.49	*2.13	*3.37		5	1.09	*1.27	*2.17	*4.92		6	*1.14	*1.42	*2.14									
Total†	*1.23	*1.35	*1.52	*1.53	*1.87		*1.22	*1.34	*1.46	*1.61	*2.26		*1.22	*1.34	*1.49	*1.57									
Total <65†	1.05	*1.23	*1.57	*2.20	*3.52		*1.19	*1.28	*1.51	*2.60	*6.09		*1.10	*1.25	*1.55	*2.32									

(continued)

Table 5.12 (continued): SMRs, average annual deaths and 'excess' deaths due to all other diseases of the circulatory system, 2002-04 and 1997-99

	Males					Females					Persons				
	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR
Average annual number of excess deaths															
2002-04															
0-4	0	0	-1	0	1	0	0	0	0	1	0	0	0	0	1
5-14	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1
15-24	0	1	2	1	1	0	3	1	1	2	0	4	3	1	3
25-44	0	9	6	2	6	0	8	4	1	7	0	18	10	4	13
45-64	0	8	19	7	8	0	7	6	6	7	0	15	25	13	16
65-74	0	26	19	7	5	0	17	10	3	4	0	42	30	10	9
75+	0	129	101	11	1	0	200	128	15	7	0	328	229	25	7
Excess total	0	172	147	28	23	0	236	150	25	27	0	407	297	53	50
Deaths total	2,986	1,254	645	89	47	3,874	1,528	706	80	46	6,860	2,781	1,351	169	93
Excess <65	0	18	27	10	17	0	19	12	8	17	0	37	39	18	34
Deaths <65	468	174	106	23	23	248	102	51	13	20	716	276	158	36	43
1997-99															
Excess total	0	102	124	17	14	0	132	116	20	17	0	233	240	36	31
Excess total†	586	311	222	28	18	721	363	219	30	21	1,307	674	441	58	39
Deaths total	3,135	1,208	651	79	39	4,069	1,439	697	79	37	7,204	2,647	1,348	159	77
Excess <65	0	25	39	14	14	0	7	12	7	11	0	33	50	21	25
Excess <65†	20	32	43	14	14	42	20	18	8	11	62	53	61	23	26
Deaths <65	449	171	117	26	20	263	93	54	13	14	713	263	171	40	34

Notes

- The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
- The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
- For further explanation, refer to section 2.3.

Table 5.13: SMRs, average annual deaths and 'excess' deaths due to all other diseases of the circulatory system, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons					
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous		
	MC	IR	OR	Rate	VR	Ratio	MC	IR	OR	Rate	VR	Ratio	MC	IR	OR	Rate	VR	Ratio
2002-04																		
0-4	3	0.81	0.42	1.15	0.30	1.14	1	1.37	1.66	1.14	0.00	1.15	2	1.00	0.85	2.62	0.20	2.74
5-14	0	1.24	1.63	5.55	18.72	0.00	0	1.44	0.07	0.00	0.00	0.00	0	1.36	0.72	6.59	7.66	*9.95
15-24	1	1.08	2.04	3.32	1.29	5.29	1	*2.66	1.62	5.29	0.00	*22.04	1	1.56	1.91	*22.04	0.99	*10.08
25-44	4	*1.31	1.30	1.36	*2.78	0.55	2	*1.63	0.98	0.55	1.22	*17.05	3	*1.41	1.21	*17.05	*2.39	*10.81
45-64	22	1.06	*1.23	1.24	0.95	1.59	12	1.06	1.05	1.59	1.65	*10.14	17	1.06	*1.17	*10.14	1.14	*8.31
65-74	118	*1.15	*1.20	*1.57	1.40	1.07	75	*1.13	*1.19	1.07	0.88	*5.09	95	*1.14	*1.20	*5.09	1.24	*4.12
75+	643	*1.18	*1.32	*1.28	1.03	1.43	667	*1.18	*1.28	1.43	*1.44	1.27	658	*1.18	*1.30	1.27	1.24	1.18
Total	45	*1.16	*1.29	*1.35	1.19	*1.35	57	*1.18	*1.26	*1.35	*1.38	*3.86	51	*1.17	*1.27	*3.86	*1.27	*3.63
Total <65	8	*1.10	*1.24	1.32	1.38	1.43	4	*1.17	1.05	1.43	1.47	*11.58	6	*1.12	*1.18	*11.58	1.41	*8.62
1997-99																		
Total	51	*1.10	*1.23	1.12	0.94	*1.17	64	*1.11	*1.20	*1.17	0.90	*3.91	57	*1.11	*1.21	*3.91	0.92	*3.54
Total <65	8	*1.18	*1.42	*1.44	1.12	1.00	5	1.08	1.15	1.00	0.85	*10.67	6	*1.14	*1.32	*10.67	1.04	*9.14
Total†	*1.28	*1.43	*1.60	*1.45	1.20	*1.47	*1.25	*1.41	*1.51	*1.47	1.13	n.p.	*1.26	*1.42	*1.55	n.p.	1.17	n.p.
Total <65†	*1.10	*1.34	*1.62	*1.63	1.26	1.21	*1.23	*1.33	*1.41	1.21	1.02	n.p.	*1.15	*1.34	*1.55	n.p.	1.19	n.p.

(continued)

Table 5.13 (continued): SMRs, average annual deaths and 'excess' deaths due to all other diseases of the circulatory system, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons						
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			
	MC	IR	OR	R	VR	Indigenous	MC	IR	OR	R	VR	Indigenous	MC	IR	OR	R	VR	Indigenous	
Average annual number of excess deaths																			
2002-04																			
0-4	0	-1	-1	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	1
5-14	0	0	0	0	0	1	0	1	-1	0	0	0	1	0	1	0	0	0	2
15-24	0	0	1	0	0	1	0	2	0	0	0	3	0	2	2	1	0	0	4
25-44	0	7	4	1	2	10	0	7	0	0	0	12	0	14	4	0	2	22	22
45-64	0	7	13	2	0	18	0	4	1	2	1	17	0	11	15	4	1	35	35
65-74	0	28	18	6	1	6	0	16	10	0	0	8	0	44	28	6	1	14	14
75+	0	127	101	9	0	0	0	192	125	15	4	3	0	319	225	25	5	3	3
Excess total	0	169	136	19	3	38	0	222	137	18	5	43	0	391	273	37	8	81	81
Deaths total	2,893	1,216	614	74	21	54	3,755	1,472	671	69	18	58	6,648	2,688	1,285	143	39	112	112
Excess <65	0	14	18	4	2	31	0	14	2	2	1	32	0	28	20	6	2	63	63
Deaths <65	445	162	92	15	6	37	235	92	38	7	2	35	680	254	130	21	8	72	72
1997-99																			
Excess total	0	105	117	7	-1	36	0	146	113	9	-1	42	0	251	230	16	-2	78	78
Excess total†	676	359	236	20	3	n.p.	797	410	229	21	2	n.p.	1,473	769	465	41	4	n.p.	n.p.
Deaths total	3,072	1,189	629	66	17	52	3,971	1,420	675	65	13	56	7,043	2,609	1,304	130	30	108	108
Excess <65	0	25	31	5	1	33	0	7	6	0	0	26	0	32	37	5	0	59	59
Excess <65†	41	42	40	6	1	n.p.	48	22	13	1	0	n.p.	89	64	53	7	1	n.p.	n.p.
Deaths <65	434	165	105	16	5	37	254	88	46	5	1	29	689	254	151	22	6	66	66

Notes

- The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
- The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
- For further explanation, refer to section 2.3.

6 Diseases of the respiratory system

Chapter highlights

Diseases of the respiratory system were responsible for about 9% of all deaths, but for about 5% and 10% of excess deaths in regional and remote areas respectively.

Half of all deaths in this chapter were due to COPD, 25% due to pneumonia and influenza, 3% due to asthma, and about 25% due to 'other' respiratory diseases.

Almost all of the excess deaths in this chapter are due to COPD, with about 9% due to asthma. However, for the other two causes, there were fewer deaths than expected amongst those older than 75 years. For those younger than 65 years, 65% of excess deaths were due to COPD, 20% due to pneumonia and influenza, 11% due to asthma and 25% due to 'other' respiratory diseases.

COPD was responsible for about 10% of the excess deaths in regional and remote areas, and as such, is a substantial contributor to overall higher rates of death outside Major Cities.

Most of the excess deaths were amongst males and people aged 45–64 and 65–74 years. For females aged 75 years and older, there were fewer deaths than expected.

Indigenous Australians had respiratory death rates that were four times higher than the rates for non-Indigenous Australians in Major Cities.

For males, SMRs increase with remoteness, 1.1, 1.2, 1.3 and 2.0 in Inner Regional, Outer Regional, Remote and Very Remote areas respectively. For females SMRs are only higher than 1.0 in Very Remote areas (where the SMR is 1.8).

However, for people younger than 65 years, SMRs in the four areas were about 1.3, 1.5, 2.2 and 4.9 for both males and females.

For non-Indigenous Australians, SMRs were 1.1 and 1.2 for males in Inner Regional and Outer Regional areas. In remote areas and for females in regional and remote areas generally SMRs were about 1.0. For non-Indigenous Australians younger than 65 years, SMRs in regional areas were around 1.3, and those in remote areas were not significantly different from 1.0.

Death rates are declining for males, fastest in Outer Regional and especially Very Remote areas. For females, death rates are increasing in Major Cities and Inner Regional areas, showing little change in Outer Regional areas and declining in remote areas.

This chapter discusses mortality due to the broad category of respiratory disease (ICD-10 chapter 10, codes J00–J99). It then provides further analysis of specific diseases within this broad category. The specific respiratory diseases included are:

1. chronic obstructive pulmonary disease
2. pneumonia and influenza
3. asthma
4. other respiratory diseases.

These diseases were chosen because they tend to be the most frequent specific causes of death within this category, are national health priorities (for example, asthma) or substantially affect Indigenous Australian populations.

On average during the period, diseases of the respiratory system were responsible for 11,733 deaths annually – this is 8.8% of all deaths. Over half (52%) were male; 64% were in Major Cities, 34% in regional areas and 2% in remote areas.

Overall rates of death for Indigenous Australians due to diseases of the respiratory system were four times higher than the rates for non-Indigenous Australians in Major Cities.

In regional areas:

Compared with Major Cities, death rates for males were 5% and 15% higher in Inner Regional and Outer Regional areas, while for females, rates in regional areas were not significantly different from those in Major Cities.

For 0–64 year olds, death rates were 1.3 and 1.5 times those in Major Cities.

The inter-regional pattern for non-Indigenous Australians was similar to that above, although for people younger than 65 years, rates in Outer Regional areas were 1.3 times those in Major Cities.

Annually there are 2,712 and 1,271 deaths in Inner Regional and Outer Regional areas; about 55% were male.

Annually there were 83 and 103 ‘excess’ deaths in Inner Regional and Outer Regional areas; this is 4% and 6% of all ‘excess’ deaths in Inner Regional and Outer Regional areas. Almost all (94%) of the ‘excess’ deaths were male, mainly aged 45–74 years. However, while there were 73 more deaths of 45–74 year old females than expected, there were 66 fewer deaths than expected of females older than 74 years.

Compared with the previous reporting period (1997–99), there were 224 more deaths of males and 398 more deaths of females annually in 2002–04.

The 12-year trend (AIHW 2006a) is for decreasing death rates for males (faster in Outer Regional areas than in Major Cities), increasing death rates for females in Inner Regional areas and no clear change in Outer Regional areas.

Between 1997–99 and 2002–04, the number of excess deaths in regional areas decreased for males and increased for females (as estimated using 2002–04 Major Cities rates as the standard). For example, in 1997–99 there were 140 more and 90 fewer deaths of Inner Regional males and females annually than if 2002–04 Major Cities age-and sex-specific rates had applied; in 2002–04, this number had decreased for males to 76 more, and increased for females to 8 more deaths than if 2002–04 Major Cities age-specific rates had applied.

Death rates¹⁴ appeared to decrease for regional males and to increase (or remain similar) for regional females between the previous (1997–99) and the more recent (2002–04) reporting periods.

With the exception of females in Inner Regional areas, the relative differences¹⁵ between Major Cities and regional areas appear to have decreased.

¹⁴ As expressed by SMRs calculated for both periods using Major Cities age-and sex-specific rates in 2002–04 as the standard.

¹⁵ As expressed by SMRs calculated for each period using Major Cities age-and sex-specific rates in each period as the standard.

In remote areas:

Death rates for males in Remote and Very Remote areas were 1.3 and 2 times those in Major Cities. Death rates for females in Remote areas were indistinguishable from those in Major Cities, while those in Very Remote areas were 1.8 times those in Major Cities.

For 0–64 year olds, death rates for both sexes were substantially higher than in Major Cities. Overall rates in Remote and Very Remote areas were 2.15 and 4.9 times those in Major Cities.

When the analysis is repeated for non-Indigenous Australians, the differences disappear, that is, the higher rates for the total population are essentially a reflection of Indigenous Australian mortality. Rates for non-Indigenous Australian males and females were not significantly different from those in Major Cities.

Annually there are 153 and 91 deaths in Remote and Very Remote areas; about 62% were male.

Annually there were 24 and 43 ‘excess’ deaths in Remote and Very Remote areas; this is 9% and 10% of all ‘excess’ deaths in Remote and Very Remote areas. Three-quarters (73%) were male. The excess appeared to be people mainly aged 45–74 years, with fewer than expected deaths amongst females older than 75 years.

Compared with the previous reporting period (1997–99), there were 12 more deaths of males and the same number of deaths of females annually in 2002–04.

The 12-year trend (AIHW 2006a) is for decreasing death rates for males and females, with quite substantial declines in Very Remote areas.

Between 1997–99 and 2002–04, the number of excess deaths in remote areas changed little for males and decreased slightly for females (as estimated using 2002–04 Major Cities rates as the standard). For example, in 1997–99 there were 52 and 28 more deaths of remote area males and females annually than if 2002–04 Major Cities age- and sex-specific rates had applied; in 2002–04, these numbers had become 49 and 18 more deaths than if 2002–04 Major Cities age-specific rates had applied.

Death rates¹⁶ appeared to have decreased slightly between the previous (1997–99) and the more recent (2002–04) reporting periods (for example, SMRs for Remote area males were 1.4 in 1997–99, and became 1.3 in 2002–04 compared with 1.0 for Major Cities males in 2002–04).

However, the relative differences¹⁷ between Major Cities and remote areas appear to have changed little for males and to have decreased slightly for females.

Chronic obstructive pulmonary disease contributed most to overall numbers of deaths and excess deaths in this cause grouping.

¹⁶ As expressed by SMRs calculated for both periods using Major Cities age- and sex-specific rates in 2002–04 as the standard.

¹⁷ As expressed by SMRs calculated for each period using Major Cities age- and sex-specific rates in each period as the standard.

Table 6.1: Average annual deaths and 'excess' deaths, by type of respiratory disease, 2002–04

Cause of death	Males					Females				
	MC	IR	OR	R	VR	MC	IR	OR	R	VR
Deaths										
Pneumonia and flu	951	329	153	19	16	1,247	421	174	19	9
Asthma	71	34	15	2	1	138	55	20	2	2
COPD	1,825	810	433	57	31	1,421	532	235	26	16
Other	941	287	129	17	10	893	245	112	11	7
Total	3,788	1,460	730	95	57	3,700	1,252	541	57	34
Excess deaths										
Pneumonia and flu	0	-14	-3	1	8	0	7	-3	1	3
Asthma	0	10	4	1	0	0	9	-1	-1	1
COPD	0	136	126	21	17	0	47	26	5	9
Other	0	-56	-28	-1	2	0	-56	-18	-2	3
Total	0	76	99	21	28	0	8	5	3	15

Table 6.2: Average annual deaths and 'excess' deaths for persons aged 64 years and under, by type of respiratory disease, 2002–04

Cause of death	Males					Females				
	MC	IR	OR	R	VR	MC	IR	OR	R	VR
Deaths										
Pneumonia and flu	78	28	18	4	8	49	20	11	5	5
Asthma	33	11	6	1	1	43	18	6	0	1
COPD	135	70	49	8	8	117	59	32	6	4
Other	98	37	20	6	6	66	22	10	3	4
Total	344	147	94	18	22	275	119	60	15	14
Excess deaths										
Pneumonia and flu	0	2	5	1	7	0	3	3	4	4
Asthma	0	1	1	0	0	0	4	0	-1	1
COPD	0	22	25	4	6	0	18	13	4	3
Other	0	4	4	3	5	0	0	0	2	3
Total	0	29	34	9	18	0	25	15	9	11

Table 6.3: Average annual deaths and 'excess' deaths for non-Indigenous Australians, by type of respiratory disease, 2002-04

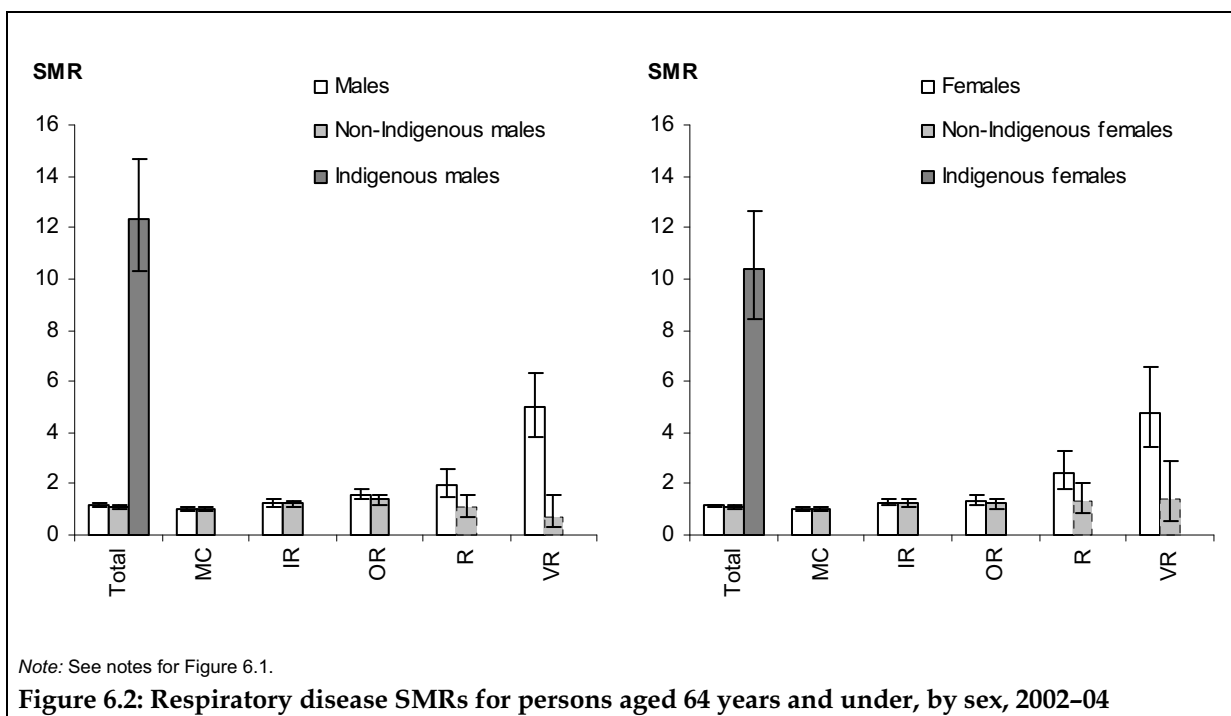
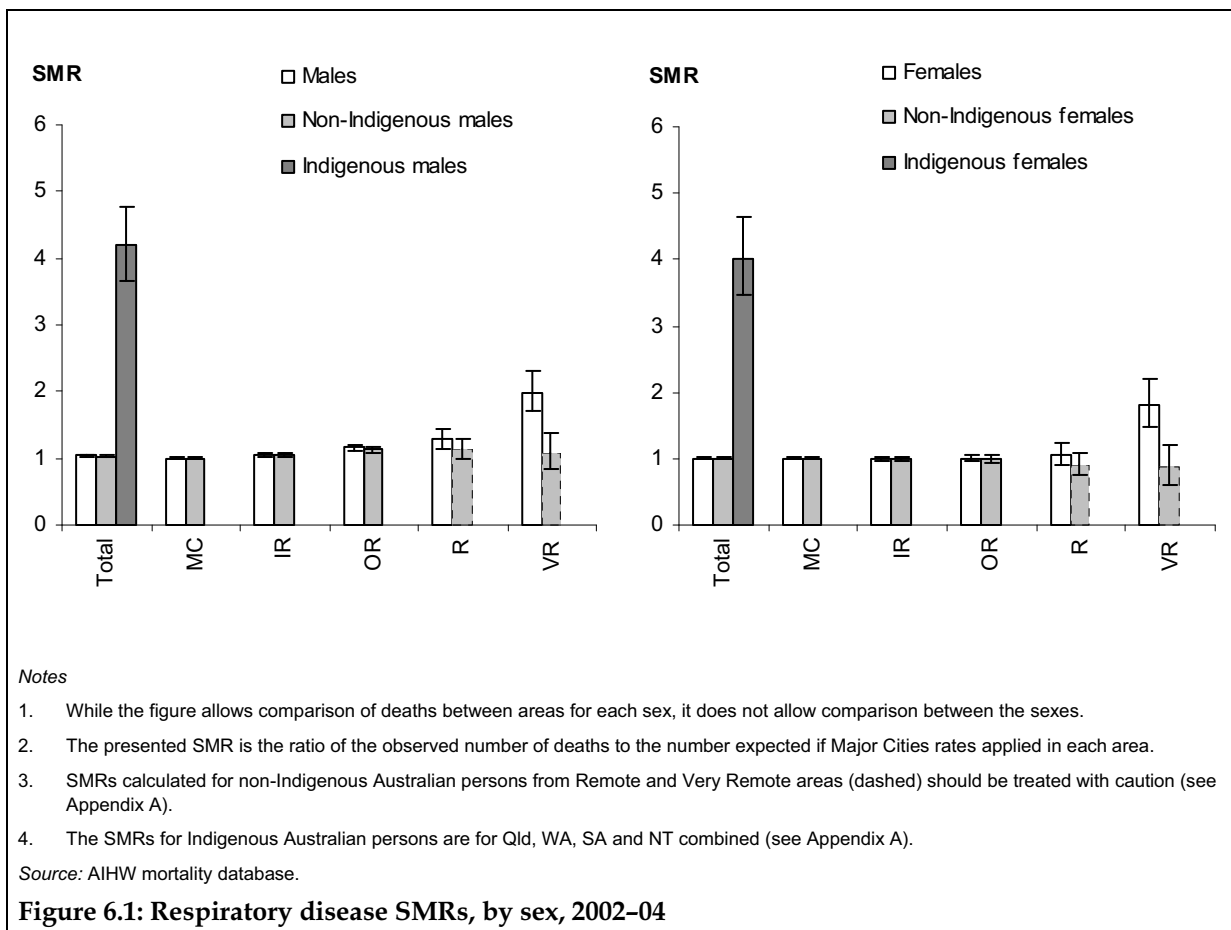
Cause of death	Males					Females				
	MC	IR	OR	R	VR	MC	IR	OR	R	VR
Deaths										
Pneumonia and flu	914	317	142	14	4	1,206	407	166	13	2
Asthma	68	33	14	2	0	133	51	18	1	1
COPD	1,769	783	409	48	17	1,368	507	221	23	6
Other	918	278	122	13	3	866	238	107	8	3
Total	3,669	1,411	686	77	23	3,573	1,203	512	45	11
Excess deaths										
Pneumonia and flu	0	-13	-6	-2	-2	0	8	-4	-3	-2
Asthma	0	9	3	0	0	0	7	-1	-1	0
COPD	0	132	113	15	6	0	41	21	3	1
Other	0	-56	-29	-4	-3	0	-52	-17	-4	0
Total	0	72	80	9	2	0	3	-1	-4	-2

Table 6.4: Average annual deaths and 'excess' deaths for non-Indigenous Australians aged 64 years and under, by type of respiratory disease, 2002-04

Cause of death	Males					Females				
	MC	IR	OR	R	VR	MC	IR	OR	R	VR
Deaths										
Pneumonia and flu	70	26	14	1	0	45	18	8	2	0
Asthma	31	11	5	1	0	41	16	6	0	0
COPD	128	64	40	5	2	110	55	28	4	1
Other	93	34	17	2	0	61	20	8	1	1
Total	323	135	76	9	2	257	110	50	7	2
Excess deaths										
Pneumonia and flu	0	2	2	-1	-1	0	4	1	1	0
Asthma	0	1	0	0	0	0	3	0	-1	0
COPD	0	19	17	2	1	0	17	10	2	1
Other	0	2	2	0	-1	0	0	-2	0	0
Total	0	25	21	1	-1	0	23	9	2	1

Table 6.5: Average annual deaths and 'excess' deaths of Indigenous Australians in Qld, WA, SA and NT, by type of respiratory disease, 2002-04

Cause of death	Males		Females	
	Total population	0-64 years	Total population	0-64 years
Deaths				
Pneumonia and flu	24	16	20	13
Asthma	2	2	4	3
COPD	29	12	25	9
Other	19	13	10	7
Total	74	44	60	32
Excess deaths				
Pneumonia and flu	19	15	16	13
Asthma	2	2	4	3
COPD	21	11	20	8
Other	14	12	7	6
Total	56	40	45	29



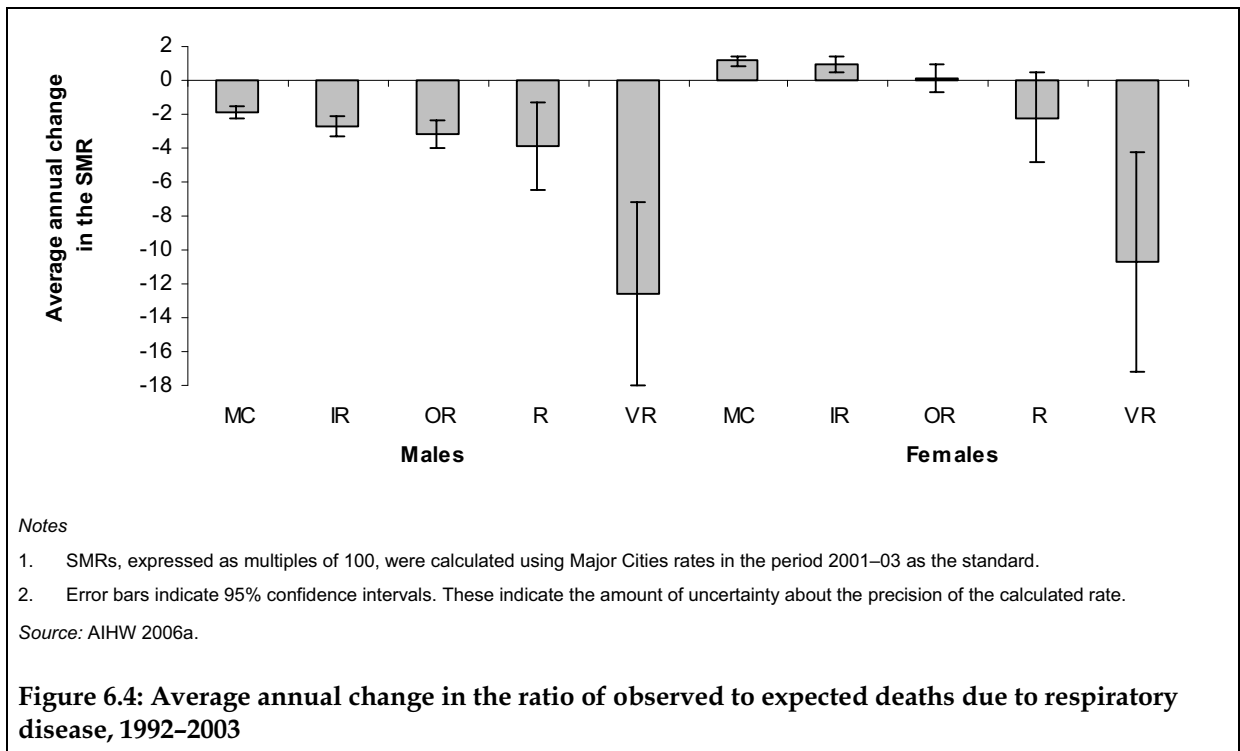
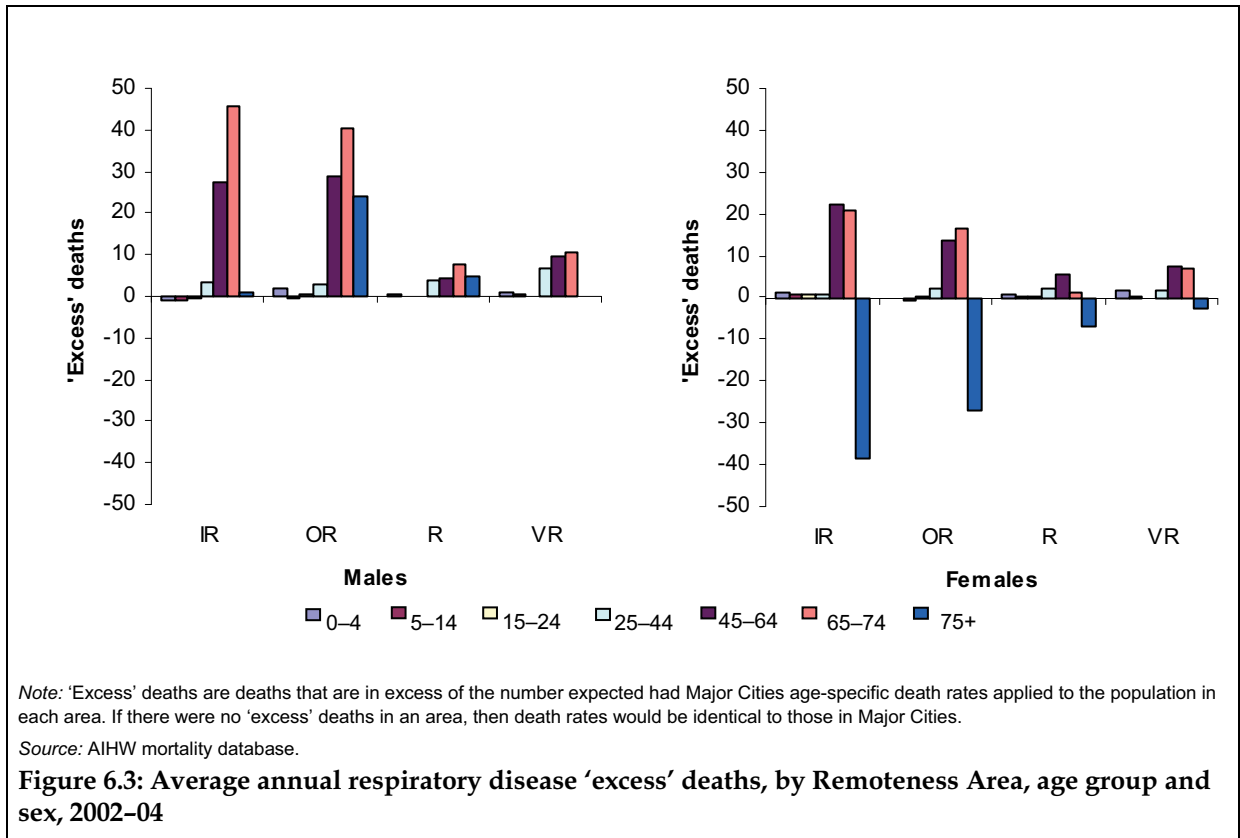


Table 6.6: SMRs, average annual deaths and 'excess' deaths due to respiratory disease, 2002-04 and 1997-99

	Males						Females						Persons					
	MC	IR	OR	R	VR		MC	IR	OR	R	VR		MC	IR	OR	R	VR	
	Rate					Rate	Rate					Rate	Rate					Ratio
2002-04																		
0-4	4	0.82	1.75	1.98	*4.33	2	1.34	0.97	2.81	2.81	*10.18	3	1.00	1.47	2.27	2.27	*6.38	
5-14	1	0.57	0.35	1.94	3.56	0	1.74	0.00	2.29	2.29	1.81	0	1.02	0.22	2.07	2.07	2.90	
15-24	1	0.89	1.50	0.26	2.52	0	1.53	1.28	3.98	3.98	0.00	1	1.10	1.43	1.40	1.40	1.72	
25-44	2	1.34	*1.59	*5.05	*13.34	2	1.09	1.49	*4.05	*4.05	*5.08	2	1.22	*1.54	*4.62	*4.62	*9.81	
45-64	18	*1.28	*1.58	*1.60	*3.83	15	*1.28	*1.37	*2.17	*2.17	*4.50	16	*1.28	*1.49	*1.83	*1.83	*4.09	
65-74	162	*1.18	*1.33	*1.51	*2.80	106	*1.12	*1.21	1.16	1.16	*3.18	133	*1.15	*1.28	*1.39	*1.39	*2.93	
75+	908	1.00	1.05	1.09	1.01	617	*0.96	*0.94	0.82	0.82	0.81	730	0.98	1.00	0.97	0.97	0.93	
Total	58	*1.05	*1.16	*1.29	*1.98	55	1.01	1.01	1.06	1.06	*1.80	57	*1.03	*1.09	*1.19	*1.19	*1.91	
Total<64	6	*1.24	*1.57	*1.96	*4.96	5	*1.27	*1.35	*2.45	*2.45	*4.80	5	*1.26	*1.47	*2.16	*2.16	*4.90	
1997-99																		
Total	54	*1.08	*1.24	*1.30	*2.14	47	0.99	*1.07	*1.37	*1.37	*2.06	50	*1.04	*1.16	*1.33	*1.33	*2.11	
Total <65	6	*1.23	*1.72	*2.09	*5.57	5	*1.14	*1.39	*2.52	*2.52	*5.25	6	*1.19	*1.58	*2.27	*2.27	*5.44	
Total†	*1.03	*1.12	*1.29	*1.36	*2.22	*0.92	*0.91	0.99	*1.28	*1.28	*1.96	*0.98	1.02	*1.15	*1.32	*1.32	*2.12	
Total <65†	*1.08	*1.34	*1.88	*2.26	*6.00	*1.12	*1.27	*1.56	*2.85	*2.85	*6.11	*1.10	*1.31	*1.74	*2.49	*2.49	*6.04	

(continued)

Table 6.6 (continued): SMRs, average annual deaths and 'excess' deaths due to respiratory disease, 2002-04 and 1997-99

	Males						Females						Persons					
	MC	IR	OR	R	VR		MC	IR	OR	R	VR		MC	IR	OR	R	VR	
Average annual number of excess deaths																		
2002-04																		
0-4	0	-1	2	1	1	1	0	1	0	0	1	2	0	0	2	1	3	
5-14	0	-1	-1	0	0	0	0	1	-1	0	0	0	0	0	-1	0	0	
15-24	0	0	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	
25-44	0	3	3	4	7	0	0	1	2	2	2	2	0	4	5	6	8	
45-64	0	28	29	4	10	0	0	22	14	6	7	7	0	50	43	10	17	
65-74	0	46	41	8	10	0	0	21	16	1	7	7	0	67	57	9	17	
75+	0	1	24	5	0	0	0	-39	-27	-7	-2	-2	0	-38	-3	-2	-2	
Excess total	0	76	99	21	28	0	0	8	5	3	15	15	0	83	103	24	43	
Deaths total	3,788	1,460	730	95	57	3,700	1,252	541	57	57	34	34	7,488	2,712	1,271	153	91	
Excess <65	0	29	34	9	18	0	0	25	15	9	11	11	0	54	49	18	29	
Deaths <65	344	147	94	18	22	275	119	60	15	15	14	14	618	265	153	33	36	
1997-99																		
Excess total	0	98	134	20	29	0	-12	28	16	16	16	16	0	86	161	36	45	
Excess total†	109	140	155	22	30	-248	-90	-6	13	13	15	15	-139	50	149	35	45	
Deaths total	3,303	1,275	691	85	55	2,942	942	453	60	60	31	31	6,245	2,217	1,144	145	86	
Excess <65	0	25	43	10	20	0	12	18	10	10	12	12	0	37	60	20	32	
Excess <65†	25	34	48	11	20	30	22	22	10	10	12	12	56	56	70	21	32	
Deaths <65	330	135	102	19	24	275	102	62	16	16	15	15	605	237	164	35	39	

Notes

- The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
- The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
- For further explanation, refer to section 2.3.

Table 6.7: SMRs, average annual deaths and 'excess' deaths due to respiratory disease, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons						
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			
	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate	
2002-04																			
0-4	3	0.73	1.60	0.57	0.00	*7.96	2	1.05	1.12	0.02	0.00	*7.89	3	0.85	1.42	0.37	0.00	*7.93	
5-14	1	0.69	0.46	2.94	*0.55	*5.53	0	1.51	0.00	3.54	5.45	5.34	0	1.00	0.29	3.17	2.38	*5.48	
15-24	1	0.86	1.80	0.35	0.00	*8.29	1	1.56	1.37	0.00	0.00	3.41	1	1.11	1.65	0.23	0.00	*6.11	
25-44	2	1.24	1.20	1.55	0.32	*32.69	1	1.16	1.09	0.91	0.04	*15.47	2	1.20	1.15	1.28	0.21	*23.10	
45-64	17	*1.26	*1.39	1.02	0.84	*10.43	14	*1.27	*1.26	1.45	1.67	*9.97	16	*1.27	*1.34	1.19	1.13	*10.21	
65-74	156	*1.18	*1.31	1.30	*1.77	*4.72	102	*1.11	*1.17	1.05	1.65	*5.32	128	*1.15	*1.26	1.21	*1.73	*4.99	
75+	886	1.00	1.05	1.09	0.95	1.34	599	*0.96	*0.94	0.82	*0.59	*1.44	711	0.98	1.00	0.97	0.81	*1.38	
Total	57	*1.05	*1.13	1.13	1.09	*4.19	54	1.00	1.00	0.91	0.86	*4.02	56	*1.03	*1.07	1.04	1.00	*4.11	
Total <65	6	*1.22	*1.38	1.07	0.74	*12.36	5	*1.26	*1.23	1.34	1.42	*10.37	5	*1.24	*1.31	1.18	0.98	*11.43	
1997-99																			
Total	53	*1.09	*1.22	1.14	*1.36	*4.35	46	1.00	1.05	*1.22	0.96	*4.62	50	*1.05	*1.15	*1.17	1.21	*4.46	
Total <65	6	*1.22	*1.52	1.36	*2.08	*12.21	5	*1.13	*1.24	*1.82	1.66	*10.86	5	*1.18	*1.40	*1.54	*1.93	*11.58	
Total†	*1.07	*1.18	*1.32	*1.24	*1.47	<i>n.p.</i>	*0.93	*0.91	0.96	1.13	0.89	<i>n.p.</i>	1.00	*1.05	*1.15	*1.19	*1.24	<i>n.p.</i>	
Total <65†	*1.13	*1.39	*1.74	*1.52	*2.31	<i>n.p.</i>	*1.17	*1.32	*1.45	*2.15	1.97	<i>n.p.</i>	*1.15	*1.36	*1.61	*1.76	*2.19	<i>n.p.</i>	

(continued)

Table 6.7 (continued): SMRs, average annual deaths and 'excess' deaths due to respiratory disease, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons						
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			
	MC	IR	OR	R	VR	Indigenous	MC	IR	OR	R	VR	Indigenous	MC	IR	OR	R	VR	Indigenous	
Average annual number of excess deaths																			
2002-04																			
0-4	0	-1	1	0	0	4	0	0	0	0	0	3	0	-1	1	0	0	0	7
5-14	0	0	0	0	0	1	0	0	0	0	0	0	0	0	-1	0	0	0	1
15-24	0	0	1	0	0	1	0	1	0	0	0	0	0	0	1	0	0	0	1
25-44	0	2	1	0	0	14	0	1	0	0	8	0	0	3	1	0	0	0	21
45-64	0	24	18	0	0	20	0	20	9	2	18	1	0	45	27	2	1	39	39
65-74	0	44	37	4	3	13	0	19	12	0	12	1	0	63	49	5	5	25	25
75+	0	3	23	4	-1	4	0	-38	-23	-6	4	-4	0	-35	0	-2	-4	8	8
Excess total	0	72	80	9	2	56	0	3	-1	-4	45	-2	0	75	79	5	0	101	101
Deaths total	3,669	1,411	686	77	23	74	3,573	1,203	512	45	60	11	7,242	2,613	1,198	122	34	134	134
Excess <65	0	25	21	1	-1	40	0	23	9	2	29	1	0	48	30	2	0	69	69
Deaths <65	323	135	76	9	2	44	257	110	50	7	32	2	579	244	125	16	5	76	76
1997-99																			
Excess total	0	105	119	8	7	53	0	-3	21	9	42	0	101	141	17	6	6	94	94
Excess total†	212	190	161	13	8	n.p.	-199	-91	-17	6	n.p.	-1	13	99	145	19	7	n.p.	n.p.
Deaths total	3,232	1,255	660	69	25	69	2,864	924	431	50	53	10	6,095	2,180	1,091	119	35	122	122
Excess <65	0	23	29	3	3	37	0	11	10	5	28	1	0	34	39	7	4	65	65
Excess <65†	36	36	36	4	4	n.p.	38	23	16	5	n.p.	1	74	60	52	9	5	n.p.	n.p.
Deaths <65	318	129	85	11	6	40	261	96	51	10	31	3	579	225	137	21	9	72	72

Notes

1. The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
2. The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
3. For further explanation, refer to section 2.3.

6.1 Pneumonia and influenza

Highlights

Pneumonia and influenza were responsible for 3% of all deaths and about 2% of all excess deaths in remote areas. There were fewer deaths from this cause than expected in regional areas.

Death rates for Indigenous Australians were five times higher than the rates for non-Indigenous Australians in Major Cities.

SMRs in most areas were close to 1.0, but in Very Remote areas the SMR was 1.9. Death rates in the oldest age groups, particularly in remote areas, tended to be lower than in Major Cities. SMRs for the population younger than 65 years were 1.0, 1.4, 2.8 and 7.8 in the four areas.

For non-Indigenous Australians, SMRs were not significantly different from 1.0 in most areas (except Very Remote areas where the SMR was 0.6).

Since 1992, death rates increased in Major Cities and Inner Regional areas, showed little change in Outer Regional and Remote areas, and declined quite strongly in Very Remote areas.

Pneumonia (ICD-10 codes J12–J18) is an inflammation or infection of the lungs, for example, caused by the bacteria *streptococcus pneumoniae*. People at greatest risk are those whose immune systems are compromised, or who have chronic cardiovascular or pulmonary disease (for example, influenza), diabetes mellitus, alcohol-related problems, cirrhosis, cerebrospinal fluid leak after trauma or surgery, and those who smoke. Vaccination to protect against the disease is recommended for at-risk individuals (NHMRC 2000).

Influenza (ICD-10 codes J10–J11) is a highly infectious disease caused by a virus transmitted in respiratory droplets produced during coughing or sneezing. Complications of influenza include acute bronchitis, croup, acute otitis media, pneumonia and cardiovascular complications. While influenza itself may not be recorded as the cause of death, its complications (for example, pneumonia) may lead to death and be recorded as the underlying cause of death. Individuals whose medical condition makes them vulnerable to disease may develop bacterial pneumonia, which may be fatal. Annual vaccination against influenza is recommended for individuals who are at increased risk of influenza-related complications (NHMRC 2000).

Because of the relationship between influenza and pneumonia, they are often reported together.

On average during the period, influenza and pneumonia were responsible for 3,344 deaths annually – this is 2.5% of all deaths. Half (44%) were male; 66% were in Major Cities, 32% in regional areas and 2% in remote areas.

Overall death rates due to influenza and pneumonia for Indigenous Australians were five times higher than the rates for non-Indigenous Australians in Major Cities. For Indigenous Australians younger than 65 years, death rates were 19 times those rates for similarly aged non-Indigenous Australians in Major Cities.

In regional areas:

Death rates were not significantly different from those in Major Cities.

Death rates for 0–64 year olds in Inner Regional areas were not significantly different from those in Major Cities, but rates in Outer Regional areas were 1.4 times those in Major Cities.

The inter-regional pattern for non-Indigenous Australians was similar to that above.

Annually there are 750 and 327 deaths in Inner Regional and Outer Regional areas; about 45% were male.

Annually there were 7 and 6 fewer deaths in Inner Regional and Outer Regional areas than expected. It was mainly amongst the older (75+) males that there were fewer deaths than expected, while there tended to be slightly more deaths than expected in the younger age groups (as indicated by 13 more deaths than expected annually for people younger than 65 years in regional areas). Compared with the previous reporting period (1997–99), there were 214 more deaths of males and 221 more deaths of females annually in 2002–04.

The 12-year trend (AIHW 2006a) is for death rates to increase in Inner Regional areas and to remain relatively unchanged in Outer Regional areas.

In remote areas:

While death rates in Remote areas were not significantly different from those in Major Cities, death rates in Very Remote areas were 1.9 times those in Major Cities.

For 0–64 year olds death rates were 1.4 and 2.7 times those in Major Cities.

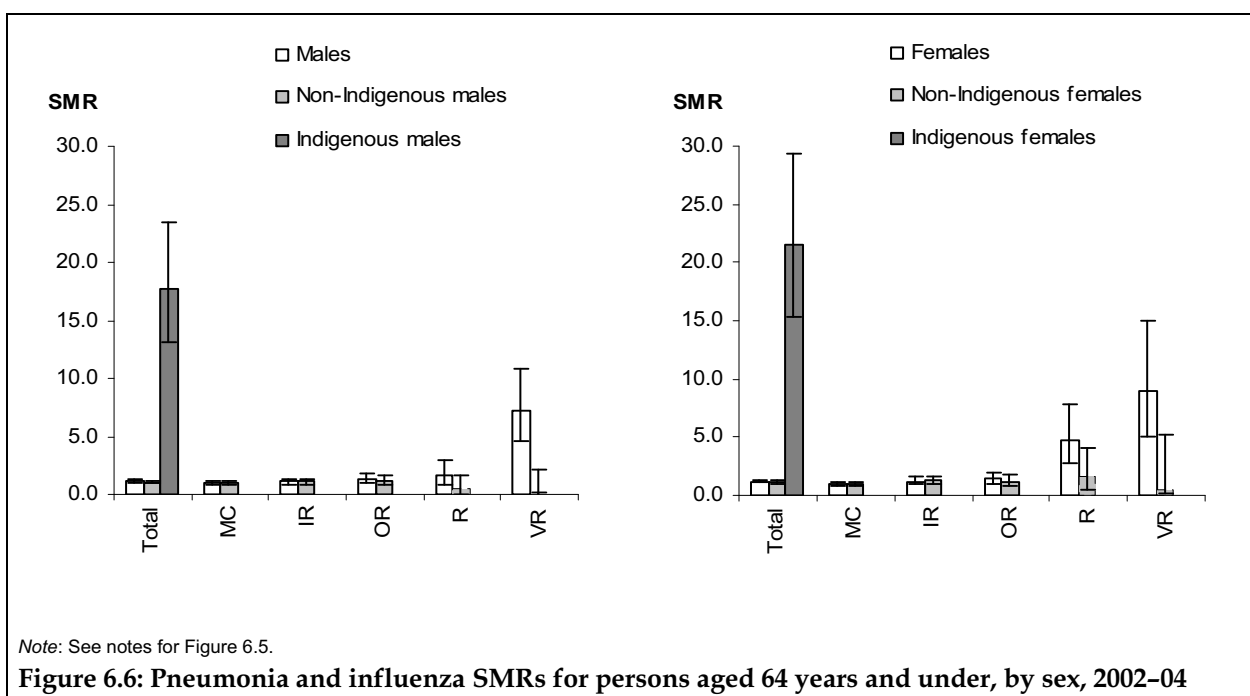
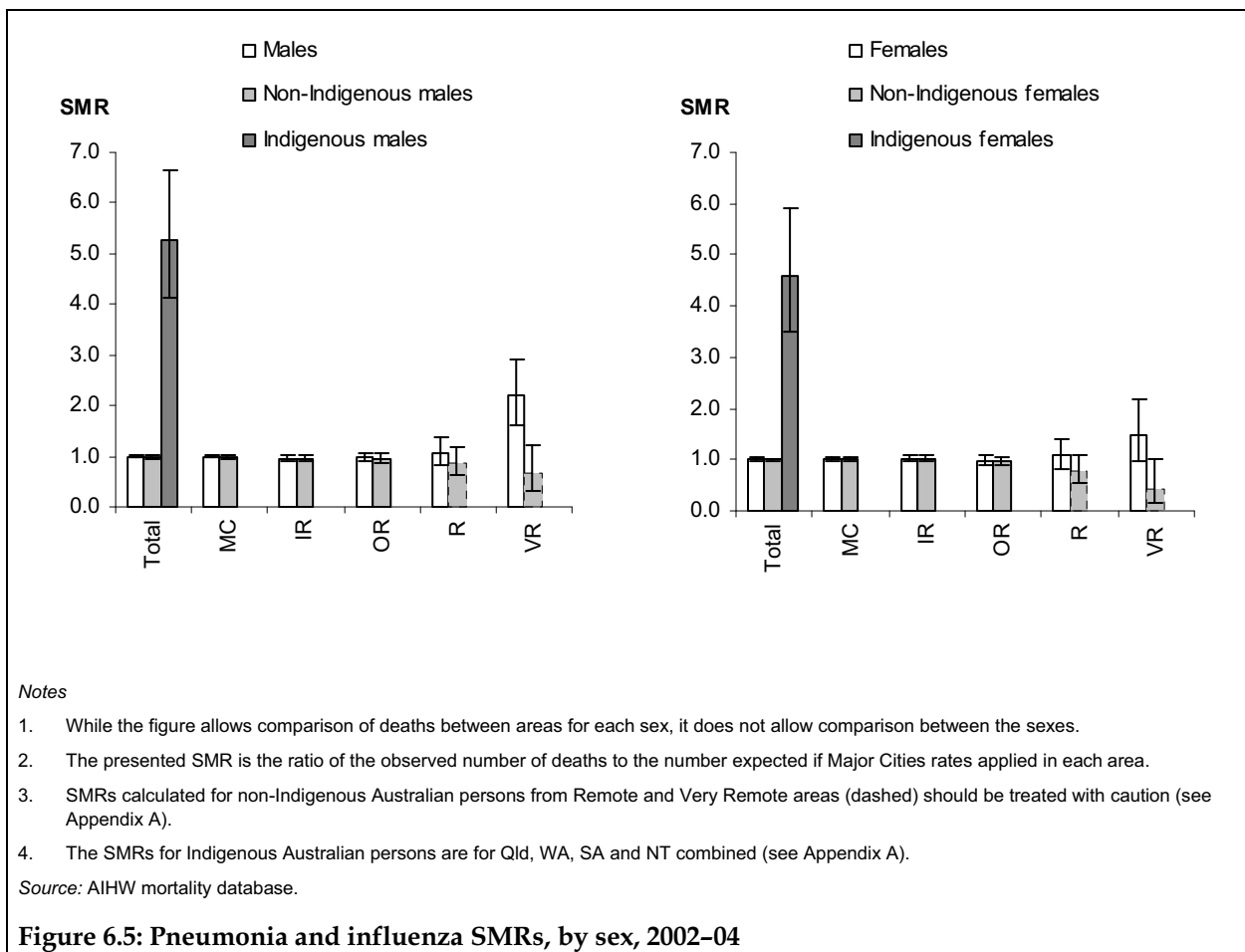
Death rates for non-Indigenous Australians in Remote areas were indistinguishable from those in Major Cities while rates for those in Very Remote areas were 0.6 times those in Major Cities. For those younger than 65 years, rates were indistinguishable from those in Major Cities.

Annually there are 38 and 24 deaths in Remote and Very Remote areas; about 56% were male.

Annually there were 2 and 11 'excess' deaths in Remote and Very Remote areas; this is 1% and 3% of all 'excess' deaths in Remote and Very Remote areas. There were fewer deaths than expected amongst those 75 years and older, with the bulk of the excess deaths amongst 25–64 year olds.

Compared with the previous reporting period (1997–99), there were 8 more deaths of males and 1 fewer deaths of females annually in 2002–04.

The 12-year trend (AIHW 2006a) is for death rates to decrease, especially in Very Remote areas where, compared to other areas, declines appear to have been substantial.



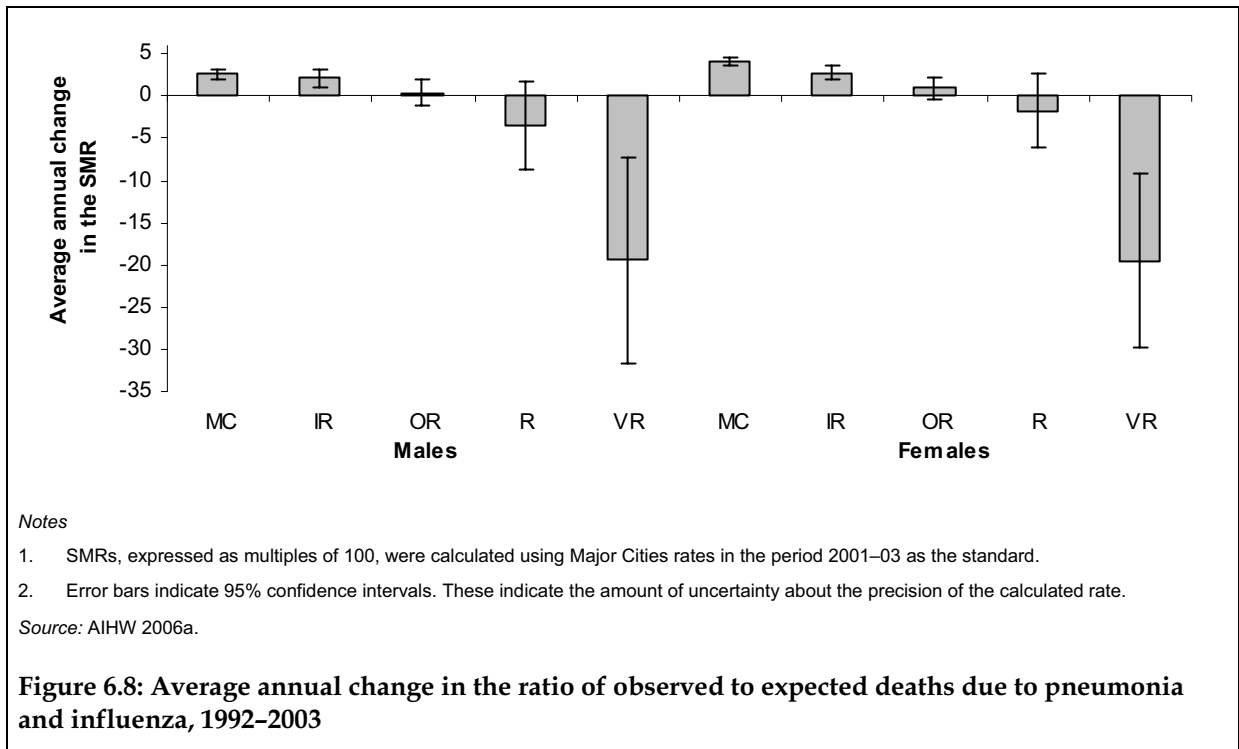
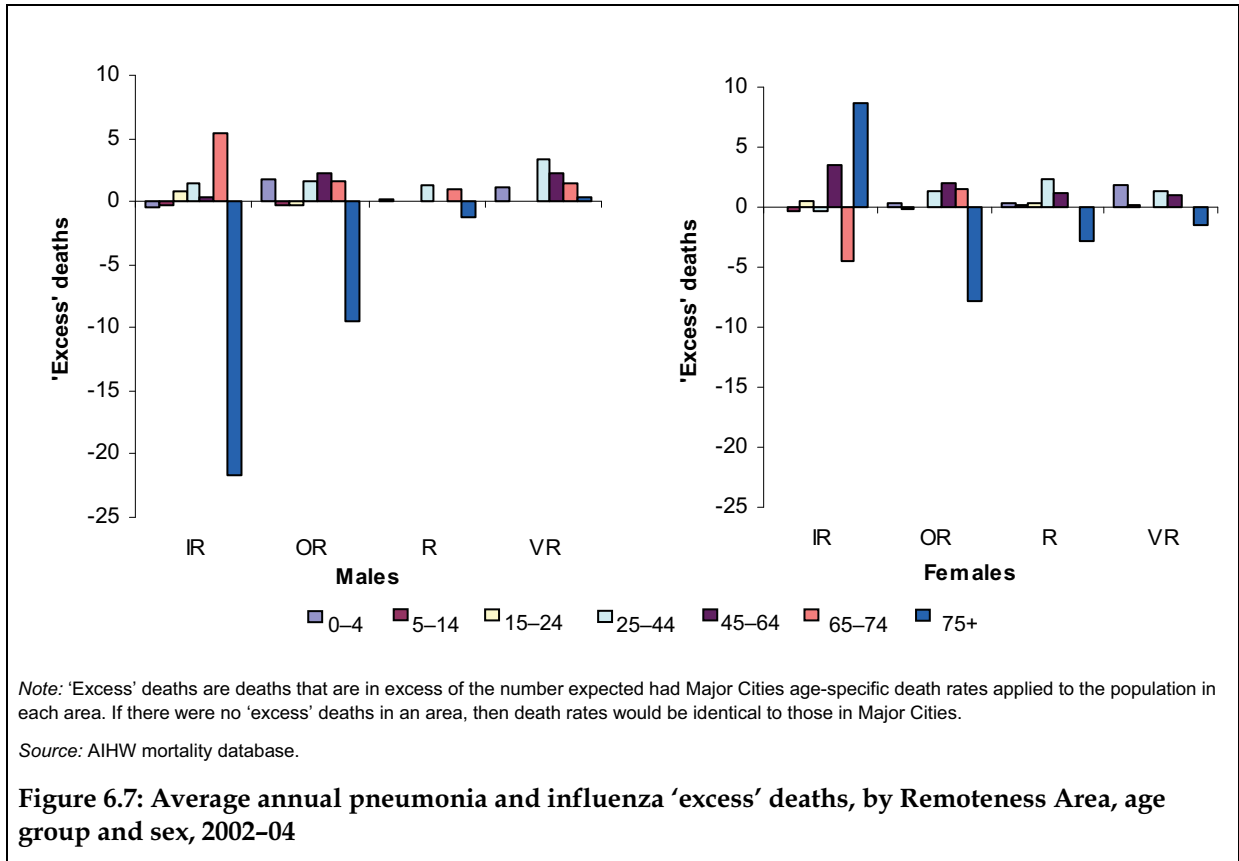


Table 6.8: SMRs, average annual deaths and 'excess' deaths due to pneumonia and influenza, 2002-04 and 1997-99

	Males						Females						Persons							
	MC		OR		VR		MC		OR		VR		MC		IR		OR		VR	
	Rate		Ratio		Ratio		Rate		Ratio		Ratio		Rate		Ratio		Ratio		Ratio	
2002-04																				
0-4	2	0.80	*2.34	1.56	8.68		1	0.95	1.64	4.21	*26.08		1	0.85	*2.12	2.39	*14.21			
5-14	0	0.58	0.00	0.00	0.00		0	0.00	0.00	7.12	5.38		0	0.36	0.00	2.70	2.06			
15-24	0	2.33	0.00	0.00	0.00		0	3.96	0.00	27.51	0.00		0	2.71	0.00	5.47	0.00			
25-44	1	1.44	1.98	*5.20	*20.98		0	0.86	2.06	*12.30	*13.76		0	1.19	*2.01	*8.00	*18.14			
45-64	4	1.02	1.22	1.05	*4.23		2	1.29	1.36	2.43	*4.21		3	1.12	1.27	1.52	*4.22			
65-74	23	1.15	1.09	1.46	*2.71		15	0.81	1.14	0.95	0.87		19	1.01	1.11	1.28	2.07			
75+	254	*0.92	0.92	0.91	1.06		236	1.02	0.95	0.81	0.69		243	0.98	0.94	0.86	0.88			
Total	15	0.96	0.98	1.06	*2.19		19	1.02	0.98	1.07	1.47		17	0.99	0.98	1.07	*1.87			
Total <65	1	1.07	*1.37	1.66	*7.25		1	1.20	1.44	*4.79	*9.03		1	1.12	*1.40	*2.74	*7.84			
1997-99																				
Total	9	*0.89	1.05	*1.49	*2.63		13	0.99	1.06	*1.53	*2.77		10	0.95	1.06	*1.51	*2.69			
Total <65	1	1.06	*1.59	*2.95	*9.34		1	*1.63	*1.64	*4.67	*13.71		1	*1.27	*1.61	*3.54	*10.85			
Total†	*0.72	*0.64	*0.76	1.07	*1.90		*0.76	*0.75	*0.80	1.16	*2.11		*0.74	*0.70	*0.78	1.12	*2.00			
Total <65†	*0.71	*0.75	1.14	*2.12	*6.88		*0.62	0.99	1.01	*3.03	*9.70		*0.67	0.85	1.09	*2.46	*7.88			

(continued)

Table 6.8 (continued): SMRs, average annual deaths and 'excess' deaths due to pneumonia and influenza, 2002-04 and 1997-99

	Males					Females					Persons				
	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR
Average annual number of excess deaths															
2002-04															
0-4	0	0	2	0	1	0	0	0	0	2	0	0	0	0	2
5-14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-24	0	1	0	0	0	0	1	0	0	0	0	1	0	0	0
25-44	0	1	2	1	3	0	0	1	2	1	0	1	3	4	5
45-64	0	0	2	0	2	0	4	2	1	1	0	4	4	1	3
65-74	0	5	2	1	1	0	-5	1	0	0	0	1	3	1	1
75+	0	-22	-9	-1	0	0	9	-8	-3	-2	0	-13	-17	-4	-1
Excess total	0	-14	-3	1	8	0	7	-3	1	3	0	-7	-6	2	11
Deaths total	951	329	153	19	16	1,247	421	174	19	9	2,198	750	327	38	24
Excess <65	0	2	5	1	7	0	3	3	4	4	0	5	8	6	11
Deaths <65	78	28	18	4	8	49	20	11	5	5	127	48	30	9	13
1997-99															
Excess total	0	-21	5	5	7	0	-2	6	6	7	0	-23	11	11	14
Excess total†	-213	-96	-31	1	5	-253	-83	-30	2	6	-465	-179	-60	4	11
Deaths total	547	172	96	16	11	805	254	120	18	11	1,352	426	216	33	22
Excess <65	0	1	5	3	6	0	6	3	3	4	0	6	8	5	10
Excess <65†	-19	-5	2	2	5	-17	0	0	2	4	-36	-5	2	4	10
Deaths <65	47	16	13	4	6	28	15	7	3	5	75	31	21	7	11

Notes

- The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
- The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
- For further explanation, refer to section 2.3.

Table 6.9: SMRs, average annual deaths and 'excess' deaths due to pneumonia and influenza, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons					
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous		
	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate
2002-04																		
0-4	1	0.74	2.29	0.32	0.00	*14.77	1	0.45	1.91	0.00	0.00	1	0.63	2.15	0.21	0.00	*16.05	
5-14	0	0.98	0.00	0.00	0.00	11.27	0	0.00	0.00	13.19	19.18	0	0.59	0.00	5.36	8.00	11.27	
15-24	0	2.08	0.00	0.00	0.00	8.82	0	4.03	0.00	0.00	0.00	0	2.59	0.00	0.00	0.00	*14.78	
25-44	1	1.41	1.78	1.29	0.44	*35.69	0	1.01	1.27	3.33	0.15	0	1.25	1.58	2.05	0.34	*36.11	
45-64	3	1.05	0.99	0.38	0.00	*13.73	2	1.33	1.12	1.20	0.14	3	1.16	1.04	0.66	0.04	*14.52	
65-74	21	1.17	1.09	1.07	0.08	*6.64	14	0.80	1.11	0.74	0.13	18	1.02	1.10	0.95	0.09	*5.59	
75+	247	*0.92	0.92	0.89	0.88	1.47	229	1.02	0.96	0.73	0.45	236	0.98	0.94	0.81	0.68	*1.52	
Total	14	0.96	0.96	0.87	0.68	*5.28	18	1.02	0.97	0.79	*0.43	16	0.99	0.97	0.83	*0.57	*4.94	
Total <65	1	1.10	1.16	0.50	0.07	*17.74	1	1.24	1.17	1.67	0.48	1	1.15	1.16	0.90	0.20	*19.26	
1997-99																		
Total	9	*0.89	1.00	1.12	1.16	*7.62	13	1.00	1.06	1.34	1.03	11	0.95	1.03	1.24	1.10	*6.74	
Total <65	1	1.08	1.17	0.86	1.55	*24.49	0	*1.62	1.29	1.10	3.65	1	*1.28	1.21	0.94	2.19	*24.58	
Total†	*0.73	*0.61	*0.69	0.77	0.80	n.p.	*0.78	*0.78	*0.82	1.04	0.81	*0.76	*0.70	*0.76	0.91	0.80	n.p.	
Total <65†	*0.71	*0.69	0.75	0.55	1.00	n.p.	*0.68	1.26	1.02	0.93	3.25	*0.70	0.88	0.83	0.66	1.54	n.p.	

(continued)

Table 6.9 (continued): SMRs, average annual deaths and 'excess' deaths due to pneumonia and influenza, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons						
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			
	MC	IR	OR	R	VR	Indigenous	MC	IR	OR	R	VR	Indigenous	MC	IR	OR	R	VR	Indigenous	
Average annual number of excess deaths																			
2002-04																			
0-4	0	0	1	0	0	3	0	-1	0	0	0	3	0	-1	2	0	0	6	
5-14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15-24	0	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	1	
25-44	0	1	1	0	0	6	0	0	0	0	0	5	0	1	1	0	0	11	
45-64	0	1	0	-1	0	6	0	4	1	0	0	5	0	5	1	-1	-1	10	
65-74	0	6	2	0	-1	3	0	-5	1	0	0	1	0	1	3	0	-1	4	
75+	0	-21	-10	-1	0	1	0	9	-7	-4	-2	2	0	-12	-16	-5	-2	3	
Excess total	0	-13	-6	-2	-2	19	0	8	-4	-3	-2	16	0	-5	-10	-6	-4	35	
Deaths total	914	317	142	14	4	24	1,206	407	166	13	2	20	2,120	723	308	27	5	44	
Excess <65	0	2	2	-1	-1	15	0	4	1	1	0	13	0	6	3	0	-1	28	
Deaths <65	70	26	14	1	0	16	45	18	8	2	0	13	115	44	22	2	0	30	
1997-99																			
Excess total	0	-21	0	1	0	19	0	1	7	4	0	13	0	-20	6	5	1	32	
Excess total†	-196	-106	-40	-3	-1	n.p.	-218	-71	-25	1	-1	n.p.	-414	-176	-65	-3	-2	n.p.	
Deaths total	536	167	88	11	4	21	787	251	117	14	3	16	1323	419	205	25	6	37	
Excess <65	0	1	1	0	0	13	0	5	1	0	1	10	0	6	2	0	1	22	
Excess <65†	-18	-7	-3	-1	0	n.p.	-12	3	0	0	0	n.p.	-30	-4	-3	-1	0	n.p.	
Deaths <65	44	15	9	1	1	13	26	13	5	1	1	10	70	29	14	2	1	23	

Notes

1. The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
2. The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
3. For further explanation, refer to section 2.3.

6.2 Asthma

Highlights

Asthma was responsible for 0.3% of all deaths and less than 1% of all excess deaths in regional and remote areas.

Death rates for Indigenous Australians were 11 times higher than the rates for non-Indigenous Australians in Major Cities.

The SMR in Inner Regional areas was 1.3. In the other areas, SMRs were not significantly different from 1.00 (although there was a tendency for SMRs for males to be 1.3–1.4 in Outer Regional and remote areas).

For non-Indigenous Australians, SMRs were 1.3 in Inner Regional areas and not significantly different from 1.0 in the other areas.

Since 1992, death rates decreased in all areas (but the decrease in Very Remote areas was not statistically significant).

Asthma (ICD-10 codes J45–J46) 'is a chronic inflammatory disorder of the lung's air passages that makes them narrow in response to various triggers, leading to episodes of shortness of breath and wheezing' (AIHW 2002). Asthma symptoms can vary from mild and intermittent to chronic and life-threatening.

Asthma attacks can be brought on after exposure to triggers such as environmental irritants (for example, tobacco smoke and allergens such as fine organic dusts), viral infections and exercise. Predisposing factors include family history, age and overweight. Prevention involves drug therapy and avoiding triggers (AIHW 2002).

On average during the period, asthma was responsible for 341 deaths annually – this is 0.3% of all deaths. Two-fifths (37%) were male; 62% were in Major Cities, 36% in regional areas and 2% in remote areas.

Overall asthma death rates for Indigenous Australians were 11 times higher than the rates for non-Indigenous Australians in Major Cities.

In regional areas:

Death rates in Inner Regional areas were 25% higher than in Major Cities, but rates in Outer Regional areas were not significantly different from those in Major Cities.

For 0–64 year olds, death rates were not significantly different from those in Major Cities.

The inter-regional pattern for non-Indigenous Australians was similar to that above.

Annually there were 89 and 35 deaths in Inner Regional and Outer Regional areas; about 40% were male.

Annually there were 19 and 3 'excess' deaths in Inner Regional and Outer Regional areas; this is 1% and about 0.2% of all 'excess' deaths in Inner Regional and Outer Regional areas. About two-thirds (64%) of the 'excess' deaths were male. The bulk of the 'excess' deaths were from 45 years, but particularly concentrated in those aged 65–74 and 75 years and older.

Compared with the previous reporting period (1997–99), there were 17 fewer deaths of males and 19 fewer deaths of females annually in 2002–04.

The 12-year trend (AIHW 2006a) is for asthma death rates to decline. For males there is a suggestion that rates are declining faster than in Major Cities, while for females the rate of decline is not significantly different from that in Major Cities.

In remote areas:

Death rates in remote areas were not significantly different from those in Major Cities.

For 0–64 year olds, death rates in remote areas were not significantly different from those in Major Cities.

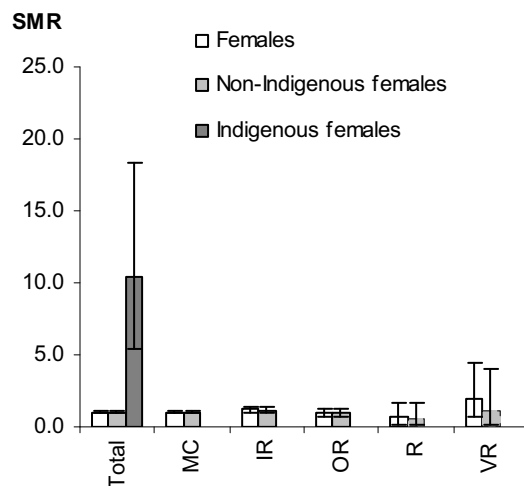
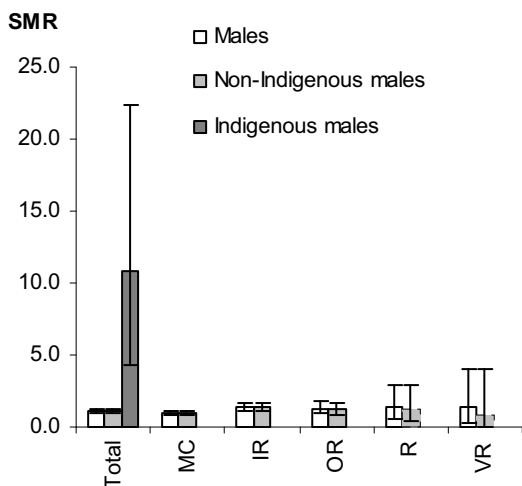
Death rates for remote area non-Indigenous Australians were not significantly different from those in Major Cities.

Annually there are 4 and 3 deaths in Remote and Very Remote areas; about 43% were male.

Annually there were 0 and 1 ‘excess’ deaths in Remote and Very Remote areas; this is 0% and about 0.2% of all ‘excess’ deaths in Remote and Very Remote areas.

Compared with the previous reporting period (1997–99), there were 3 fewer deaths of males and 1 fewer deaths of females annually in 2002–04.

The 12-year trend (AIHW 2006a) is for decreasing death rates in remote areas. Rates for Remote area males declined faster than in Major Cities.

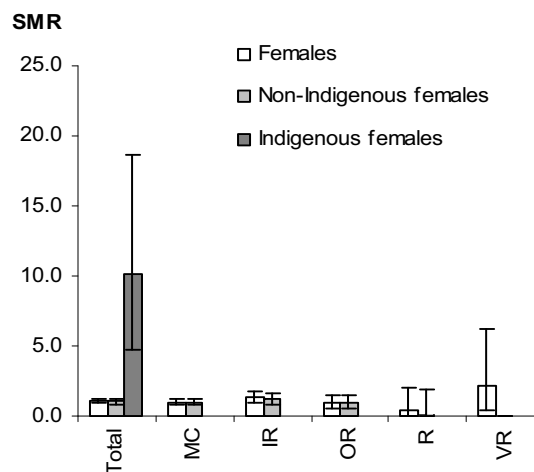
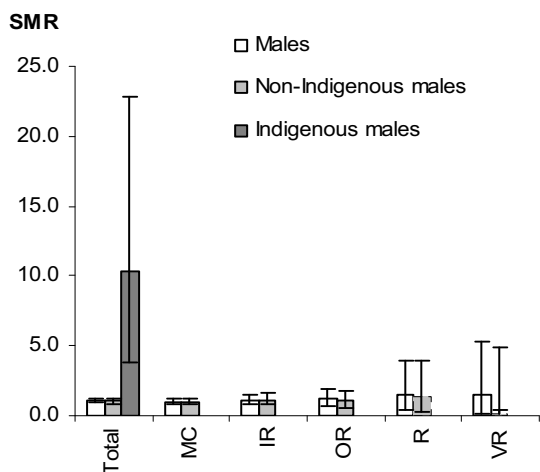


Notes

1. While the figure allows comparison of deaths between areas for each sex, it does not allow comparison between the sexes.
2. The presented SMR is the ratio of the observed number of deaths to the number expected if Major Cities rates applied in each area.
3. SMRs calculated for non-Indigenous Australian persons from Remote and Very Remote areas (dashed) should be treated with caution (see Appendix A).
4. The SMRs for Indigenous Australian persons are for Qld, WA, SA and NT combined (see Appendix A).

Source: AIHW mortality database.

Figure 6.9: Asthma SMRs, by sex, 2002-04



Note: See notes for Figure 6.9.

Figure 6.10: Asthma SMRs for persons aged 64 years and under, by sex, 2002-04

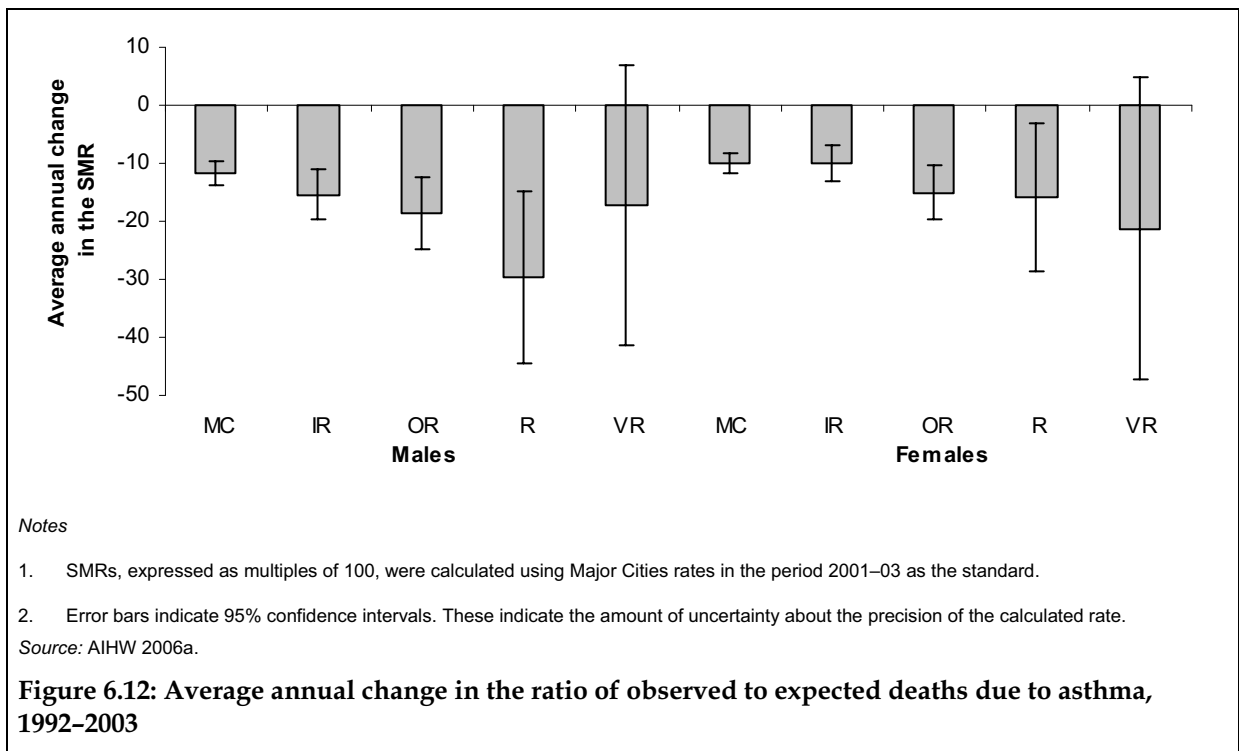
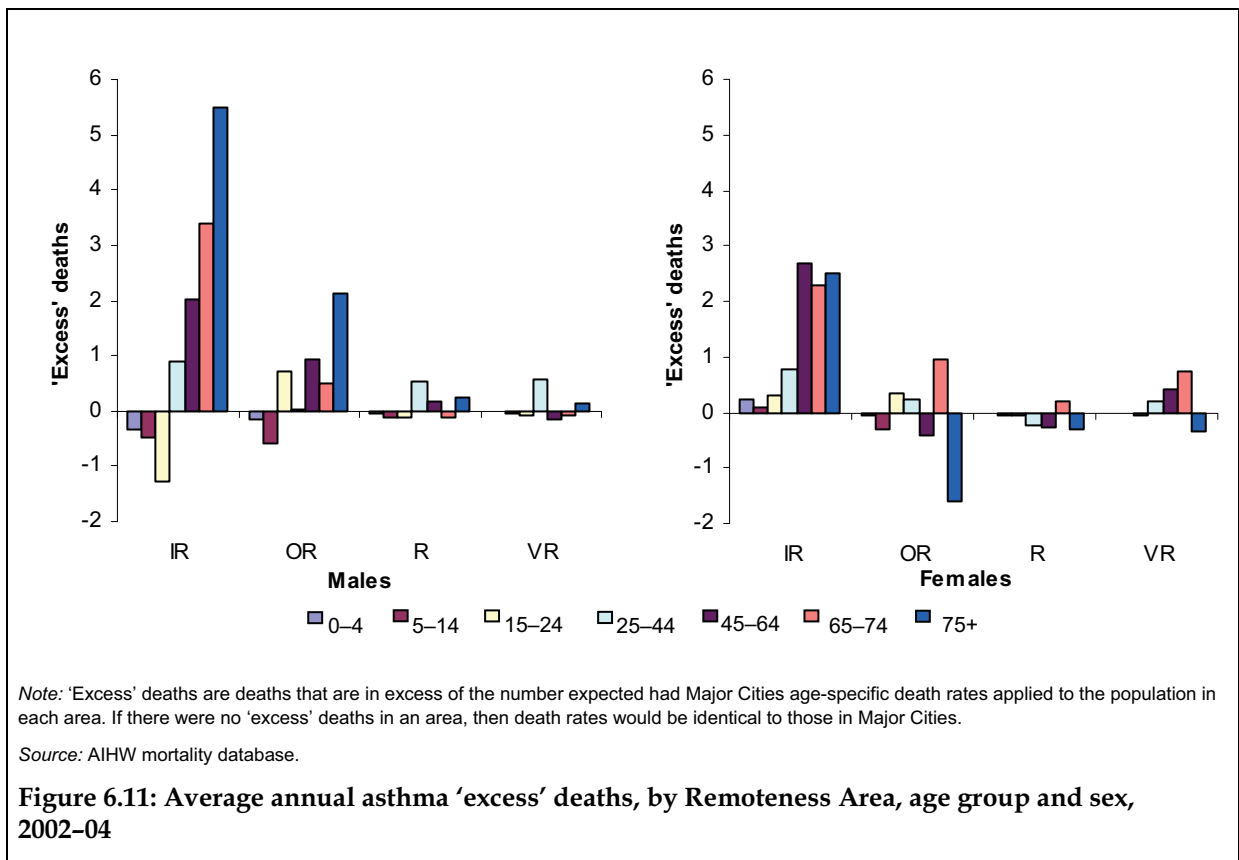


Table 6.10: SMIRs, average annual deaths and 'excess' deaths due to asthma, 2002-04 and 1997-99

	Males						Females						Persons					
	MC	IR	OR	R	VR		MC	IR	OR	R	VR		MC	IR	OR	R	VR	
	Rate		Ratio			Rate	Rate		Ratio			Rate	Rate		Ratio			
2002-04																		
0-4	0	0.00	0.00	0.00	0.00	0	3.12	0.00	0.00	0.00	0.00	0	0.78	0.00	0.00	0.00	0.00	0.00
5-14	0	0.60	0.00	0.00	0.00	0	1.15	0.00	0.00	0.00	0.00	0	0.79	0.00	0.00	0.00	0.00	0.00
15-24	0	0.03	2.14	0.00	0.00	0	1.42	2.00	0.00	0.00	0.00	0	0.52	2.09	0.00	0.00	0.00	0.00
25-44	0	1.35	1.01	3.01	4.72	0	1.27	1.17	0.03	2.50	2.50	0	1.31	1.09	1.58	3.69	1.50	3.69
45-64	1	1.41	1.37	1.46	0.03	2	1.28	0.90	0.53	2.48	2.48	1	*1.33	1.07	0.89	1.50	1.50	1.50
65-74	2	*1.90	1.28	0.52	0.00	4	1.38	1.36	1.66	7.73	7.73	3	*1.58	1.33	1.16	4.35	4.35	4.35
75+	9	*1.53	1.46	1.45	1.77	17	1.10	0.85	0.70	0.00	0.00	14	*1.22	1.03	0.94	0.64	0.64	0.64
Total	1	*1.40	1.30	1.36	1.41	2	*1.19	0.96	0.68	1.99	1.99	2	*1.26	1.08	0.96	1.73	1.73	1.73
Total <65	1	1.08	1.17	1.54	1.52	1	1.30	0.97	0.35	2.10	2.10	1	1.21	1.06	0.91	1.81	1.81	1.81
1997-99																		
Total	2	1.08	*1.31	*2.14	1.17	3	1.06	1.18	1.03	1.67	1.67	2	1.07	*1.23	1.52	1.44	1.44	1.44
Total <65	1	1.31	*1.84	2.26	1.58	1	1.10	1.31	1.39	2.41	2.41	1	1.19	*1.54	1.79	2.03	2.03	2.03
Total†	*1.69	*1.87	*2.23	*3.53	1.83	*1.49	*1.58	*1.76	1.54	2.59	2.59	*1.56	*1.68	*1.94	*2.37	*2.24	*2.24	*2.24
Total <65†	*1.36	*1.80	*2.53	*3.07	2.14	*1.48	*1.59	*1.91	2.07	*3.81	*3.81	*1.43	*1.68	*2.18	*2.55	*2.97	*2.97	*2.97

(continued)

Table 6.10 (continued): SMRs, average annual deaths and 'excess' deaths due to asthma, 2002-04 and 1997-99

	Males					Females					Persons				
	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR
Average annual number of excess deaths															
2002-04															
0-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-14	0	0	-1	0	0	0	0	0	0	0	0	0	-1	0	0
15-24	0	-1	1	0	0	0	0	0	0	0	0	-1	1	0	0
25-44	0	1	0	1	1	0	1	0	0	0	0	2	0	0	1
45-64	0	2	1	0	0	0	3	0	0	0	0	5	1	0	0
65-74	0	3	1	0	0	0	2	1	0	1	0	6	1	0	1
75+	0	5	2	0	0	0	2	-2	0	0	0	8	0	0	0
Excess total	0	10	4	1	0	0	9	-1	-1	1	0	19	3	0	1
Deaths total	71	34	15	2	1	138	55	20	2	2	210	89	35	4	3
Excess <65	0	1	1	0	0	0	4	0	-1	1	0	5	1	0	1
Deaths <65	33	11	6	1	1	43	18	6	0	1	76	29	13	2	2
1997-99															
Excess total	0	3	6	3	0	0	4	5	0	1	0	7	11	3	1
Excess total†	46	19	14	4	1	60	23	14	1	1	106	42	27	5	2
Deaths total	112	41	25	5	1	183	62	32	3	2	294	103	57	9	3
Excess <65	0	4	6	1	0	0	2	3	1	1	0	6	9	2	1
Excess <65†	11	8	8	2	1	20	8	6	1	1	31	16	14	3	2
Deaths <65	43	18	13	3	1	61	21	12	2	2	104	38	26	5	3

Notes

- The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
- The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
- For further explanation, refer to section 2.3.

Table 6.11: SMIRs, average annual deaths and 'excess' deaths due to asthma for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons					
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous		
	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate
2002-04																		
0-4	0	0.00	0.00	0.00	0.00	0.00	0	3.21	0.00	0.00	0.00	0.00	0	0.80	0.00	0.00	0.00	0.00
5-14	0	0.65	0.00	0.00	0.00	7.52	0	0.77	0.00	0.00	0.00	6.55	0	0.69	0.00	0.00	0.00	7.00
15-24	0	0.03	2.66	0.00	0.00	0.00	0	1.44	2.15	0.00	0.00	0.00	0	0.59	2.47	0.00	0.00	0.00
25-44	0	1.40	1.11	3.58	0.61	8.80	0	1.36	1.29	0.04	0.00	8.49	0	1.38	1.20	1.90	0.34	*8.64
45-64	1	1.38	1.02	0.63	0.00	*13.81	2	1.13	0.78	0.27	0.00	*11.58	1	1.21	0.87	0.41	0.00	*12.17
65-74	2	*1.90	1.11	0.54	0.00	13.76	3	1.45	1.34	1.34	9.52	*13.01	3	*1.63	1.24	0.98	4.84	*13.25
75+	9	*1.50	1.46	1.59	2.41	0.00	16	1.08	0.87	0.76	0.00	0.00	13	*1.20	1.04	1.03	0.88	0.00
Total	1	*1.40	1.24	1.31	0.80	*10.77	2	1.16	0.95	0.60	1.11	*10.47	2	*1.25	1.05	0.89	0.97	*10.58
Total <65	1	1.11	1.08	1.36	0.20	*10.39	1	1.19	0.92	0.19	0.00	*10.07	1	1.16	0.99	0.74	0.10	*10.19
1997-99																		
Total	2	1.09	1.18	*2.18	0.85	*15.14	3	1.08	1.14	0.94	0.84	*6.63	2	1.08	1.16	1.49	0.84	*9.07
Total <65	1	1.34	*1.56	2.23	0.81	*15.14	1	1.13	1.23	1.34	0.89	*7.67	1	*1.22	*1.37	1.75	0.85	*10.53
Total†	*1.86	*2.38	*2.55	*4.52	1.68	n.p.	*1.53	*1.67	*1.79	1.50	1.35	n.p.	*1.64	*1.89	*2.04	*2.66	1.50	n.p.
Total <65†	*1.48	*2.29	*2.65	*3.66	1.31	n.p.	*1.56	*2.05	*2.24	2.43	1.59	n.p.	*1.53	*2.15	*2.42	*3.03	1.45	n.p.

(continued)

Table 6.11 (continued): SMRs, average annual deaths and 'excess' deaths due to asthma for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons								
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous					
	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR	
Average annual number of excess deaths																					
2002-04																					
0-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-14	0	0	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	0	0	0
15-24	0	-1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	1	0	0	0
25-44	0	1	0	1	0	1	0	0	0	0	1	0	0	0	0	1	0	1	0	0	0
45-64	0	2	0	0	0	1	0	-1	0	0	2	0	3	-1	0	3	0	-1	0	0	0
65-74	0	3	0	0	0	0	0	3	1	0	1	0	6	1	0	1	0	1	0	1	1
75+	0	5	2	0	0	0	0	2	-1	0	0	0	7	1	0	0	0	1	0	0	0
Excess total	0	9	3	0	0	2	0	7	-1	0	4	0	17	2	0	6	0	2	0	0	0
Deaths total	68	33	14	2	0	2	133	51	18	1	4	201	84	32	3	1	6	3	1	1	6
Excess <65	0	1	0	0	0	2	0	3	0	-1	0	0	4	0	0	0	0	0	0	-1	5
Deaths <65	31	11	5	1	0	2	41	16	6	0	3	72	27	11	1	0	5	1	0	0	5
1997-99																					
Excess total	0	3	3	3	0	3	0	4	4	0	3	0	8	7	3	0	7	3	0	0	7
Excess total†	51	24	13	4	0	n.p.	61	24	13	1	0	112	48	26	5	0	n.p.	5	0	0	n.p.
Deaths total	109	41	21	5	1	4	177	61	30	3	1	287	102	51	8	1	8	1	1	1	8
Excess <65	0	4	4	1	0	3	0	2	2	0	0	0	7	6	2	0	6	2	0	0	6
Excess <65†	14	10	7	2	0	n.p.	21	10	6	1	0	34	20	12	3	0	n.p.	3	0	0	n.p.
Deaths <65	42	17	10	2	0	4	58	20	11	2	0	99	37	21	4	1	1	1	1	1	7

Notes

- The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
- The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
- For further explanation, refer to section 2.3.

6.3 Chronic obstructive pulmonary disease

Highlights

Chronic obstructive pulmonary disease was responsible for 4% of all deaths and about 10% and 6–9% of all excess deaths in regional and remote areas respectively.

Death rates for Indigenous Australians were four times higher than the rates for non-Indigenous Australians in Major Cities.

Death rates increased with remoteness; SMRs were 1.2, 1.3, 1.5 and 2.4 in the four areas.

For non-Indigenous Australians, death rates also increased with remoteness; SMRs were 1.15, 1.3, 1.4 and 1.5 in the four areas.

Since 1992, death rates decreased for males in all areas and decreased slightly for females in Major Cities, but there was no significant change for females in the other areas.

Chronic obstructive pulmonary disease (COPD) (ICD-10 codes J41–J44) is a long-term disease that causes continual and increasing shortness of breath.

Chronic bronchitis and emphysema are the two main forms of chronic obstructive pulmonary disease. The main risk factor for chronic obstructive pulmonary disease is tobacco smoking, with heredity predisposing some people. The disease takes many years to develop and cannot be cured. Symptoms vary, but they typically include breathlessness, a productive cough and wheezing (AIHW 2002).

On average during the period, COPD was responsible for 5,391 deaths annually – this is 4.1% of all deaths. Over half (59%) were male; 60% were in Major Cities, 37% in regional areas and 2% in remote areas.

Overall COPD death rates for Indigenous Australians were four times higher than the rates for non-Indigenous Australians living in Major Cities.

In regional areas:

Death rates were 20% (1.2 times) and 40% (1.4 times) higher for males and 10% (1.1 times) and 15% (1.15 times) higher for females in Inner Regional and Outer Regional areas compared with Major Cities.

For 0–64 year olds, death rates were 1.5 and 2.0 times higher for males and 1.5 and 1.7 times higher for females than in Major Cities.

The inter-regional pattern for non-Indigenous Australians was similar to that above.

Annually there are 1,341 and 669 deaths in Inner Regional and Outer Regional areas; about 62% were male.

Annually there were 183 and 152 'excess' deaths in Inner Regional and Outer Regional areas; this is 9% and 10% of all 'excess' deaths in Inner Regional and Outer Regional areas. About four-fifths (78%) of the 'excess' were male. The bulk of the excess was among males older than 65 years, with the excess for females amongst those 45–74 years (with fewer deaths than expected amongst females older than 75 years).

Compared with the previous reporting period (1997–99), there were 104 fewer deaths of males and 68 more deaths of females annually in 2002–04.

The 12-year trend (AIHW 2006a) is for decreasing death rates for males, while rates for females appear not to have changed at all.

In remote areas:

Death rates in Remote and Very Remote areas were 1.5 and 2.2 times those in Major Cities.

For 0–64 year olds, death rates in Remote and Very Remote areas were 2.2 and 4.4 times those in Major Cities.

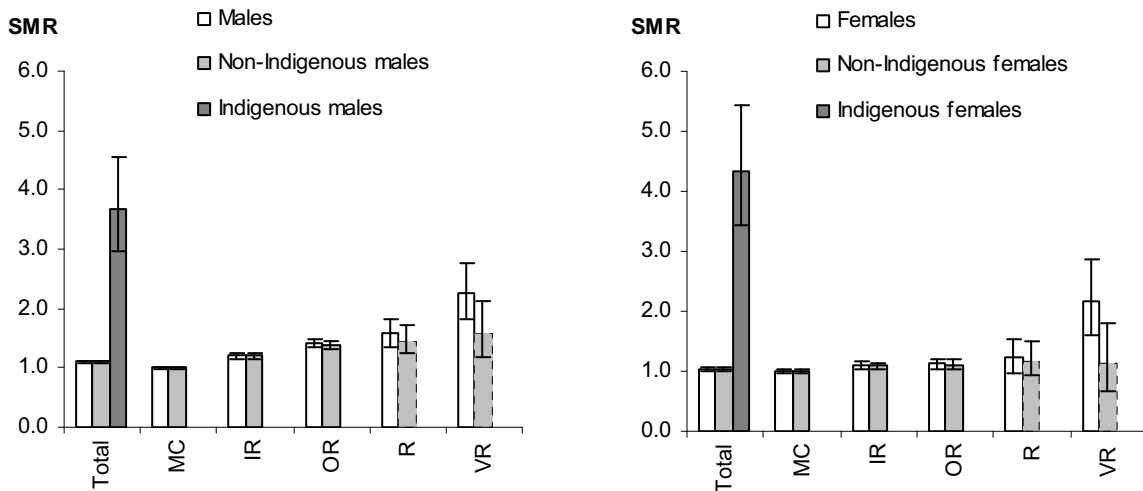
Death rates for remote area non-Indigenous Australians were lower than for the total population in these areas. However, rates for males were about 1.5 times those in Major Cities while rates for females were not significantly different from those in Major Cities. High rates for the total population in remote areas appear to be strongly influenced by the relatively large numbers of Indigenous Australians living in remote areas and the very high death rates for Indigenous Australians generally.

Annually there are 83 and 47 deaths in Remote and Very Remote areas; about 68% were male.

Annually there were 21 and 17 ‘excess’ deaths of males and 5 and 9 excess deaths of females in Remote and Very Remote areas; this is 9% and 6% of all ‘excess’ deaths in Remote and Very Remote areas. The bulk of the excess was in those older than 65 years, although there was some contribution from those 45–64 years.

Compared with the previous reporting period (1997–99), there were 3 more deaths of males and 2 fewer deaths of females annually in 2002–04.

The 12-year trend (AIHW 2006a) is for decreasing death rates for males, while rates for females show little change.

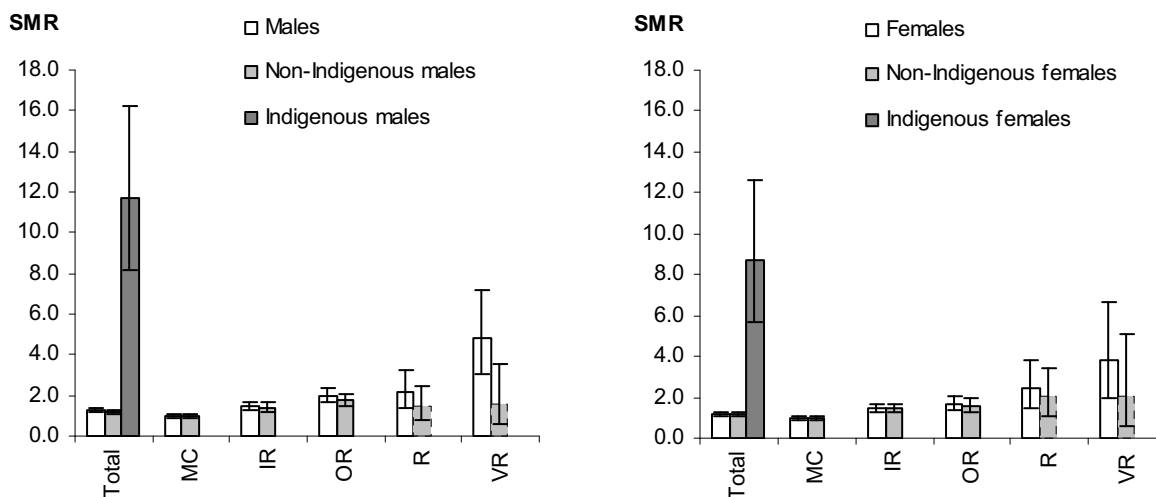


Notes

1. While the figure allows comparison of deaths between areas for each sex, it does not allow comparison between the sexes.
2. The presented SMR is the ratio of the observed number of deaths to the number expected if Major Cities rates applied in each area.
3. SMRs calculated for non-Indigenous Australian persons from Remote and Very Remote areas (dashed) should be treated with caution (see Appendix A).
4. The SMRs for Indigenous Australian persons are for Qld, WA, SA and NT combined (see Appendix A).

Source: AIHW mortality database.

Figure 6.13: Chronic obstructive pulmonary disease SMRs, by sex, 2002-04



Note: See notes for Figure 6.13.

Figure 6.14: Chronic obstructive pulmonary disease SMRs for persons aged 64 years and under, by sex, 2002-04

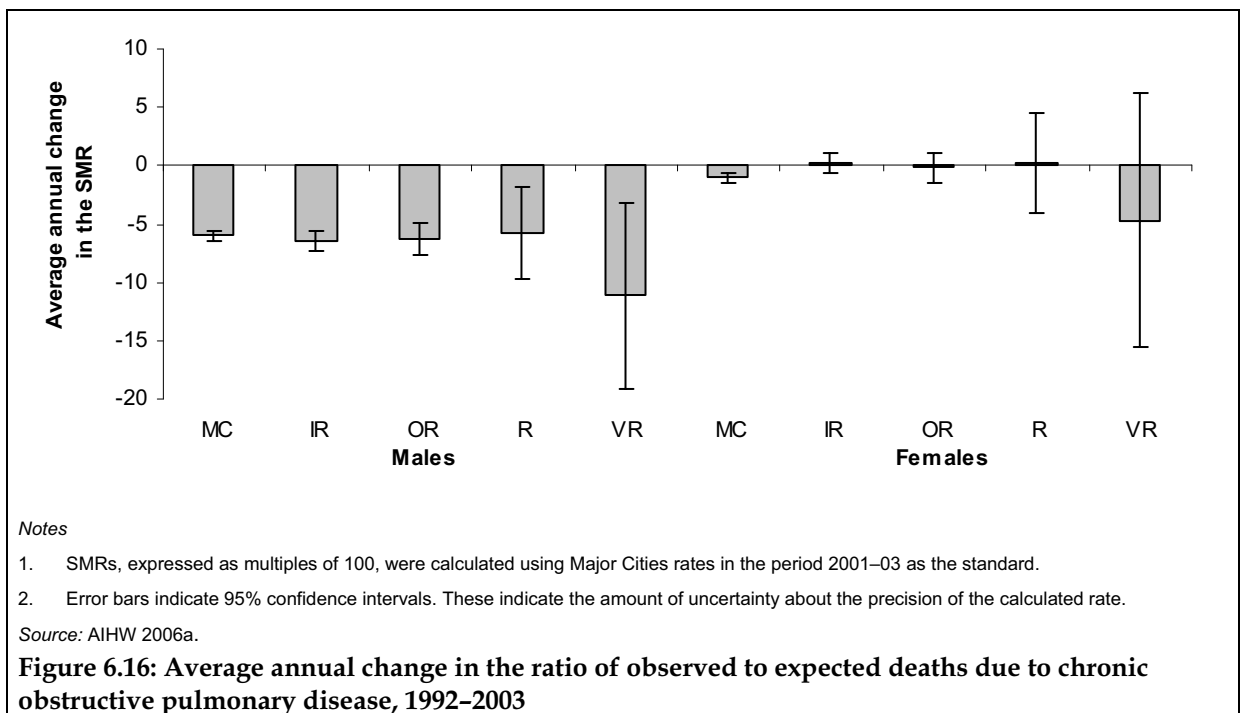
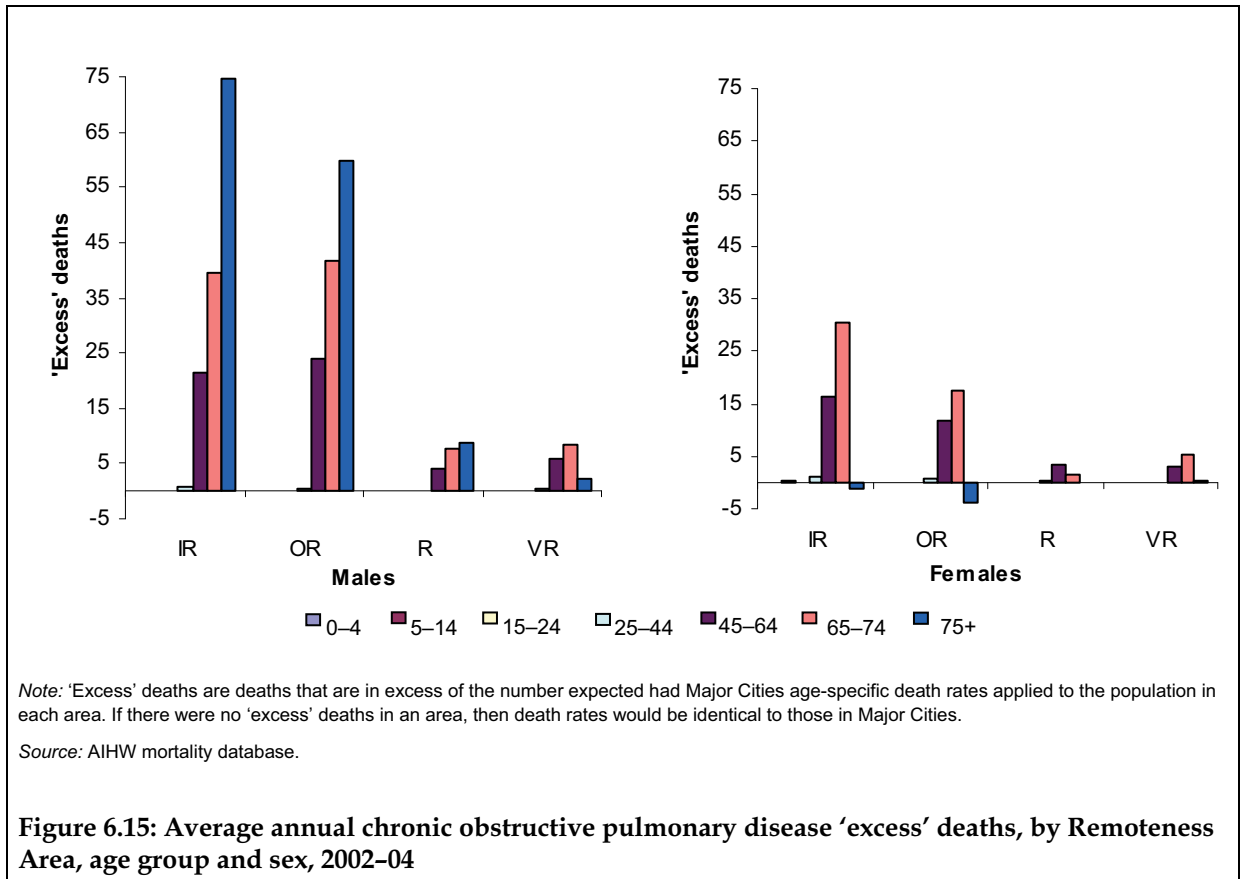


Table 6.12: SMIRs, average annual deaths and 'excess' deaths due to chronic obstructive pulmonary disease, 2002-04 and 1997-99

	Males						Females						Persons					
	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	
	Rate		Ratio		Ratio		Rate		Ratio		Ratio		Rate		Ratio		Ratio	
2002-04																		
0-4	0	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00
5-14	0	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00
15-24	0	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00
25-44	0	1.88	2.00	2.01	7.63	0	*3.62	4.35	8.78	0.38	0	*2.50	2.80	4.15	5.41	*2.21	*4.42	*3.56
45-64	9	*1.46	*2.01	*2.13	*4.77	7	*1.40	*1.62	*2.32	*3.90	8	*1.43	*1.83	*2.21	*4.42	*3.56	*2.21	*4.42
65-74	100	*1.25	*1.54	*1.83	*3.41	61	*1.30	*1.40	1.33	*3.86	80	*1.27	*1.49	*1.66	*3.56	*1.66	*1.66	*3.56
75+	419	*1.16	*1.29	*1.38	1.29	215	1.00	0.97	0.99	1.10	295	*1.09	*1.16	*1.23	1.22	*1.23	*1.23	1.22
Total	28	*1.20	*1.41	*1.58	*2.26	21	*1.10	*1.13	1.23	*2.17	25	*1.16	*1.29	*1.45	*2.23	*1.45	*2.23	*2.23
Total <65	2	*1.47	*2.01	*2.13	*4.84	2	*1.44	*1.65	*2.41	*3.82	2	*1.45	*1.85	*2.24	*4.44	*2.24	*4.44	*4.44
1997-99																		
Total	33	*1.20	*1.39	*1.31	*2.15	22	1.04	*1.12	*1.44	*2.01	26	*1.14	*1.29	*1.36	*2.11	*1.36	*2.11	*2.11
Total <65	3	*1.41	*1.89	*1.78	*5.41	2	*1.19	*1.39	*2.83	*5.71	2	*1.32	*1.69	*2.18	*5.52	*2.18	*5.52	*5.52
Total†	*1.27	*1.53	*1.77	*1.67	*2.75	*1.10	*1.15	*1.24	*1.60	*2.27	*1.19	*1.37	*1.55	*1.65	*2.59	*1.65	*2.59	*2.59
Total <65†	*1.35	*1.91	*2.56	*2.41	*7.43	*1.29	*1.53	*1.79	*3.66	*7.51	*1.32	*1.74	*2.24	*2.90	*7.46	*2.90	*7.46	*7.46

(continued)

Table 6.12 (continued): SMRs, average annual deaths and 'excess' deaths due to chronic obstructive pulmonary disease, 2002-04 and 1997-99

	Males				Females				Persons			
	MC	IR	OR	VR	MC	IR	OR	VR	MC	IR	OR	VR
Average annual number of excess deaths												
2002-04												
0-4	0	0	0	0	0	0	0	0	0	0	0	0
5-14	0	0	0	0	0	0	0	0	0	0	0	0
15-24	0	0	0	0	0	0	0	0	0	0	0	0
25-44	0	1	0	0	0	1	1	0	0	2	1	0
45-64	0	22	24	4	0	16	12	3	0	38	36	9
65-74	0	39	42	8	0	30	18	2	0	70	59	14
75+	0	74	60	9	0	-1	-4	0	0	73	56	3
Excess total	0	136	126	21	0	47	26	5	0	183	152	26
Deaths total	1,825	810	433	31	1,421	532	235	26	16	1,341	669	47
Excess <65	0	22	25	4	0	18	13	4	0	40	37	9
Deaths <65	135	70	49	8	117	59	32	6	4	252	129	12
1997-99												
Excess total	0	148	134	12	0	20	24	9	7	168	158	21
Excess total†	423	300	207	21	124	62	43	11	8	547	250	32
Deaths total	2,016	871	476	52	1,381	474	225	30	14	3,397	701	82
Excess <65	0	23	27	3	0	8	8	5	5	0	35	8
Excess <65†	42	37	35	5	28	17	13	6	5	70	47	10
Deaths <65	163	78	57	8	124	50	29	8	6	287	85	15

Notes

- The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
- The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
- For further explanation, refer to section 2.3.

Table 6.13: SMRs, average annual deaths and 'excess' deaths due to chronic obstructive pulmonary disease for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons					
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous		
	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate
2002-04																		
0-4	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
5-14	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
15-24	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
25-44	0	1.52	0.17	0.05	0.00	*46.69	0	2.97	0.09	0.00	0.00	*50.01	0	2.03	0.14	0.03	0.00	*48.29
45-64	8	*1.42	*1.78	1.52	1.63	*10.72	7	*1.41	*1.58	*2.06	2.09	*7.58	8	*1.41	*1.69	*1.74	1.80	*9.14
65-74	96	*1.25	*1.53	*1.65	*2.43	*4.78	59	*1.29	*1.36	1.19	1.66	*6.50	77	*1.27	*1.47	*1.50	*2.20	*5.52
75+	408	*1.16	*1.29	*1.38	1.25	1.48	209	*1.29	*1.36	1.19	1.66	*1.87	286	*1.09	*1.16	*1.25	1.08	*1.64
Total	27	*1.20	*1.38	*1.46	*1.60	*3.69	21	*1.09	*1.11	1.18	1.13	*4.34	24	*1.15	*1.27	*1.36	*1.44	*3.97
Total <65	2	*1.42	*1.75	1.49	1.59	*11.72	2	*1.43	*1.56	*2.02	2.05	*8.67	2	*1.42	*1.67	*1.70	1.76	*10.19
1997-99																		
Total	33	*1.22	*1.39	*1.23	*1.67	*3.11	22	1.05	*1.11	*1.32	1.10	*3.91	27	*1.15	*1.29	*1.26	*1.49	*3.41
Total <65	3	*1.40	*1.80	1.45	*3.16	*9.30	2	1.15	*1.32	*2.54	2.39	*9.27	3	*1.29	*1.60	*1.85	*2.91	*9.28
Total†	*1.34	*1.73	*1.99	*1.77	*2.41	<i>n.p.</i>	*1.12	*1.17	*1.23	*1.47	1.23	<i>n.p.</i>	*1.24	*1.48	*1.67	*1.65	*1.98	<i>n.p.</i>
Total <65†	*1.45	*2.17	*2.79	*2.24	*4.85	<i>n.p.</i>	*1.27	*1.32	*1.52	*2.96	2.85	<i>n.p.</i>	*1.37	*1.75	*2.18	*2.56	*4.09	<i>n.p.</i>

(continued)

Table 6.13 (continued): SMRs, average annual deaths and 'excess' deaths due to chronic obstructive pulmonary disease for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons						
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			
	MC	IR	OR	R	VR	Indigenous	MC	IR	OR	R	VR	Indigenous	MC	IR	OR	R	VR	Indigenous	
Average annual number of excess deaths																			
2002-04																			
0-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-44	0	0	0	0	0	1	0	1	0	0	0	1	0	1	-1	0	0	3	3
45-64	0	18	17	2	1	10	0	16	10	2	1	7	0	34	28	4	2	16	16
65-74	0	39	39	6	4	8	0	27	15	1	1	9	0	66	54	6	5	17	17
75+	0	74	58	8	2	2	0	-3	-4	0	-1	3	0	71	54	8	1	5	5
Excess total	0	132	113	15	6	21	0	41	21	3	1	20	0	173	135	19	7	41	41
Deaths total	1,769	783	409	48	17	29	1,368	507	221	23	6	25	3,137	1,290	629	71	22	54	54
Excess <65	0	19	17	2	1	11	0	17	10	2	1	8	0	36	27	4	1	19	19
Deaths <65	128	64	40	5	2	12	110	55	28	4	1	9	238	120	68	9	3	21	21
1997-99																			
Excess total	0	152	130	8	7	19	0	22	21	6	1	15	0	174	151	14	8	34	34
Excess total†	502	364	230	20	11	n.p.	145	65	41	8	1	n.p.	647	429	271	28	12	n.p.	n.p.
Deaths total	1,974	860	462	45	18	27	1,342	462	216	25	5	21	3,316	1,322	677	71	24	48	48
Excess <65	0	21	23	2	3	10	0	6	6	4	1	8	0	27	29	6	4	18	18
Excess <65†	49	41	33	3	4	n.p.	25	11	9	4	1	n.p.	74	52	42	7	5	n.p.	n.p.
Deaths <65	158	75	51	6	5	11	119	46	26	6	2	9	276	121	77	12	6	20	20

Notes

- The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
- The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
- For further explanation, refer to section 2.3.

6.4 All other diseases of the respiratory system

Highlights

All other diseases of the respiratory system were responsible for 2% of all deaths. Annually, in regional and remote areas there were fewer deaths than expected, if Major Cities rates had applied there.

Death rates for Indigenous Australians were 3.5 times higher than the rates for non-Indigenous Australians in Major Cities.

Death rates in regional areas were lower than in Major Cities, and SMRs in remote areas were about the same as in Major Cities. For people younger than 65 years, SMRs in regional areas were not significantly different from 1.00 while those in Remote and Very Remote areas were 2.1 and 4.6 respectively. Death rates in the elderly living in regional and remote areas tend to be lower than in Major Cities.

For non-Indigenous Australians, death rates in regional and remote areas appeared to be about 0.8 times those in Major Cities, again influenced by relatively low rates in the elderly. SMRs for people younger than 65 years in all areas tended to be not significantly different from 1.0.

Since 1992, death rates have tended to increase in Major Cities and regional areas, and to have shown little change in remote areas.

Other respiratory diseases (ICD-10 codes J00–J99), excluding the respiratory diseases described earlier in this report) are included because as a group they are responsible for a substantial number of deaths. Differences in death rates across areas for this range of diseases may suggest further work to identify potential targets for intervention. Specific causes of death included in this diverse group include acute upper respiratory infections (for example, acute tonsillitis), other acute lower respiratory infections (for example, acute bronchitis), lung diseases due to external agents (for example, pneumoconiosis) and others (for example, respiratory failure).

On average during the period, all other diseases of the respiratory system were responsible for 2,657 deaths annually – this is 2% of all deaths. Half (52%) were male; 69% were in Major Cities, 29% in regional areas and 2% in remote areas.

Overall, death rates for Indigenous Australians were 3.5 times higher than the rates for non-Indigenous Australians living in Major Cities.

In regional areas:

Death rates were 0.9 times those in Major Cities (that is, they were lower than in Major Cities).

For 0–64 year olds, death rates were not significantly different from those in Major Cities.

The inter-regional pattern for non-Indigenous Australians was similar to that above.

Annually there are 531 and 240 deaths in Inner Regional and Outer Regional areas; about 54% were male.

Annually there were 112 and 46 fewer deaths in Inner Regional and Outer Regional areas than expected. About half (52%) of these were male and the bulk were 75 years or older.

Compared with the previous reporting period (1997–99), there were 130 more deaths of males and 130 more deaths of females annually in 2002–04.

The 12-year trend (AIHW 2006a) is for increasing death rates for males and females.

In remote areas:

Death rates in Remote areas were not significantly different from those in Major Cities, while rates in Very Remote areas were 1.4 times those in Major Cities.

For 0–64 year olds, death rates in Remote and Very Remote areas were 2.1 and 4.6 times those in Major Cities.

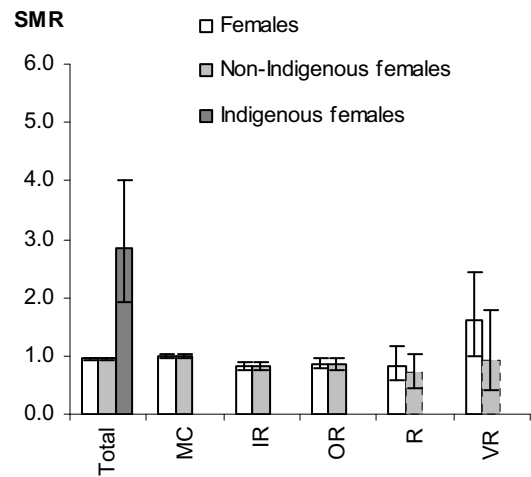
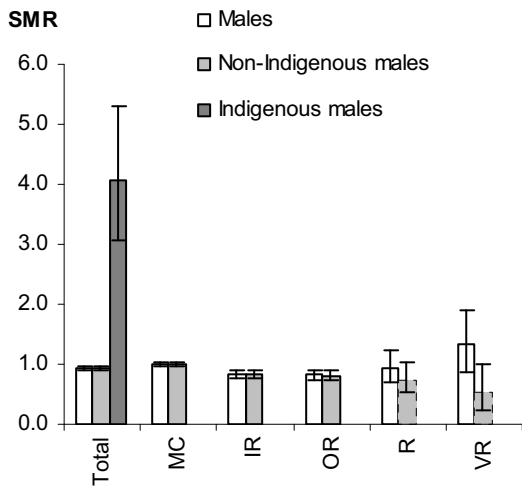
Death rates for remote area non-Indigenous Australians were 0.75 times (that is, lower than) those in Major Cities, while rates in Very Remote areas were lower, but not significantly lower, than those in Major Cities.

Annually there are 28 and 17 deaths in Remote and Very Remote areas; about 60% were male.

Annually there were 3 fewer and 5 more deaths than expected in Remote and Very Remote areas; this is about –1% and 1% of all ‘excess’ deaths in Remote and Very Remote areas.

Compared with the previous reporting period (1997–99), there were 6 more deaths of males and 4 more deaths of females annually in 2002–04.

Over the 12-year period 1992–2003 (AIHW 2006a), there did not appear to be any significant change in death rates, although rates for males in Very Remote areas suggested an improvement over this period.

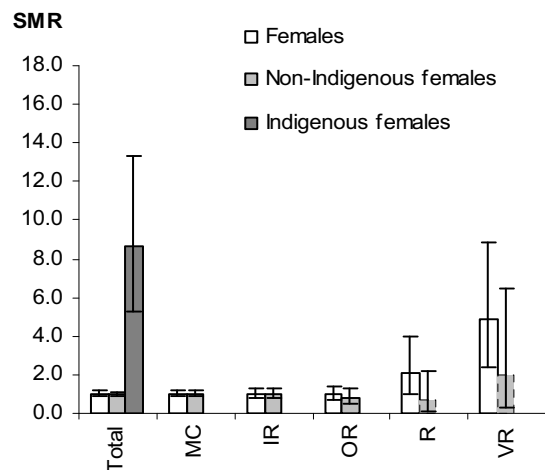
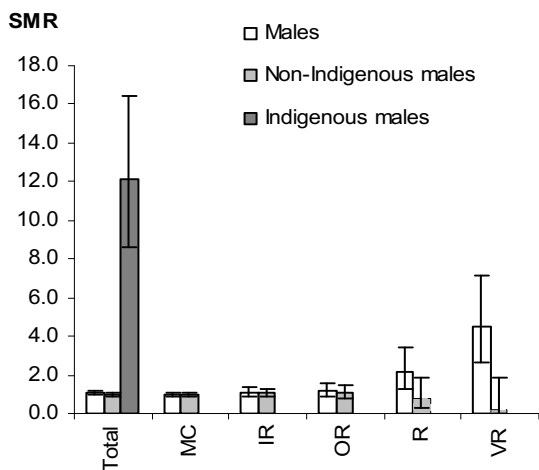


Notes

1. While the figure allows comparison of deaths between areas for each sex, it does not allow comparison between the sexes.
2. The presented SMR is the ratio of the observed number of deaths to the number expected if Major Cities rates applied in each area.
3. SMRs calculated for non-Indigenous Australian persons from Remote and Very Remote areas (dashed) should be treated with caution (see Appendix A).
4. The SMRs for Indigenous Australian persons are for Qld, WA, SA and NT combined (see Appendix A).

Source: AIHW mortality database.

Figure 6.17: All other diseases of the respiratory system SMRs, by sex, 2002-04



Note: See notes for Figure 6.17.

Figure 6.18: All other diseases of the respiratory system SMRs for persons aged 64 years and under, by sex, 2002-04

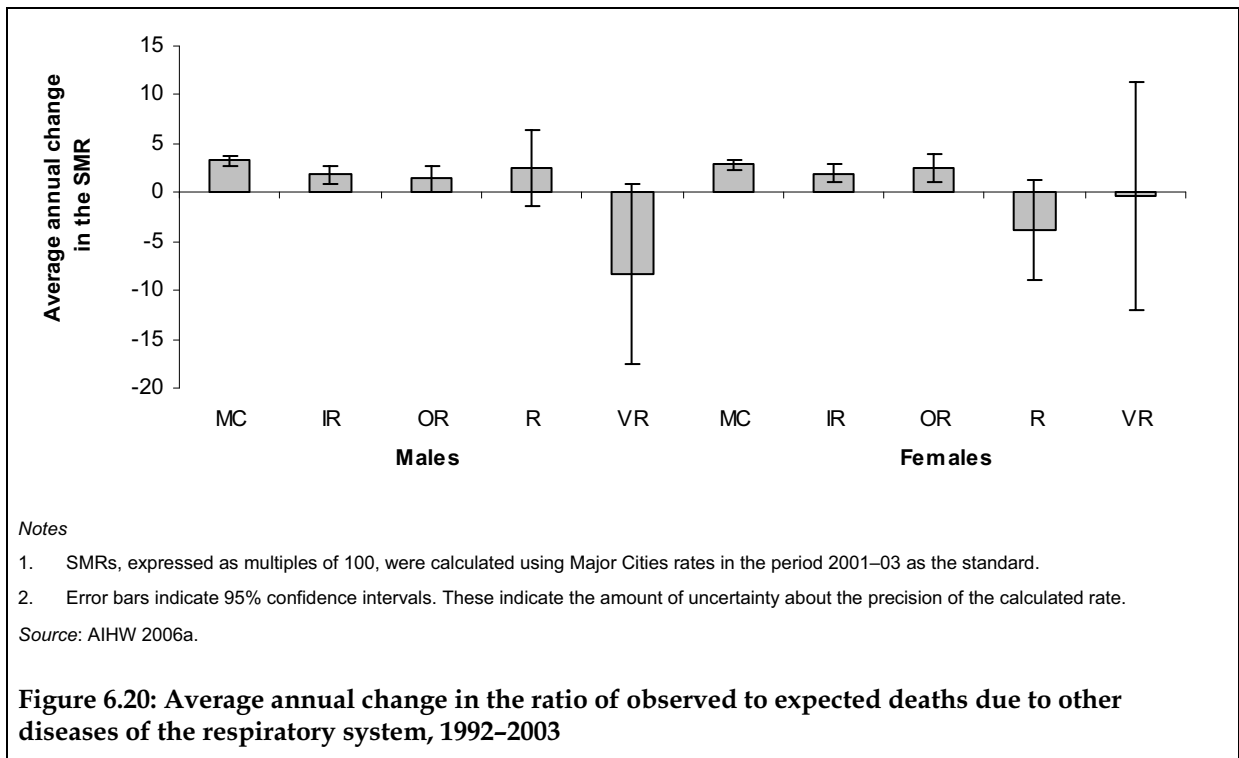
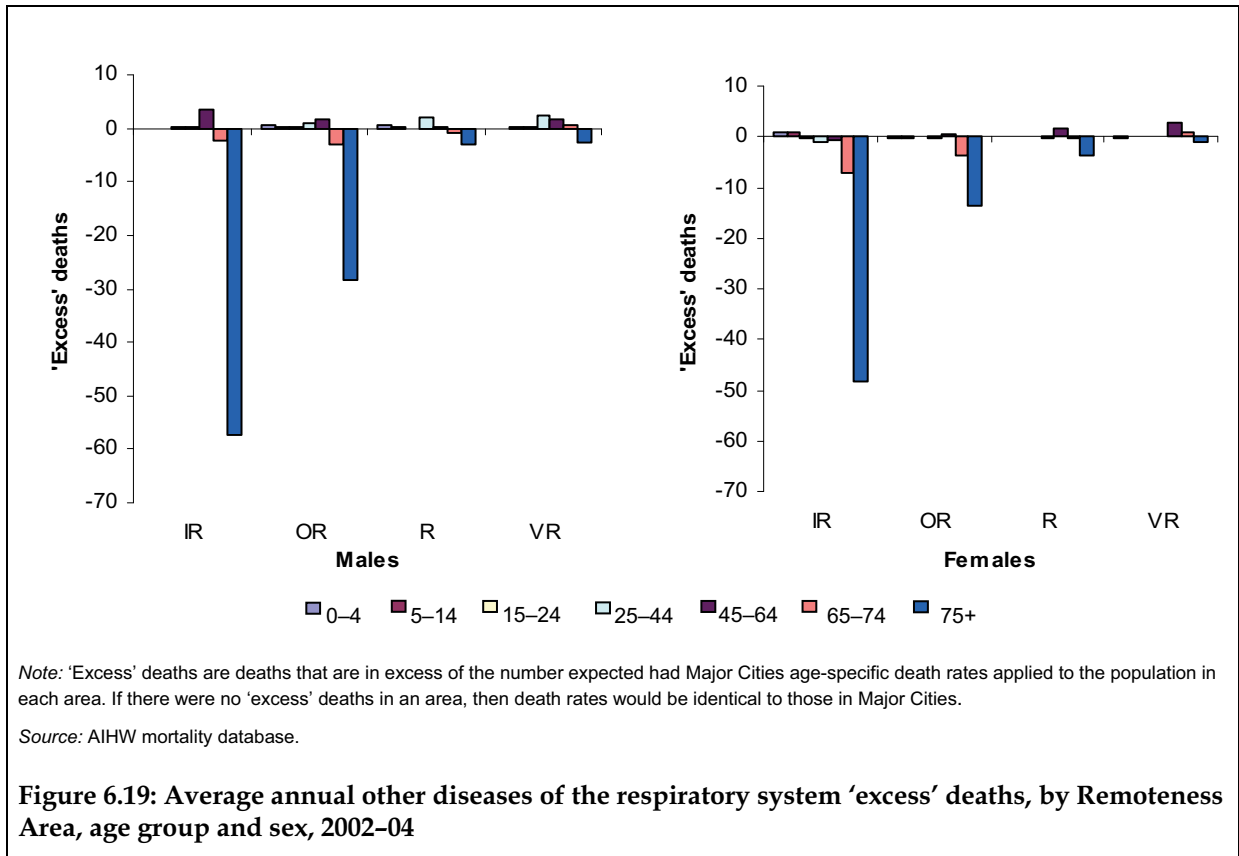


Table 6.14 SMRs, average annual deaths and 'excess' deaths due to other diseases of the respiratory system, 2002-04 and 1997-99

	Males						Females						Persons					
	MC	IR	OR	R	VR		MC	IR	OR	R	VR		MC	IR	OR	R	VR	
	Rate		Ratio			Rate	Rate		Ratio			Rate	Rate		Ratio			
2002-04																		
0-4	2	0.94	1.42	2.60	0.85	1	1.49	0.57	2.04	0.05	0.05	2	1.16	1.09	1.09	2.39	0.54	
5-14	0	0.14	5.83	31.22	56.01	0	4.55	0.00	0.00	0.00	0.00	0	3.09	1.96	1.96	10.77	19.61	
15-24	0	1.45	1.63	1.23	12.00	0	0.00	0.00	0.00	0.00	0.00	0	1.11	1.26	1.26	0.95	9.07	
25-44	1	1.08	1.57	*7.48	*14.9	1	0.70	0.89	0.57	1.36	1.36	1	0.89	1.25	1.25	*4.34	*8.82	
45-64	5	1.13	1.12	1.13	*2.68	3	0.96	1.04	*2.56	*7.29	*7.29	4	1.07	1.09	1.09	1.61	*4.19	
65-74	37	0.96	0.89	0.74	1.40	26	0.83	0.80	0.83	2.24	2.24	31	0.91	0.85	0.85	0.77	1.71	
75+	226	*0.77	*0.74	0.74	*0.39	149	*0.79	*0.86	*0.63	0.67	0.67	179	*0.78	*0.80	*0.80	*0.69	*0.51	
Total	14	*0.84	*0.82	0.94	1.32	13	*0.81	*0.86	0.83	1.60	1.60	14	*0.83	*0.84	*0.84	0.89	*1.43	
Total <65	2	1.12	1.21	*2.12	*4.49	1	1.00	0.96	2.11	*4.88	*4.88	1	1.07	1.11	1.11	*2.12	*4.63	
1997-99																		
Total	10	*0.86	0.89	0.95	*1.88	9	*0.82	0.91	1.09	1.45	1.45	9	*0.84	*0.90	*0.90	1.01	*1.72	
Total <65	1	0.89	*1.37	*2.12	*5.83	1	0.85	1.36	2.04	*3.09	*3.09	1	0.87	*1.37	*1.37	*2.08	*4.76	
Total†	*0.81	*0.70	*0.73	0.78	*1.54	*0.76	*0.62	*0.70	0.85	1.16	1.16	*0.79	*0.66	*0.71	*0.71	0.81	*1.39	
Total <65†	0.90	0.81	1.25	*1.91	*5.26	1.06	0.89	*1.44	2.20	*3.48	*3.48	0.96	0.84	*1.32	*1.32	*2.01	*4.66	

(continued)

Table 6.14 (continued): SMRs, average annual deaths and 'excess' deaths due to other diseases of the respiratory system, 2002-04 and 1997-99

	Males						Females						Persons					
	MC	IR	OR	R	VR		MC	IR	OR	R	VR		MC	IR	OR	R	VR	
	Average annual number of excess deaths																	
2002-04																		
0-4	0	0	1	0	0	0	1	1	0	0	0	0	0	1	0	1	0	
5-14	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	0	0	
15-24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
25-44	0	0	1	2	2	0	-1	-1	0	0	0	0	0	-1	1	2	2	
45-64	0	4	2	0	2	0	-1	-1	0	2	3	0	0	3	2	2	4	
65-74	0	-2	-3	-1	1	0	-7	-7	-4	0	1	0	0	-10	-7	-1	1	
75+	0	-57	-28	-3	-3	0	-48	-48	-14	-4	-1	0	0	-106	-42	-7	-4	
Excess total	0	-56	-28	-1	2	0	-56	-56	-18	-2	3	0	0	-112	-46	-3	5	
Deaths total	941	287	129	17	10	893	245	245	112	11	7	1,834	531	240	240	28	17	
Excess <65	0	4	4	3	5	0	0	0	0	2	3	0	4	3	3	5	7	
Deaths <65	98	37	20	6	6	66	22	22	10	3	4	164	59	31	31	9	9	
1997-99																		
Excess total	0	-32	-11	-1	4	0	-34	-34	-7	1	1	0	-66	-19	-19	0	6	
Excess total†	-146	-83	-35	-3	3	-176	-91	-91	-33	-2	1	-322	-174	-68	-68	-5	4	
Deaths total	628	191	95	12	9	573	152	152	75	10	4	1,201	343	170	170	21	14	
Excess <65	0	-3	5	2	5	0	-3	-3	4	2	1	0	-6	9	9	4	7	
Excess <65†	-8	-5	4	2	5	3	-2	-2	4	2	1	-5	-7	8	8	4	6	
Deaths <65	78	23	19	5	6	61	17	17	14	3	2	139	40	33	33	8	8	

Notes

- The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
- The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
- For further explanation, refer to section 2.3.

Table 6.15: SMRs, average annual deaths and 'excess' deaths due to other diseases of the respiratory system, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons						
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			
	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate	
2002-04																			
0-4	2	0.83	1.29	0.83	0.00	*3.97	1	1.30	0.67	0.04	0.00	1.52	2	1.01	1.05	0.53	0.00	3.00	
5-14	0	0.15	6.32	38.64	6.98	0.00	0	3.16	0.00	0.00	0.00	0.00	0	2.16	2.12	13.26	2.42	0.00	
15-24	0	1.47	1.73	1.47	0.00	*23.11	0	0.00	0.00	0.00	0.00	0.00	0	1.13	1.34	1.14	0.00	*23.11	
25-44	0	0.79	0.95	0.40	0.00	*50.79	0	0.75	0.91	0.00	0.00	*8.36	0	0.77	0.93	0.22	0.00	*29.45	
45-64	5	1.12	1.06	0.70	0.27	*8.07	3	0.99	0.86	0.92	2.83	*12.31	4	1.07	0.99	0.77	1.02	*9.81	
65-74	36	0.93	0.87	0.56	1.10	*3.36	25	0.84	0.75	0.86	1.38	*2.91	31	0.89	*0.83	0.67	1.19	*3.75	
75+	222	*0.78	*0.75	0.78	0.42	0.99	145	*0.80	0.89	0.67	0.64	0.76	175	*0.79	*0.81	*0.73	*0.51	0.89	
Total	14	*0.83	*0.81	0.74	0.52	*4.07	13	*0.82	*0.86	0.70	0.94	*2.83	14	*0.83	*0.83	*0.73	0.67	*3.52	
Total <65	2	1.07	1.10	0.82	0.23	*12.09	1	1.00	0.84	0.68	2.02	*8.64	1	1.05	1.00	0.77	0.80	*10.67	
1997-99																			
Total	10	*0.86	*0.87	*0.66	0.67	*5.96	9	*0.83	*0.87	0.93	0.60	*5.51	10	*0.85	*0.87	0.77	0.64	*5.75	
Total <65	1	0.86	1.11	0.99	0.94	*14.37	1	0.87	1.04	1.27	0.22	*13.09	1	0.87	1.08	1.10	0.69	*13.81	
Total†	*0.81	*0.67	*0.68	*0.52	0.53	<i>n.p.</i>	*0.75	*0.58	*0.61	*0.66	0.42	<i>n.p.</i>	*0.78	*0.63	*0.64	*0.58	*0.49	<i>n.p.</i>	
Total <65†	0.92	*0.75	0.96	0.85	0.80	<i>n.p.</i>	1.13	0.94	1.11	1.30	0.21	<i>n.p.</i>	1.00	*0.82	1.02	1.01	0.61	<i>n.p.</i>	

(continued)

Table 6.15 (continued): SMRs, average annual deaths and 'excess' deaths due to other diseases of the respiratory system for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons								
	Non-Indigenous			Indige- nous	Non-Indigenous			Indige- nous	Non-Indigenous			Indige- nous	Non-Indigenous			Indige- nous					
	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR	
Average annual number of excess deaths																					
2002-04																					
0-4	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5-14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-24	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
25-44	0	-1	0	0	0	6	0	-1	0	0	0	0	0	0	0	0	-1	0	0	0	7
45-64	0	3	1	-1	-1	4	0	0	-1	0	0	0	0	0	0	0	0	0	-1	0	9
65-74	0	-4	-3	-1	0	2	0	-7	-5	0	0	0	0	0	0	0	-11	-8	-2	0	3
75+	0	-55	-28	-3	-2	0	0	-46	-11	-3	0	0	-11	0	0	-101	-39	-5	-3	-1	-1
Excess total	0	-56	-29	-4	-3	14	0	-52	-17	-4	0	0	-109	-8	0	-47	-5	-8	-3	0	3
Deaths total	918	278	122	13	3	19	866	238	107	8	3	10	1,784	229	21	516	229	21	6	6	29
Excess <65	0	2	2	0	-1	12	0	0	-2	0	0	6	0	2	0	2	0	-1	0	0	18
Deaths <65	93	34	17	2	0	13	61	20	8	1	1	7	154	54	25	54	158	15	4	4	20
1997-99																					
Excess total	0	-30	-13	-4	-1	14	0	-31	-10	-1	-1	10	0	-60	-24	-4	-24	-4	-2	-2	24
Excess total†	-142	-92	-42	-7	-2	n.p.	-186	-110	-45	-4	-2	n.p.	-328	-202	-87	-11	-87	-11	-4	-4	n.p.
Deaths total	613	187	89	8	2	16	557	149	69	7	1	13	1,170	337	158	337	158	15	4	4	29
Excess <65	0	-3	2	0	0	12	0	-2	0	0	0	8	0	-6	2	0	2	0	0	0	20
Excess <65†	-7	-7	-1	0	0	n.p.	7	-1	1	0	0	n.p.	0	-8	0	0	0	0	0	0	n.p.
Deaths <65	75	21	15	2	1	13	59	17	10	2	0	9	134	38	24	38	24	4	1	1	22

Notes

1. The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
2. The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
3. For further explanation, refer to section 2.3.

7 Injury and poisoning

Chapter highlights

Injury was responsible for about 6% of all deaths, and about 18% and 26% of excess deaths in regional and remote areas respectively.

Over half (54%) of all injury deaths and 70% of all injury excess deaths outside Major Cities are as a result of MVTA (48% of excess deaths) and suicide (21% of excess deaths).

MVTA contributes about 10% of total excess deaths in regional and remote areas, while suicide and 'other injuries' contribute about 4% and 6% of total excess deaths in regional and remote areas respectively. As such, these are substantial contributors to overall higher rates of death outside Major Cities.

Most of the excess deaths were amongst males and also amongst people aged 25–44 years, 15–24 years and 45–64 years.

Indigenous Australians had injury death rates that were four times higher than the rates for non-Indigenous Australians in Major Cities.

SMRs increase with remoteness; they were 1.3, 1.5, 1.7 and 3.1 in Inner Regional, Outer Regional, Remote and Very Remote areas respectively.

For non-Indigenous people, SMRs were 1.3, 1.4, 1.4 and 1.8 in Inner Regional, Outer Regional, Remote and Very Remote areas respectively.

Death rates appear to be declining in Major Cities and regional areas, and for males in remote areas (with little or no clear change for males in Very Remote areas or for females in remote areas generally).

This chapter discusses mortality due to the broad category of injury and poisoning (ICD-10 chapter 20, codes V01–Y98). It then provides further analysis of types of injury within this broad category. The injuries included are:

1. suicide
2. interpersonal violence (IPV)
3. falls
4. motor vehicle accidents (MVA)
5. other land transport accidents (other LTA)
6. other injuries.

These were chosen either because they are frequent causes of death (as in the case of motor vehicle accidents and suicide) or because they exhibit substantial inter-regional variation (interpersonal violence and other land transport accidents). Occupational injuries were not listed separately because they cannot be reliably identified using ICD-10 codes and because of the difficulty identifying the size of the population in each occupation. 'Other' injuries (which include a wide range of external causes including drowning, burns, falls and electrocution) sometimes account for a substantial proportion of 'excess' deaths, and deserve further investigation.

Farm accidents are hard to define using the data (for example, they can be included under motor vehicle accidents, falls etc.), and the denominator population can be hard to define, making calculation of rates difficult or impossible.

On average during the period, injury and poisoning were responsible for 7,845 deaths annually – this is 5.9% of all deaths. Two-thirds (67%) were male; 59% were in Major Cities, 36% in regional areas and 4% in remote areas.

Overall death rates due to injury and poisoning for Indigenous Australians were four times higher than the rates for non-Indigenous Australians in Major Cities.

In regional areas:

Death rates for males in Inner Regional and Outer Regional areas were 1.3 and 1.5 times those in Major Cities, while death rates for females in Inner Regional and Outer Regional areas were 1.2 and 1.3 times those in Major Cities.

For 0–64 year olds, death rates were 1.4 and 1.6 times those in Major Cities.

The inter-regional pattern for non-Indigenous Australians was similar to that above.

Annually there are 1,816 and 998 deaths in Inner Regional and Outer Regional areas; about 68% were male.

Annually there were 380 and 308 ‘excess’ deaths in Inner Regional and Outer Regional areas; this is 18% and 19% of all ‘excess’ deaths in Inner Regional and Outer Regional areas. About two-thirds (76%) of the ‘excess’ were male. In regional areas, excess deaths occur in all life stages. For both males and females the excess is mainly concentrated amongst the 15–24, 24–44 and 45–64 year age groups, with contribution also from those older than 75 years. There are also excess deaths among infants and children.

Compared with the previous reporting period (1997–99), there were 96 fewer deaths of males and 46 more deaths of females annually in 2002–04.

The 12-year trend (AIHW 2006a) is for decreasing death rates for males and females (the decrease being faster for males in Outer Regional areas than in Major Cities).

Between 1997–99 and 2002–04, the number of excess deaths in regional areas tended to decrease (as estimated using 2002–04 Major Cities rates as the standard). For example, in 1997–99 there were 423 more deaths of Inner Regional males annually than if 2002–04 Major Cities age-specific rates had applied; in 2002–04, this number had decreased to 286 more deaths than if 2002–04 Major Cities age-specific rates had applied.

Death rates¹⁸ appeared not to decrease between the previous (1997–99) and the more recent (2002–04) reporting periods (for example, SMRs for Inner Regional males were 1.5 in 1997–99, and became 1.3 in 2002–04 compared with 1.00 for Major Cities males in 2002–04).

However, the relative differences¹⁹ between Major Cities and regional areas appear to remain relatively unchanged.

In remote areas:

Death rates in remote areas were 1.7 and 3.1 times those in Major Cities.

¹⁸ As expressed by SMRs calculated for both periods using Major Cities age-and sex-specific rates in 2002–04 as the standard.

¹⁹ As expressed by SMRs calculated for each period using Major Cities age-and sex-specific rates in each period as the standard.

For 0–64 year olds, death rates in remote areas were 1.9 and 3.5 times those in Major Cities.

Death rates for non-Indigenous Australians from Remote and Very Remote areas were 1.4 and 1.8 times those in Major Cities. For people younger than 65 years, death rates in Remote and Very Remote areas were 1.5 and 1.9 times those in Major Cities.

Annually there are 173 and 162 deaths in Remote and Very Remote areas; about 76% were male.

Annually there were 72 and 110 ‘excess’ deaths in Remote and Very Remote areas; this is 26% and 26% of all ‘excess’ deaths in Remote and Very Remote areas. About four-fifths (79%) of the ‘excess’ were male. In remote areas, excess deaths occur in all life stages. For males the excess is supplied mainly by the 15–24, 25–44 and 45–64 year age groups, while for females, the 15–24 and 25–64 year age groups supply most of the excess deaths.

Compared with the previous reporting period (1997–99), there were 10 fewer deaths of males and 3 fewer deaths of females annually in 2002–04.

The 12-year trend (AIHW 2006a) for males and females is for decreasing death rates, except for males in Very Remote areas where there appears to have been little change.

Between 1997–99 and 2002–04, the number of excess deaths in remote areas decreased slightly (as estimated using 2002–04 Major Cities rates as the standard). For example, in 1997–99 there were 101 more deaths of Remote area people annually than if 2002–04 Major Cities age-specific rates had applied; in 2002–04, this number had decreased to 72 more deaths than if 2002–04 Major Cities age-specific rates had applied.

Death rates²⁰ appeared mainly to decline in remote areas between the previous (1997–99) and the more recent (2002–04) reporting periods (for example, SMRs for Remote area males were 2.1 in 1997–99, and became 1.8 in 2002–04 compared with 1.0 for Major Cities males in 2002–04).

However, the relative differences²¹ between Major Cities and Remote areas appear to have remained steady or decreased slightly, while death rates in Very Remote areas tend to have increased relative to those in Major Cities. For example, the SMRs for Remote and Very Remote area males were 1.8 and 2.4 in 1997–99 (compared with 1.0 for Major Cities males in 1997–99), and 1.8 and 3.2 in 2002–04 (compared with 1.0 for Major Cities males in 2002–04).

While suicide and ‘other injuries’ were the main contributors to the overall numbers of injury deaths, the main contributor to excess deaths was motor vehicle traffic accidents.

²⁰ As expressed by SMRs calculated for both periods using Major Cities age-and sex- specific rates in 2002–04 as the standard.

²¹ As expressed by SMRs calculated for each period using Major Cities age-and sex-specific rates in each period as the standard.

Table 7.1: Average annual deaths and 'excess' deaths, by type of injury, 2002-04

Cause of death	Males					Females				
	MC	IR	OR	R	VR	MC	IR	OR	R	VR
Deaths										
Suicide	1,029	388	224	44	36	314	103	40	6	5
IPV ^(a)	87	30	18	6	8	46	13	9	3	4
Falls	255	74	36	5	3	243	74	35	3	1
MVTA ^(b)	539	317	171	32	38	197	126	68	12	13
Other LTA ^(c)	53	34	24	7	5	19	8	5	1	0
Other injuries	1,034	380	231	36	34	746	270	137	18	13
All injuries	2,998	1,222	704	130	125	1,565	594	294	43	37
Excess deaths										
Suicide	0	77	66	18	22	0	7	-5	0	1
IPV ^(a)	0	4	5	3	7	0	-1	2	2	4
Falls	0	-15	-5	0	1	0	-6	0	-1	0
MVTA ^(b)	0	154	90	18	31	0	64	40	8	11
Other LTA ^(c)	0	18	16	6	4	0	2	2	1	0
Other injuries	0	48	69	12	21	0	29	29	5	8
All injuries	0	286	240	57	86	0	94	68	15	24

(a) IPV is interpersonal violence.

(b) MVTA is motor vehicle traffic accident.

(c) LTA is land transport accident.

Table 7.2: Average annual deaths and 'excess' deaths for persons aged 64 years and under, by type of injury, 2002-04

Cause of death	Males					Females				
	MC	IR	OR	R	VR	MC	IR	OR	R	VR
Deaths										
Suicide	885	333	194	39	34	267	90	37	6	5
IPV ^(a)	82	27	17	6	8	41	12	9	3	4
Falls	81	24	14	3	3	24	6	4	1	0
MVTA ^(b)	462	278	148	29	38	136	98	54	10	12
Other LTA ^(c)	47	26	19	6	5	14	6	4	1	0
Other injuries	660	221	148	28	28	250	91	52	8	10
All injuries	2,217	910	540	110	116	733	304	159	29	31
Excess deaths										
Suicide	0	77	62	16	21	0	11	-2	0	2
IPV ^(a)	0	3	5	4	7	0	0	3	2	4
Falls	0	-1	1	1	2	0	-1	0	0	0
MVTA ^(b)	0	144	80	17	31	0	57	35	7	10
Other LTA ^(c)	0	12	12	5	4	0	2	2	1	0
Other injuries	0	28	49	10	18	0	15	15	3	7
All injuries	0	263	208	53	83	0	84	52	13	22

(a) IPV is interpersonal violence.

(b) MVTA is motor vehicle traffic accident.

(c) LTA is land transport accident.

Table 7.3: Average annual deaths and 'excess' deaths of non-Indigenous Australians, by type of injury, 2002-04

Cause of death	Males					Females				
	MC	IR	OR	R	VR	MC	IR	OR	R	VR
Deaths										
Suicide	967	363	204	33	10	295	96	35	4	2
IPV ^(a)	80	25	15	2	1	42	11	7	1	0
Falls	247	71	35	3	2	238	72	35	2	0
MVTA ^(b)	512	301	161	26	15	185	121	60	7	2
Other LTA ^(c)	49	32	22	5	2	18	7	4	1	0
Other injuries	982	361	206	27	18	714	255	123	12	4
All injuries	2,838	1,153	644	96	48	1,493	562	263	26	9
Excess deaths										
Suicide	0	73	61	11	1	0	6	-7	-2	0
IPV ^(a)	0	2	4	0	0	0	-1	1	0	0
Falls	0	-15	-4	-1	0	0	-7	1	-1	0
MVTA ^(b)	0	148	86	15	11	0	63	34	4	1
Other LTA ^(c)	0	17	15	4	2	0	1	1	0	0
Other injuries	0	48	56	6	10	0	25	22	1	1
All injuries	0	273	217	34	24	0	87	52	2	1

(a) IPV is interpersonal violence.

(b) MVTA is motor vehicle traffic accident.

(c) LTA is land transport accident.

Table 7.4: Average annual deaths and 'excess' deaths of non-Indigenous Australians aged 64 years and under, by type of injury, 2002-04

Cause of death	Males					Females				
	MC	IR	OR	R	VR	MC	IR	OR	R	VR
Deaths										
Suicide	829	311	175	28	8	250	83	31	4	1
IPV ^(a)	75	23	14	2	1	38	10	7	0	0
Falls	77	23	13	2	1	22	6	3	0	0
MVTA ^(b)	436	262	139	23	15	126	94	46	6	2
Other LTA ^(c)	44	25	17	4	2	13	5	3	1	0
Other injuries	618	207	128	19	13	235	82	42	4	2
All injuries	2,079	852	486	78	41	685	281	132	16	6
Excess deaths										
Suicide	0	73	55	9	0	0	9	-4	-1	0
IPV ^(a)	0	1	3	0	0	0	0	1	0	0
Falls	0	0	2	0	1	0	-1	0	0	0
MVTA ^(b)	0	138	77	14	11	0	57	29	4	1
Other LTA ^(c)	0	12	11	3	2	0	1	1	0	0
Other injuries	0	28	38	5	7	0	12	9	0	1
All injuries	0	252	186	30	21	0	77	37	2	1

(a) IPV is interpersonal violence.

(b) MVTA is motor vehicle traffic accident.

(c) LTA is land transport accident.

Table 7.5 Average annual deaths and 'excess' deaths of Indigenous Australians in Qld, WA, SA and NT, by type of injury, 2002-04

Cause of death	Males		Females	
	Total population	0-64 years	Total population	0-64 years
Deaths				
Suicide	58	58	13	13
IPV ^(a)	13	13	9	9
Falls	3	3	2	1
MVTA ^(b)	40	39	23	22
Other LTA ^(c)	6	5	1	1
Other injuries	45	41	26	19
All injuries	165	159	74	65
Excess deaths				
Suicide	44	43	10	10
IPV ^(a)	12	12	8	8
Falls	3	2	2	1
MVTA ^(b)	30	30	20	19
Other LTA ^(c)	5	5	1	1
Other injuries	32	30	19	15
All injuries	123	121	58	52

(a) IPV is interpersonal violence.

(b) MVTA is motor vehicle traffic accident.

(c) LTA is land transport accident.

Note: Deaths and excess deaths in this table refer to annual deaths in Qld, WA, SA and NT, whose population of 274,000 Indigenous Australians is 60% of the national Indigenous Australian population of 458,000. If death rates in the other states and territories were comparable to those in Qld, WA, SA and NT the numbers of deaths and excess deaths nationally may be approximately 1.7 times greater than that indicated for Qld, WA, SA and NT in this table.

Table 7.6: Average annual number of deaths due to each type of injury, 2002-04

Cause of death	Males		Females		Total
	Regional	Remote	Regional	Remote	
Per cent					Number
Other injuries	32.0	27.0	46.0	39.0	1,119
Suicide	32.0	31.0	16.0	14.0	846
MVTA ^(a)	25.0	27.0	22.0	31.0	777
Falls	6.0	3.0	12.0	5.0	231
IPV ^(b)	2.0	5.0	2.0	9.0	91
Other LTA ^(c)	3.0	5.0	1.0	1.0	84
All injuries	100.0	100.0	100.0	100.0	3,149

(a) MVTA is motor vehicle traffic accident.

(b) IPV is interpersonal violence

(c) LTA is land transport accident.

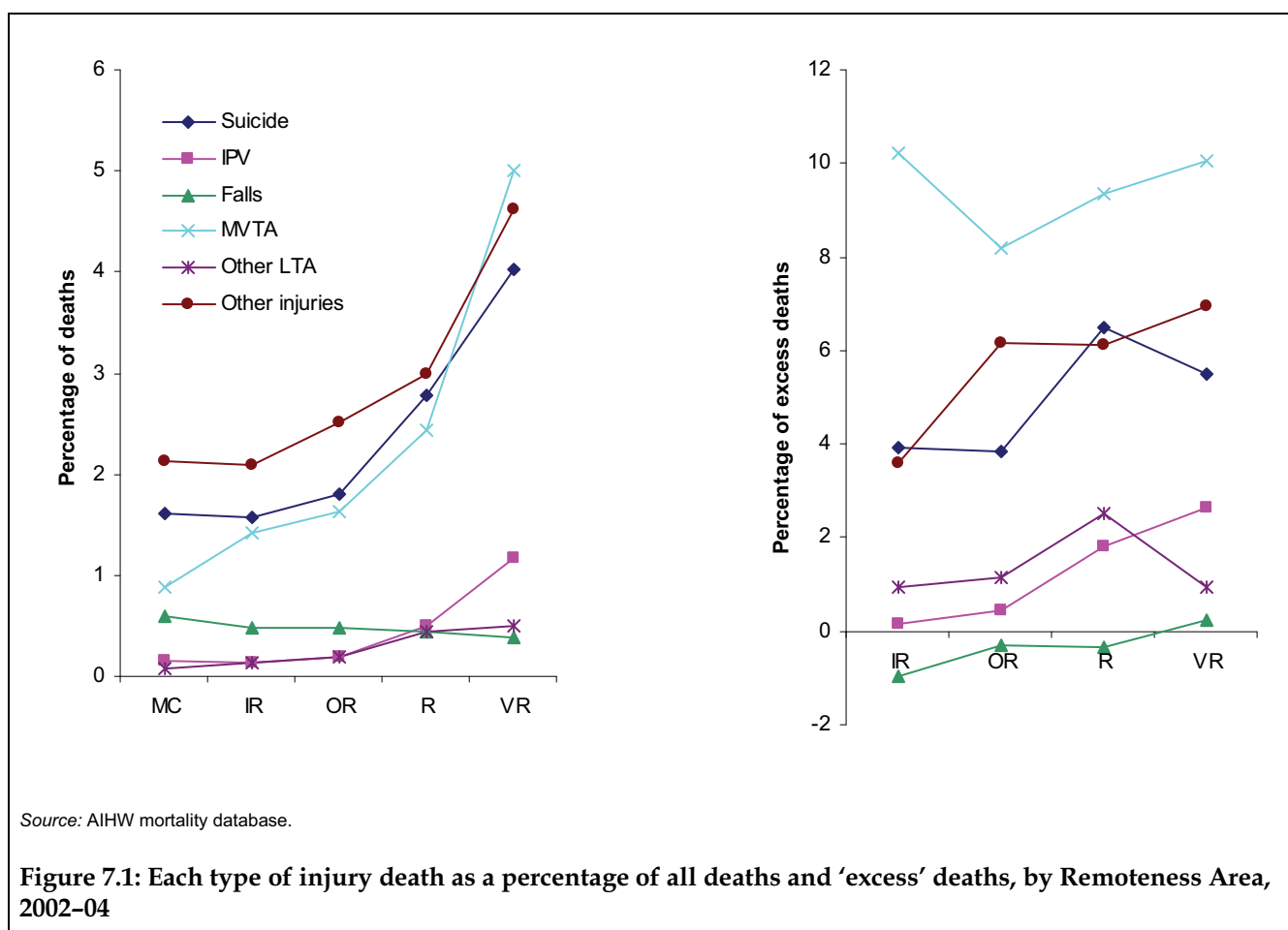
Table 7.7: Average annual number of 'excess' deaths due to each type of injury, 2002-04

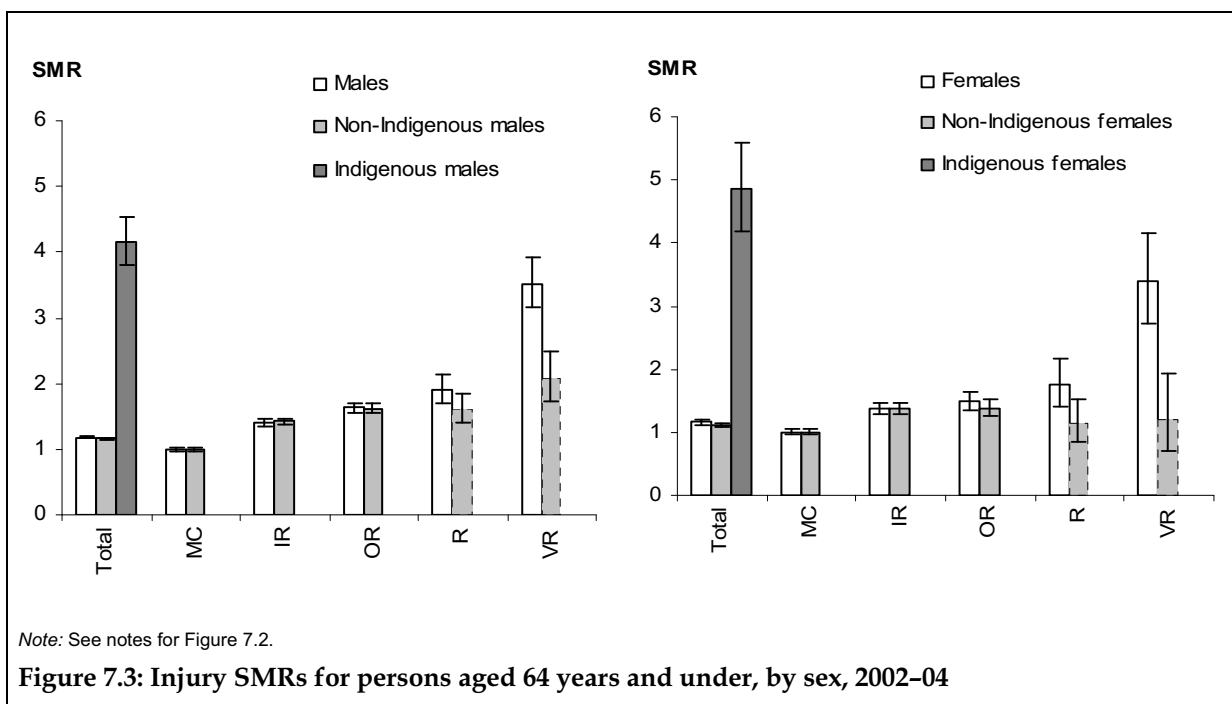
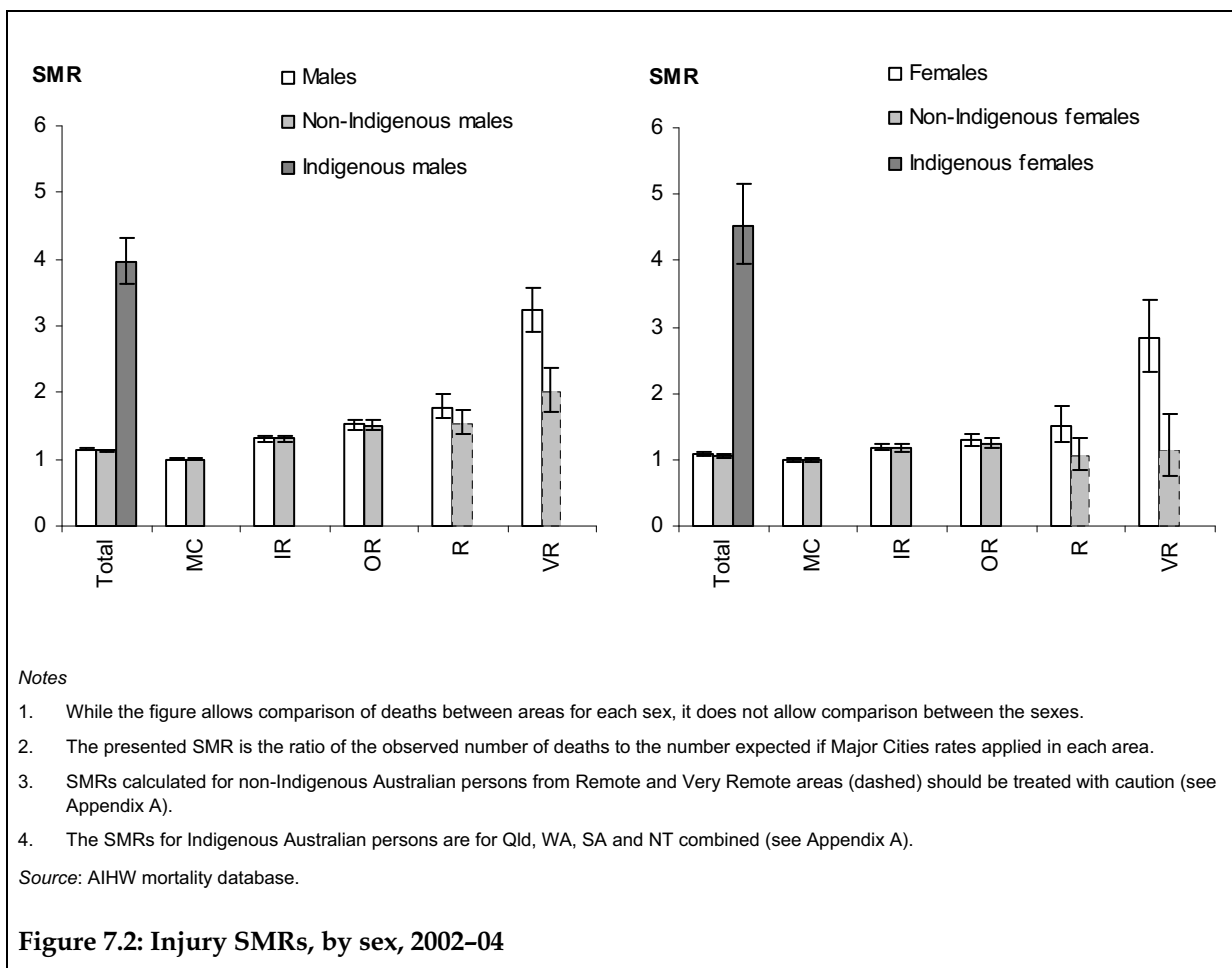
Cause of death	Males		Females		Total
	Regional	Remote	Regional	Remote	
	Per cent				Number
Other injuries	46.0	34.0	64.0	49.0	416
Suicide	22.0	23.0	36.0	49.0	221
MVTA ^(a)	27.0	28.0	1.0	3.0	186
Falls	6.0	7.0	2.0	3.0	49
IPV ^(b)	2.0	7.0	1.0	15.0	26
Other LTA ^(c)	-4.0	1.0	-4.0	-3.0	-26
All injuries	100.0	100.0	100.0	100.0	870

(a) MVTA is motor vehicle traffic accident.

(b) IPV is interpersonal violence.

(c) LTA is land transport accident.





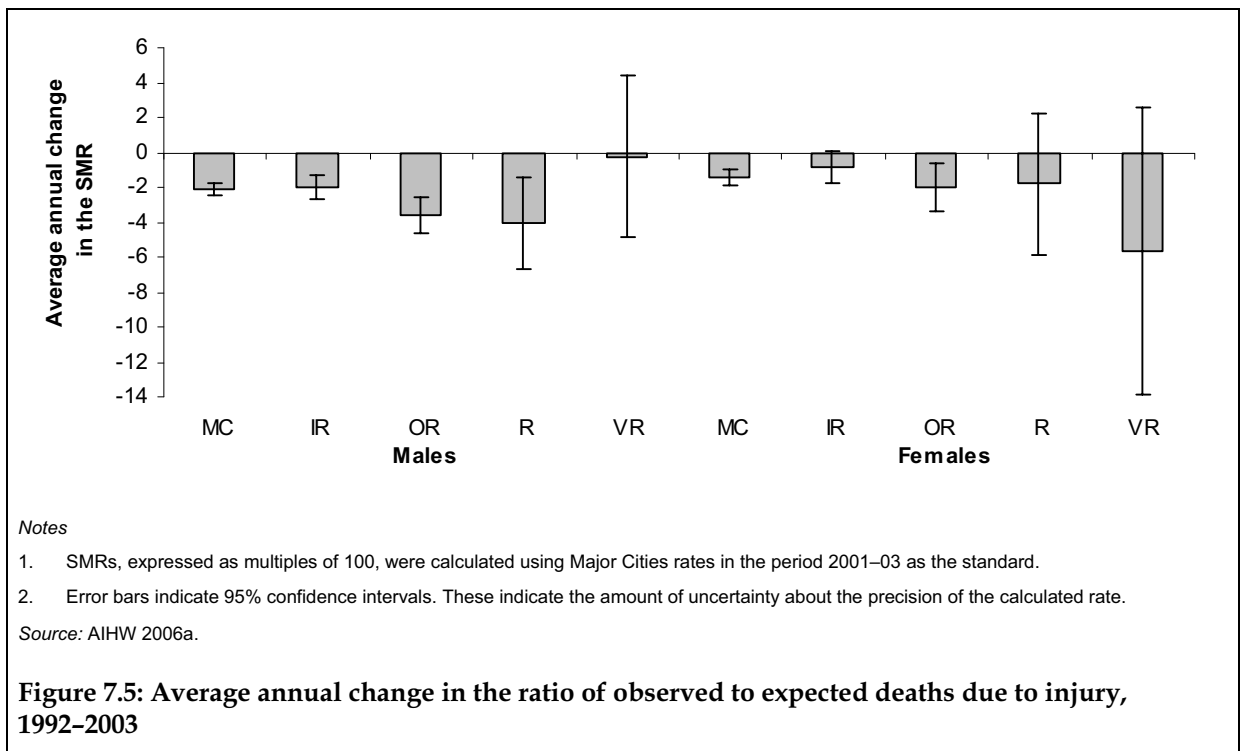
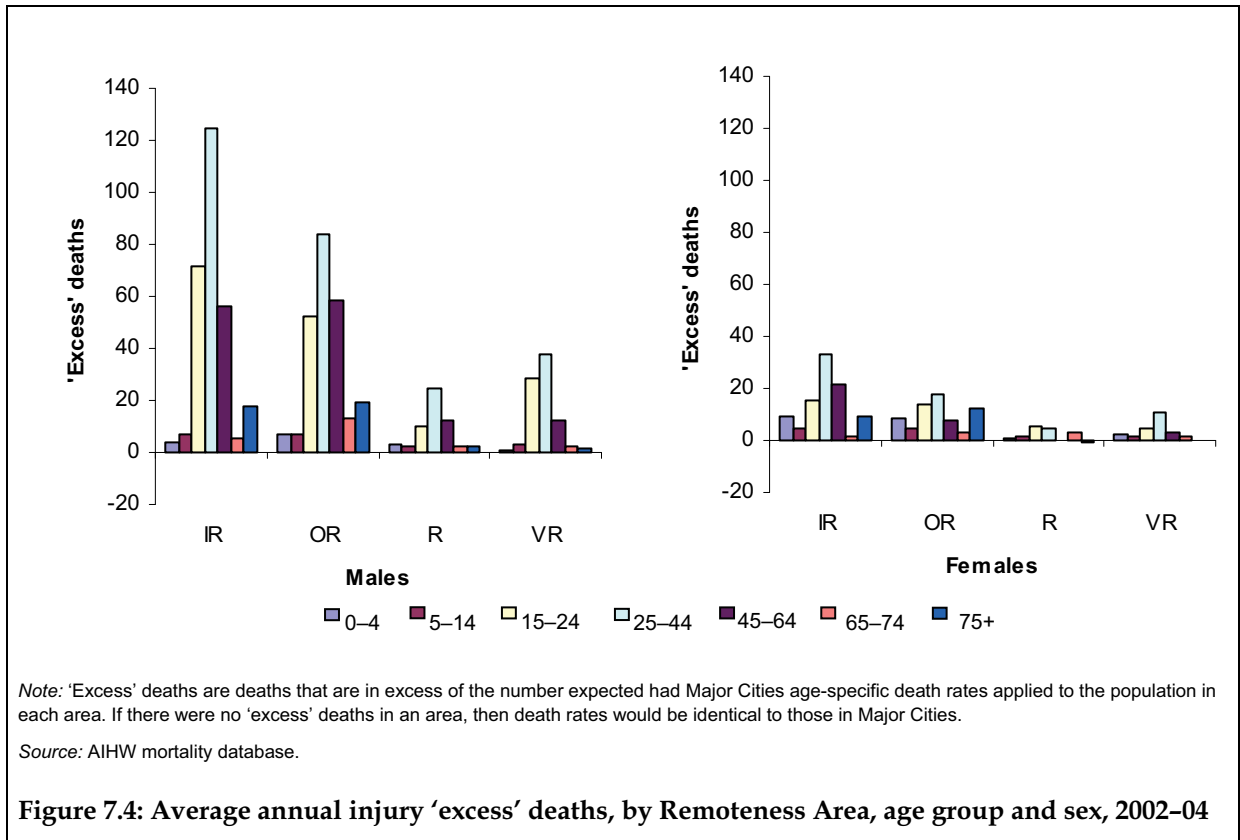


Table 7.8: SMRs, average annual deaths and 'excess' deaths due to injury, 2002-04 and 1997-99

	Males						Females						Persons					
	MC		OR		R		MC		OR		R		MC		OR		R	
	Rate	VR	Rate	VR	Rate	VR	Rate	VR	Rate	VR	Rate	VR	Rate	VR	Rate	VR	Rate	VR
2002-04																		
0-4	9	1.35	*2.11	*3.54	2.29		7	*2.07	*2.99	1.89			8	*1.64	*2.47	*2.87	*3.74	
5-14	4	*1.53	*2.06	*2.83	*6.27		3	*1.64	*2.25	*3.33			3	*1.57	*2.13	*3.01	*5.48	
15-24	43	*1.63	*1.96	*2.16	*5.62		14	*1.44	*1.83	*3.21			29	*1.59	*1.93	*2.39	*5.21	
25-44	55	*1.42	*1.53	*1.84	*3.18		15	*1.38	*1.41	*1.67			35	*1.41	*1.51	*1.80	*3.26	
45-64	41	*1.26	*1.54	*1.74	*2.53		16	*1.26	*1.20	1.03			28	*1.26	*1.45	*1.57	*2.44	
65-74	56	1.06	*1.30	1.45	*2.00		26	1.04	1.18	*2.33			40	1.05	*1.27	*1.70	*2.30	
75+	181	*1.09	*1.22	1.20	1.37		150	1.04	*1.12	0.91			162	*1.06	*1.17	1.06	1.24	
Total	46	*1.31	*1.52	*1.78	*3.24		23	*1.19	*1.30	*1.51			35	*1.26	*1.45	*1.71	*3.13	
Total <65	38	*1.41	*1.63	*1.91	*3.52		13	*1.38	*1.49	*1.76			26	*1.40	*1.59	*1.88	*3.49	
1997-99																		
Total	54	*1.28	*1.44	*1.79	*2.43		24	*1.20	*1.30	*1.57			39	*1.25	*1.40	*1.73	*2.46	
Total <65	48	*1.34	*1.51	*1.87	*2.57		15	*1.28	*1.31	*1.68			32	*1.33	*1.46	*1.83	*2.67	
Total†	*1.19	*1.50	*1.70	*2.13	*2.97		*1.11	*1.32	*1.43	*1.77			*1.16	*1.44	*1.62	*2.03	*2.97	
Total <65†	*1.22	*1.62	*1.82	*2.26	*3.19		*1.20	*1.52	*1.56	*2.00			*1.21	*1.60	*1.76	*2.20	*3.30	

(continued)

Table 7.8 (continued): SMRs, average annual deaths and 'excess' deaths due to injury, 2002-04 and 1997-99

	Males				Females				Persons						
	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR
Average annual number of excess deaths															
2002-04															
0-4	0	4	7	3	1	0	9	9	1	3	0	13	16	4	3
5-14	0	7	7	2	3	0	5	5	1	1	0	12	11	3	5
15-24	0	71	52	10	28	0	16	14	5	5	0	87	66	16	33
25-44	0	125	84	25	38	0	33	17	5	11	0	158	101	30	48
45-64	0	56	58	13	12	0	21	8	0	3	0	77	66	13	15
65-74	0	5	13	2	2	0	2	3	3	2	0	7	17	5	4
75+	0	17	19	2	1	0	9	12	-1	0	0	26	32	1	2
Excess total	0	286	240	57	86	0	94	68	15	24	0	380	308	72	110
Deaths total	2,998	1,222	704	130	125	1,565	594	294	43	37	4,563	1,816	998	173	162
Excess <65	0	263	208	53	83	0	84	52	13	22	0	347	260	65	105
Deaths <65	2,217	910	540	110	116	733	304	159	29	31	2,951	1,215	698	140	147
1997-99															
Excess total	0	275	230	68	66	0	91	65	17	22	0	367	296	85	87
Excess total†	518	423	308	81	74	149	134	87	20	24	666	557	395	101	98
Deaths total	3,292	1,271	751	153	112	1,509	556	286	47	36	4,801	1,827	1,037	200	147
Excess <65	0	257	205	63	64	0	69	38	14	22	0	325	243	76	86
Excess <65†	463	384	274	75	72	137	107	58	17	24	600	491	332	92	96
Deaths <65	2,607	1,005	610	135	105	822	311	162	33	33	3,429	1,316	771	168	138

Notes

- The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
- The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
- For further explanation, refer to section 2.3.

Table 7.9: SMRs, average annual deaths and 'excess' deaths due to injury, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons												
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous									
	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate	
	Rate	Ratio	Ratio	Ratio	Ratio	Rate	Rate	Ratio	Ratio	Ratio	Ratio	Rate	Rate	Ratio	Ratio	Ratio	Ratio	Rate	Rate	Ratio	Ratio	Ratio	Ratio	Rate	
2002-04																									
0-4	8	1.31	*1.89	*3.29	0.84	*4.06	6	*2.15	*2.40	1.85	*5.20	7	*1.66	*2.10	*2.70	2.62	*4.17								
5-14	4	*1.53	*2.12	*2.73	*6.50	*3.93	3	*1.59	*1.79	1.65	*6.37	3	*1.55	*1.99	*2.31	*6.45	*3.92								
15-24	40	*1.68	*2.02	*1.93	*3.24	*4.52	13	*1.53	*1.63	1.50	0.81	27	*1.65	*1.93	*1.84	*2.79	*4.83								
25-44	52	*1.43	*1.51	*1.48	*1.88	*4.25	14	*1.35	*1.32	1.00	0.95	33	*1.41	*1.47	*1.39	*1.71	*4.51								
45-64	39	*1.27	*1.55	*1.53	*1.76	*3.34	15	*1.24	*1.22	1.03	0.72	27	*1.26	*1.46	*1.41	*1.53	*3.25								
65-74	54	1.05	*1.30	1.46	1.92	*3.00	25	1.04	1.19	1.40	0.42	39	1.05	*1.26	1.44	1.55	*4.67								
75+	177	1.08	*1.22	1.20	1.60	0.92	145	1.04	*1.13	0.88	1.18	158	*1.06	*1.17	1.04	1.41	1.22								
Total	44	*1.31	*1.51	*1.54	*2.01	*3.96	23	*1.18	*1.25	1.06	1.14	33	*1.27	*1.42	*1.41	*1.80	*4.12								
Total <65	36	*1.42	*1.62	*1.61	*2.08	*4.16	12	*1.38	*1.39	1.14	1.20	24	*1.41	*1.56	*1.51	*1.90	*4.34								
1997-99																									
Total	52	*1.29	*1.42	*1.61	*1.73	*3.62	24	*1.21	*1.25	*1.26	1.12	38	*1.26	*1.37	*1.51	*1.59	*3.77								
Total <65	46	*1.36	*1.48	*1.65	*1.79	*3.71	15	*1.29	*1.21	1.22	1.28	31	*1.34	*1.42	*1.56	*1.70	*3.90								
Total†	*1.22	*1.54	*1.71	*1.97	*2.15	<i>n.p.</i>	*1.10	*1.21	*1.27	*1.33	1.22	*1.18	*1.42	*1.56	*1.79	*1.92	<i>n.p.</i>								
Total <65†	*1.27	*1.75	*1.91	*2.13	*2.33	<i>n.p.</i>	*1.24	*1.55	*1.46	*1.48	1.56	*1.27	*1.70	*1.80	*1.99	*2.17	<i>n.p.</i>								

(continued)

Table 7.9 (continued): SMRs, average annual deaths and 'excess' deaths due to injury for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons						
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			
	MC	IR	OR	R	VR	Indigenous	MC	IR	OR	R	VR	Indigenous	MC	IR	OR	R	VR	Indigenous	
Average annual number of excess deaths																			
2002-04																			
0-4	0	3	5	2	0	5	0	9	5	1	1	4	0	12	10	3	1	8	
5-14	0	6	6	1	1	4	0	4	3	0	1	2	0	11	9	2	2	6	
15-24	0	70	48	6	6	35	0	17	9	1	0	15	0	87	57	7	6	50	
25-44	0	117	72	12	9	64	0	28	12	0	0	25	0	145	84	12	9	89	
45-64	0	56	55	8	4	14	0	19	8	0	0	5	0	74	63	8	4	19	
65-74	0	4	12	2	1	2	0	1	3	1	0	5	0	6	16	3	1	7	
75+	0	16	19	2	2	0	0	9	12	-1	0	1	0	25	31	1	2	1	
Excess total	0	273	217	34	24	123	0	87	52	2	1	58	0	360	269	35	25	181	
Deaths total	2,838	1,153	644	96	48	165	1,493	562	263	26	9	74	4,331	1,715	907	122	57	239	
Excess <65	0	252	186	30	21	121	0	77	37	2	1	52	0	329	223	32	22	173	
Deaths <65	2,079	852	486	78	41	159	685	281	132	16	6	65	2,764	1,133	618	94	46	225	
1997-99																			
Excess total	0	274	207	46	21	119	0	93	52	7	1	52	0	367	259	52	22	171	
Excess total†	576	428	288	60	27	n.p.	136	94	56	8	2	n.p.	711	522	343	68	29	n.p.	
Deaths total	3,169	1,227	695	121	51	164	1,467	542	262	33	9	69	4,636	1,769	957	154	60	233	
Excess <65	0	254	179	41	20	118	0	68	24	4	2	50	0	321	203	45	22	168	
Excess <65†	535	414	263	55	26	n.p.	155	107	44	7	3	n.p.	691	521	307	62	29	n.p.	
Deaths <65	2,497	964	554	104	46	161	796	300	139	21	8	65	3,293	1,264	693	125	54	226	

Notes

1. The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
2. The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
3. For further explanation, refer to section 2.3.

7.1 Suicide

Highlights

Suicide was responsible for less than 2% of all deaths, and for 4% and 6% of all excess deaths in regional and remote areas, respectively.

Death rates for males were about three times higher than those for females.

Death rates for Indigenous Australians were about four times higher than the rates for non-Indigenous Australians in Major Cities, driving much of the higher suicide mortality for the population in Very Remote areas.

For males, SMRs increase with remoteness, rising from 1.3 in Inner Regional areas to 2.6 in Very Remote areas.

For females, SMRs in regional and remote areas are indistinguishable from those in Major Cities.

For non-Indigenous Australian males in regional and remote areas, SMRs were 1.3 to 1.5, with excess particularly amongst 15–24, 25–44 and 45–64 year olds.

Since 1992, death rates have declined in most areas, but have risen in Very Remote areas.

Suicide (ICD-10 codes X60–X84), or self-inflicted intentional death, is a concern because it is largely avoidable and affects people in a wide range of age groups (not just the older age groups). It is sometimes associated with mental illness, such as depression, but there is a range of other reasons why people may decide to take their own lives. It is likely that the incidence of suicide is under-reported, because it is sometimes difficult to know whether a death from injury was intentional or accidental.

On average during the period, suicide was responsible for 2,210 deaths annually – this is 1.7% of all deaths. Four-fifths (79%) were male; 61% were in Major Cities, 34% in regional areas and 4% in remote areas.

Overall suicide death rates for Indigenous Australians were about four times higher than the rates for non-Indigenous Australians in Major Cities.

In regional areas:

Death rates were 20–30% higher than in Major Cities. For males rates were 25–40% higher than in Major Cities.

For 0–64 year olds, death rates were 25–35% (for males, 30–50%) higher than in Major Cities.

The inter-regional pattern for non-Indigenous Australians was similar to that above.

Annually there are 491 and 264 deaths in Inner Regional and Outer Regional areas; about 81% were male.

Annually there were 84 and 61 ‘excess’ deaths in Inner Regional and Outer Regional areas, this is 4% and 4% of all ‘excess’ deaths in Inner Regional and Outer Regional areas. About two-thirds (99%) of the ‘excess’ were male. The bulk of the excess was among 15–64 year old males, particularly among 25–44 year olds.

Compared with the previous reporting period (1997–99), there were 119 fewer deaths of males and 17 fewer deaths of females annually in 2002–04.

The 12-year trend (AIHW 2006a) is for decreasing death rates for males, increasing rates for females in Inner Regional areas and no change for females in Outer Regional areas.

In remote areas:

Death rates for males in Remote and Very Remote areas were about 1.7 and 2.6 times as high as in Major Cities. For females, rates in remote areas appeared similar to those in Major Cities.

For 0–64 year olds, the pattern was identical to that for 'all ages'.

Death rates for Remote area non-Indigenous Australian males were 1.5 times those in Major Cities (slightly lower than for 'all people'), while rates for non-Indigenous Australian males in Very Remote areas were not significantly different from those in Major Cities. Death rates for non-Indigenous Australian females in Remote and Very Remote areas were not significantly different from those in Major Cities.

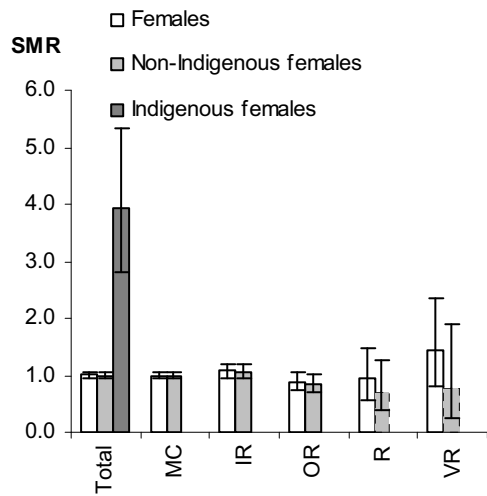
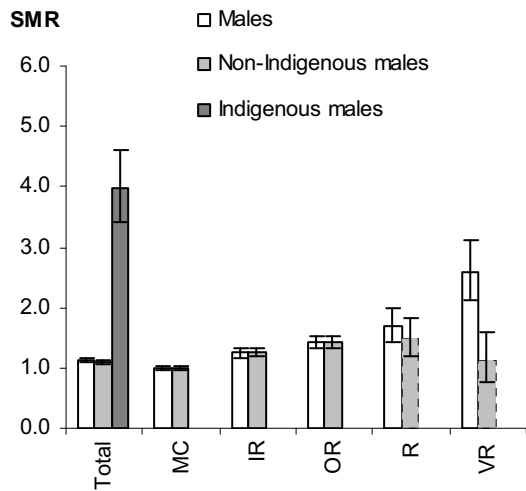
Annually there are 50 and 41 deaths in Remote and Very Remote areas; about 90% were male.

Annually there were 17 and 24 'excess' deaths in Remote and Very Remote areas; this is 6% and 6% of all 'excess' deaths in Remote and Very Remote areas. Only one of these excess deaths in remote areas was female. The bulk of the excess for males was in the 25–64 year age groups in Remote areas, and in the 15–44 year age groups in Very Remote areas.

A very large proportion of the excess suicide deaths of males in remote areas were young (15–44 year old) Indigenous Australian men.

Compared with the previous reporting period (1997–99), there was one less death of males and one less death of females annually in 2002–04.

The 12-year trend (AIHW 2006a) is for increasing death rates for remote area males and for no significant change (or a weak trend to increase) for remote area females.

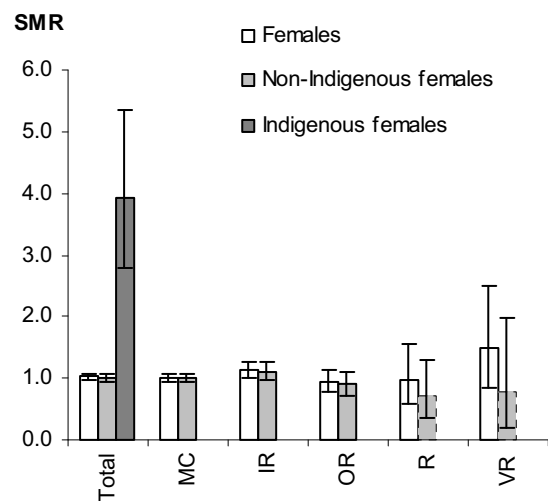
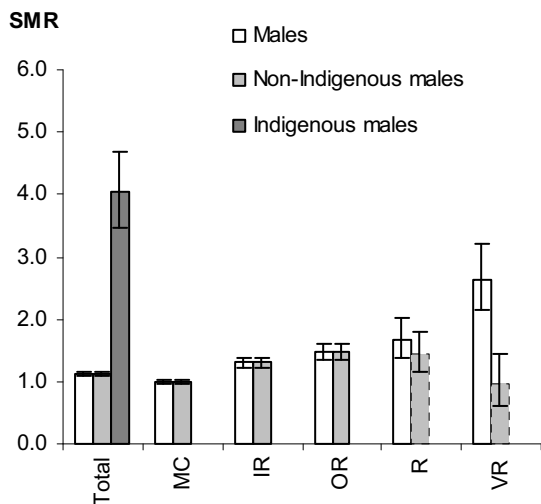


Notes

1. While the figure allows comparison of deaths between areas for each sex, it does not allow comparison between the sexes.
2. The presented SMR is the ratio of the observed number of deaths to the number expected if Major Cities rates applied in each area.
3. SMRs calculated for non-Indigenous Australian persons from Remote and Very Remote areas (dashed) should be treated with caution (see Appendix A).
4. The SMRs for Indigenous Australian persons are for Qld, WA, SA and NT combined (see Appendix A).

Source: AIHW mortality database.

Figure 7.6: Suicide SMRs, by sex, 2002-04



Note: See notes for Figure 7.6.

Figure 7.7: Suicide SMRs for persons aged 64 years and under, by sex, 2002-04

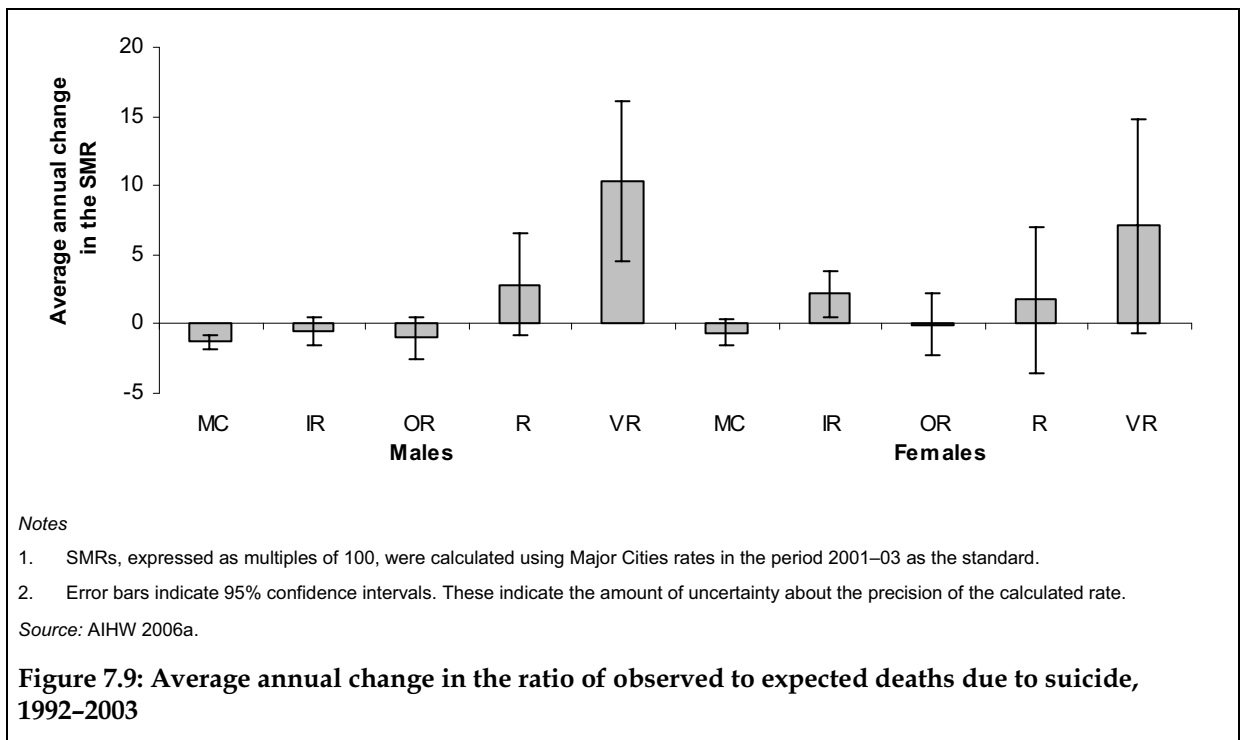
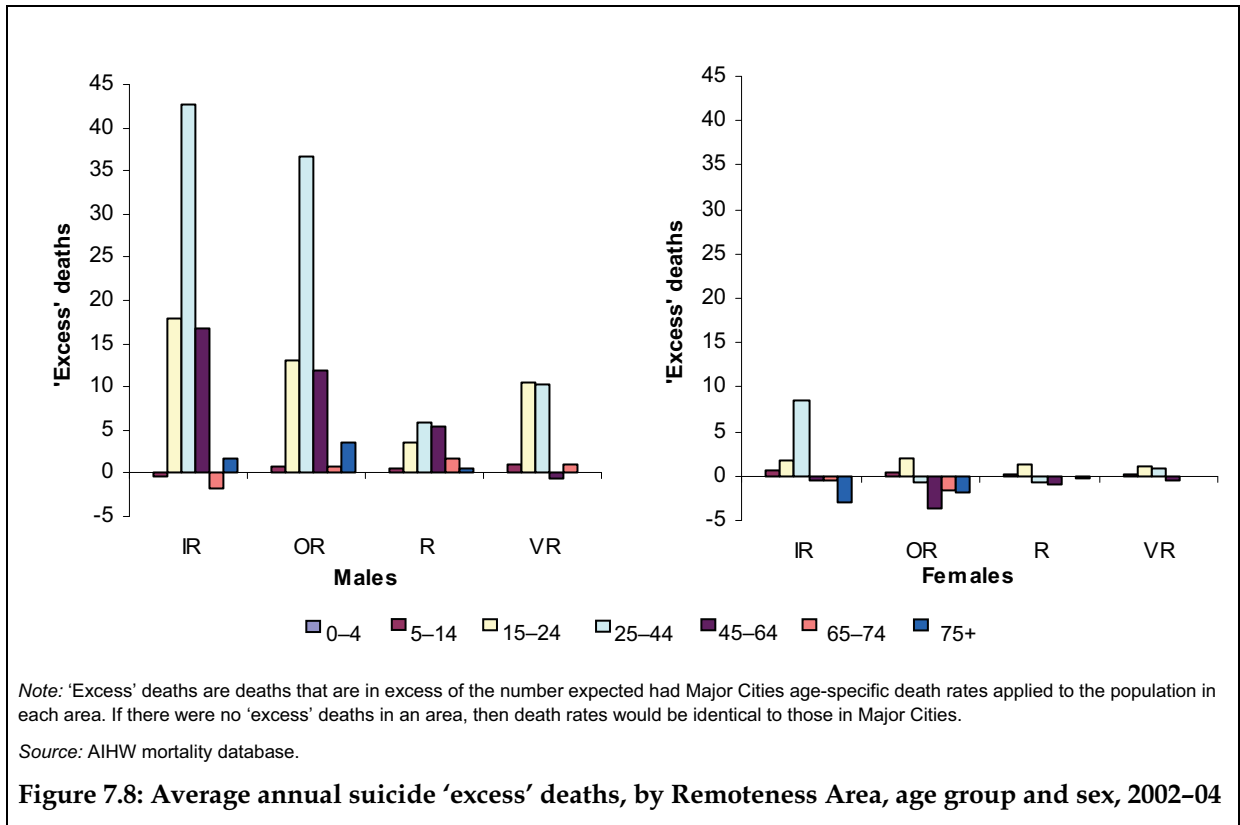


Table 7.10: SMIRs, average annual deaths and 'excess' deaths due to suicide, 2002-04 and 1997-99

	Males						Females						Persons										
	MC		OR		VR		MC		OR		VR		MC		OR		VR						
	Rate	IR	Ratio	R	Rate	VR	Rate	IR	Ratio	R	Rate	VR	Rate	IR	Ratio	R	Rate	IR	Ratio	R	Rate	VR	
2002-04																							
0-4	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5-14	0	0.70	2.57	7.78	23.92	23.92	0	2.18	2.22	2.96	6.75	6.75	0	1.31	2.43	5.83	17.01	17.01	17.01	17.01	17.01	17.01	17.01
15-24	14	*1.50	*1.76	*2.29	*6.32	*6.32	4	1.19	1.46	*2.87	3.09	3.09	9	*1.44	*1.70	*2.40	*5.69	*5.69	*5.69	*5.69	*5.69	*5.69	*5.69
25-44	24	*1.33	*1.53	*1.46	*2.37	*2.37	7	*1.23	0.96	0.80	1.50	1.50	15	*1.31	*1.41	*1.33	*2.21	*2.21	*2.21	*2.21	*2.21	*2.21	*2.21
45-64	17	*1.19	*1.26	*1.77	0.85	0.85	6	0.98	0.76	0.57	0.55	0.55	12	*1.13	1.14	*1.50	0.78	0.78	0.78	0.78	0.78	0.78	0.78
65-74	19	0.94	1.05	1.94	2.42	2.42	5	0.94	0.55	1.01	0.99	0.99	11	0.94	0.95	1.78	2.17	2.17	2.17	2.17	2.17	2.17	2.17
75+	22	1.07	1.32	1.42	1.04	1.04	5	0.67	0.48	0.27	0.00	0.00	12	0.97	1.11	1.17	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Total	16	*1.25	*1.42	*1.68	*2.58	*2.58	5	1.08	0.88	0.94	1.43	1.43	10	*1.21	*1.30	*1.53	*2.35	*2.35	*2.35	*2.35	*2.35	*2.35	*2.35
Total <65	15	*1.30	*1.47	*1.68	*2.64	*2.64	5	*1.13	0.95	0.97	1.50	1.50	10	*1.26	*1.35	*1.53	*2.41	*2.41	*2.41	*2.41	*2.41	*2.41	*2.41
1997-99																							
Total	21	*1.27	*1.28	*1.49	*1.65	*1.65	6	1.03	0.97	0.87	1.15	1.15	12	*1.22	*1.22	*1.37	*1.56	*1.56	*1.56	*1.56	*1.56	*1.56	*1.56
Total <65	20	*1.32	*1.28	*1.50	*1.69	*1.69	6	1.07	0.99	0.90	1.14	1.14	12	*1.26	*1.22	*1.38	*1.58	*1.58	*1.58	*1.58	*1.58	*1.58	*1.58
Total†	*1.28	*1.60	*1.62	*1.89	*2.15	*2.15	*1.17	*1.19	1.12	1.01	1.38	1.38	*1.25	*1.50	*1.51	*1.71	*2.00	*2.00	*2.00	*2.00	*2.00	*2.00	*2.00
Total <65†	*1.27	*1.65	*1.61	*1.89	*2.19	*2.19	*1.16	*1.22	1.13	1.03	1.36	1.36	*1.25	*1.55	*1.51	*1.72	*2.03	*2.03	*2.03	*2.03	*2.03	*2.03	*2.03

(continued)

Table 7.10 (continued): SMRs, average annual deaths and 'excess' deaths due to suicide, 2002-04 and 1997-99

	Males						Females						Persons					
	MC	IR	OR	R	VR		MC	IR	OR	R	VR		MC	IR	OR	R	VR	
Average annual number of excess deaths																		
2002-04																		
0-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-14	0	0	1	0	1	0	0	1	0	0	0	0	0	0	1	1	1	1
15-24	0	18	13	4	11	0	0	2	2	1	1	0	0	20	15	5	12	12
25-44	0	43	37	6	10	0	0	9	-1	-1	1	0	0	51	36	5	11	11
45-64	0	17	12	6	-1	0	0	-1	-4	-1	0	0	0	16	8	5	-1	-1
65-74	0	-2	1	2	1	0	0	0	-2	0	0	0	0	-2	-1	2	1	1
75+	0	2	4	1	0	0	0	-3	-2	0	0	0	0	-1	2	0	0	0
Excess total	0	77	66	18	22	0	0	7	-5	0	1	0	0	84	61	17	24	24
Deaths total	1,029	388	224	44	36	314	103	40	40	6	5	1,343	491	264	50	41	41	41
Excess <65	0	77	62	16	21	0	11	-2	-2	0	2	0	88	60	15	23	23	23
Deaths <65	885	333	194	39	34	267	90	37	37	6	5	1,152	424	231	45	39	39	39
1997-99																		
Excess total	0	101	57	17	12	0	3	-2	-2	-1	1	0	104	55	16	13	13	13
Excess total†	276	178	98	24	16	53	17	6	6	0	1	328	196	103	24	18	18	18
Deaths total	1,270	475	256	51	30	357	109	51	51	7	5	1,627	584	307	58	35	35	35
Excess <65	0	100	49	15	12	0	6	0	0	-1	1	0	106	48	15	12	12	12
Excess <65†	240	165	84	22	16	43	17	5	5	0	1	283	182	89	22	17	17	17
Deaths <65	1,112	417	221	46	29	306	95	45	45	7	4	1,418	512	265	53	33	33	33

Notes

- The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
- The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
- For further explanation, refer to section 2.3.

Table 7.11: SMIRs, average annual deaths and 'excess' deaths due to suicide, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons					
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous		
	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate
2002-04																		
0-4	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
5-14	0	0.83	3.22	11.10	0.00	*12.25	0	1.67	1.19	0.00	0.00	*15.43	0	1.21	2.31	6.19	0.00	*13.66
15-24	13	*1.55	*1.71	1.68	0.68	*6.24	3	1.22	0.96	1.28	0.87	*5.76	8	*1.48	*1.56	1.61	0.71	*6.73
25-44	23	*1.33	*1.53	1.24	1.12	*3.85	6	*1.22	0.97	0.68	0.73	*2.97	14	*1.31	*1.41	1.13	1.05	*3.65
45-64	17	*1.19	*1.27	*1.63	0.78	1.80	6	0.97	0.80	0.64	0.83	0.00	11	*1.13	1.15	1.40	0.79	1.80
65-74	18	0.92	1.09	*2.16	*3.26	1.63	5	0.96	0.57	1.09	1.49	0.00	11	0.93	0.99	*1.96	*2.98	1.63
75+	22	1.07	*1.38	1.24	1.37	0.00	5	0.70	0.51	0.29	0.00	0.00	12	0.97	1.16	1.03	1.11	0.00
Total	15	*1.25	*1.42	*1.48	1.11	*3.97	4	1.06	0.84	0.71	0.78	*3.92	10	*1.21	*1.29	*1.33	1.05	*3.96
Total <65	14	*1.31	*1.46	*1.44	0.96	*4.04	4	1.12	0.90	0.72	0.77	*3.92	9	*1.26	*1.34	*1.29	0.93	*4.02
1997-99																		
Total	20	*1.27	*1.26	*1.30	1.07	*3.34	6	1.05	0.91	0.82	0.85	*2.64	13	*1.22	*1.18	*1.21	1.03	*3.20
Total <65	20	*1.32	*1.25	*1.29	1.03	*3.34	6	1.09	0.91	0.83	0.76	*2.64	13	*1.27	*1.18	*1.21	0.99	*3.20
Total†	*1.36	*1.78	*1.76	*1.85	*1.54	<i>n.p.</i>	*1.27	*1.43	*1.24	1.15	1.21	<i>n.p.</i>	*1.34	*1.70	*1.65	*1.72	*1.48	<i>n.p.</i>
Total <65†	*1.38	*1.92	*1.82	*1.89	*1.51	<i>n.p.</i>	*1.28	*1.54	*1.30	1.20	1.11	<i>n.p.</i>	*1.36	*1.84	*1.71	*1.76	*1.44	<i>n.p.</i>

(continued)

Table 7.11 (continued): SMRs, average annual deaths and 'excess' deaths due to suicide, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons						
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			
	MC	IR	OR	R	VR	Indigenous	MC	IR	OR	R	VR	Indigenous	MC	IR	OR	R	VR	Indigenous	
Average annual number of excess deaths																			
2002-04																			
0-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-14	0	0	1	1	0	1	0	0	0	0	0	1	0	0	1	0	0	0	2
15-24	0	17	11	1	0	16	0	2	0	0	0	4	0	19	10	2	0	20	20
25-44	0	40	33	3	1	24	0	7	-1	-1	0	5	0	47	32	2	0	29	29
45-64	0	16	11	4	-1	2	0	-1	-3	-1	0	0	0	15	9	3	-1	2	2
65-74	0	-2	1	2	1	0	0	0	-1	0	0	0	0	-3	0	2	1	0	0
75+	0	2	4	0	0	0	0	-3	-2	0	0	0	0	-1	2	0	0	0	0
Excess total	0	73	61	11	1	44	0	6	-7	-2	0	10	0	78	54	9	1	54	54
Deaths total	967	363	204	33	10	58	295	96	35	4	2	13	1,262	459	239	37	11	72	72
Excess <65	0	73	55	9	0	43	0	9	-4	-1	0	10	0	82	52	7	-1	53	53
Deaths <65	829	311	175	28	8	58	250	83	31	4	1	13	1,079	394	206	32	9	71	71
1997-99																			
Excess total	0	98	48	9	1	39	0	5	-5	-1	0	7	0	103	44	8	0	46	46
Excess total†	328	200	102	18	5	n.p.	74	32	9	1	0	n.p.	402	232	111	19	5	n.p.	n.p.
Deaths total	1,231	458	236	40	13	56	349	107	45	6	2	11	1,580	565	281	45	15	67	67
Excess <65	0	97	40	8	0	39	0	7	-4	-1	-1	7	0	104	36	7	0	46	46
Excess <65†	295	192	90	17	4	n.p.	66	33	9	1	0	n.p.	360	225	99	18	4	n.p.	n.p.
Deaths <65	1,076	401	201	35	12	56	298	93	39	5	2	11	1,374	494	240	41	13	67	67

Notes

1. The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
2. The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
3. For further explanation, refer to section 2.3.

7.2 Interpersonal violence

Highlights

Interpersonal violence was responsible for 0.2% of all deaths, and 1% and 2–3% of all excess deaths, respectively, in regional and remote areas.

Death rates for males are about the same as those for females.

Death rates for Indigenous Australians were about 10 times higher than the rates for non-Indigenous Australians in Major Cities, driving much of the higher interpersonal violence mortality for the population in Very Remote areas.

For males, SMRs increase with remoteness, rising from 1.0 in Inner Regional areas and 1.4 in Outer Regional areas to 6.5 in Very Remote areas.

For females, SMRs increase with remoteness, rising from close to 1.0 in regional areas to 7.4 in Very Remote areas.

For non-Indigenous Australian males and females in regional and remote areas, SMRs were not significantly different from 1.0.

Since 1992, death rates have tended to decline in all areas.

Interpersonal violence (ICD-10 codes X85–Y09) includes the killing of one person by another in an act of homicide (which includes situations in which the intent may, or may not, have been to kill the person).

On average during the period, interpersonal violence was responsible for 244 deaths annually – this is 0.2% of all deaths. Two-thirds (66%) were male; 60% were in Major Cities, 31% in regional areas and 10% in remote areas.

Overall interpersonal violence death rates for Indigenous Australians were 10 times higher than the rates for non-Indigenous Australians in Major Cities.

In regional areas:

Death rates in Inner Regional areas were similar and in Outer Regional areas were 35% higher than in Major Cities.

For 0–64 year olds, death rates in Inner Regional areas were similar and in Outer Regional areas were 1.4 times those in Major Cities.

For non-Indigenous Australians, rates in regional areas were not significantly different from those in Major Cities.

Annually there are 42 and 27 deaths in Inner Regional and Outer Regional areas; about 70% were male.

Annually there were 2 and 7 ‘excess’ deaths in Inner Regional and Outer Regional areas; this is less than 1% of all ‘excess’ deaths in Inner Regional and Outer Regional areas. Almost all of the ‘excess’ deaths were male. The bulk of the excess deaths were among 24–44 year olds in Inner Regional areas and 25–64 year olds in Outer Regional areas.

Compared with the previous reporting period (1997–99), there were 6 fewer deaths of males and 5 fewer deaths of females annually in 2002–04.

The 12-year trend (AIHW 2006a) is for little change for males in Inner Regional areas, a decline for males in Outer Regional areas and the suggestion of a decline for females in regional areas generally.

In remote areas:

Death rates in Remote and Very Remote areas were 2.6 and 6.8 times those in Major Cities.

For 0–64 year olds, death rates in Remote and Very Remote areas were 2.6 and 7.0 times those in Major Cities.

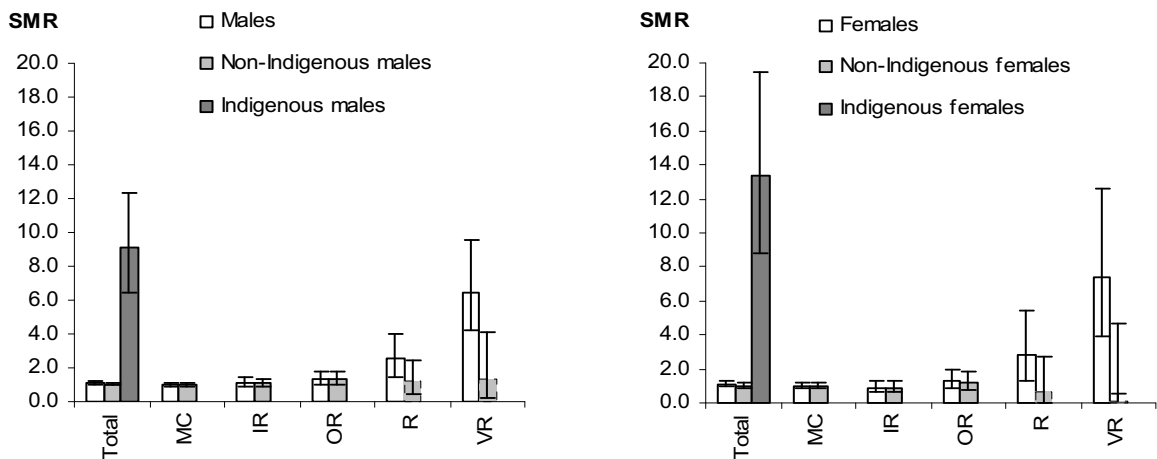
Death rates for remote area non-Indigenous Australians were not significantly different from those in Major Cities. The implication is that higher death rates in remote areas reflects the substantial presence of Indigenous Australians in these areas coupled with higher rates of death for Indigenous Australians overall.

Annually there are 9 and 13 deaths in Remote and Very Remote areas; about 64% were male.

Annually there were 5 and 11 'excess' deaths in Remote and Very Remote areas; this is 2% and 3% of all 'excess' deaths in Remote and Very Remote areas. The bulk of the 'excess' deaths was in the 15–24 year olds and especially in the 25–44 year olds.

Compared with the previous reporting period (1997–99), there were 2 fewer deaths of males and 5 fewer deaths of females annually in 2002–04.

In the 12-year period 1992–2003 (AIHW 2006a) there was little change in mortality for remote area males, but a decline for females (at least in Very Remote areas).

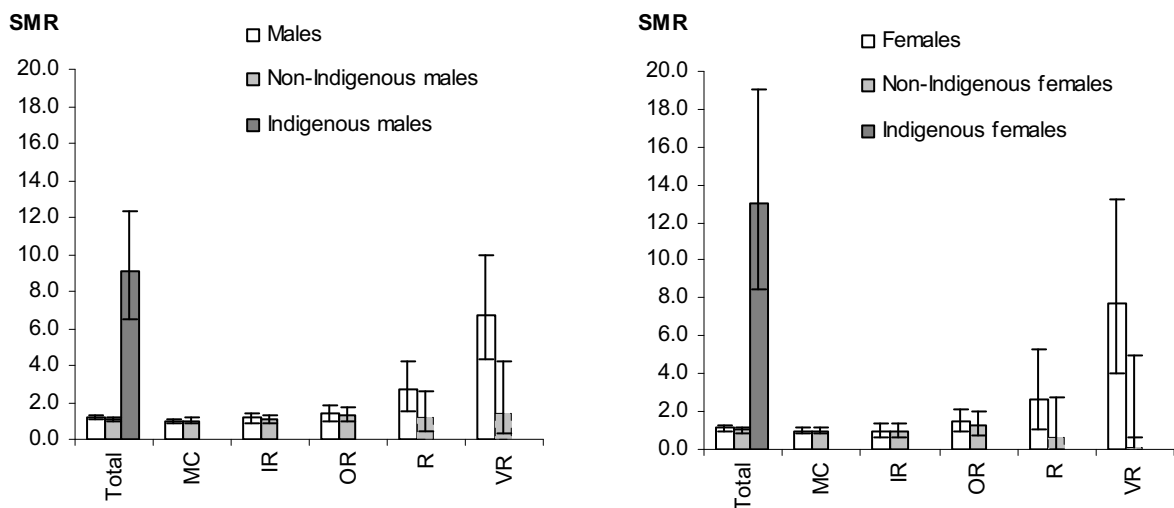


Notes

1. While the figure allows comparison of deaths between areas for each sex, it does not allow comparison between the sexes.
2. The presented SMR is the ratio of the observed number of deaths to the number expected if Major Cities rates applied in each area.
3. SMRs calculated for non-Indigenous Australian persons from Remote and Very Remote areas (dashed) should be treated with caution (see Appendix A).
4. The SMRs for Indigenous Australian persons are for Qld, WA, SA and NT combined (see Appendix A).

Source: AIHW mortality database.

Figure 7.10: Interpersonal violence SMRs, by sex, 2002-04



Note: See notes for Figure 7.10.

Figure 7.11: Interpersonal violence SMRs for people aged 64 years and under, by sex, 2002-04

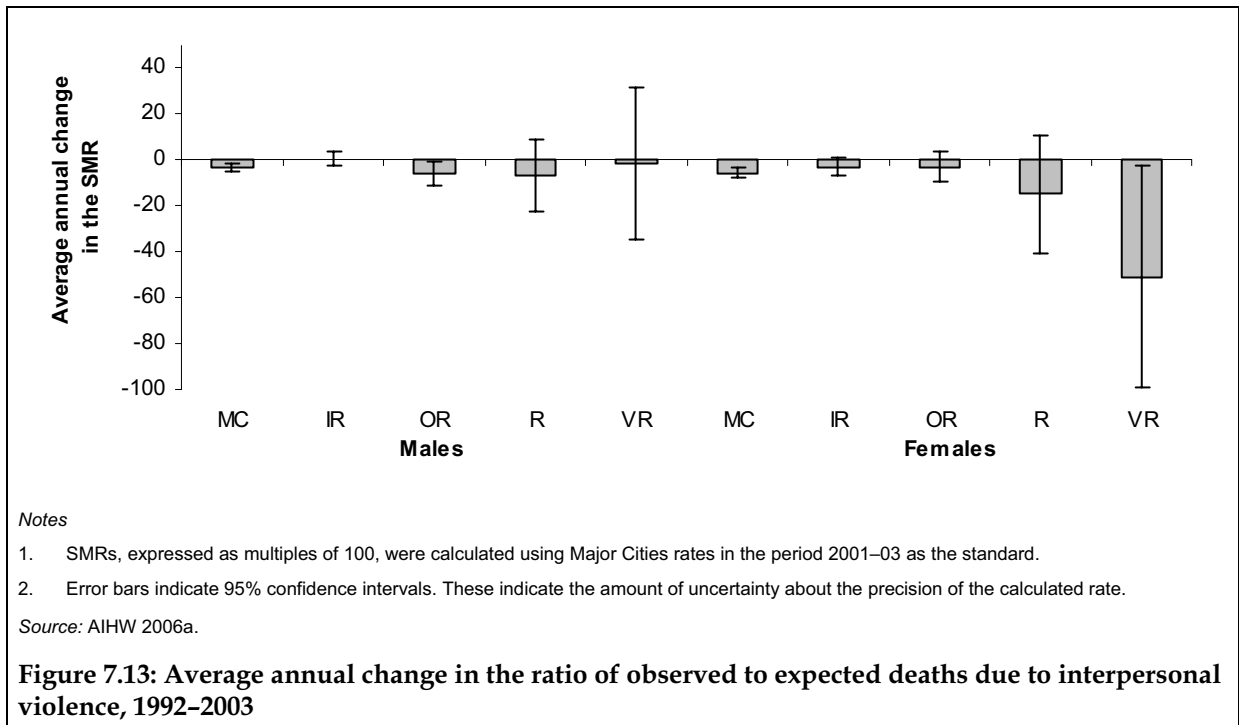
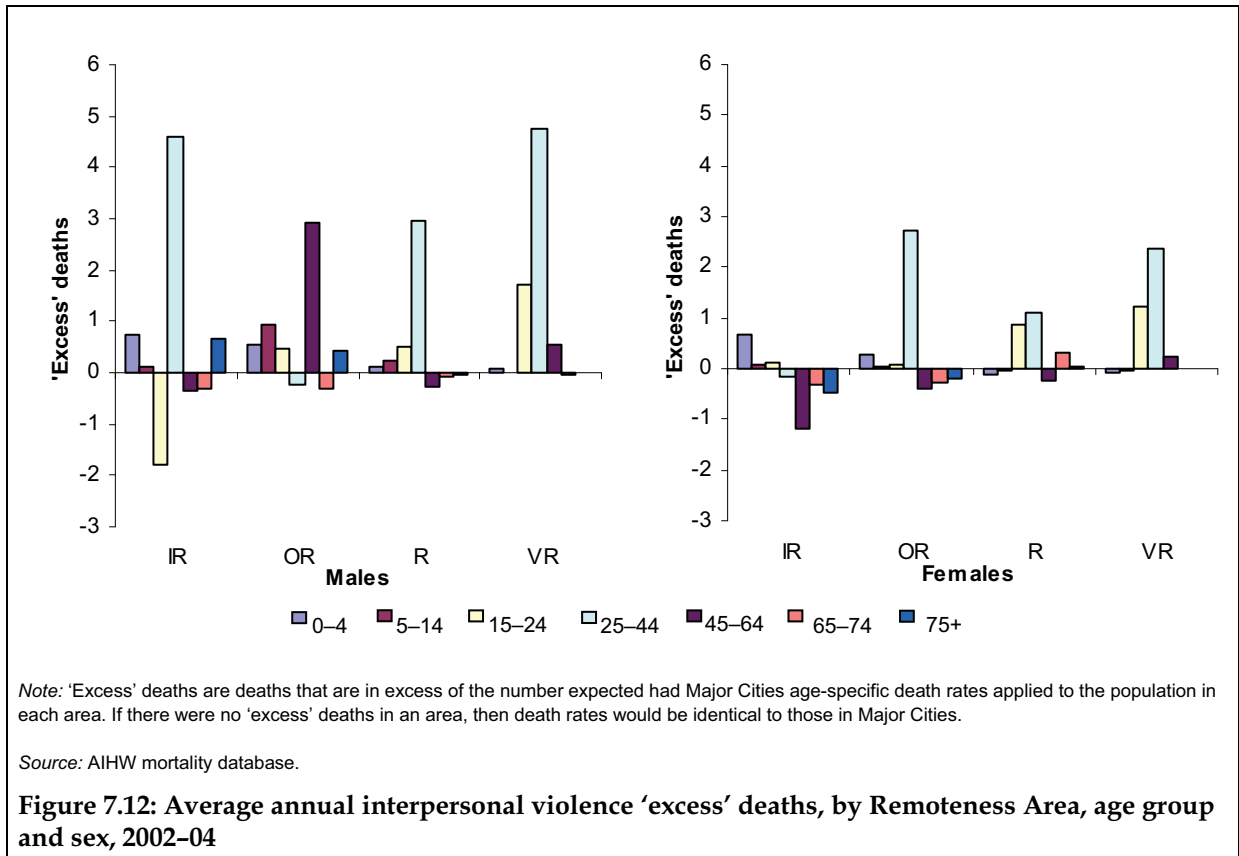


Table 7.12: SMIRs, average annual deaths and 'excess' deaths due to interpersonal violence, 2002-04 and 1997-99

	Males						Females						Persons						
	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate	
	Rate		Ratio				Rate		Ratio				Rate		Ratio				
2002-04																			
0-4	1	1.74	2.00	2.00	2.08	1	1.54	1.42	1.42	0.10	0.00	1	1.63	1.68	1.68	0.97	0.94		
5-14	0	1.49	9.04	12.97	0.00	0	1.14	1.12	1.12	0.00	0.00	0	1.24	3.37	3.37	3.77	0.00		
15-24	2	0.66	1.19	2.25	*7.30	1	1.06	1.08	1.08	7.16	13.30	1	0.77	1.16	1.16	*3.53	*8.91		
25-44	2	*1.42	0.96	*3.71	*8.42	1	0.97	*2.09	*2.09	*3.50	*10.53	1	1.28	1.30	1.30	*3.65	*9.02		
45-64	1	0.94	*1.88	0.44	3.13	1	0.65	0.75	0.75	0.00	3.31	1	0.84	1.52	1.52	0.31	3.18		
65-74	1	0.76	0.52	0.00	0.00	0	0.52	0.05	0.05	10.62	0.00	1	0.69	0.38	0.38	3.01	0.00		
75+	0	2.26	2.85	0.00	0.00	1	0.53	0.57	0.57	1.96	0.00	1	1.11	1.37	1.37	1.21	0.00		
Total	1	1.14	*1.36	*2.52	*6.49	1	0.91	1.34	1.34	*2.85	*7.35	1	1.06	*1.35	*1.35	*2.63	*6.76		
Total <65	1	1.14	*1.38	*2.65	*6.70	1	0.96	1.46	1.46	*2.63	*7.69	1	1.08	*1.40	*1.40	*2.64	*7.01		
1997-99																			
Total	2	*0.80	1.03	*1.82	*4.07	1	0.92	1.05	1.05	*3.15	*9.26	1	*0.84	1.04	1.04	*2.19	*5.50		
Total <65	2	*0.78	0.97	*1.87	*4.19	1	1.01	1.01	1.01	*3.06	*9.77	2	0.85	0.98	0.98	*2.20	*5.69		
Total†	*1.38	1.13	*1.45	*2.55	*5.72	*1.20	1.12	1.25	1.25	*3.57	*10.36	*1.32	1.12	*1.38	*1.38	*2.88	*7.22		
Total <65†	*1.37	1.08	*1.35	*2.61	*5.87	1.13	1.14	1.13	1.13	*3.33	*10.67	*1.28	1.10	*1.28	*1.28	*2.85	*7.41		

(continued)

Table 7.12 (continued): SMRs, average annual deaths and 'excess' deaths due to interpersonal disease, 2002-04 and 1997-99

	Males				Females				Persons						
	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR
Average annual number of excess deaths															
2002-04															
0-4	0	1	1	0	0	0	1	0	0	0	0	1	1	0	0
5-14	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
15-24	0	-2	0	0	2	0	0	0	1	1	0	-2	1	1	3
25-44	0	5	0	3	5	0	0	3	1	2	0	4	2	4	7
45-64	0	0	3	0	1	0	-1	0	0	0	0	-2	3	-1	1
65-74	0	0	0	0	0	0	0	0	0	0	0	-1	-1	0	0
75+	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Excess total	0	4	5	3	7	0	-1	2	2	4	0	2	7	5	11
Deaths total	87	30	18	6	8	46	13	9	3	4	134	42	27	9	13
Excess <65	0	3	5	4	7	0	0	3	2	4	0	3	7	5	11
Deaths <65	82	27	17	6	8	41	12	9	3	4	124	39	26	8	13
1997-99															
Excess total	0	-8	1	3	6	0	-1	1	3	7	0	-9	1	6	13
Excess total†	37	4	7	4	7	11	2	2	3	7	48	5	9	7	14
Deaths total	133	32	22	7	9	63	17	10	5	7	197	49	32	11	16
Excess <65	0	-8	-1	3	6	0	0	0	3	7	0	-8	-1	6	13
Excess <65†	34	2	5	4	7	6	2	1	3	7	40	4	6	7	14
Deaths <65	126	29	19	7	9	55	16	8	4	7	181	45	28	11	16

Notes

1. The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
2. The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
3. For further explanation, refer to section 2.3.

Table 7.13: SMIRs, average annual deaths and 'excess' deaths due to interpersonal violence for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons						
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			
	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate	
2002-04																			
0-4	1	0.48	0.72	0.00	0.00	4.79	1	1.74	1.07	0.14	0.00	2.11	1	1.14	0.90	0.07	0.00	3.37	
5-14	0	1.53	6.73	16.06	0.00	11.35	0	1.16	1.21	0.00	0.00	0.00	0	1.26	2.78	4.64	0.00	11.35	
15-24	2	0.63	1.11	1.89	2.94	*5.23	1	0.89	0.35	0.12	0.00	*18.74	1	0.70	0.91	1.45	2.24	*9.08	
25-44	2	*1.44	0.93	1.51	1.83	*13.05	1	0.94	*2.08	1.29	0.21	*15.43	1	1.29	1.28	1.45	1.40	*13.74	
45-64	1	0.89	*1.97	0.00	0.00	*6.07	1	0.70	0.59	0.00	0.00	*13.02	1	0.83	1.54	0.00	0.00	*7.72	
65-74	1	0.77	0.53	0.00	0.00	0.00	0	0.65	0.06	0.00	0.00	45.86	1	0.73	0.41	0.00	0.00	45.86	
75+	0	2.26	2.87	0.00	0.00	0.00	1	0.53	0.57	2.05	0.00	0.00	1	1.11	1.38	1.27	0.00	0.00	
Total	1	1.08	1.30	1.17	1.38	*9.08	1	0.91	1.17	0.67	0.10	*13.33	1	1.02	1.26	1.01	1.01	*10.42	
Total <65	1	1.07	1.32	1.24	1.44	*9.08	1	0.96	1.27	0.62	0.10	*12.98	1	1.03	1.30	1.05	1.06	*10.30	
1997-99																			
Total	2	*0.77	0.92	1.35	2.18	*6.32	1	0.92	0.72	1.49	2.41	*12.65	2	*0.82	0.86	1.39	*2.24	*8.47	
Total <65	2	*0.74	0.84	1.38	2.25	*6.32	1	1.00	0.62	1.20	2.58	*12.65	2	*0.82	*0.78	1.33	*2.34	*8.47	
Total†	*1.63	*1.65	*2.00	*3.06	*5.06	n.p.	*1.46	*1.77	1.40	*2.96	4.89	n.p.	*1.57	*1.69	*1.79	*3.03	*5.01	n.p.	
Total <65†	*1.66	*1.68	*1.94	*3.28	*5.41	n.p.	*1.44	*2.04	1.27	2.49	*5.40	n.p.	*1.58	*1.80	*1.72	*3.04	*5.41	n.p.	

(continued)

Table 7.13 (continued): SMRs, average annual deaths and 'excess' deaths due to interpersonal violence for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons								
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous					
	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR	
Average annual number of excess deaths																					
2002-04																					
0-4	0	-1	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
5-14	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
15-24	0	-2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	-2	0	0	0	5
25-44	0	4	0	0	0	8	0	0	2	0	0	0	0	0	0	4	0	2	1	0	12
45-64	0	-1	3	0	0	1	0	-1	-1	0	0	0	0	0	0	-2	2	2	-1	0	1
65-74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	0	0	0
75+	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Excess total	0	2	4	0	0	12	0	-1	1	0	0	0	0	0	0	1	5	0	0	0	20
Deaths total	80	25	15	2	1	13	42	11	7	1	0	9	122	37	22	3	1	22	3	1	22
Excess <65	0	1	3	0	0	12	0	0	1	0	0	8	0	1	5	0	0	0	0	0	20
Deaths <65	75	23	14	2	1	13	38	10	7	0	0	9	113	34	21	3	1	22	3	1	22
1997-99																					
Excess total	0	-9	-2	1	2	11	0	-2	-2	1	1	12	0	-10	-4	2	2	23			
Excess total†	49	11	9	3	2	n.p.	20	7	2	1	1	n.p.	69	19	11	4	3	n.p.			
Deaths total	127	29	18	4	3	13	62	17	6	2	1	13	189	45	24	6	4	26			
Excess <65	0	-9	-3	1	2	11	0	0	-3	0	1	12	0	-9	-6	1	2	23			
Excess <65†	47	10	7	3	2	n.p.	16	8	1	1	1	n.p.	64	18	8	4	3	n.p.			
Deaths <65	119	26	15	4	3	13	54	16	5	1	1	13	173	41	20	6	4	26			

Notes

- The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
- The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
- For further explanation, refer to section 2.3.

7.3 Falls

Highlights

Falls were responsible for 0.6% of all deaths.

There were fewer deaths than expected in regional areas, and about as many as expected in remote areas.

Death rates for males were about the same as those for females.

Death rates for Indigenous Australians were about five times higher than the rates for non-Indigenous Australians in Major Cities.

SMRs in regional and remote areas tended to be lower than or close to 1.0.

For non-Indigenous Australians, SMRs also tended to be lower than or close to 1.0.

Accidental falls are defined here by the ICD-10 codes W00–W19.

On average during the period, falls were responsible for 737 deaths annually – this is 0.6% of all deaths. Half (51%) were male; 68% were in Major Cities, 30% in regional areas and 2% in remote areas.

Overall fall-related death rates for Indigenous Australians were 4.5 times higher than the rates for non-Indigenous Australians in Major Cities.

In regional areas:

Death rates for males were about 0.9 times those in Major Cities, while for females, rates in regional areas were not significantly different from those in Major Cities.

For 0–64 year olds, death rates were not significantly different from those in Major Cities.

The inter-regional pattern for non-Indigenous Australians was similar to that above.

Annually there are 148 and 72 deaths in Inner Regional and Outer Regional areas; about 50% were male.

Annually there were 22 and 5 fewer deaths than expected in Inner Regional and Outer Regional areas.

Compared with the previous reporting period (1997–99), there were 24 more deaths of males and 39 more deaths of females annually in 2002–04.

In remote areas:

Death rates in remote areas were not significantly different from those in Major Cities.

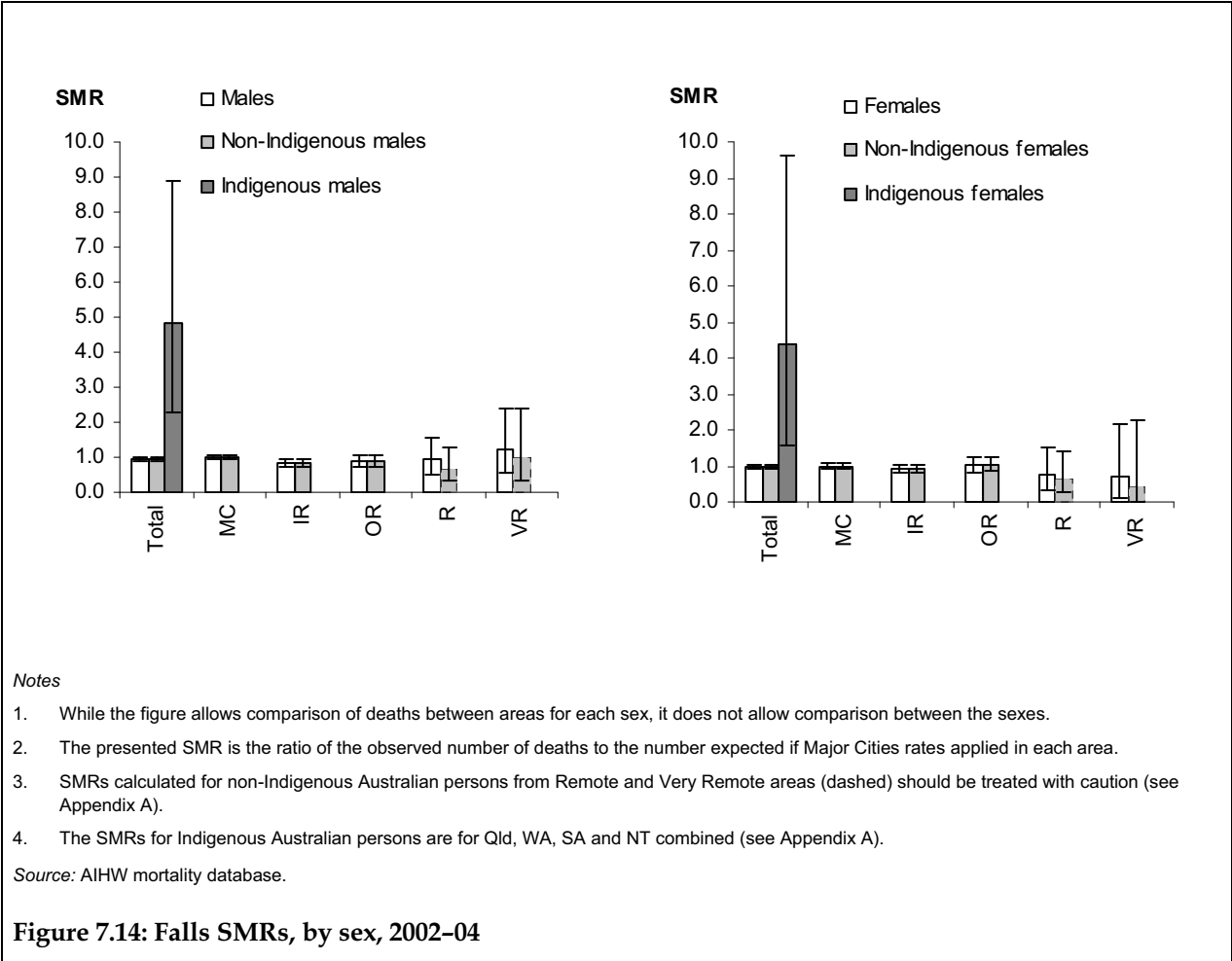
For 0–64 year olds, death rates in Remote areas were elevated, but not significantly higher than in Major Cities, while in Very Remote areas, rates were 2.3 times those in Major Cities.

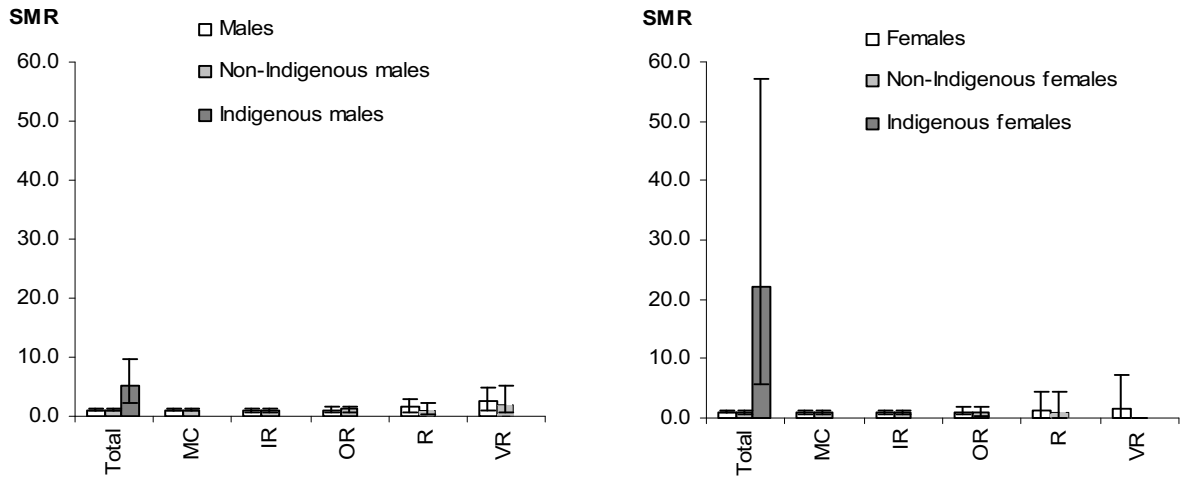
Death rates for remote area non-Indigenous Australians were not significantly different from those in Major Cities.

Annually there are 8 and 4 deaths in Remote and Very Remote areas; about 67% were male.

Annually there were -1 and 0 'excess' deaths in Remote and Very Remote areas. There was a very small excess amongst 25-64 year olds, however, this was negated by fewer deaths than expected amongst those 75 years or older.

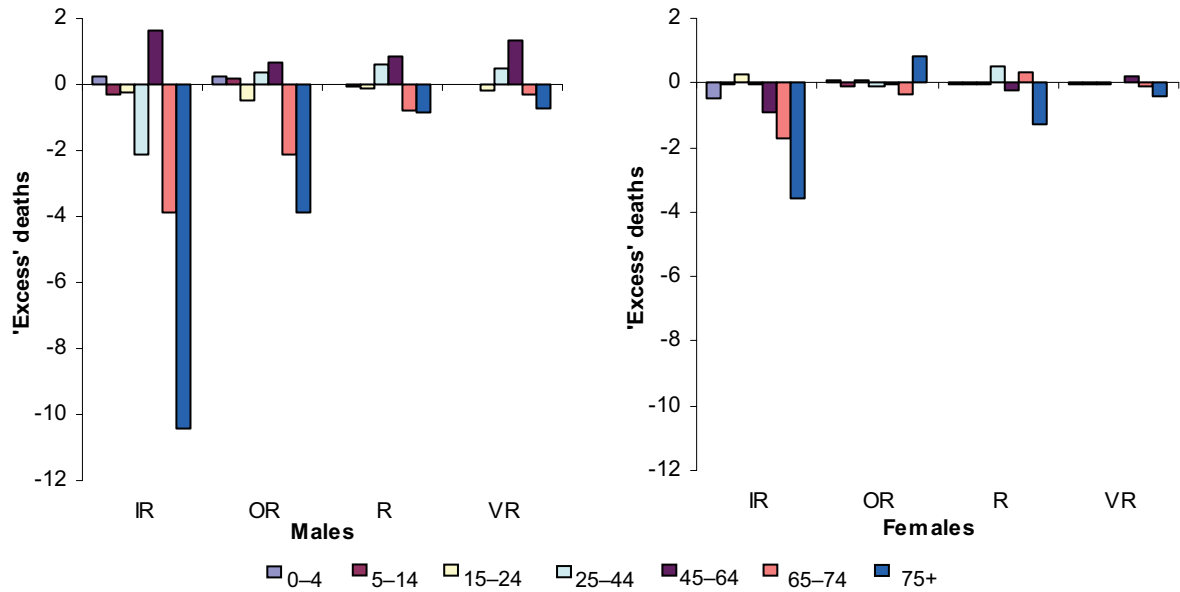
Compared with the previous reporting period (1997-99), there was 1 less male death and the same number of female deaths annually in 2002-04.





Note: See notes for Figure 7.14.

Figure 7.15: Falls SMRs for persons aged 64 years and under, by sex, 2002–04



Note: 'Excess' deaths are deaths that are in excess of the number expected had Major Cities age-specific death rates applied to the population in each area. If there were no 'excess' deaths in an area, then death rates would be identical to those in Major Cities.

Source: AIHW mortality database.

Figure 7.16: Average annual falls 'excess' deaths, by Remoteness Area, age group and sex, 2002–04

Table 7.14: SMIRs, average annual deaths and 'excess' deaths due to falls, 2002-04 and 1997-99

	Males						Females						Persons						
	MC		OR		VR		MC		OR		VR		MC		OR		VR		
	Rate	IR	Ratio	R	OR	VR	Rate	IR	Ratio	R	OR	VR	Rate	IR	Ratio	R	OR	VR	
2002-04																			
0-4	0	3.47	5.34	0.00	0.00	0.00	0	0.05	1.22	0.00	0.00	0.00	0	0.62	1.91	0.00	0.00	0.00	0.00
5-14	0	0.08	1.89	0.00	0.00	0.00	0	0.95	0.65	0.00	0.00	0.00	0	0.62	1.12	0.00	0.00	0.00	0.00
15-24	1	0.93	0.71	0.44	0.06	0.06	0	1.52	1.41	0.00	0.00	0.00	1	1.01	0.80	0.38	0.38	0.05	0.05
25-44	2	0.74	1.08	1.73	2.07	2.07	0	0.97	0.90	4.65	1.42	1.42	1	0.78	1.05	2.15	2.15	1.98	1.98
45-64	2	1.12	1.10	1.86	*3.81	*3.81	1	0.80	0.99	0.10	2.70	2.70	2	1.04	1.08	1.47	1.47	*3.58	*3.58
65-74	9	0.72	0.68	0.06	0.00	0.00	5	0.77	0.89	1.88	0.13	0.13	7	*0.74	0.75	0.62	0.62	0.04	0.04
75+	45	*0.79	0.83	0.66	0.19	0.19	42	0.95	1.03	0.51	0.49	0.49	43	*0.88	0.94	0.58	0.58	0.33	0.33
Total	4	*0.83	0.88	0.94	1.25	1.25	4	0.92	1.01	0.76	0.69	0.69	4	*0.87	0.94	0.87	0.87	1.05	1.05
Total <65	1	0.97	1.08	1.60	*2.44	*2.44	0	0.84	0.99	1.19	1.54	1.54	1	0.94	1.06	1.52	1.52	*2.26	*2.26
1997-99																			
Total	3	0.87	1.11	1.39	1.70	1.70	2	1.19	*1.30	1.84	2.02	2.02	2	0.99	*1.18	*1.53	*1.53	1.79	1.79
Total <65	1	0.80	*1.40	*2.14	2.26	2.26	0	0.80	0.57	0.91	4.81	4.81	1	0.80	1.25	*1.93	*1.93	*2.66	*2.66
Total†	*0.86	*0.75	0.95	1.19	1.45	1.45	*0.70	*0.84	0.92	1.32	1.49	1.49	*0.79	*0.79	0.94	1.24	1.24	1.46	1.46
Total <65†	0.89	*0.72	1.27	*1.90	1.98	1.98	1.01	0.81	0.57	0.89	4.59	4.59	0.91	*0.74	1.16	1.74	1.74	*2.36	*2.36

(continued)

Table 7.14 (continued): SMRs, average annual deaths and 'excess' deaths due to falls, 2002-04 and 1997-99

	Males						Females						Persons					
	MC	IR	OR	R	VR		MC	IR	OR	R	VR		MC	IR	OR	R	VR	
	Average annual number of excess deaths																	
2002-04																		
0-4	0	0	0	0	0	0	0	-1	0	0	0	0	0	0	0	0	0	
5-14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15-24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
25-44	0	-2	0	1	1	0	0	0	0	0	0	0	0	-2	0	1	1	
45-64	0	2	1	1	1	0	-1	0	0	0	0	0	0	1	1	1	2	
65-74	0	-4	-2	-1	0	0	-2	0	0	0	0	0	0	-6	-2	0	0	
75+	0	-10	-4	-1	-1	0	-4	1	1	-1	0	0	0	-14	-3	-2	-1	
Excess total	0	-15	-5	0	1	0	-6	0	0	-1	0	0	0	-22	-5	-1	0	
Deaths total	255	74	36	5	3	243	74	35	35	3	1	498	148	148	72	8	4	
Excess <65	0	-1	1	1	2	0	-1	0	0	0	0	0	0	-2	1	1	2	
Deaths <65	81	24	14	3	3	24	6	4	4	1	0	105	31	31	17	4	3	
1997-99																		
Excess total	0	-8	3	2	1	0	7	5	5	2	1	0	-1	8	3	2	2	
Excess total†	-30	-18	-2	1	1	-52	-9	-2	-2	1	0	-83	-27	-4	2	1	1	
Deaths total	180	53	33	6	3	122	47	23	23	3	1	302	99	56	9	5	5	
Excess <65	0	-5	5	2	1	0	-1	-1	-1	0	1	0	-6	4	2	2	2	
Excess <65†	-9	-7	4	2	1	0	-1	-1	-1	0	1	-9	-8	3	2	2	2	
Deaths <65	76	19	17	4	2	17	4	2	2	0	1	93	23	19	5	3	3	

Notes

- The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
- The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
- For further explanation, refer to section 2.3.

Table 7.15: SMIRs, average annual deaths and 'excess' deaths due to falls, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons					
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous		
	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate
2002-04																		
0-4	0	1.42	3.66	0.00	0.00	22.85	0	0.06	1.67	0.00	0.00	0.00	0	0.34	2.07	0.00	0.00	22.85
5-14	0	0.08	2.05	0.00	0.00	0.00	0	0.97	0.70	0.00	0.00	0.00	0	0.64	1.21	0.00	0.00	0.00
15-24	1	0.99	0.82	0.57	0.14	0.00	0	1.55	1.51	0.00	0.00	0.00	1	1.07	0.91	0.50	0.12	0.00
25-44	1	0.78	1.10	0.64	2.17	3.08	0	0.98	0.94	3.38	0.00	17.02	1	0.81	1.07	1.04	1.88	*3.68
45-64	2	1.16	1.18	1.27	2.44	*9.36	1	0.79	0.92	0.12	0.00	*24.53	2	1.06	1.12	1.03	1.99	*12.74
65-74	9	*0.69	0.65	0.06	0.00	3.27	5	0.78	0.90	2.00	0.20	0.00	7	*0.72	0.73	0.66	0.06	3.27
75+	44	*0.78	0.83	0.71	0.25	0.00	41	0.94	1.05	0.44	0.57	1.68	42	*0.87	0.95	0.57	0.40	1.68
Total	4	*0.82	0.89	0.69	1.01	*4.82	4	0.92	1.03	0.67	0.43	*4.38	4	*0.87	0.95	0.68	0.81	*4.64
Total <65	1	1.00	1.13	0.94	2.06	*5.08	0	0.86	0.99	0.93	0.00	*22.09	1	0.96	1.10	0.94	1.70	*6.66
1997-99																		
Total	3	0.87	1.12	1.25	1.63	*5.32	2	*1.20	*1.31	1.77	0.91	*7.41	2	1.00	*1.19	1.42	1.43	*5.88
Total <65	1	0.79	*1.39	1.84	1.89	*5.32	0	0.83	0.61	0.90	0.00	*15.77	1	0.79	1.25	1.69	1.63	*6.38
Total†	*0.84	*0.66	0.86	1.05	1.44	<i>n.p.</i>	*0.60	*0.54	*0.60	0.83	0.43	<i>n.p.</i>	*0.72	*0.60	*0.73	0.95	1.03	<i>n.p.</i>
Total <65†	1.04	1.10	*1.95	*2.56	2.61	<i>n.p.</i>	0.96	0.64	0.47	0.70	0.00	<i>n.p.</i>	1.02	0.97	*1.54	*2.08	2.03	<i>n.p.</i>

(continued)

Table 7.15 (continued): SMRs, average annual deaths and 'excess' deaths due to falls, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons								
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous					
	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR	
Average annual number of excess deaths																					
2002-04																					
0-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-44	0	-2	0	0	0	1	0	0	0	0	0	0	0	0	-2	0	0	0	0	0	1
45-64	0	2	1	0	1	1	0	0	0	0	0	1	0	1	1	0	0	0	0	0	2
65-74	0	-4	-2	-1	0	0	0	-2	0	0	0	0	0	-6	-3	0	0	0	0	0	0
75+	0	-11	-4	-1	-1	0	0	-4	1	-1	0	0	0	-15	-2	-2	0	0	-1	0	0
Excess total	0	-15	-4	-1	0	3	0	-7	1	-1	0	0	2	-22	-3	0	0	0	0	0	4
Deaths total	247	71	35	3	2	3	238	72	35	2	0	2	485	143	70	6	2	5	5	4	4
Excess <65	0	0	2	0	1	2	0	-1	0	0	0	1	0	-1	1	0	0	1	0	1	4
Deaths <65	77	23	13	2	1	3	22	6	3	0	0	1	99	30	17	2	1	4	4	4	4
1997-99																					
Excess total	0	-8	3	1	1	3	0	8	5	1	0	2	0	0	9	2	1	5	5	5	5
Excess total†	-33	-27	-5	0	1	n.p.	-80	-38	-15	-1	-1	n.p.	-113	-65	-20	0	0	n.p.	0	0	n.p.
Deaths total	175	52	32	5	2	4	119	46	22	3	0	2	294	97	55	8	3	6	6	6	6
Excess <65	0	-5	5	2	1	3	0	-1	-1	0	0	1	0	-6	4	2	1	4	4	4	4
Excess <65†	3	2	8	2	1	n.p.	-1	-2	-2	0	0	n.p.	2	-1	6	2	1	n.p.	2	1	n.p.
Deaths <65	73	18	16	3	1	4	17	4	2	0	0	1	90	22	18	4	1	5	5	5	5

Notes

- The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
- The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
- For further explanation, refer to section 2.3.

7.4 Motor vehicle traffic accidents

Highlights

Motor vehicle traffic accidents were responsible for 1.2% of all deaths, and for about 10% of all excess deaths in regional and remote areas.

Death rates for males are about two to three times those for females.

Death rates for Indigenous Australians were about five times higher than the rates for non-Indigenous Australians in Major Cities.

For males and females, SMRs in regional areas are about 2–2.4, rising to 5.4 in Very Remote areas (SMRs for non-Indigenous Australians were similar to these, except in Very Remote areas, where the SMR was 3.0). SMRs were high in all age groups.

Since 1992, death rates have declined in all areas.

Motor vehicle traffic accidents include accidents that occur on public roads and that involve a motor vehicle. For example, a car occupant, pedestrian or cyclist struck by a motor vehicle on a public road would be included, as would a car occupant killed in a collision with a train. However, a car occupant killed in an off-road accident or a cyclist killed after falling off a bicycle are not included. Motor vehicles include motorcycles, cars, vans and utilities, trucks and buses.

The ICD-10 codes used are too complicated to list here—see Appendix B, where they are listed.

On average during the period, motor vehicle traffic accidents were responsible for 1,551 deaths annually—this is 1.2% of all deaths. Three-quarters (72%) were male; 49% were in Major Cities, 45% in regional areas and 6% in remote areas.

Motor vehicle traffic accidents however, are responsible for about 10% of all the extra deaths in regional and remote areas that raise overall death rates in those areas.

Overall motor vehicle traffic accident death rates for Indigenous Australians were five times higher than the rates for non-Indigenous Australians in Major Cities.

In regional areas:

Death rates in Inner Regional and Outer Regional areas were 2.0 and 2.2 times those in Major Cities.

For 0–64 year olds, death rates in Inner Regional and Outer Regional areas were 2.2 and 2.3 times those in Major Cities.

The inter-regional pattern for non-Indigenous Australians was similar to that above.

Annually there are 443 and 239 deaths in Inner Regional and Outer Regional areas; about 72% were male.

Annually there were 219 and 129 ‘excess’ deaths in Inner Regional and Outer Regional areas; this is 10% and 8% of all ‘excess’ deaths in Inner Regional and Outer Regional areas. About three-quarters (72%) of the ‘excess’ deaths were male. The excess was spread amongst the broad 15–64 year age group.

Compared with the previous reporting period (1997–99), there were 11 fewer deaths of males and 24 fewer deaths of females annually in 2002–04.

The 12-year trend (AIHW 2006a) is for decreasing death rates.

In remote areas:

Death rates in Remote and Very Remote areas were 2.5 and 5.4 times those in Major Cities. The pattern was similar for 0–64 year olds.

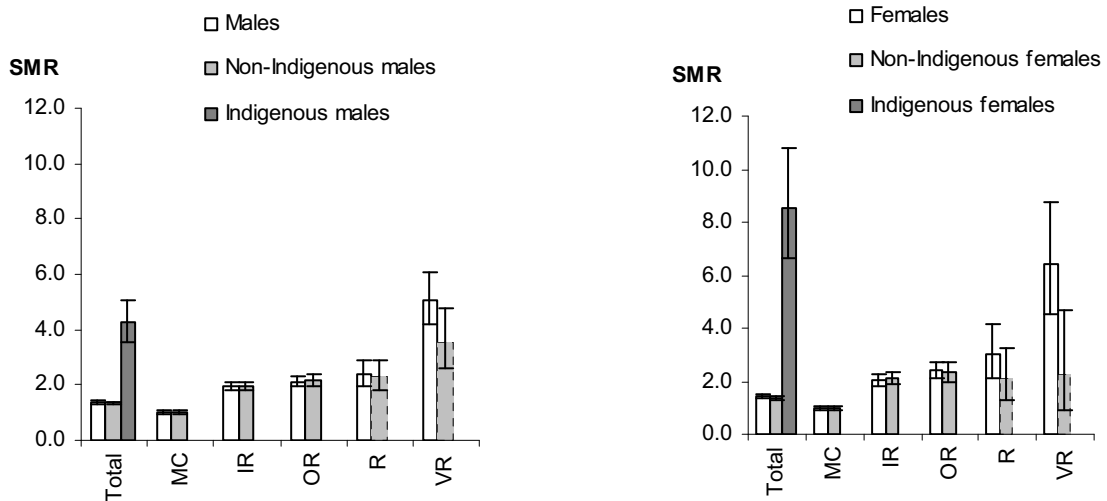
Death rates for remote area non-Indigenous Australians were lower than for the total population in remote areas, death rates in Remote and Very Remote areas being 2.3 and 3.3 times those in Major Cities.

Annually there are 43 and 52 deaths in Remote and Very Remote areas; about 74% were male.

Annually there were 26 and 42 ‘excess’ deaths in Remote and Very Remote areas; this is 9% and 10% of all ‘excess’ deaths in Remote and Very Remote areas. Three-quarters (74%) of these were male. In Remote areas, the bulk of the excess deaths were in the 15–65 year age group; in Very Remote areas the bulk was in the 15–44 year age groups.

Compared with the previous reporting period (1997–99), there were 4 fewer deaths of males and 2 more deaths of females annually in 2002–04.

In the 12-year period 1992–2003 (AIHW 2006a) death rates appear to have declined, but the declines are not significantly different from zero.

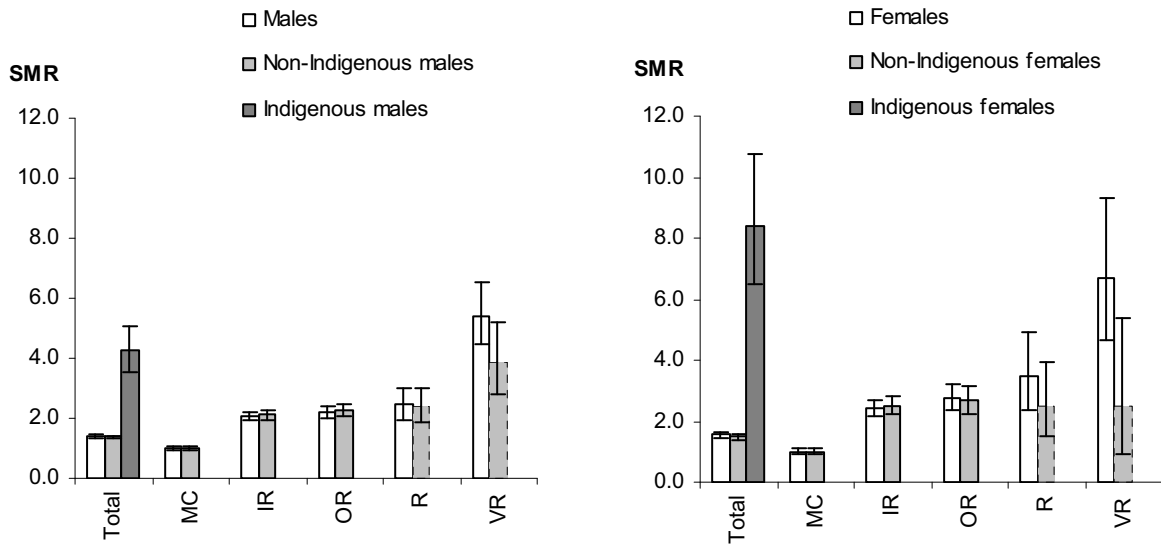


Notes

1. While the figure allows comparison of deaths between areas for each sex, it does not allow comparison between the sexes.
2. The presented SMR is the ratio of the observed number of deaths to the number expected if Major Cities rates applied in each area.
3. SMRs calculated for non-Indigenous Australian persons from Remote and Very Remote areas (dashed) should be treated with caution (see Appendix A).
4. The SMRs for Indigenous Australian persons are for Qld, WA, SA and NT combined (see Appendix A).

Source: AIHW mortality database.

Figure 7.17: Motor vehicle traffic accident SMRs, by sex, 2002–04



Note: See notes for Figure 7.17.

Figure 7.18: Motor vehicle traffic accident SMRs for persons aged 64 years and under, by sex, 2002–04

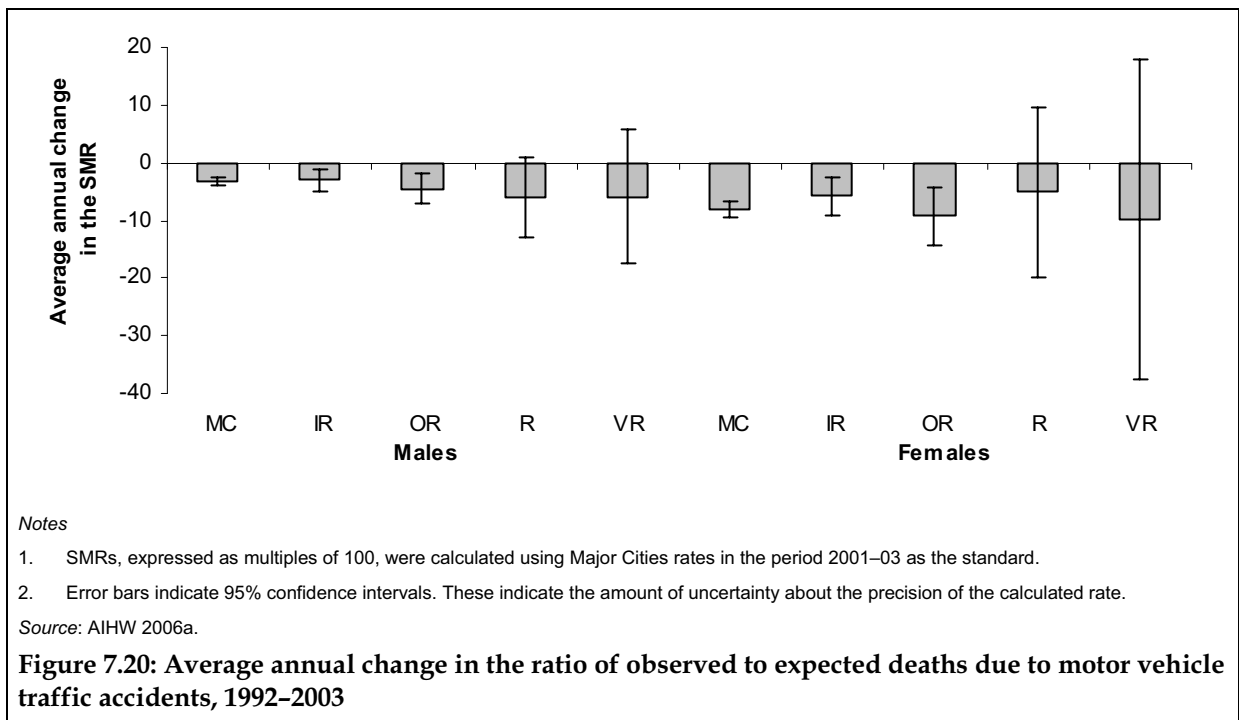
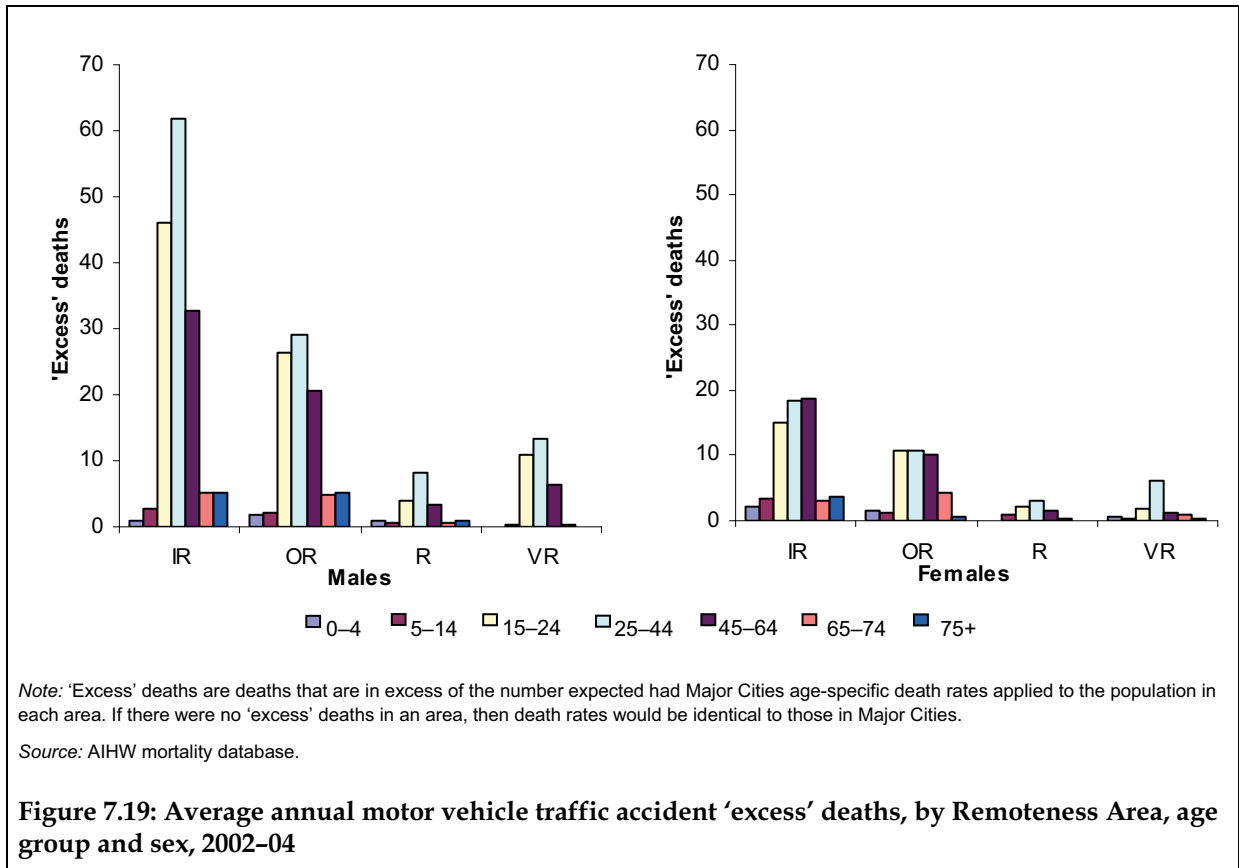


Table 7.16: SMIRs, average annual deaths and 'excess' deaths due to motor vehicle traffic accidents, 2002-04 and 1997-99

	Males						Females						Persons									
	MC		OR		VR		MC		OR		VR		MC		OR		VR					
	Rate	IR	OR	R	VR	Rate	IR	OR	R	VR	Rate	IR	OR	R	VR	Rate	IR	OR	R	VR		
2002-04																						
0-4	2	1.33	*2.41	4.22	0.35	1	*2.51	*3.23	1.23	7.47	1	*1.77	*2.72	3.11	3.01							
5-14	2	1.42	1.62	2.26	1.85	1	*2.24	1.91	4.39	2.54	2	*1.66	*1.71	*2.88	2.05							
15-24	16	*2.08	*2.29	*2.16	*5.79	5	*2.06	*2.67	*3.08	*3.61	11	*2.08	*2.38	*2.37	*5.30							
25-44	10	*2.21	*2.08	*2.61	*5.38	2	*2.68	*2.99	*4.17	*12.76	6	*2.30	*2.23	*2.85	*6.46							
45-64	6	*2.04	*2.30	*2.37	*6.36	2	*2.58	*2.84	*3.18	*4.86	4	*2.19	*2.44	*2.56	*6.02							
65-74	7	*1.44	*1.83	1.66	2.51	5	1.41	*2.33	1.99	*8.48	6	*1.43	*2.01	1.77	*4.48							
75+	15	*1.30	*1.68	2.01	0.22	8	1.28	1.11	1.22	2.00	11	*1.29	*1.44	1.70	0.87							
Total	8	*1.95	*2.10	*2.38	*5.09	3	*2.04	*2.40	*3.01	*6.40	6	*1.97	*2.18	*2.52	*5.37							
Total <65	8	*2.08	*2.18	*2.45	*5.40	2	*2.40	*2.77	*3.45	*6.67	5	*2.15	*2.31	*2.66	*5.66							
1997-99																						
Total	10	*1.72	*2.02	*2.56	*3.94	4	*1.72	*1.96	*2.33	*3.30	7	*1.72	*2.00	*2.50	*3.78							
Total <65	9	*1.84	*2.15	*2.62	*4.11	4	*1.90	*2.15	*2.48	*3.75	6	*1.85	*2.15	*2.59	*4.02							
Total†	*1.12	*1.94	*2.27	*2.82	*4.36	*1.46	*2.50	*2.87	*3.51	*5.08	*1.21	*2.09	*2.41	*2.97	*4.50							
Total <65†	*1.08	*1.97	*2.31	*2.80	*4.46	*1.56	*2.94	*3.36	*3.91	*5.94	*1.18	*2.18	*2.52	*3.01	*4.73							

(continued)

Table 7.16 (continued): SMRs, average annual deaths and 'excess' deaths due to motor vehicle traffic accidents, 2002-04 and 1997-99

	Males				Females				Persons						
	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR
Average annual number of excess deaths															
2002-04															
0-4	0	1	2	1	0	0	2	2	0	1	0	0	3	1	0
5-14	0	3	2	1	0	0	3	1	1	0	0	0	6	1	0
15-24	0	46	26	4	11	0	15	11	2	2	0	0	61	6	13
25-44	0	62	29	8	13	0	18	11	3	6	0	0	80	11	19
45-64	0	33	21	3	6	0	19	10	2	1	0	0	51	5	8
65-74	0	5	5	0	0	0	3	4	0	1	0	0	8	1	1
75+	0	5	5	1	0	0	4	1	0	0	0	0	9	1	0
Excess total	0	154	90	18	31	0	64	40	8	11	0	0	219	26	42
Deaths total	539	317	171	32	38	197	126	68	12	13	736	443	239	43	52
Excess <65	0	144	80	17	31	0	57	35	7	10	0	0	202	24	41
Deaths <65	462	278	148	29	38	136	98	54	10	12	599	376	202	39	49
1997-99															
Excess total	0	129	96	24	26	0	59	38	8	7	0	188	134	32	33
Excess total†	65	150	106	26	27	84	84	51	10	8	149	234	156	35	34
Deaths total	602	309	190	40	34	267	140	78	13	10	869	449	267	53	44
Excess <65	0	121	89	22	25	0	51	33	7	7	0	173	123	29	32
Excess <65†	36	131	95	23	26	70	72	44	9	8	105	203	139	32	34
Deaths <65	507	266	167	36	33	194	109	62	12	10	701	375	229	48	43

Notes

- The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
- The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
- For further explanation, refer to section 2.3.

Table 7.17: SMIRs, average annual deaths and 'excess' deaths due to motor vehicle traffic accidents, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons						
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			
	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate	
2002-04																			
0-4	2	1.57	*3.04	5.98	0.96	1.18	1	*2.75	2.55	1.01	0.00	*11.67	1	*2.01	*2.86	4.18	0.61	*5.14	
5-14	2	1.50	*1.96	2.17	0.00	1.97	1	*2.29	2.06	1.84	5.87	5.67	1	*1.75	*1.99	2.07	1.85	2.52	
15-24	15	*2.19	*2.50	*2.25	*4.80	*4.23	5	*2.28	*2.59	2.25	1.47	*4.67	10	*2.21	*2.52	*2.25	*4.17	*4.34	
25-44	9	*2.19	*2.08	*2.52	*3.66	*4.56	2	*2.74	*2.81	2.63	3.63	*14.12	6	*2.29	*2.20	*2.54	*3.66	*6.18	
45-64	6	*2.02	*2.29	*2.08	*4.02	*5.69	2	*2.59	*2.84	*3.04	1.52	*10.02	4	*2.17	*2.43	*2.30	*3.51	*6.69	
65-74	7	*1.40	*1.74	1.29	1.65	3.94	4	1.46	*2.44	0.64	0.00	*10.86	6	*1.43	*1.99	1.08	1.16	*6.85	
75+	15	*1.32	*1.63	2.01	0.28	5.19	8	1.26	1.08	1.10	2.73	0.00	11	*1.30	*1.40	1.65	1.14	5.19	
Total	8	*1.97	*2.16	*2.30	*3.57	*4.24	3	*2.10	*2.32	*2.10	2.29	*8.53	5	*2.00	*2.20	*2.25	*3.32	*5.20	
Total <65	8	*2.11	*2.26	*2.39	*3.88	*4.24	2	*2.51	*2.69	*2.51	2.47	*8.42	5	*2.20	*2.36	*2.42	*3.63	*5.16	
1997-99																			
Total	10	*1.75	*2.02	*2.38	*2.56	*4.27	4	*1.74	*1.92	*1.82	1.14	*5.48	7	*1.75	*1.99	*2.23	*2.23	*4.60	
Total <65	9	*1.88	*2.16	*2.40	*2.68	*4.21	3	*1.93	*2.10	*1.83	1.35	*5.47	6	*1.89	*2.14	*2.25	*2.38	*4.55	
Total†	*1.21	*2.36	*2.70	*3.17	*3.41	n.p.	*1.50	*2.56	*2.83	*2.70	1.69	n.p.	*1.29	*2.41	*2.74	*3.05	*3.04	n.p.	
Total <65†	*1.17	*2.51	*2.87	*3.18	*3.55	n.p.	*1.56	*2.77	*3.05	*2.69	1.99	n.p.	*1.26	*2.58	*2.92	*3.07	*3.23	n.p.	

(continued)

Table 7.17 (continued): SMRs, average annual deaths and 'excess' deaths due to motor vehicle traffic accidents for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons						
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			
	MC	IR	OR	R	VR	Indigenous	MC	IR	OR	R	VR	Indigenous	MC	IR	OR	R	VR	Indigenous	
Average annual number of excess deaths																			
2002-04																			
0-4	0	1	2	1	0	0	0	2	1	0	0	2	0	3	3	1	0	2	
5-14	0	3	3	0	0	1	0	3	1	0	0	1	0	6	4	1	0	1	
15-24	0	46	27	3	4	12	0	16	9	1	0	5	0	62	35	4	4	17	
25-44	0	57	27	7	5	13	0	18	9	1	1	10	0	75	36	8	6	22	
45-64	0	31	20	2	3	4	0	17	9	1	0	2	0	48	29	4	3	7	
65-74	0	5	4	0	0	0	0	3	5	0	0	1	0	8	9	0	0	2	
75+	0	5	5	1	0	0	0	3	0	0	0	0	0	9	5	1	0	0	
Excess total	0	148	86	15	11	30	0	63	34	4	1	20	0	211	120	18	13	51	
Deaths total	512	301	161	26	15	40	185	121	60	7	2	23	697	422	221	33	18	63	
Excess <65	0	138	77	14	11	30	0	57	29	4	1	19	0	194	107	17	12	49	
Deaths <65	436	262	139	23	15	39	126	94	46	6	2	22	563	356	185	29	17	60	
1997-99																			
Excess total	0	129	89	19	8	32	0	58	34	4	0	16	0	187	123	23	8	48	
Excess total†	100	173	111	22	10	n.p.	86	83	46	6	1	n.p.	186	256	157	28	10	n.p.	
Deaths total	581	301	177	32	14	41	257	136	71	9	2	20	838	437	247	41	15	61	
Excess <65	0	121	83	16	8	31	0	50	29	3	0	16	0	172	112	20	8	47	
Excess <65†	73	156	101	19	9	n.p.	67	67	37	5	1	n.p.	140	223	138	24	10	n.p.	
Deaths <65	487	259	155	28	13	40	186	105	56	7	2	19	673	364	210	36	15	60	

Notes

- The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
- The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
- For further explanation, refer to section 2.3.

7.5 Other land transport accidents

Highlights

Other land transport accidents were responsible for 0.1% of all deaths, and for about 1% of all excess deaths in regional and remote areas (and 3% of excess deaths in Remote areas).

Death rates for males were several times those for females.

Death rates for Indigenous Australians were about eight times higher than the rates for non-Indigenous Australians in Major Cities.

For males, SMRs in regional areas were about 1.9–2.6, rising to 6.4 in Very Remote areas. For females, rates in all areas were not significantly different from those in Major Cities. The same inter-regional pattern applied also to non-Indigenous Australian males and females.

Since 1997, death rates have tended to decline in regional areas but have risen for males in remote areas.

This group includes all land transport accidents that were off-road or did not involve a motor vehicle. The most commonly occurring causes included in this group were pedestrians injured by a range of motor vehicles and non-motor vehicles (37%), off-road motorcyclists (14%) and pedal cyclists (4%), occupants of cars involved in non-traffic accidents (11%), drivers or occupants of all-terrain vehicles (5%) and agricultural vehicles (10%), and occupants of trains (3%). Injuries involving ridden animals accounted for about 1% of these deaths.

ICD-10 codes are V01.0–V89.9 but exclude those for motor vehicle traffic accidents (see previous section and Appendix B).

On average during the period, other land transport accidents were responsible for 158 deaths annually – this is 0.1% of all deaths. Four-fifths (79%) were male; 46% were in Major Cities, 45% in regional areas and 9% in remote areas.

Overall rates of death due to other land transport accidents for Indigenous Australians were about eight times higher than the rates for non-Indigenous Australians in Major Cities.

In regional areas:

Death rates in Inner Regional and Outer Regional areas were 1.9 and 2.6 times those in Major Cities.

For 0–64 year olds in Inner Regional and Outer Regional areas, death rates were 1.8 and 2.4 times those in Major Cities.

The inter-regional pattern for non-Indigenous Australians was similar to that above.

Annually there are 42 and 28 deaths in Inner Regional and Outer Regional areas; most (83%) were male.

Annually there were 19 and 17 ‘excess’ deaths in Inner Regional and Outer Regional areas; this is 1% and 1% of all ‘excess’ deaths in Inner Regional and Outer Regional areas. Most (94%) of the ‘excess’ deaths were male, with contributions from all age groups.

Compared with the previous reporting period (1997–99), there were 10 fewer deaths annually in 2002–04.

The seven-year trend (AIHW 2006a) is for decreasing or stable death rates.

In remote areas:

Death rates for the total population and for 0–64 year olds in remote areas were five times those in Major Cities.

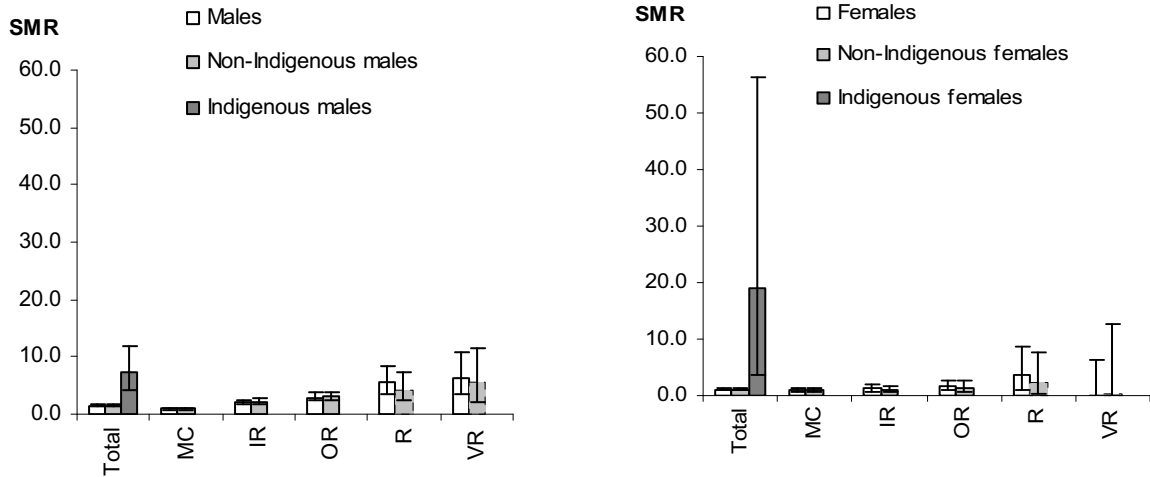
Death rates for non-Indigenous Australians from Remote and Very Remote areas were about four times those in Major Cities.

Annually there are 9 and 5 deaths in Remote and Very Remote areas; most (86%) were male.

Annually there were 7 and 4 'excess' deaths in Remote and Very Remote areas; most were male and from all age groups under 75 years (with 25–44 year olds contributing most of the excess). These 'excess' deaths were, respectively, 3% and 1% of all excess deaths in Remote and Very Remote areas.

Compared with the previous reporting period (1997–99), there were 2 more deaths annually in 2002–04.

The seven-year trend (AIHW 2006a) for males is for increasing death rates.

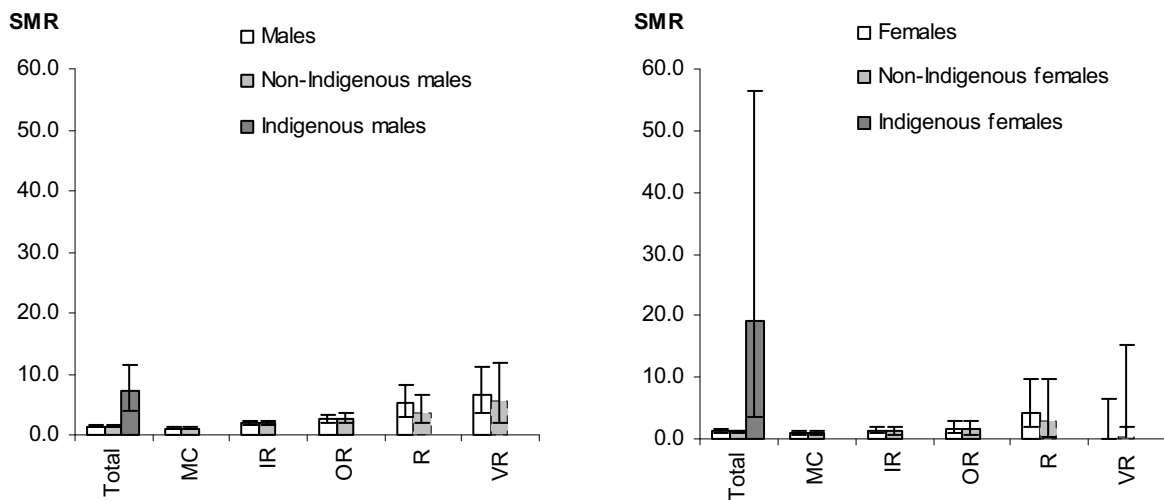


Notes

1. While the figure allows comparison of deaths between areas for each sex, it does not allow comparison between the sexes.
2. The presented SMR is the ratio of the observed number of deaths to the number expected if Major Cities rates applied in each area.
3. SMRs calculated for non-Indigenous Australian persons from Remote and Very Remote areas (dashed) should be treated with caution (see Appendix A).
4. The SMRs for Indigenous Australian persons are for Qld, WA, SA and NT combined (see Appendix A).

Source: AIHW mortality database.

Figure 7.21: Other land transport accident SMRs, by sex, 2002–04



Note: See notes for Figure 7.21.

Figure 7.22: Other land transport accident SMRs for persons aged 64 years and under, by sex, 2002–04

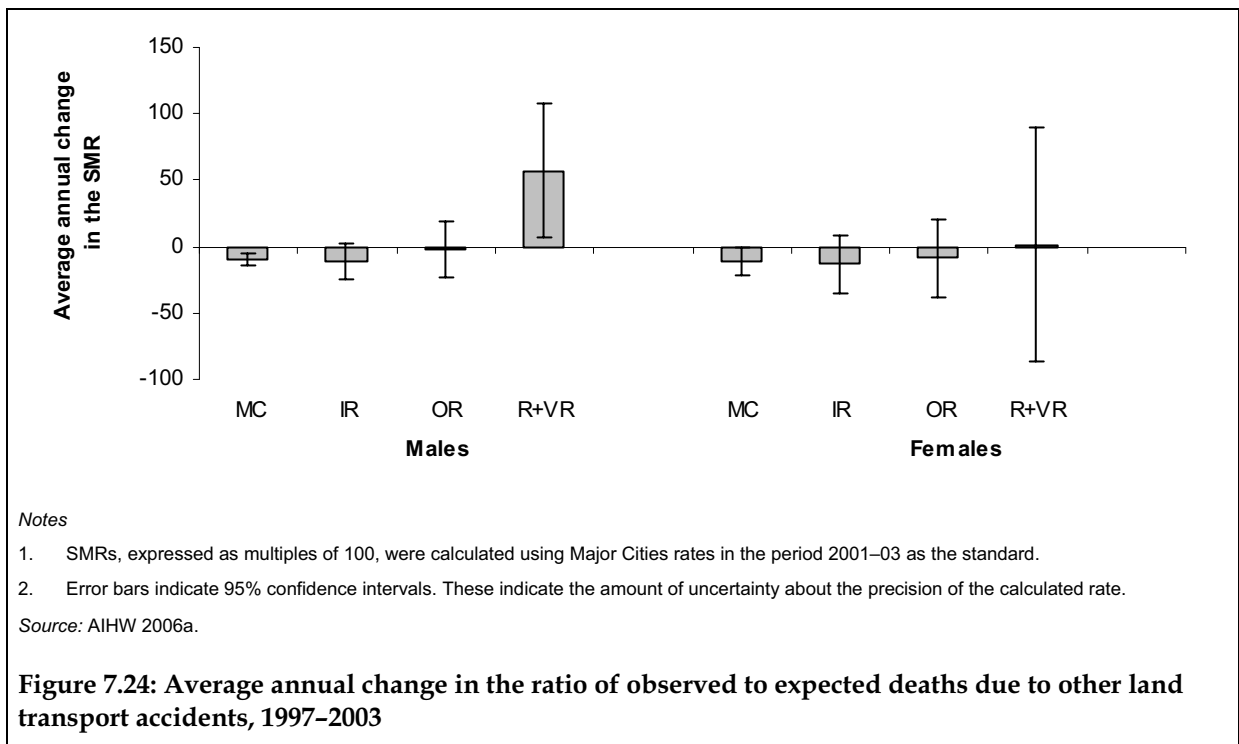
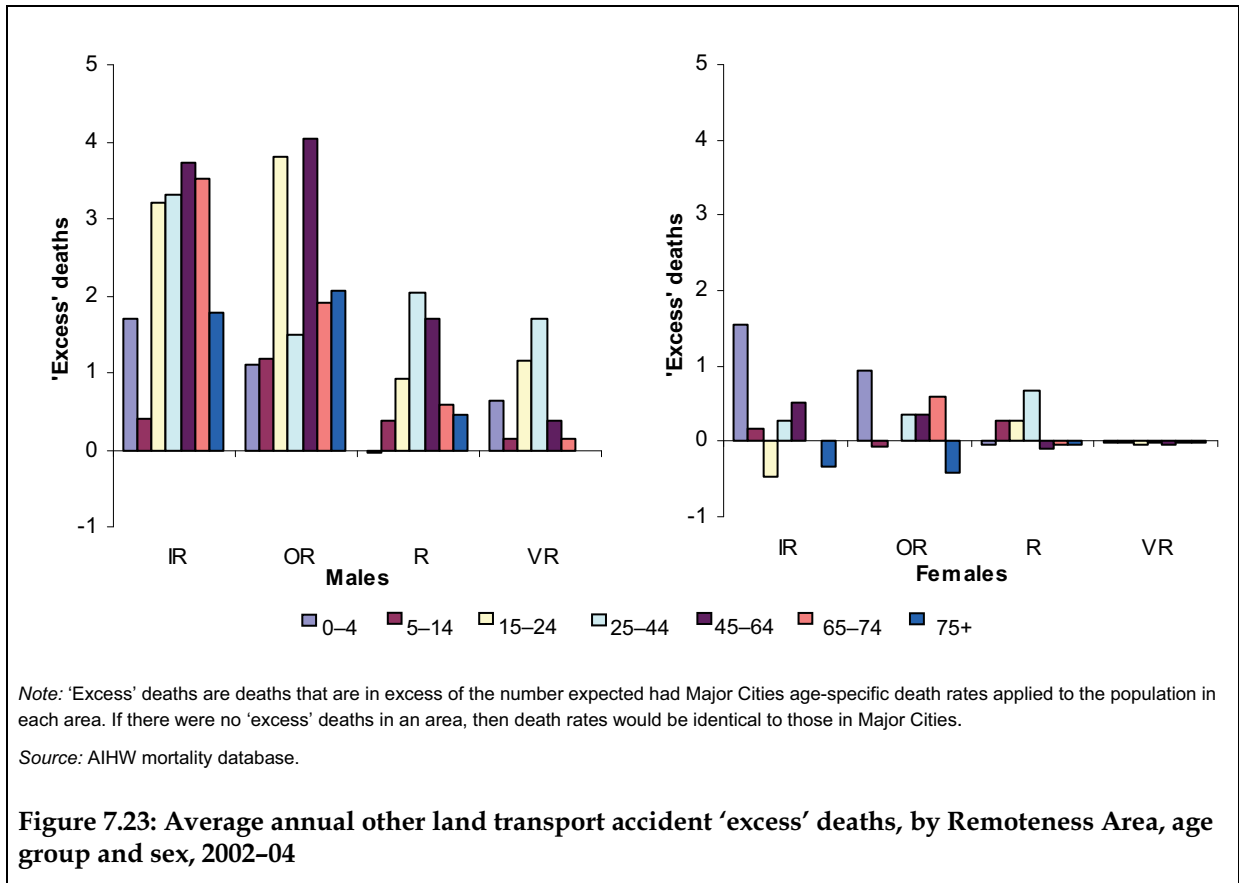


Table 7.18: SMIRs, average annual deaths and 'excess' deaths due to other land traffic accidents, 2002-04 and 1997-99

	Males						Females						Persons					
	MC	IR	OR	R	VR		MC	IR	OR	R	VR		MC	IR	OR	R	VR	
	Rate		Ratio			Rate	Rate		Ratio			Rate	Rate		Ratio			
2002-04																		
0-4	0	*3.78	4.43	0.33	17.38	0	*4.24	4.75	0.00	0.00	0.00	0	*3.98	*4.57	0.19	9.83		
5-14	0	1.36	*3.11	5.03	3.45	0	1.27	0.76	6.63	0.00	0.00	0	1.33	2.29	5.58	2.26		
15-24	1	*1.89	*3.21	4.42	7.19	0	0.41	1.00	6.36	0.00	0.00	1	*1.62	*2.83	*4.74	6.06		
25-44	1	*1.67	1.56	*5.06	*6.85	0	1.31	1.85	10.51	0.70	0.00	1	*1.62	1.60	*5.74	*6.12		
45-64	1	*2.03	*3.20	*6.96	3.67	0	1.30	1.46	0.05	0.00	0.00	1	*1.80	*2.68	*5.05	2.69		
65-74	1	*3.64	*3.96	8.20	5.49	0	1.00	2.84	0.00	0.00	0.00	1	*2.70	*3.58	5.64	3.80		
75+	1	*2.87	*5.90	10.41	0.06	1	0.67	0.02	0.00	0.00	0.00	1	1.74	*2.95	5.58	0.03		
Total	1	*2.09	*2.92	*5.50	*6.42	0	1.27	1.61	3.50	0.13	0.13	1	*1.86	*2.58	*5.03	*5.06		
Total <65	1	*1.89	*2.64	*5.13	*6.62	0	1.45	1.74	*4.32	0.15	0.15	1	*1.78	*2.43	*4.96	*5.30		
1997-99																		
Total	1	*1.96	*2.35	*3.26	*3.10	0	1.49	1.37	2.83	3.81	3.81	1	*1.85	*2.14	*3.17	*3.23		
Total <65	1	*1.95	*2.31	*3.08	*3.29	0	*1.85	1.62	3.41	4.46	4.46	1	*1.93	*2.19	*3.14	*3.48		
Total†	*1.56	*3.10	*3.67	*4.96	*4.81	*1.46	*2.09	*1.93	3.93	5.36	5.36	*1.54	*2.85	*3.26	*4.74	*4.91		
Total <65†	*1.47	*2.89	*3.41	*4.52	*4.98	1.38	*2.41	*2.15	*4.58	6.16	6.16	*1.46	*2.79	*3.16	*4.53	*5.19		

(continued)

Table 7.18 (continued): SMRs, average annual deaths and 'excess' deaths due to other land traffic accidents, 2002-04 and 1997-99

	Males					Females					Persons				
	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR
Average annual number of excess deaths															
2002-04															
0-4	0	2	1	0	1	0	2	1	0	0	0	3	2	0	1
5-14	0	0	1	0	0	0	0	0	0	0	0	1	1	1	0
15-24	0	3	4	1	1	0	0	0	0	0	0	3	4	1	1
25-44	0	3	1	2	2	0	0	0	1	0	0	4	2	3	2
45-64	0	4	4	2	0	0	1	0	0	0	0	4	4	2	0
65-74	0	4	2	1	0	0	0	1	0	0	0	4	3	1	0
75+	0	2	2	0	0	0	0	0	0	0	0	1	2	0	0
Excess total	0	18	16	6	4	0	2	2	1	0	0	19	17	7	4
Deaths total	53	34	24	7	5	19	8	5	1	0	72	42	28	9	5
Excess <65	0	12	12	5	4	0	2	2	1	0	0	14	13	6	4
Deaths <65	47	26	19	6	5	14	6	4	1	0	61	33	22	8	5
1997-99															
Excess total	0	20	15	4	2	0	3	1	1	1	0	23	16	5	3
Excess total†	25	28	19	5	3	6	5	2	1	1	32	33	21	6	3
Deaths total	70	42	26	6	3	20	9	4	1	1	90	51	30	7	4
Excess <65	0	17	13	3	2	0	3	1	1	1	0	21	14	4	3
Excess <65†	20	23	16	4	3	4	4	2	1	1	24	27	17	5	3
Deaths <65	61	35	22	5	3	14	8	3	1	1	75	43	26	6	4

Notes

- The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
- The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
- For further explanation, refer to section 2.3.

Table 7.19: SMIRs, average annual deaths and 'excess' deaths due to other land traffic accidents, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons						
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			
	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate	
2002-04																			
0-4	0	*3.89	3.69	0.41	0.00	7.95	0	3.32	4.20	0.00	0.00	0.00	0	*3.65	*3.90	0.24	0.00	7.95	
5-14	0	1.74	3.44	5.50	0.39	6.52	0	1.30	0.82	8.13	0.00	0.00	0	1.56	2.38	6.56	0.23	6.52	
15-24	1	*2.04	*3.59	4.08	8.67	3.30	0	0.42	1.08	0.00	0.00	0.00	1	*1.72	*3.11	3.38	7.47	3.30	
25-44	1	*1.61	1.64	3.32	*6.42	*10.91	0	1.50	1.25	7.51	1.36	*19.02	1	*1.59	1.59	*3.81	*5.90	*12.51	
45-64	1	*2.01	*3.01	4.14	3.56	*13.12	0	1.00	1.54	0.06	0.00	0.00	0	*1.70	*2.58	3.05	2.70	*13.12	
65-74	1	*4.04	*4.44	9.58	7.80	47.08	0	1.01	2.88	0.00	0.00	0.00	1	*2.89	*3.88	6.39	5.46	47.08	
75+	1	*2.87	*5.94	10.92	0.07	0.00	1	0.67	0.02	0.00	0.00	0.00	1	1.74	*2.97	5.85	0.04	0.00	
Total	1	*2.17	*3.01	*4.33	*5.50	*7.45	0	1.13	1.50	2.22	0.26	*19.02	1	*1.88	*2.61	*3.84	*4.44	*8.20	
Total <65	1	*1.94	*2.68	*3.67	*5.57	*7.08	0	1.26	1.59	2.83	0.31	*19.02	0	*1.78	*2.43	*3.49	*4.60	*7.85	
1997-99																			
Total	1	*1.95	*2.36	*2.93	*3.94	*3.02	0	*1.53	1.33	3.23	4.25	*17.64	1	*1.86	*2.14	*2.98	*3.99	*3.80	
Total <65	1	*1.93	*2.31	*2.66	*4.22	*3.02	0	*1.92	1.57	4.00	5.25	*17.64	1	*1.93	*2.18	*2.88	*4.37	*3.80	
Total†	*1.51	*2.41	*2.91	*3.61	*4.90	n.p.	1.23	*1.53	1.34	3.34	4.61	n.p.	*1.43	*2.17	*2.51	*3.55	*4.85	n.p.	
Total <65†	*1.48	*2.52	*3.00	*3.40	*5.42	n.p.	1.14	*1.85	1.54	4.13	5.73	n.p.	*1.41	*2.37	*2.67	*3.55	*5.47	n.p.	

(continued)

Table 7.19 (continued): SMRs, average annual deaths and 'excess' deaths due to other land traffic accidents, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons						
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			
	MC	IR	OR	R	VR	Indigenous	MC	IR	OR	R	VR	Indigenous	MC	IR	OR	R	VR	Indigenous	
Average annual number of excess deaths																			
2002-04																			
0-4	0	2	1	0	0	1	0	1	1	0	0	0	0	0	3	1	0	0	1
5-14	0	1	1	0	0	1	0	0	0	0	0	0	0	0	1	1	1	0	1
15-24	0	3	4	1	1	1	0	0	0	0	0	0	0	3	4	1	1	1	1
25-44	0	3	2	1	1	2	0	0	0	0	0	1	0	3	2	1	1	1	3
45-64	0	4	4	1	0	1	0	0	0	0	0	0	0	4	4	1	0	1	1
65-74	0	4	2	1	0	0	0	0	1	0	0	0	0	4	3	1	0	0	0
75+	0	2	2	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0
Excess total	0	17	15	4	2	5	0	1	1	0	0	0	0	18	16	4	2	6	6
Deaths total	49	32	22	5	2	6	18	7	4	1	0	1	67	39	26	6	2	7	7
Excess <65	0	12	11	3	2	5	0	1	1	0	0	1	0	13	12	3	2	6	6
Deaths <65	44	25	17	4	2	5	13	5	3	1	1	1	57	30	20	4	2	6	6
1997-99																			
Excess total	0	20	14	3	2	2	0	3	1	1	1	0	1	0	23	15	4	2	3
Excess total†	23	23	16	3	2	n.p.	4	3	1	1	1	0	n.p.	27	17	4	2	n.p.	n.p.
Deaths total	69	40	25	5	2	3	20	9	4	1	1	1	1	89	49	29	6	3	4
Excess <65	0	16	12	2	2	2	0	4	1	1	1	0	1	0	20	13	3	2	3
Excess <65†	20	20	14	3	2	n.p.	2	3	1	1	1	0	n.p.	21	15	4	2	n.p.	n.p.
Deaths <65	60	34	21	4	2	3	13	8	3	1	1	1	1	73	41	24	5	3	4

Notes

- The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
- The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
- For further explanation, refer to section 2.3.

7.6 Other injuries and poisoning

Highlights

Other injuries and poisoning were responsible for 2% of all deaths, and for about 5% and 6% of all excess deaths in regional and remote areas respectively.

Death rates for males were about 1.5 times those for females.

Death rates for Indigenous Australians were about four times higher than the rate for non-Indigenous Australians in Major Cities.

SMRs rose from about 1.15 in Inner Regional areas, to 1.5 and 2.5 in Remote and Very Remote areas. Non-Indigenous Australians showed a similar pattern, but with rates in remote areas elevated, but lower than for the total population, and for females not significantly different from 1.0.

Much of the excess death appeared to occur among relatively young people (including children). In Outer Regional and Very Remote areas, there were excess deaths in all age groups.

Since 1992, death rates for males have declined, particularly in Outer Regional and remote areas. There also appear to have been declines for females, but they are not statistically significant.

This group includes all injuries and poisonings not already described in this report (that is, not including suicide, interpersonal violence, falls or land transport accidents). Some of the specific causes of death included in this group are drowning, burns, electrocution, accidental poisonings and medical and surgical misadventure.

ICD-10 codes used here are V01–Y98, minus those specific causes of injury-related death described earlier in this section (for example, suicide, falls, etc.).

On average during the period, other injuries and poisoning were responsible for 2,957 deaths annually – this is 2.2% of all deaths. Two-thirds (60%) were male; 61% were in Major Cities, 35% in regional areas and 3% in remote areas.

Overall death rates for Indigenous Australians were about four times higher than the rates for non-Indigenous Australians in Major Cities.

In regional areas:

Death rates in Inner Regional and Outer Regional areas were 15% and 35% higher than in Major Cities.

For 0–64 year old males, death rates in Inner Regional and Outer Regional areas were 15% and 45% higher than in Major Cities.

The inter-regional pattern for non-Indigenous Australians was similar to that above.

Annually there are 650 and 367 deaths in Inner Regional and Outer Regional areas; about 60% were male.

Annually there were 77 and 98 ‘excess’ deaths in Inner Regional and Outer Regional areas; this is 4% and 6% of all ‘excess’ deaths in Inner Regional and Outer Regional areas. About two-thirds (67%) of the ‘excess’ were male. The bulk of the excess appears to be clustered around two age groups, 25–44 and 75+.

Compared with the previous reporting period (1997–99), there were 24 more deaths of males and 54 more deaths of females annually in 2002–04.

The 12-year trend (AIHW 2006a) is for decreasing death rates for males, particularly in Outer Regional areas. A decline is possible, but less clear, for females.

In remote areas:

Death rates in Remote and Very Remote areas were 1.5 and 2.6 times as high as in Major Cities.

Death rates for 0–64 year olds in Remote and Very Remote areas were 1.5 and 2.9 times as high as in Major Cities.

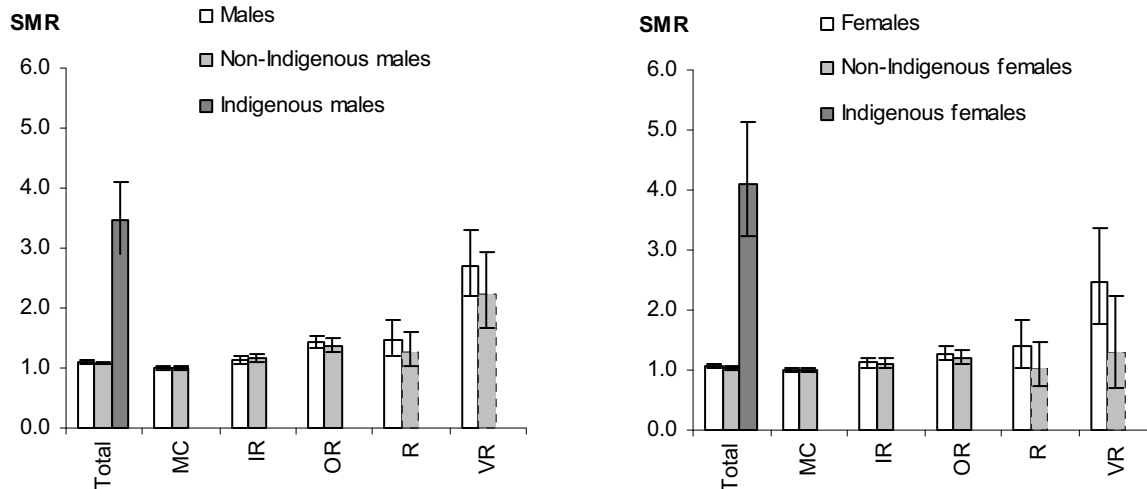
Death rates for non-Indigenous Australian males from Remote and Very Remote areas; were 1.3 and 2.2 times those in Major Cities, rates for females from these areas were not significantly different from those in Major Cities.

Annually there are 54 and 47 deaths in Remote and Very Remote areas; about 69% were male.

Annually there were 17 and 29 'excess' deaths in Remote and Very Remote areas; this is 6% and 7% of all 'excess' deaths in Inner Regional and Outer Regional areas. This excess was contributed by all age groups, but particularly by the 15–44 year olds.

Compared with the previous reporting period (1997–99), there were 6 fewer deaths of males and 2 more deaths of females annually in 2002–04.

The 12-year trend (AIHW 2006a) is for robust decreases in mortality for males and an apparent decrease for females (although the trend for females is less clear).

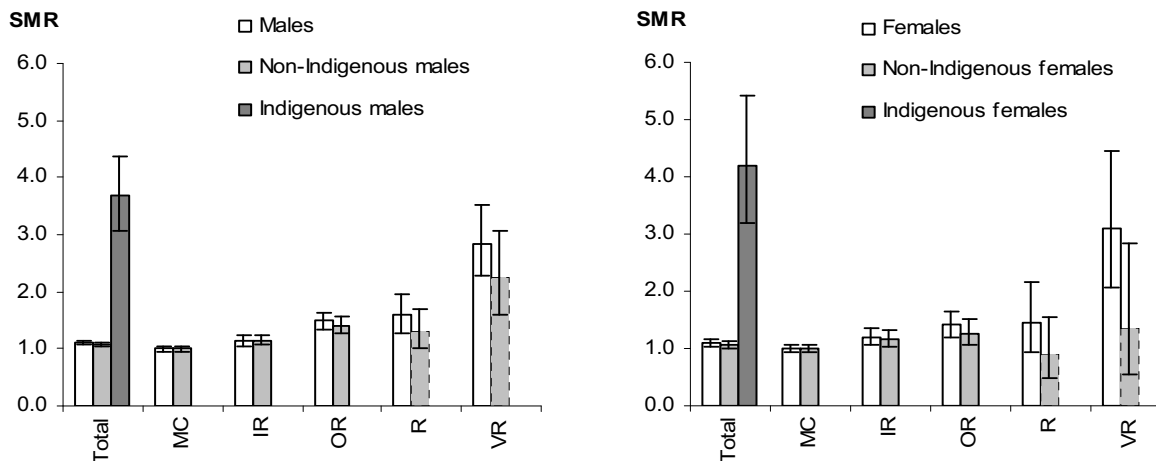


Notes

1. While the figure allows comparison of deaths between areas for each sex, it does not allow comparison between the sexes.
2. The presented SMR is the ratio of the observed number of deaths to the number expected if Major Cities rates applied in each area.
3. SMRs calculated for non-Indigenous Australian persons from Remote and Very Remote areas (dashed) should be treated with caution (see Appendix A).
4. The SMRs for Indigenous Australian persons are for Qld, WA, SA and NT combined (see Appendix A).

Source: AIHW mortality database.

Figure 7.25: Other injuries and poisoning SMRs, by sex, 2002-04



Note: See notes for Figure 7.25.

Figure 7.26: Other injuries and poisoning SMRs for persons aged 64 years and under, by sex, 2002-04

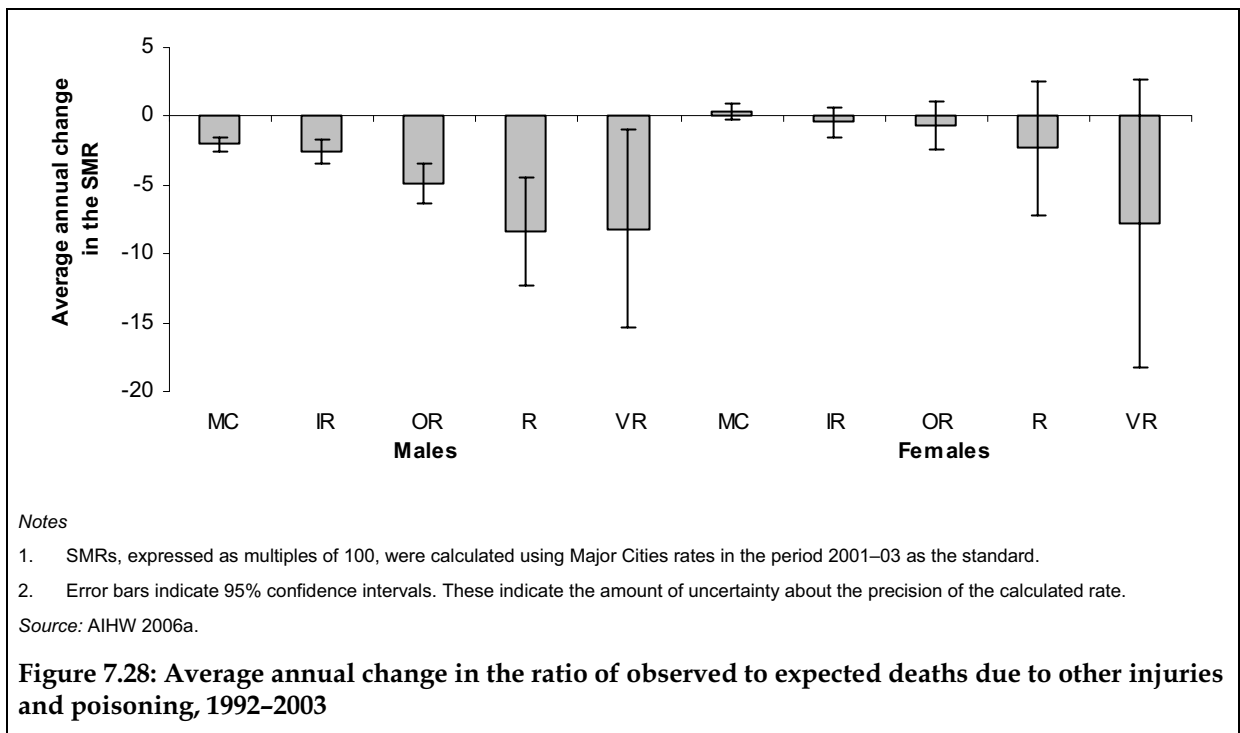
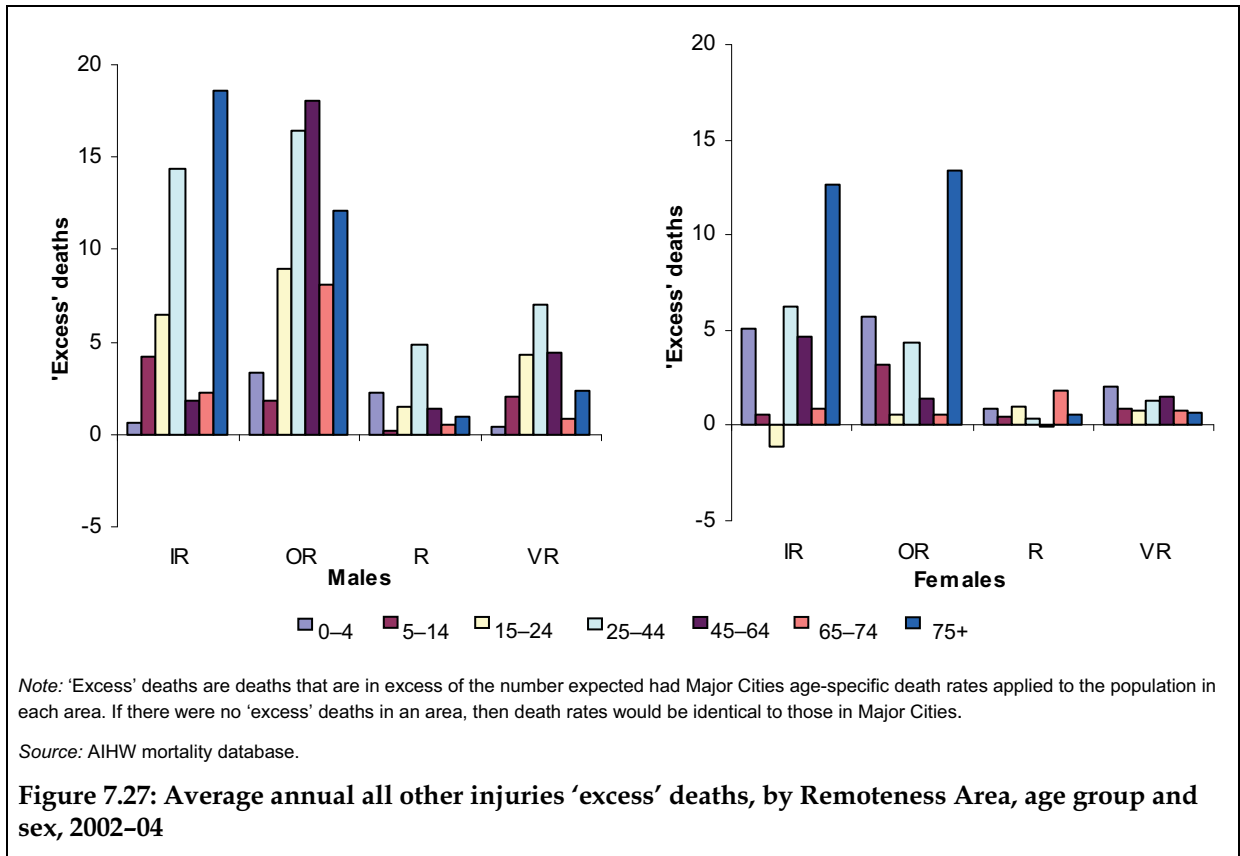


Table 7.20: SMIRs, average annual deaths and 'excess' deaths due to other injuries and poisoning, 2002-04 and 1997-99

	Males						Females						Persons												
	MC		OR		R		VR		MC		OR		R		VR		MC		OR		R		VR		
	Rate		Ratio		Ratio		Ratio		Rate		Ratio		Ratio		Ratio		Rate		Ratio		Ratio		Ratio		
2002-04																									
0-4	6	1.09	*1.81	*3.83	1.77				4	*2.08	*3.34	2.97	*8.10				5	*1.46	*2.38	*3.51	*4.13				
5-14	1	*2.14	1.99	1.63	*12.08				1	1.21	*3.67	3.04	8.28				1	*1.77	*2.65	2.19	*10.59				
15-24	9	*1.28	*1.82	1.83	*4.40				3	0.87	1.14	2.77	2.87				6	1.17	*1.65	*2.06	*4.03				
25-44	17	*1.16	*1.35	*1.55	*2.34				5	1.20	1.28	1.14	1.92				11	*1.17	*1.33	*1.45	*2.25				
45-64	13	1.03	*1.51	1.25	*2.67				6	1.16	1.10	0.99	*2.77				9	1.07	*1.40	1.18	*2.69				
65-74	19	1.08	*1.55	1.29	2.22				11	1.05	1.07	*3.02	3.27				15	1.07	*1.38	*1.86	*2.56				
75+	97	*1.17	*1.26	1.19	*2.19				93	1.09	B	1.09	1.35				95	*1.12	*1.23	1.14	*1.78				
Total	16	*1.15	*1.43	*1.48	*2.71				11	*1.12	*1.27	*1.40	*2.48				14	*1.14	*1.36	*1.45	*2.64				
Total <65	11	*1.14	*1.49	*1.59	*2.85				4	*1.20	*1.41	1.46	*3.09				8	*1.16	*1.47	*1.55	*2.91				
1997-99																									
Total	17	*1.13	*1.36	*1.67	*2.31				11	*1.10	*1.22	*1.39	*2.24				13	*1.12	*1.31	*1.58	*2.29				
Total <65	13	*1.15	*1.44	*1.79	*2.51				4	1.12	1.15	*1.65	*3.00				8	*1.14	*1.37	*1.76	*2.61				
Total†	*1.16	*1.29	*1.56	*1.97	*2.84				*1.08	*1.18	*1.32	*1.51	*2.47				*1.13	*1.25	*1.47	*1.82	*2.73				
Total <65†	*1.25	*1.41	*1.77	*2.22	*3.22				*1.08	*1.22	*1.24	*1.80	*3.36				*1.20	*1.36	*1.63	*2.12	*3.25				

(continued)

Table 7.20 (continued): SMRs, average annual deaths and 'excess' deaths due to other injuries and poisoning, 2002-04 and 1997-99

	Males						Females						Persons					
	MC	IR	OR	R	VR		MC	IR	OR	R	VR		MC	IR	OR	R	VR	
Average annual number of excess deaths																		
2002-04																		
0-4	0	1	3	2	0	0	0	5	6	1	2	0	0	6	9	3	2	
5-14	0	4	2	0	2	0	0	1	3	0	1	0	0	5	5	1	3	
15-24	0	6	9	1	4	0	0	-1	1	1	1	0	0	5	10	3	5	
25-44	0	14	16	5	7	0	0	6	4	0	1	0	0	21	21	5	8	
45-64	0	2	18	1	4	0	0	5	1	0	2	0	0	6	19	1	6	
65-74	0	2	8	1	1	0	0	1	1	2	1	0	0	3	9	2	2	
75+	0	19	12	1	2	0	0	13	13	1	1	0	0	31	25	2	3	
Excess total	0	48	69	12	21	0	0	29	29	5	8	0	0	77	98	17	29	
Deaths total	1,034	380	231	36	34	746	270	137	137	18	13	1,781	650	367	54	47	47	
Excess <65	0	28	49	10	18	0	15	15	15	3	7	0	43	64	13	25	25	
Deaths <65	660	221	148	28	28	250	91	52	52	8	10	911	312	200	36	38	38	
1997-99																		
Excess total	0	41	59	18	18	0	20	22	22	5	6	0	62	81	22	24	24	
Excess total†	146	81	81	22	21	51	36	29	29	6	7	197	117	110	27	28	28	
Deaths total	1,037	362	225	44	32	679	233	120	120	17	12	1,715	594	345	61	43	43	
Excess <65	0	31	50	16	17	0	9	5	5	4	6	0	40	55	20	24	24	
Excess <65†	143	70	71	20	20	18	14	8	8	4	7	162	84	79	24	27	27	
Deaths <65	725	240	163	37	29	236	79	41	41	10	9	960	319	204	46	38	38	

Notes

1. The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
2. The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
3. For further explanation, refer to section 2.3.

Table 7.21: SMIRs, average annual deaths and 'excess' deaths due to other injuries and poisoning, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons						
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			
	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate	
2002-04																			
0-4	5	1.12	1.53	*3.27	1.01	*4.18	4	*2.16	*2.58	2.87	*8.92	*3.71	4	*1.53	*1.94	*3.12	4.05	*3.99	
5-14	1	*1.82	1.55	0.69	*20.61	*4.69	1	1.10	2.27	1.04	*13.09	*6.05	1	*1.54	*1.83	0.82	*17.63	*5.22	
15-24	8	1.25	*1.76	1.63	*4.22	*3.11	3	0.90	1.13	1.12	0.05	*5.67	6	1.16	*1.61	1.51	*3.36	*3.81	
25-44	16	*1.17	*1.26	1.20	1.65	*3.64	5	1.11	1.12	0.47	0.42	*3.71	10	*1.16	*1.22	1.03	1.40	*3.66	
45-64	13	1.06	*1.51	1.20	1.95	*3.89	5	1.16	1.14	0.98	0.50	*3.82	9	1.09	*1.41	1.15	1.62	*3.86	
65-74	18	1.10	*1.53	1.23	1.47	*3.98	11	1.02	1.02	1.68	0.25	*12.14	15	1.07	*1.35	1.38	1.11	*7.40	
75+	94	*1.17	*1.24	1.20	*2.51	1.41	90	1.09	*1.21	1.09	1.40	1.97	92	*1.12	*1.23	1.14	*1.98	1.71	
Total	15	*1.15	*1.37	*1.28	*2.24	*3.47	11	*1.11	*1.22	1.05	1.31	*4.10	13	*1.13	*1.31	1.20	*1.96	*3.68	
Total <65	11	*1.15	*1.42	1.31	*2.24	*3.67	4	*1.17	*1.26	0.90	1.37	*4.19	7	*1.16	*1.38	1.21	*2.04	*3.82	
1997-99																			
Total	16	*1.15	*1.35	*1.55	*1.93	*3.71	11	*1.10	*1.21	1.10	1.05	*3.96	13	*1.13	*1.29	*1.40	*1.69	*3.78	
Total <65	13	*1.17	*1.42	*1.64	*2.12	*3.75	4	1.11	1.05	1.09	1.44	*4.50	8	*1.15	*1.33	*1.51	*1.98	*3.94	
Total†	*1.12	*1.15	*1.35	*1.56	*1.95	<i>n.p.</i>	*1.05	1.04	*1.13	1.03	0.97	<i>n.p.</i>	*1.09	*1.10	*1.27	*1.38	*1.67	<i>n.p.</i>	
Total <65†	*1.17	*1.17	*1.41	*1.65	*2.14	<i>n.p.</i>	1.04	0.98	0.93	0.97	1.28	<i>n.p.</i>	*1.13	*1.12	*1.28	*1.48	*1.95	<i>n.p.</i>	

(continued)

Table 7.21 (continued): SMRs, average annual deaths and 'excess' deaths due to other injuries and poisoning, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons								
	Non-Indigenous			Indige- nous	Non-Indigenous			Indige- nous	Non-Indigenous			Indige- nous	Non-Indigenous			Indige- nous					
	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR	
Average annual number of excess deaths																					
2002-04																					
0-4	0	1	2	1	0	3	0	5	3	1	1	2	0	6	5	2	1	5			
5-14	0	3	1	0	2	2	0	0	1	0	1	1	0	3	2	0	2	3			
15-24	0	5	7	1	2	4	0	-1	0	0	0	4	0	5	8	1	2	8			
25-44	0	14	11	1	2	16	0	3	2	-1	0	6	0	18	13	0	2	21			
45-64	0	4	17	1	2	5	0	4	2	0	0	2	0	8	18	1	2	8			
65-74	0	3	7	0	0	1	0	0	0	1	0	3	0	3	8	1	0	5			
75+	0	17	11	1	2	0	0	13	13	0	1	1	0	30	24	1	3	2			
Excess total	0	48	56	6	10	32	0	25	22	1	1	19	0	73	78	6	11	51			
Deaths total	982	361	206	27	18	45	714	255	123	12	4	26	1,697	616	329	39	22	70			
Excess <65	0	28	38	5	7	30	0	12	9	0	1	15	0	40	46	4	8	45			
Deaths <65	618	207	128	19	13	41	235	82	42	4	2	19	854	289	170	23	16	61			
1997-99																					
Excess total	0	44	53	13	8	35	0	21	19	1	0	16	0	65	73	14	8	51			
Excess total†	108	46	54	13	8	n.p.	34	8	13	0	0	n.p.	142	54	67	13	8	n.p.			
Deaths total	987	348	207	36	17	48	660	226	113	12	3	22	1647	574	320	48	20	69			
Excess <65	0	33	43	11	8	33	0	7	2	0	1	15	0	40	44	12	9	48			
Excess <65†	99	33	43	11	8	n.p.	8	-1	-3	0	1	n.p.	107	32	40	11	9	n.p.			
Deaths <65	681	228	146	29	15	45	228	75	35	6	3	19	909	302	181	34	18	64			

Notes

- The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
- The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
- For further explanation, refer to section 2.3.

8 Other causes of death

Chapter highlights

All other causes of death were responsible for about 20% of all deaths in Major Cities and regional areas, rising to 22% and 27% in Remote and Very Remote areas, and for about 11%, 17%, 35% and 37% of excess deaths in Inner Regional, Outer Regional, Remote and Very Remote areas respectively.

While about 15%, 7% and 3% of deaths in this chapter outside Major Cities were due to diabetes, renal failure and liver disease, most were due to 'other causes'. About 40% of excess deaths in this chapter were due to diabetes, while just less than 60% were due to 'other causes'.

Diabetes contributes about 3–8% of total excess deaths in regional areas and up to 15% of total excess deaths in remote areas. Renal failure contributes little to excess deaths in regional areas, but 2% of the excess deaths in Very Remote areas. Liver disease is responsible for 1% and up to 5% of excess deaths, respectively, in regional and remote areas.

'Other causes' contribute about 11–17% of all excess deaths in regional areas and about 35% of all excess deaths in remote areas. As such, these 'other causes' are substantial contributors to overall higher rates of death outside Major Cities.

Excess deaths were mainly amongst the elderly, but with some amongst children and also amongst people older than 45 years.

Death rates for Indigenous Australians were about five times higher than the rates for non-Indigenous Australians in Major Cities.

SMRs increase with remoteness: 1.1, 1.1, 1.3 and 2.4 in Inner Regional, Outer Regional, Remote and Very Remote areas respectively.

For non-Indigenous Australians, SMRs were about 1.1 in regional areas and not significantly different from 1.0 in remote areas. The bulk of the higher rates for the general population in remote areas appear to be largely a reflection of the prevalence of Indigenous Australians living there.

All those causes of death not described previously are included in this chapter (that is, all causes except diseases of the circulatory and respiratory systems, neoplasms and injuries).

There are many other causes of death, but, apart from diabetes, they tend to be less common than the causes already described.

The specific causes of death described in this chapter include:

1. diabetes
2. renal disease
3. liver disease
4. all other causes (that is, the rest).

Diabetes and renal diseases were chosen because diabetes makes a large contribution to overall mortality and renal diseases is a substantial and growing cause of mortality for Australia's Aboriginal and Torres Strait Islander population. Liver disease is frequently related to long-term excess alcohol intake, which is more common outside (as opposed to inside) Major Cities.

'All other causes' were included for the sake of completeness. The particular causes of death included in this group include a range of other causes such as infectious diseases, diseases of the digestive system and endocrine system, and conditions originating in the perinatal period.

On average during the period, all other causes of death were responsible for 25,682 deaths annually – this is 19% of all deaths. Half (49%) were male; 64% were in Major Cities, 34% in regional areas and 3% in remote areas.

Overall death rates for Indigenous Australians were about 4.5 times higher than the rates for non-Indigenous Australians in Major Cities.

In regional areas:

Death rates in Inner Regional and Outer Regional areas were similar to and 10% (1.1 times) higher than in Major Cities.

For 0–64 year olds, death rates in Inner Regional and Outer Regional areas were, respectively, 5% and 25% higher than rates in Major Cities.

The inter-regional pattern for non-Indigenous Australians was similar to that above, however, overall rates tended to be only 5% higher, and rates for 0–64 year olds in Inner Regional areas were similar to those in Major Cities, while rates in Outer Regional areas were 15% higher than in Major Cities.

Annually there are 5,854 and 2,806 deaths in Inner Regional and Outer Regional areas; about 48% were male.

Annually there were 229 and 270 'excess' deaths in Inner Regional and Outer Regional areas; this is 11% and 17% of all 'excess' deaths in Inner Regional and Outer Regional areas. About half (46%) of the 'excess' were male. A large proportion of the excess deaths occurred in those older than 75 years, but there were also excess deaths amongst children younger than 5 years and, in Outer Regional areas, amongst males and females aged 45–64 years and 64–75 years.

Compared with the previous reporting period (1997–99), there were 669 more deaths of males and 711 more deaths of females annually in 2002–04.

Between 1997–99 and 2002–04, the number of excess deaths in regional areas tended to increase (as estimated using 2002–04 Major Cities rates as the standard). For example, in 1997–99 there were 61 fewer deaths of Inner Regional males annually than if 2002–04 Major Cities age-specific rates had applied; in 2002–04, this number had increased to 105 more deaths than if 2002–04 Major Cities age-specific rates had applied.

Except in Major Cities where rates appear to have decreased slightly, regional death rates²² appear not to have changed much between the previous (1997–99) and the more recent (2002–04) reporting period.

However, the relative differences²³ between Major Cities and regional areas appear to have increased very slightly.

²² As expressed by SMRs calculated for both periods using Major Cities age-and sex- specific rates in 2002–04 as the standard.

²³ As expressed by SMRs calculated for each period using Major Cities age-and sex-specific rates in each period as the standard.

In remote areas:

Death rates in Remote and Very Remote areas were 1.3 and 2.3 times those in Major Cities. For 0–64 year olds, death rates in Remote and Very Remote areas were 1.8 and 3.6 times those in Major Cities.

Death rates for remote area non-Indigenous Australians were not significantly different from those in Major Cities. The higher rates for the total population in remote areas appear to be entirely a reflection of the relative large numbers of Indigenous Australians in these areas coupled with overall higher mortality for Indigenous Australians.

Annually there are 396 and 276 deaths in Remote and Very Remote areas; about 54% were male.

Annually there were 98 and 155 ‘excess’ deaths in Remote and Very Remote areas; this is 35% and 37% of all ‘excess’ deaths in Remote and Very Remote areas. Half (53%) were male. Excess deaths occurred particularly in those aged 45 years and older and also for those younger than 5 years.

Compared with the previous reporting period (1997–99), there were 41 more deaths of males and 40 more deaths of females annually in 2002–04.

Between 1997–99 and 2002–04, the number of excess deaths in remote areas increased slightly (as estimated using 2002–04 Major Cities rates as the standard). For example, in 1997–99 there were 61 more deaths of Remote area people annually than if 2002–04 Major Cities age-specific rates had applied; in 2002–04, this number had increased to 98 more deaths than if 2002–04 Major Cities age-specific rates had applied.

Death rates²⁴ appear not to have changed much between the previous (1997–99) and the more recent (2002–04) reporting period.

However, the relative differences²⁵ between Major Cities and remote areas appear to have increased slightly. For example, the SMRs for Remote area males were 1.2 in 1997–99 (compared with 1.0 for Major Cities males in 1997–99), and 1.3 in 2002–04 (compared with 1.0 for Major Cities males in 2002–04).

Of the deaths reported in this chapter, diabetes was responsible for 10–15% of those in Major Cities and, respectively, about 15% and 20% of those in regional and remote areas. However, it was responsible for 20–50% of this chapter’s ‘excess’ deaths in regional/remote areas.

Renal failure and liver disease were responsible for about 7% and 3% of deaths in this chapter and for less than 4% of this chapter’s ‘excess’ deaths.

Almost 80% of the deaths in this chapter were due to ‘other causes’, which was also responsible for about 60% of ‘excess’ deaths outside Major Cities.

²⁴ As expressed by SMRs calculated for both periods using Major Cities age-and sex- specific rates in 2002–04 as the standard.

²⁵ As expressed by SMRs calculated for each period using Major Cities age-and sex-specific rates in each period as the standard.

Table 8.1: Average annual deaths and 'excess' deaths, by other cause of death, 2002-04

Cause of death	Males					Females				
	MC	IR	OR	R	VR	MC	IR	OR	R	VR
Deaths										
Diabetes	1,076	420	243	42	29	982	371	203	36	28
Renal failure	616	208	93	9	8	667	218	93	10	8
Liver disease	575	211	117	25	16	270	89	44	10	10
All other causes	5,213	1,935	954	135	98	6,951	2,404	1,058	128	79
Total	7,480	2,774	1,408	212	151	8,870	3,081	1,398	184	125
Excess deaths										
Diabetes	0	24	60	20	20	0	39	60	21	23
Renal failure	0	-16	-8	-2	4	0	-5	-2	1	5
Liver disease	0	7	17	11	10	0	-3	2	5	8
All other causes	0	90	91	23	48	0	94	50	20	37
Total	0	105	159	51	82	0	125	110	47	73

Table 8.2: Average annual deaths and 'excess' deaths for persons aged 64 years and under, by other cause of death, 2002-04

Cause of death	Males					Females				
	MC	IR	OR	R	VR	MC	IR	OR	R	VR
Deaths										
Diabetes	190	67	46	14	14	82	34	27	11	14
Renal failure	33	11	6	1	3	24	9	6	1	3
Liver disease	331	121	74	18	13	124	45	23	8	10
All other causes	1,539	506	302	60	68	1,051	347	198	44	45
Total	2,093	704	429	93	99	1,281	435	254	64	72
Excess deaths										
Diabetes	0	1	13	9	12	0	7	14	9	13
Renal failure	0	-1	1	0	3	0	1	2	1	3
Liver disease	0	9	18	9	9	0	3	4	5	8
All other causes	0	12	49	17	44	0	9	32	18	30
Total	0	22	80	35	68	0	20	52	32	55

Table 8.3: Average annual deaths and 'excess' deaths of non-Indigenous Australians, by other cause of death, 2002-04

Cause of death	Males					Females				
	MC	IR	OR	R	VR	MC	IR	OR	R	VR
Deaths										
Diabetes	1,042	401	217	28	8	952	356	178	22	4
Renal failure	597	201	90	8	2	646	207	85	8	3
Liver disease	546	198	103	14	6	257	83	37	3	1
All other causes	5,000	1,852	880	100	30	6,705	2,309	994	95	30
Total	7,184	2,653	1,290	149	46	8,559	2,954	1,294	127	38
Excess deaths										
Diabetes	0	19	40	7	2	0	35	41	8	1
Renal failure	0	-15	-7	-3	-1	0	-9	-6	-1	1
Liver disease	0	5	9	1	1	0	-5	-2	-1	0
All other causes	0	88	66	0	-3	0	86	35	-2	3
Total	0	97	109	6	-2	0	107	67	4	5

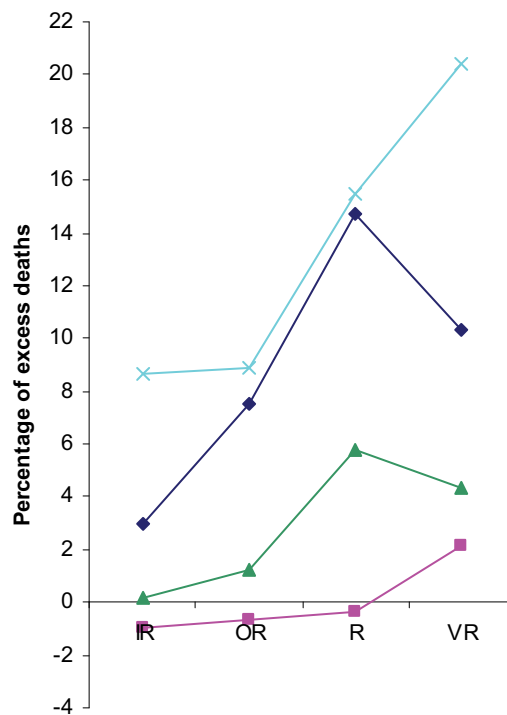
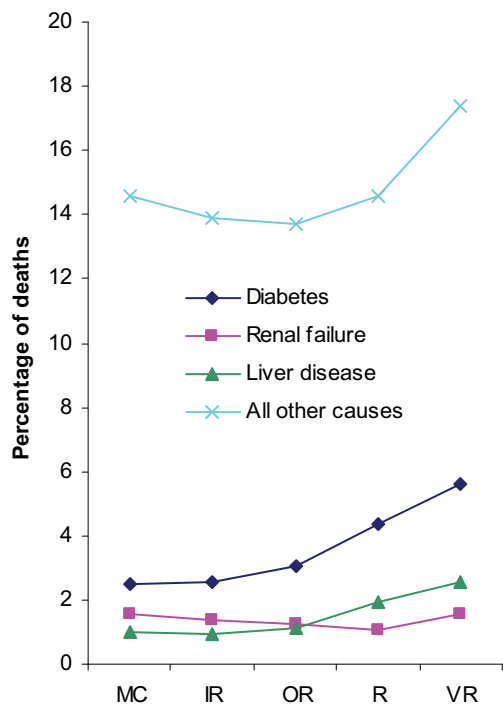
Table 8.4: Average annual deaths and 'excess' deaths of non-Indigenous Australians aged 64 years and under, by other cause of death, 2002-04

Cause of death	Males					Females				
	MC	IR	OR	R	VR	MC	IR	OR	R	VR
Deaths										
Diabetes	180	61	32	7	2	75	32	19	4	1
Renal failure	31	11	6	0	0	23	8	3	0	1
Liver disease	310	113	63	7	3	115	40	17	2	1
All other causes	1,429	461	253	35	13	979	316	166	22	9
Total	1,950	645	353	49	18	1,194	395	205	27	11
Excess deaths										
Diabetes	0	-1	1	2	0	0	6	7	2	0
Renal failure	0	0	0	-1	0	0	0	-1	0	1
Liver disease	0	10	11	-1	0	0	2	-1	0	0
All other causes	0	7	27	0	-1	0	4	19	0	2
Total	0	15	39	1	0	0	12	24	2	3

Table 8.5: Average annual deaths and 'excess' deaths of Indigenous Australians in Qld, WA, SA and NT, by other cause of death, 2002-04

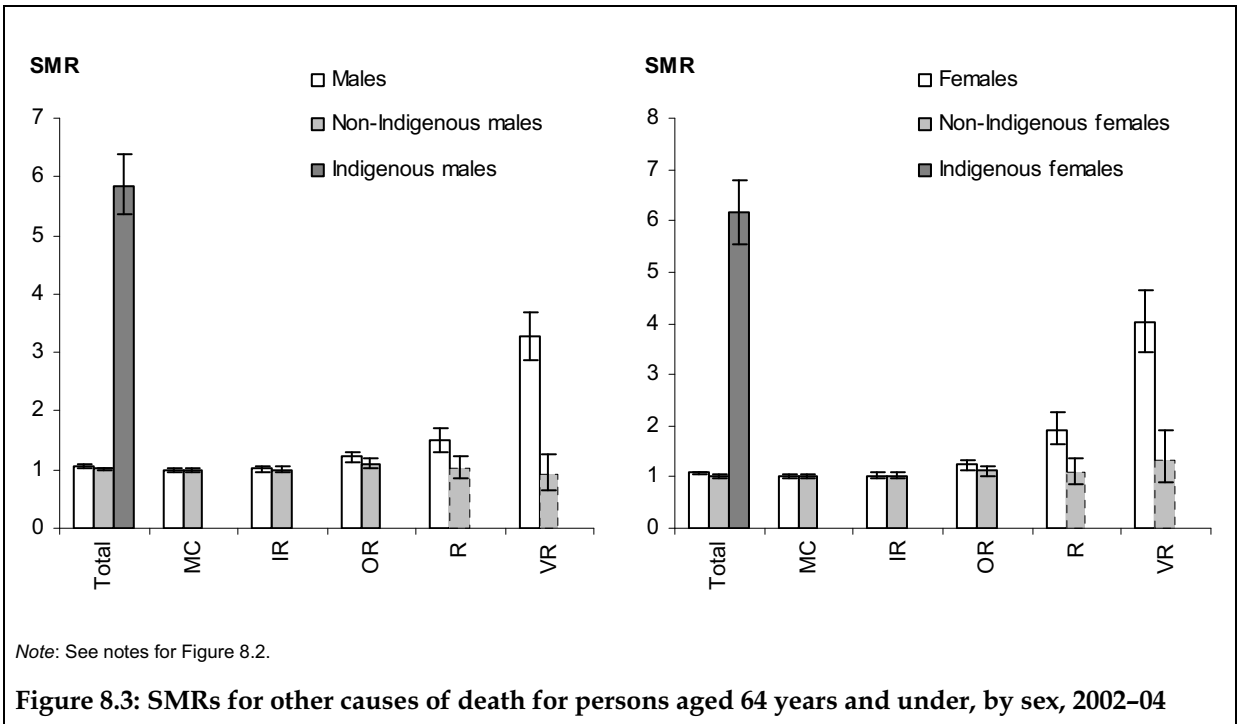
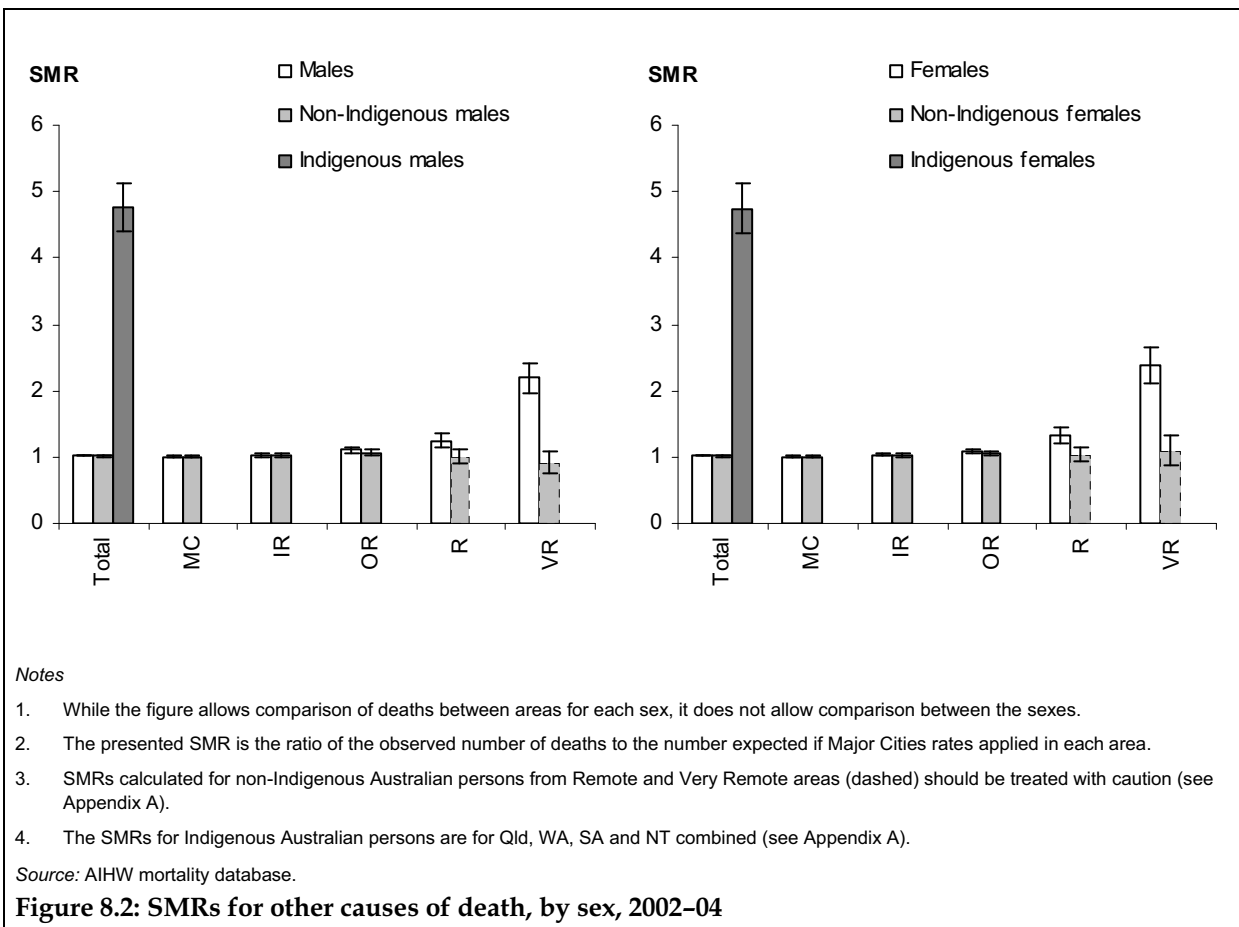
Cause of death	Males		Females	
	Total population	0-64 years	Total population	0-64 years
Deaths				
Diabetes	57	35	60	29
Renal failure	10	5	15	8
Liver disease	34	31	24	23
All other causes	167	138	134	96
Total	268	209	234	156
Excess deaths				
Diabetes	52	33	56	28
Renal failure	8	5	13	8
Liver disease	30	28	22	21
All other causes	121	107	91	73
Total	211	173	182	130

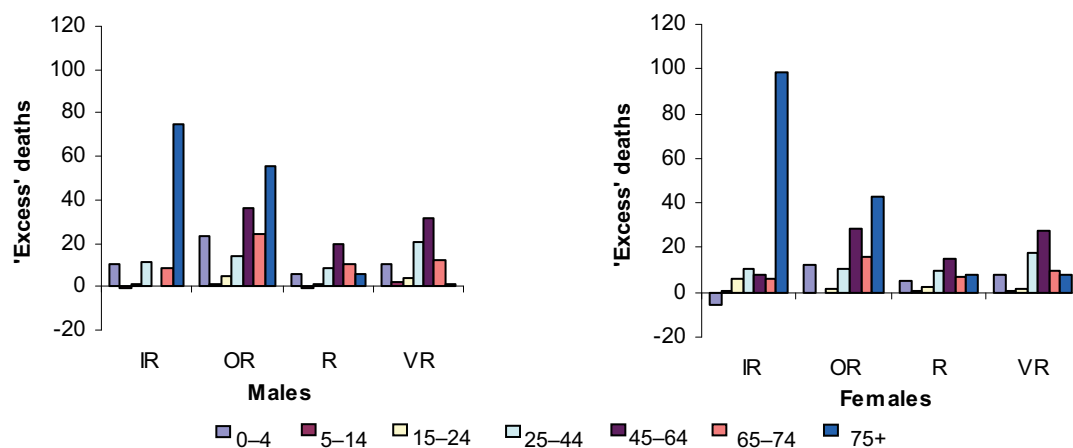
Note: Deaths and excess deaths in this table refer to annual deaths in Qld, WA, SA and NT, whose population of 274,000 Indigenous Australians is 60% of the national Indigenous Australian population of 458,000. If death rates in the other states and territories were comparable to those in Qld, WA, SA and NT, the numbers of deaths and excess deaths nationally may be approximately 1.7 times greater than that indicated for Qld, WA, SA and NT in this table.



Source: AIHW mortality database.

Figure 8.1: Proportion of deaths and 'excess' deaths due to other causes of death, by Remoteness Area, 2002-04





Note: 'Excess' deaths are deaths that are in excess of the number expected had Major Cities age-specific death rates applied to the population in each area. If there were no 'excess' deaths in an area, then death rates would be identical to those in Major Cities.

Source: AIHW mortality database.

Figure 8.4: Average annual 'excess' deaths due to other causes, by Remoteness Area, age group and sex, 2002-04

Table 8.6: SMRs, average annual deaths and 'excess' deaths due to all other causes of death, 2002-04 and 1997-99

	Males						Females						Persons					
	MC	IR	OR	R	VR		MC	IR	OR	R	VR		MC	IR	OR	R	VR	
	Rate		Ratio			Rate	Rate		Ratio			Rate	Rate		Ratio			
2002-04																		
0-4	98	1.08	*1.34	*1.42	*2.28	82	0.95	*1.22	*1.48	*2.21	90	1.02	*1.28	*1.45	*2.25			
5-14	4	0.94	1.21	0.39	*3.54	3	1.05	0.88	1.55	2.00	3	0.98	1.08	0.85	*2.93			
15-24	8	1.07	*1.49	1.58	*4.01	6	*1.43	1.24	*2.99	*3.51	7	*1.21	*1.39	*2.11	*3.82			
25-44	20	1.09	*1.23	*1.80	*4.20	11	*1.17	*1.33	*2.80	*6.89	16	*1.12	*1.27	*2.13	*5.06			
45-64	76	1.00	*1.18	*1.65	*3.20	42	1.04	*1.27	*2.09	*5.39	59	1.01	*1.21	*1.78	*3.86			
65-74	302	1.02	*1.11	*1.36	*2.17	202	1.02	*1.11	*1.40	*2.68	249	1.02	*1.11	*1.38	*2.35			
75+	1,356	*1.05	*1.08	1.08	1.05	1,397	*1.04	*1.05	1.09	*1.28	1,381	*1.05	*1.06	1.09	*1.17			
Total	115	*1.04	*1.13	*1.32	*2.18	133	*1.04	*1.09	*1.34	*2.41	124	*1.04	*1.11	*1.33	*2.28			
Total <65	36	1.03	*1.23	*1.60	*3.20	22	1.05	*1.26	*2.03	*4.25	29	*1.04	*1.24	*1.75	*3.57			
1997-99																		
Total	113	*0.97	*1.05	*1.22	*1.96	120	*1.04	*1.14	*1.23	*2.55	109	1.01	*1.09	*1.22	*2.20			
Total <65	43	*0.92	1.05	*1.36	*2.58	24	1.04	*1.19	*1.84	*3.94	32	0.97	*1.10	*1.52	*3.03			
Total†	*1.07	*1.03	*1.12	*1.32	*2.19	0.99	*1.03	*1.13	*1.24	*2.62	*1.03	*1.03	*1.13	*1.28	*2.37			
Total <65†	*1.19	*1.07	*1.23	*1.61	*3.15	*1.10	*1.15	*1.31	*2.04	*4.45	*1.16	*1.10	*1.26	*1.76	*3.61			

(continued)

Table 8.6 (continued): SMRs, average annual deaths and 'excess' deaths due to all other causes of death, 2002-04 and 1997-99

	Males						Females						Persons					
	MC	IR	OR	R	VR		MC	IR	OR	R	VR	MC	IR	OR	R	VR		
	Average annual number of excess deaths												MC	IR	OR	R	VR	
2002-04																		
0-4	0	11	23	6	11		0	-6	12	5	8	0	5	35	10	19		
5-14	0	-1	1	-1	2		0	0	-1	0	0	0	0	1	0	2		
15-24	0	2	5	1	4		0	6	2	2	2	0	8	7	3	5		
25-44	0	11	14	9	20		0	11	11	10	18	0	22	25	19	38		
45-64	0	0	36	20	32		0	8	28	15	27	0	8	64	35	59		
65-74	0	8	25	10	13		0	6	16	6	10	0	15	40	17	23		
75+	0	75	55	6	1		0	98	43	8	8	0	173	98	14	10		
Excess total	0	105	159	51	82		0	124	110	47	73	0	229	270	98	155		
Deaths total	7,480	2,773	1,408	212	151		8,870	3,081	1,398	184	125	16,350	5,854	2,806	396	276		
Excess <65	0	22	80	35	68		0	20	52	32	55	0	42	132	67	123		
Deaths <65	2,093	704	429	93	99		1,281	435	254	64	72	3,375	1,139	683	157	171		
1997-99																		
Excess total	0	-61	53	33	66		0	93	159	28	73	0	33	212	61	139		
Excess total†	463	76	126	45	74		-91	65	149	29	74	372	142	275	74	147		
Deaths total	6,877	2,302	1,210	187	135		7,513	2,514	1,254	150	119	14,390	4,816	2,464	337	255		
Excess <65	0	-57	21	25	57		0	20	52	32	55	0	-38	62	53	111		
Excess <65†	371	47	77	35	64		122	56	61	32	55	493	103	138	67	119		
Deaths <65	2,337	678	418	93	94		1,301	434	254	63	71	3,638	1,112	671	155	165		

Notes

- The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
- The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
- For further explanation, refer to section 2.3.

Table 8.7: SMRs, average annual deaths and 'excess' deaths due to all other causes of death, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males										Females										Persons											
	Non-Indigenous					Indigenous					Non-Indigenous					Indigenous					Non-Indigenous					Indigenous						
	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR		
	Rate	Ratio				Rate	Ratio				Rate	Ratio				Rate	Ratio				Rate	Ratio				Rate	Ratio					
2002-04																																
0-4	90	1.07	*1.24	1.16	0.62	*3.08	0.92	1.13	1.16	0.67	*2.76	83	1.00	*1.19	1.16	0.64	*2.94															
5-14	4	1.00	1.20	0.46	2.70	2.07	0.92	0.84	1.38	1.20	2.22	3	0.97	1.04	0.84	2.07	*2.13															
15-24	7	1.10	*1.54	1.50	1.47	*3.28	*1.42	1.14	1.53	2.64	*3.76	6	*1.23	*1.39	1.51	1.86	*3.48															
25-44	19	1.08	1.01	*0.59	0.67	*9.64	1.14	1.09	0.69	*2.10	*11.18	15	*1.10	1.04	*0.62	1.09	*10.21															
45-64	72	0.99	*1.10	1.10	1.14	*8.63	1.03	*1.15	1.12	1.32	*10.94	56	1.01	*1.12	1.11	1.19	*9.52															
65-74	294	1.00	1.08	1.10	1.05	*5.39	1.02	1.03	0.94	1.06	*7.25	242	1.01	1.06	1.04	1.05	*6.23															
75+	1,320	*1.05	*1.08	1.04	0.91	*1.69	*1.04	*1.04	1.04	1.09	*1.93	1,344	*1.05	*1.06	1.04	1.00	*1.83															
Total	112	*1.04	*1.09	1.04	0.96	*4.72	*1.04	*1.05	1.04	1.15	*4.56	121	*1.04	*1.07	1.04	1.04	*4.64															
Total <65	34	1.02	*1.12	1.01	0.98	*5.82	1.03	*1.13	1.08	1.32	*6.07	28	1.03	*1.13	1.03	1.09	*5.93															
1997-99																																
Total	109	0.98	1.02	0.98	0.85	*4.19	*1.05	*1.12	0.95	1.06	*4.90	114	1.01	*1.07	0.97	0.93	*4.49															
Total <65	41	*0.93	0.96	0.92	*0.75	*5.03	*1.06	1.06	1.06	1.15	*6.16	32	0.98	1.00	0.97	0.87	*5.47															
Total†	*1.09	*1.04	*1.08	1.07	0.95	n.p.	1.00	*1.07	0.92	1.04	n.p.	*1.04	*1.02	*1.08	1.00	0.99	n.p.															
Total <65†	*1.25	*1.16	*1.21	1.17	0.96	n.p.	*1.13	*1.16	1.18	1.28	n.p.	*1.20	*1.16	*1.19	*1.17	1.07	n.p.															

(continued)

Table 8.7 (continued): SMRs, average annual deaths and 'excess' deaths due to all other causes of death for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons						
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			
	MC	IR	OR	R	VR	Indigenous	MC	IR	OR	R	VR	Indigenous	MC	IR	OR	R	VR	Indigenous	
Average annual number of excess deaths																			
2002-04																			
0-4	0	8	14	2	-1	34	0	-8	6	1	1	23	0	0	20	3	-2	57	
5-14	0	0	1	0	0	1	0	-1	-1	0	0	1	0	-1	0	0	0	2	
15-24	0	2	5	1	0	4	0	5	1	0	0	3	0	7	6	1	1	7	
25-44	0	8	1	-4	-1	58	0	8	3	-1	2	40	0	17	3	-5	0	99	
45-64	0	-3	19	3	1	76	0	7	15	2	1	62	0	4	34	4	3	138	
65-74	0	2	17	3	0	28	0	7	4	-1	0	33	0	9	21	2	1	62	
75+	0	80	53	2	-2	10	0	89	39	3	2	19	0	169	92	6	0	29	
Excess total	0	97	109	6	-2	211	0	108	67	4	5	182	0	205	176	10	3	394	
Deaths total	7,184	2,653	1,290	149	46	268	8,559	2,954	1,294	127	38	234	15,743	5,607	2,585	277	84	502	
Excess <65	0	15	39	1	0	173	0	12	24	2	3	130	0	27	63	3	2	303	
Deaths <65	1,950	645	353	49	18	209	1,194	395	205	27	11	156	3,144	1,040	558	77	29	365	
1997-99																			
Excess total	0	-45	20	-3	-7	188	0	115	128	-6	2	176	0	69	149	-9	-5	364	
Excess total†	579	77	86	9	-2	n.p.	-41	1	80	-9	1	n.p.	538	79	166	0	-1	n.p.	
Deaths total	6,675	2,244	1,126	136	39	247	7,313	2,465	1,180	105	32	221	13,987	4,708	2,306	242	72	468	
Excess <65	0	-50	-13	-5	-6	160	0	24	12	2	1	132	0	-26	-1	-3	-4	292	
Excess <65†	438	88	60	8	-1	n.p.	137	57	28	5	2	n.p.	575	146	89	12	2	n.p.	
Deaths <65	2,219	642	351	54	17	199	1,230	413	205	30	11	158	3,449	1,054	556	84	28	357	

Notes

- The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
- The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
- For further explanation, refer to section 2.3.

8.1 Diabetes

Highlights

Diabetes was responsible for 2.6% of all deaths, although it is mentioned as an associated cause of death on approximately 8% of all death certificates.

Diabetes was responsible for 3% of all excess deaths in Inner Regional areas, and between 8% and 15% in Outer Regional and remote areas.

Death rates for males and females were similar.

Death rates for Indigenous Australians were about 13 times higher than the rates for non-Indigenous Australians in Major Cities.

SMRs rose from about 1.1 in Inner Regional areas and 1.4 in Outer Regional areas to 2.0 and 4.0 in Remote and Very Remote areas. SMRs also increased with remoteness for non-Indigenous Australians, being 1.1, 1.3 and 1.5 in Inner Regional, Outer Regional and Remote areas, but not significantly different from 1.0 in Very Remote areas (high overall rates in remote areas reflect Indigenous Australian prevalence).

Most of the excess is in the older age groups, with some in younger (25–64 years) age groups (particularly in remote areas and in Indigenous Australian populations).

Since 1992, death rates for males have remained steady or, in regional areas, have increased slightly. For females, rates have tended to decline slightly or, in remote areas, have not changed much.

Diabetes mellitus (ICD-10 codes E10–E14) is a major cause of illness and disability in Australia. It is also a leading cause of blindness and lower limb amputations, and can lead to pregnancy-related complications for both the mother and fetus or newborn child. Diabetes is an important risk factor for several other chronic diseases including heart disease, stroke and renal disease (AIHW 2002). Risk factors include genetic factors and obesity, low birth weight, increasing age, physical inactivity and poor diet (AIHW 2002).

Like other diseases, diabetes can be recorded on death records as the underlying cause of death or it may be recorded as an associated cause of death. Diabetes as the underlying cause of death is responsible for over 2% of deaths; diabetes as an associated cause is responsible for about 7.5% of all deaths.

Rates of diabetes death are usually reported for diabetes as an associated cause of death, because reporting underlying cause understates the impact of diabetes as a cause of death. However, this report describes the differences in diabetes mortality between areas based on diabetes as the underlying cause of death. This approach has been taken:

- to avoid double counting (as some deaths with diabetes as an associated cause may have been included in counts of deaths for circulatory disease, for example)
- because the inter-regional pattern, as expressed by SMRs for each area, is much the same using either method.

Average annual numbers of deaths and average annual numbers of 'excess' deaths due to diabetes defined as the underlying cause of death are underestimates of the burden of diabetes.

On average during the period, diabetes was responsible for 3,439 deaths annually – this is 3% of all deaths. Half (53%) were male; 60% were in Major Cities, 36% in regional areas and 4% in remote areas.

Overall diabetes death rates for Indigenous Australians were 12.5 times higher than the rates for non-Indigenous Australians in Major Cities.

In regional areas:

Death rates in Inner Regional and Outer Regional areas were 10% (1.1 times) and 40% (1.4 times) higher than in Major Cities.

For 0–64 year old males, death rates in Inner Regional areas were not significantly different from those in Major Cities, however, rates for males in Outer Regional areas and for females in Inner Regional and Outer Regional areas were, respectively, 1.4, 1.3 and 2.1 times those for their counterparts in Major Cities.

The inter-regional pattern for non-Indigenous Australians was broadly similar to that above, the major difference being that rates for non-Indigenous Australian males in Outer Regional areas were similar to those in Major Cities.

Annually there are 790 and 446 deaths in Inner Regional and Outer Regional areas; about 54% were male.

Annually there were 63 and 120 ‘excess’ deaths in Inner Regional and Outer Regional areas; this is 3% and 8% of all ‘excess’ deaths in Inner Regional and Outer Regional areas. Almost half (46%) of the ‘excess’ deaths were male. About two-thirds of the ‘excess’ deaths were persons aged 75 years or older, with the remainder 25 years and older.

Compared with the previous reporting period (1997–99), there were 143 more deaths of males and 67 more deaths of females annually in 2002–04.

The 12-year trend (AIHW 2006a) is for increasing rates for males and decreasing rates for females.

In remote areas:

Death rates in Remote and Very Remote areas were 2.1 and 4.1 times those in Major Cities.

For those aged 0–64 years, death rates in Remote and Very Remote areas were 3.5 and 8.8 times those in Major Cities.

Death rates for non-Indigenous Australians from Remote areas were 1.5 times those in Major Cities, while death rates in Very Remote areas were not significantly different from those in Major Cities.

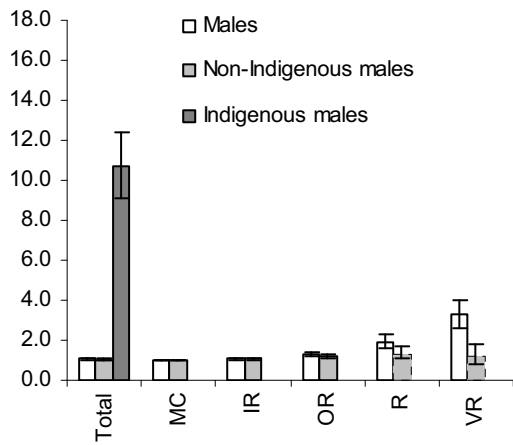
Annually there are 78 and 57 deaths in Remote and Very Remote areas; about 53% were male.

Annually there were 41 and 43 ‘excess’ deaths in Remote and Very Remote areas; this is 15% and 10% of all ‘excess’ deaths in Inner Regional and Outer Regional areas. Almost half (48%) of the ‘excess’ deaths were male and the bulk of the ‘excess’ fell amongst people aged older than 45 years.

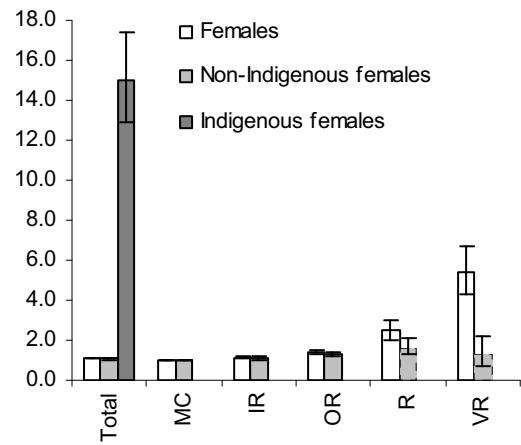
Compared with the previous reporting period (1997–99), there were 18 more deaths of males and 8 more deaths of females annually in 2002–04.

The 12-year trend (AIHW 2006a) shows no significant change in remote area mortality due to diabetes.

SMR



SMR



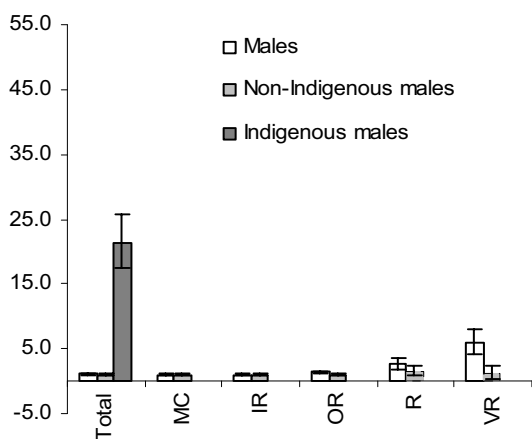
Notes

1. While the figure allows comparison of deaths between areas for each sex, it does not allow comparison between the sexes.
2. The presented SMR is the ratio of the observed number of deaths to the number expected if Major Cities rates applied in each area.
3. SMRs calculated for non-Indigenous Australian persons from Remote and Very Remote areas (dashed) should be treated with caution (see Appendix A).
4. The SMRs for Indigenous Australian persons are for Qld, WA, SA and NT combined (see Appendix A).

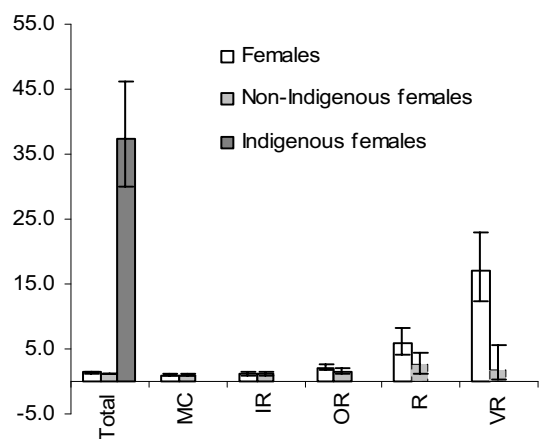
Source: AIHW mortality database.

Figure 8.5: Diabetes SMRs, by sex, 2002-04

SMR



SMR



Note: See notes for Figure 8.5.

Figure 8.6: Diabetes SMRs for persons aged 64 years and under, by sex, 2002-04

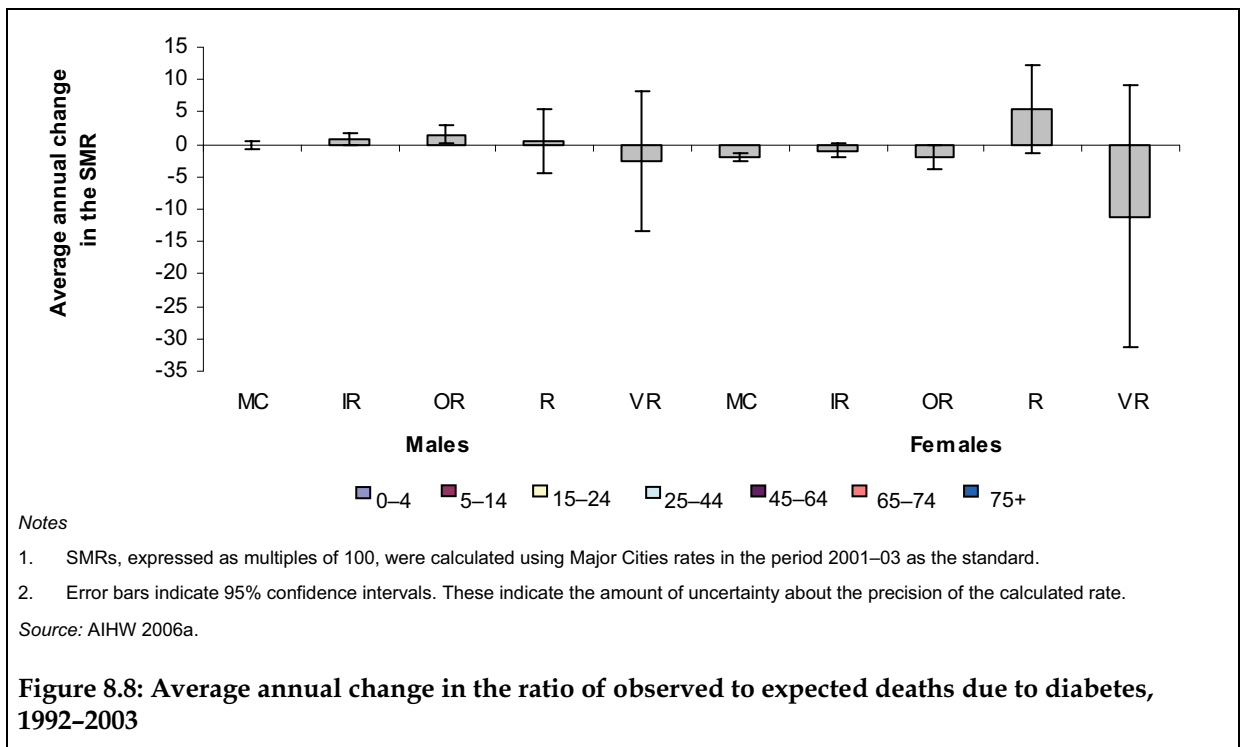
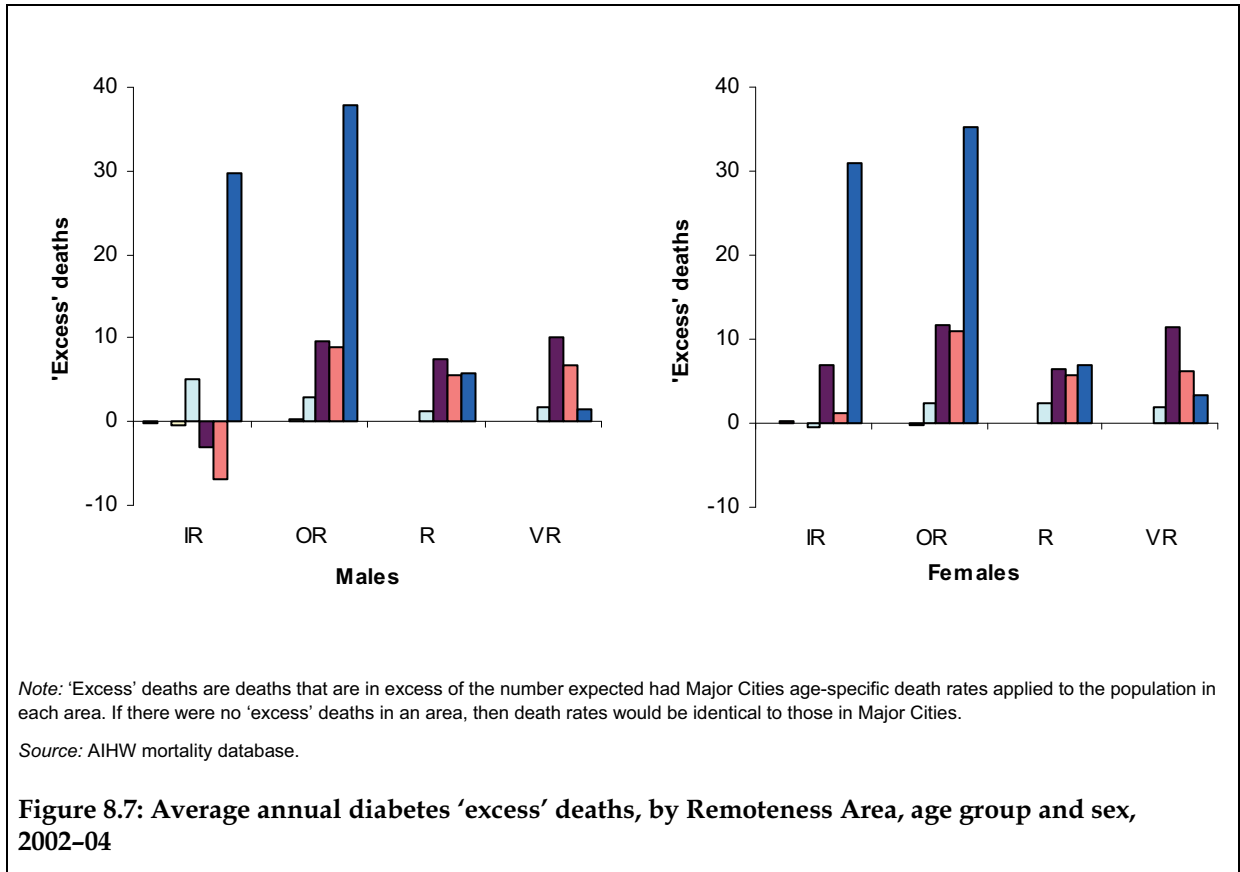


Table 8.8: SMRs, average annual deaths and 'excess' deaths due to diabetes, 2002-04 and 1997-99

	Males						Females						Persons					
	MC	IR	OR	R	VR		MC	IR	OR	R	VR		MC	IR	OR	R	VR	
	Rate		Ratio			Rate	Rate		Ratio			Rate	Rate		Ratio			
2002-04																		
0-4	0	0.25	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0	0.12	0.00	0.00	0.00	0.00	
5-14	0	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	
15-24	0	0.27	1.55	0.00	0.00	0	1.18	0.10	0.00	0.00	0.00	0	0.71	0.87	0.00	0.00	0.00	
25-44	1	*1.85	*1.94	*3.32	*6.95	1	0.83	*2.55	*10.07	*14.26	*14.26	1	*1.49	*2.14	*5.48	*9.28	*9.28	
45-64	11	0.95	*1.32	*2.65	*5.89	4	*1.30	*2.04	*5.33	*18.48	*18.48	8	1.05	*1.52	*3.32	*8.91	*8.91	
65-74	70	0.94	*1.17	*1.85	*3.72	35	1.02	*1.43	*3.00	*6.96	*6.96	52	0.97	*1.25	*2.19	*4.67	*4.67	
75+	196	*1.14	*1.39	*1.53	1.37	155	*1.13	*1.34	*1.70	*2.03	*2.03	171	*1.13	*1.36	*1.61	*1.67	*1.67	
Total	17	*1.06	*1.32	*1.89	*3.27	15	*1.12	*1.42	*2.47	*5.45	*5.45	16	*1.09	*1.37	*2.12	*4.06	*4.06	
Total <65	3	1.02	*1.38	*2.69	*5.92	1	*1.25	*2.05	*5.87	*16.94	*16.94	2	1.09	*1.57	*3.53	*8.75	*8.75	
1997-99																		
Total	15	1.00	*1.25	*1.57	*3.08	14	*1.10	*1.45	*2.01	*6.14	*6.14	14	*1.05	*1.34	*1.75	*4.24	*4.24	
Total <65	3	0.88	*1.33	*2.41	*7.30	2	0.93	*1.95	*3.92	*16.83	*16.83	2	0.90	*1.54	*2.88	*10.12	*10.12	
Total†	1.00	1.00	*1.25	*1.58	*3.14	*1.07	*1.18	*1.56	*2.19	*6.85	*6.85	*1.03	*1.08	*1.38	*1.82	*4.47	*4.47	
Total <65†	*1.09	0.96	*1.45	*2.64	*8.21	*1.56	*1.47	*3.07	*6.13	*26.37	*26.37	*1.22	1.10	*1.87	*3.48	*12.42	*12.42	

(continued)

Table 8.8 (continued): SMRs, average annual deaths and 'excess' deaths due to diabetes, 2002-04 and 1997-99

	Males				Females				Persons						
	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR
Average annual number of excess deaths															
2002-04															
0-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-44	0	5	3	1	2	0	-1	2	2	2	0	4	5	4	4
45-64	0	-3	10	7	10	0	7	12	6	11	0	4	21	14	21
65-74	0	-7	9	6	7	0	1	11	6	6	0	-6	20	11	13
75+	0	30	38	6	1	0	31	35	7	3	0	61	73	13	5
Excess total	0	24	60	20	20	0	39	60	21	23	0	63	120	41	43
Deaths total	1,076	420	243	42	29	982	371	203	36	28	2,057	790	446	78	57
Excess <65	0	1	13	9	12	0	7	14	9	13	0	8	26	17	25
Deaths <65	190	67	46	14	14	82	34	27	11	14	273	102	73	24	28
1997-99															
Excess total	0	1	39	11	16	0	28	58	14	24	0	29	97	24	40
Excess total†	-2	-1	39	11	16	57	48	68	15	25	54	47	106	26	41
Deaths total	915	325	195	30	23	890	319	188	27	29	1,805	644	383	57	52
Excess <65	0	-7	11	7	15	0	-2	16	7	16	0	-9	27	14	30
Excess <65†	16	-2	14	8	15	37	10	22	7	16	53	8	35	15	31
Deaths <65	184	54	44	12	17	102	31	32	9	17	286	85	76	21	34

Notes

- The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
- The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
- For further explanation, refer to section 2.3.

Table 8.9: SMRs, average annual deaths and 'excess' deaths due to diabetes, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons					
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous		
	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate
2002-04																		
0-4	0	0.26	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0	0.13	0.00	0.00	0.00	0.00
5-14	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
15-24	0	0.28	1.64	0.00	0.00	0.00	0	1.20	0.11	0.00	0.00	0.00	0	0.72	0.93	0.00	0.00	0.00
25-44	1	*1.82	1.17	0.46	3.51	*17.75	0	0.92	*2.21	3.12	0.24	*33.42	1	*1.51	1.51	1.28	2.57	*22.75
45-64	10	0.91	1.01	1.58	0.79	*22.08	4	*1.29	*1.55	*2.54	2.17	*38.41	7	1.01	1.15	*1.81	1.08	*27.26
65-74	68	0.92	1.07	1.23	1.60	*10.27	34	0.98	1.07	1.43	1.86	*23.05	51	0.94	1.07	1.29	1.67	*15.20
75+	190	*1.14	*1.39	1.38	1.10	*3.14	151	*1.12	*1.32	*1.54	0.98	*4.34	167	*1.13	*1.35	*1.45	1.05	*3.75
Total	16	1.05	*1.23	*1.35	1.24	*10.68	14	*1.11	*1.30	*1.63	1.27	*15.04	15	*1.08	*1.26	*1.46	1.25	*12.54
Total <65	3	0.98	1.03	1.44	1.08	*21.24	1	*1.25	*1.59	*2.55	1.81	*37.44	2	1.06	1.18	*1.72	1.25	*26.38
1997-99																		
Total	15	1.00	*1.18	1.16	0.52	*11.01	14	*1.11	*1.35	1.31	*1.87	*16.79	14	*1.05	*1.25	*1.22	1.02	*13.53
Total <65	3	0.87	1.05	1.30	0.80	*24.50	2	0.90	*1.39	1.58	*3.54	*39.96	3	0.88	1.17	1.38	1.51	*30.31
Total†	1.01	0.98	*1.16	1.16	0.52	<i>n.p.</i>	*1.05	*1.09	*1.33	1.30	*1.86	<i>n.p.</i>	*1.03	1.03	*1.24	*1.22	1.02	<i>n.p.</i>
Total <65†	*1.13	1.01	1.22	1.51	0.94	<i>n.p.</i>	*1.44	1.14	*1.76	1.96	*4.32	<i>n.p.</i>	*1.23	1.05	*1.39	*1.64	1.78	<i>n.p.</i>

(continued)

Table 8.9 (continued): SMRs, average annual deaths and 'excess' deaths due to diabetes, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons						
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			
	MC	IR	OR	R	VR	Indigenous	MC	IR	OR	R	VR	Indigenous	MC	IR	OR	R	VR	Indigenous	
Average annual number of excess deaths																			
2002-04																			
0-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-44	0	4	0	0	0	5	0	0	2	0	0	5	0	4	2	0	0	0	10
45-64	0	-5	0	2	0	28	0	6	6	2	0	23	0	1	6	4	0	0	51
65-74	0	-9	3	1	1	14	0	-1	2	1	1	21	0	-10	5	3	2	0	35
75+	0	29	36	4	0	5	0	30	32	5	0	8	0	59	68	9	0	0	12
Excess total	0	19	40	7	2	52	0	35	41	8	1	56	0	54	81	16	3	0	108
Deaths total	1,042	401	217	28	8	57	952	356	178	22	4	60	1,993	757	395	50	13	0	118
Excess <65	0	-1	1	2	0	33	0	6	7	2	0	28	0	5	8	4	1	0	61
Deaths <65	180	61	32	7	2	35	75	32	19	4	1	29	255	92	50	10	3	0	64
1997-99																			
Excess total	0	0	27	3	-3	46	0	30	44	4	3	56	0	30	70	7	0	0	102
Excess total†	12	-6	25	3	-3	n.p.	41	25	42	4	3	n.p.	53	19	66	7	0	0	n.p.
Deaths total	896	317	178	21	3	50	866	312	169	16	6	59	1,762	629	347	37	9	0	110
Excess <65	0	-8	2	1	0	35	0	-3	6	1	2	35	0	-11	8	3	1	0	70
Excess <65†	21	0	6	2	0	n.p.	29	3	9	2	2	n.p.	50	4	15	4	2	0	n.p.
Deaths <65	176	50	32	6	1	37	96	28	21	3	2	36	272	79	54	9	4	0	73

Notes

- The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
- The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
- For further explanation, refer to section 2.3.

8.2 Renal failure

Highlights

Renal failure was responsible for 1.5% of all deaths. There were fewer deaths than expected in regional areas, while renal failure was responsible for 2% of the excess deaths in Very Remote areas.

Death rates for males and females were similar.

Death rates for Indigenous Australians were about 6.5 times higher than the rates for non-Indigenous Australians in Major Cities.

SMRs were elevated for males and females (1.8 and 2.7) only in Very Remote areas. SMRs for non-Indigenous Australians were not significantly higher than 1.0 in any areas.

Since 1992, there appear to have been slight increases in mortality in Major Cities (at least for females), but no significant change in the other areas.

Renal failure (ICD-10 codes N17–N19) has been included mainly because of its importance as a cause of death for Indigenous Australians. Renal failure can be a result of damage to kidneys caused by high blood pressure, diabetes, infections and long-term use of analgesics (AIHW 2002).

On average during the period, renal failure was responsible for 1,935 deaths annually – this is 1.5% of all deaths. Half (48%) were male; 66% were in Major Cities, 32% in regional areas and 2% in remote areas.

Overall renal failure death rates for Indigenous Australians were 6.5 times higher than the rates for non-Indigenous Australians in Major Cities.

In regional areas:

Death rates for the total population and for people under 65 years of age were not significantly different from those in Major Cities.

The inter-regional pattern for non-Indigenous Australians was largely similar to that above, with the exception that rates in Inner Regional areas were 0.95 times those in Major Cities.

Annually there are 426 and 186 deaths in Inner Regional and Outer Regional areas; about 49% were male.

Annually there were 21 and 10 fewer deaths than expected in Inner Regional and Outer Regional areas. About two-thirds (77%) of the savings were male. There tended to be fewer deaths than expected amongst those older than 65 years, particularly amongst those older than 75 years.

Compared with the previous reporting period (1997–99), there were 40 more deaths of males and 43 more deaths of females annually in 2002–04.

The 12-year trend (AIHW 2006a) is for death rates to change very little.

In remote areas:

Death rates in Remote areas were not significantly different from those in Major Cities, while rates in Very Remote areas were 2.2 times those in Major Cities.

For 0–64 year old males, death rates in Remote areas were not significantly different from those in Major Cities, while rates in Very Remote areas were 10 times those in Major Cities.

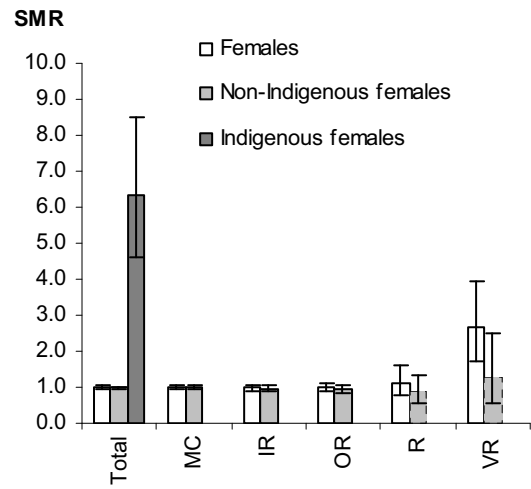
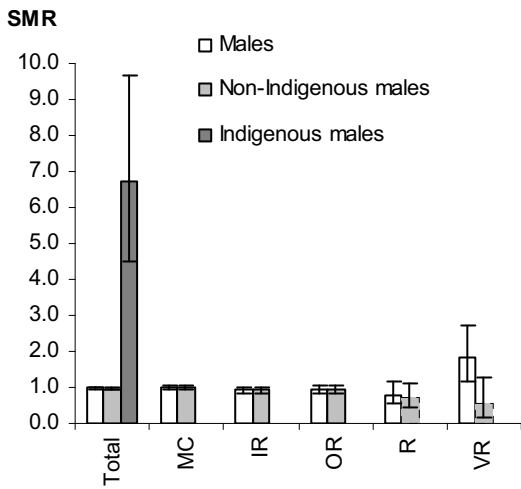
Death rates for non-Indigenous Australians from remote areas were not significantly different from those in Major Cities. The higher rates for the total population in Very Remote areas appear largely to be a reflection of the prevalence of Indigenous Australians living in Very Remote areas coupled with the overall high death rates for Indigenous Australians due to renal failure.

Annually there are 20 and 17 deaths in Remote and Very Remote areas; about 46% were male.

Annually there were 1 less and 9 more deaths than expected in Remote and Very Remote areas. About 25% were male. The 9 excess deaths in Very Remote areas constituted about 2% of the total excess in Very Remote areas, with 45–64 year olds contributing strongly.

Compared with the previous reporting period (1997–99), there were 3 fewer deaths of males and 3 fewer deaths of females annually in 2002–04.

Rates of death over the 12-year period 1992 to 2003 (AIHW 2006a) have not changed significantly in remote areas.

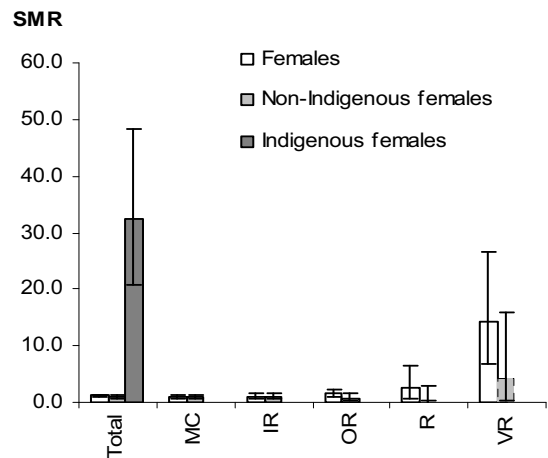
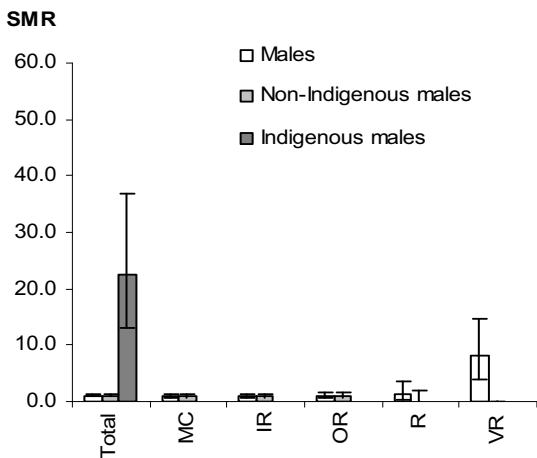


Notes

1. While the figure allows comparison of deaths between areas for each sex, it does not allow comparison between the sexes.
2. The presented SMR is the ratio of the observed number of deaths to the number expected if Major Cities rates applied in each area.
3. SMRs calculated for non-Indigenous Australian persons from Remote and Very Remote areas (dashed) should be treated with caution (see Appendix A).
4. The SMRs for Indigenous Australian persons are for Qld, WA, SA and NT combined (see Appendix A).

Source: AIHW mortality database.

Figure 8.9: Renal failure SMRs, by sex, 2002-04



Note: See notes for Figure 8.9.

Figure 8.10: Renal failure SMRs for persons aged 64 years and under, by sex, 2002-04

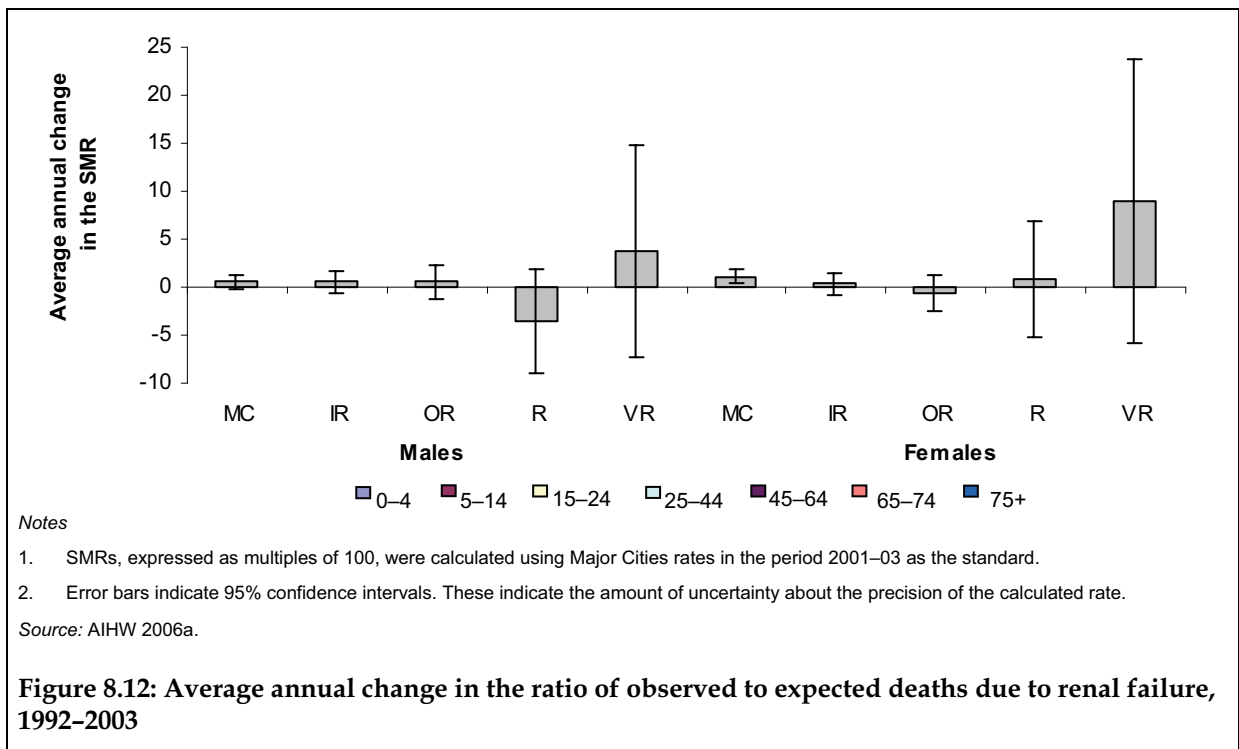
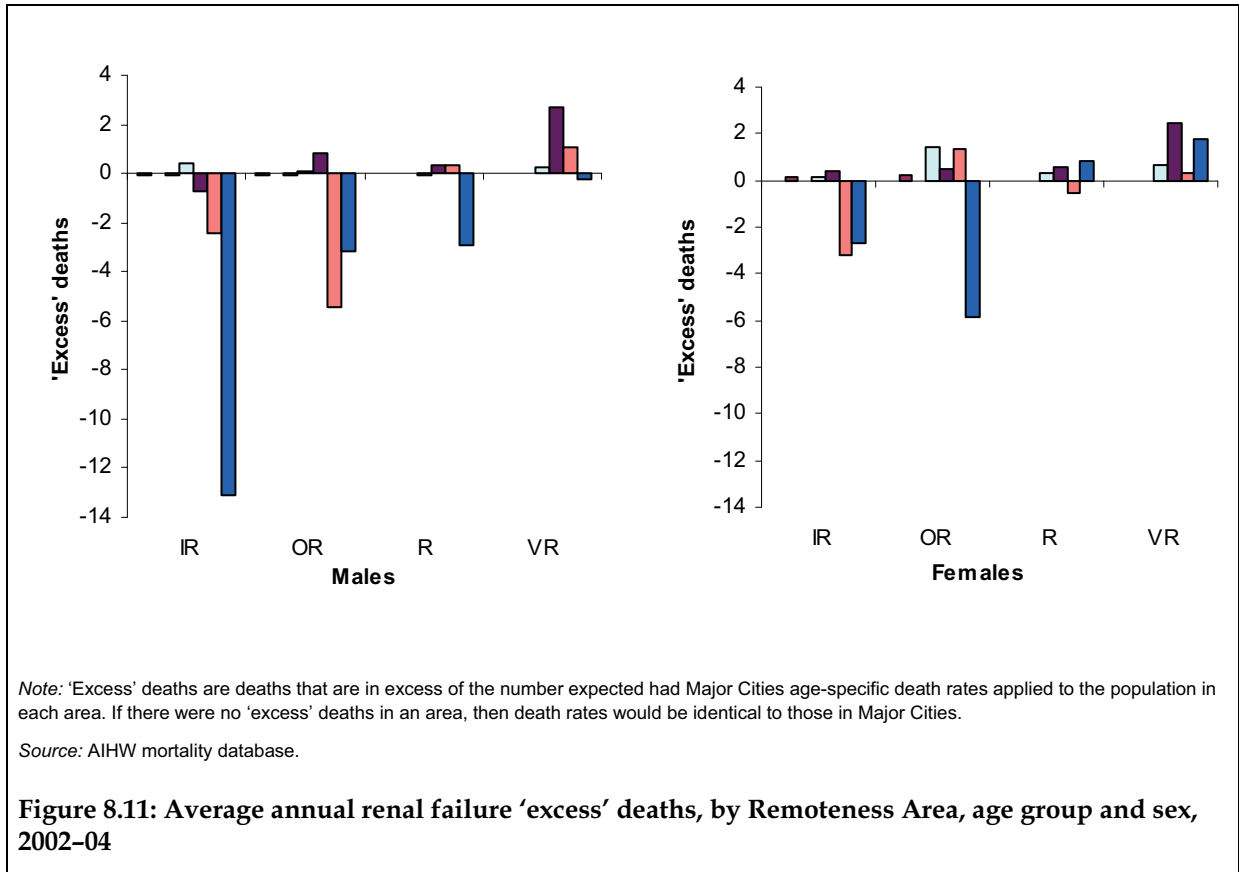


Table 8.10: SMIRs, average annual deaths and 'excess' deaths due to renal failure, 2002-04 and 1997-99

	Males						Females						Persons								
	MC		OR		VR		MC		OR		VR		MC		IR		OR		VR		
	Rate		Ratio		Ratio		Rate		Ratio		Ratio		Rate		Ratio		Ratio		Ratio		
2002-04																					
0-4	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5-14	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
15-24	0	0.53	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0	0.53	0.00	0.00	0.00	0.00	0.00	0.00	
25-44	0	1.39	1.14	0.23	5.85	0.00	0	1.24	*6.27	7.13	24.85	0	1.34	*2.77	2.35	11.93	0	0.00	0.00	0.00	
45-64	2	0.92	1.17	1.43	*8.73	0.00	1	1.05	1.13	2.11	*13.01	2	0.98	1.15	1.70	*10.34	2	0.98	1.15	1.70	
65-74	17	0.91	*0.59	1.22	2.79	0.00	12	0.84	1.15	0.46	1.87	15	0.88	0.81	0.93	2.44	15	0.88	0.81	0.93	
75+	168	0.93	0.96	0.68	0.92	0.00	123	0.99	0.93	1.10	1.70	140	0.96	0.95	0.88	1.25	140	0.96	0.95	0.88	
Total	9	0.93	0.92	0.80	*1.84	0.00	10	0.98	0.97	1.12	*2.66	10	0.95	0.95	0.94	*2.18	10	0.95	0.95	0.94	
Total <65	1	0.96	1.14	1.25	*8.02	0.00	0	1.08	1.53	2.56	*14.37	0	1.01	1.30	1.74	*10.30	0	1.01	1.30	1.74	
1997-99																					
Total	9	0.94	1.01	1.17	*2.27	0.00	9	0.94	1.13	1.37	*3.85	8	*0.94	1.07	1.26	*2.93	8	*0.94	1.07	1.26	
Total <65	0	0.83	1.16	2.24	*5.45	0.00	0	1.04	1.68	*3.77	*20.24	0	0.92	1.37	*2.83	*11.08	0	0.92	1.37	*2.83	
Total†	1.02	0.96	1.02	1.17	*2.27	0.00	0.99	0.93	1.11	1.35	*3.78	1.00	0.94	1.07	1.25	*2.90	1.00	0.94	1.07	1.25	
Total <65†	0.79	0.66	0.92	1.76	*4.29	0.00	0.91	0.93	1.51	3.46	*19.70	0.84	0.77	1.15	*2.36	*9.41	0.84	0.77	1.15	*2.36	

(continued)

Table 8.10 (continued): SMRs, average annual deaths and 'excess' deaths due to renal failure, 2002-04 and 1997-99

	Males						Females						Persons					
	MC	IR	OR	R	VR		MC	IR	OR	R	VR		MC	IR	OR	R	VR	
Average annual number of excess deaths																		
2002-04																		
0-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-44	0	0	0	0	0	0	0	0	1	0	1	0	1	1	1	0	1	1
45-64	0	-1	1	0	3	0	0	0	0	1	2	0	0	0	1	1	5	5
65-74	0	-2	-5	0	1	0	0	-3	1	-1	0	0	0	-6	-4	0	1	1
75+	0	-13	-3	-3	0	0	0	-3	-6	1	2	0	-16	-9	-2	2	2	2
Excess total	0	-16	-8	-2	4	0	0	-5	-2	1	5	0	-21	-10	-1	9	9	9
Deaths total	616	208	93	9	8	667	218	93	93	10	8	1,284	426	186	20	17	17	17
Excess <65	0	-1	1	0	3	0	1	2	2	1	3	0	0	3	1	6	6	6
Deaths <65	33	11	6	1	3	24	9	6	6	1	3	57	20	12	2	7	7	7
1997-99																		
Excess total	0	-11	1	2	5	0	-11	10	10	3	8	0	-23	12	5	13	13	13
Excess total†	9	-8	2	2	5	-5	-14	9	9	3	8	4	-22	12	5	12	12	12
Deaths total	522	174	87	11	9	580	175	93	93	11	10	1,102	349	180	23	19	19	19
Excess <65	0	-1	1	1	1	0	0	2	2	1	3	0	-1	3	2	5	5	5
Excess <65†	-6	-3	0	1	1	-2	0	2	2	1	3	-8	-4	1	2	4	4	4
Deaths <65	22	6	5	1	2	17	6	5	5	1	3	40	12	9	3	5	5	5

Notes

- The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
- The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
- For further explanation, refer to section 2.3.

Table 8.11: SMRs, average annual deaths and 'excess' deaths due to renal failure, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons					
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous		
	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate
2002-04																		
0-4	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
5-14	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
15-24	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
25-44	0	1.40	1.18	0.26	0.00	43.25	0	0.63	2.67	0.00	0.00	*49.34	0	1.15	1.65	0.18	0.00	*48.37
45-64	2	0.96	1.09	0.12	0.00	*21.96	1	1.04	0.61	0.06	4.78	*29.06	2	1.00	0.89	0.10	1.67	*25.34
65-74	17	0.88	*0.56	1.09	0.03	*6.53	12	0.84	1.02	0.13	0.07	*9.30	14	0.86	*0.74	0.73	0.04	*7.84
75+	163	0.93	0.98	0.73	0.71	2.38	119	0.97	0.93	1.05	1.20	*2.23	136	0.95	0.96	0.88	0.92	*2.28
Total	9	0.93	0.93	0.74	0.55	*6.74	10	0.96	0.93	0.90	1.30	*6.35	10	*0.95	0.93	0.81	0.85	*6.50
Total <65	1	0.99	1.08	0.14	0.00	*22.66	0	1.02	0.76	0.05	4.30	*32.39	0	1.00	0.95	0.10	1.45	*27.64
1997-99																		
Total	8	0.95	1.01	1.02	1.36	*4.08	9	0.93	1.09	1.07	1.40	*9.37	9	0.94	1.05	1.04	1.38	*6.40
Total <65	0	0.82	1.05	1.35	0.65	*17.28	0	1.06	0.98	1.27	0.00	*94.27	0	0.92	1.03	1.32	0.44	*43.07
Total†	*1.07	1.04	1.10	1.09	1.46	<i>n.p.</i>	1.05	1.02	*1.18	1.16	1.51	<i>n.p.</i>	*1.06	1.03	*1.14	1.12	1.48	<i>n.p.</i>
Total <65†	0.81	0.67	0.86	1.11	0.54	<i>n.p.</i>	0.85	0.77	0.71	0.94	0.00	<i>n.p.</i>	*0.83	0.72	0.80	1.04	0.35	<i>n.p.</i>

(continued)

Table 8.11 (continued): SMRs, average annual deaths and 'excess' deaths due to renal failure, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons					
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous		
	MC	IR	OR	R	VR	Indigenous	MC	IR	OR	R	VR	Indigenous	MC	IR	OR	R	VR	
Average annual number of excess deaths																		
2002-04																		
0-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-44	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	2
45-64	0	0	0	-1	0	5	0	0	-1	0	1	6	0	0	-1	-1	0	11
65-74	0	-3	-6	0	0	2	0	-3	0	-1	0	3	0	-6	-5	-1	5	
75+	0	-12	-2	-2	-1	1	0	-6	-5	0	0	2	0	-18	-7	-2	3	
Excess total	0	-15	-7	-3	-1	8	0	-9	-6	-1	13	0	-24	-13	-4	-1	21	
Deaths total	597	201	90	8	2	10	646	207	85	8	3	15	1,242	408	176	16	5	
Excess <65	0	0	0	-1	0	5	0	0	-1	0	1	8	0	0	0	-1	0	
Deaths <65	31	11	6	0	0	5	23	8	3	0	1	8	55	19	9	0	13	
1997-99																		
Excess total	0	-9	1	0	1	7	0	-12	7	1	1	15	0	-21	8	1	2	
Excess total†	33	7	7	1	1	n.p.	26	3	14	1	1	n.p.	59	9	21	2	2	
Deaths total	513	173	85	9	4	9	570	171	88	8	3	17	1,083	344	172	18	6	
Excess <65	0	-1	0	0	0	3	0	0	0	0	0	7	0	-1	0	0	10	
Excess <65†	-5	-3	-1	0	0	n.p.	-3	-2	-1	0	0	n.p.	-8	-4	-2	0	0	
Deaths <65	21	6	4	1	0	3	16	5	2	0	0	7	37	11	6	1	10	

Notes

- The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
- The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
- For further explanation, refer to section 2.3.

8.3 Liver disease

Highlights

Liver disease was responsible for 1% of all deaths, and less than 1% and about 5%, respectively, of excess deaths in regional and remote areas.

Death rates for Indigenous Australians were 12 times higher than the rates for non-Indigenous Australians in Major Cities.

SMRs increased with remoteness, from about 1.0 in Inner Regional areas to 1.2, 1.8 and 3.2 in Outer Regional, Remote and Very Remote areas.

For non-Indigenous Australians, death rates were similar to those in Major Cities, except in Outer Regional areas where they were 1.2 times those in Major Cities.

Liver disease (ICD-10 codes K70–K77) includes, amongst others, alcoholic liver disease, toxic liver disease, some hepatic failure and chronic hepatitis, and fibrosis and cirrhosis of the liver.

On average during the period, liver disease was responsible for 1,377 deaths annually – this is 1% of all deaths. Two-thirds (69%) were male; 62% were in Major Cities, 34% in regional areas and 5% in remote areas.

Overall, liver disease death rates for Indigenous Australians were 12.0 times higher than the rates for non-Indigenous Australians in Major Cities.

In regional areas:

In the main, death rates in regional areas were not significantly different from those in Major Cities; however, rates for males in Outer Regional areas were about 15% higher than in Major Cities.

For 0–64 year olds, death rates in Outer Regional areas were about 30% higher than in Major Cities (rates in Inner Regional areas were not significantly different from those in Major Cities).

For non-Indigenous Australians, death rates in regional areas were similar to those in Major Cities. For 0–64 year olds, death rates in Outer Regional areas were 15% higher than in Major Cities.

Annually there are 299 and 161 deaths in Inner Regional and Outer Regional areas; about 71% were male.

Annually there were 3 and 19 ‘excess’ deaths in Inner Regional and Outer Regional areas; this is 0% and 1% of all ‘excess’ deaths in Inner Regional and Outer Regional areas. The great bulk of the ‘excess’ deaths were males aged 25–64 years, with fewer deaths than expected amongst people older than 65 (particularly 75) years.

Compared with the previous reporting period (1997–99), there were 43 more deaths of males and 7 more deaths of females annually in 2002–04.

In remote areas:

Death rates in Remote and Very Remote areas were about 1.8 and 3.2 times those in Major Cities.

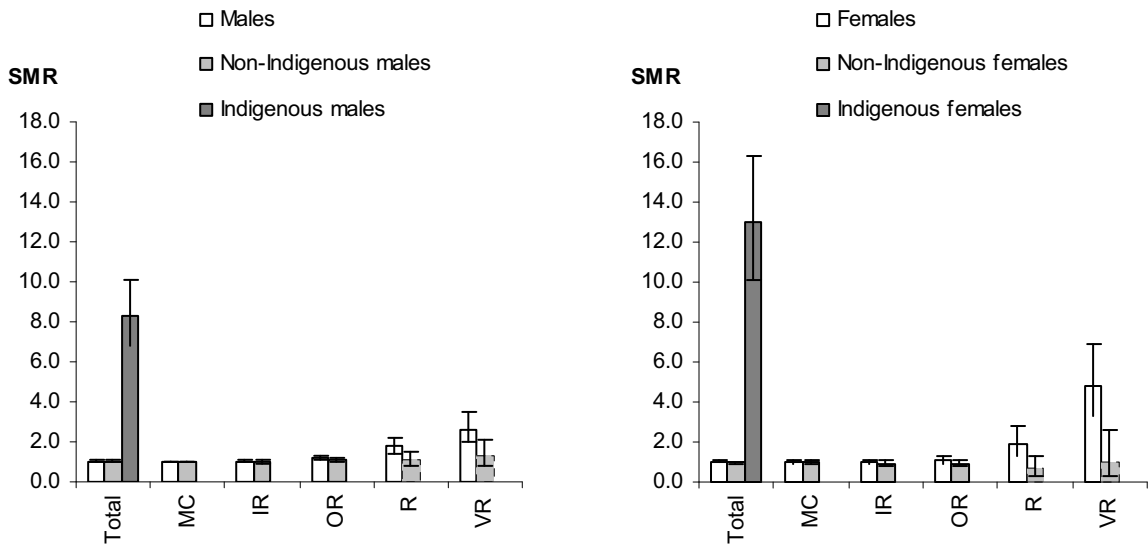
For 0–64 year olds, death rates in Remote and Very Remote areas were about 2.2 and 4.0 times those in Major Cities.

Death rates for remote area non-Indigenous Australians were not significantly different from those in Major Cities.

Annually there are 35 and 27 deaths in Remote and Very Remote areas; about 66% were male.

Annually there were 15 and 18 'excess' deaths in Remote and Very Remote areas; this is 5% and 4% of all 'excess' deaths in Remote and Very Remote areas. Two-thirds (64%) were male. The excess fell mainly amongst the 25–64 year olds.

Compared with the previous reporting period (1997–99), there were 9 more deaths of males and 2 more deaths of females annually in 2002–04.

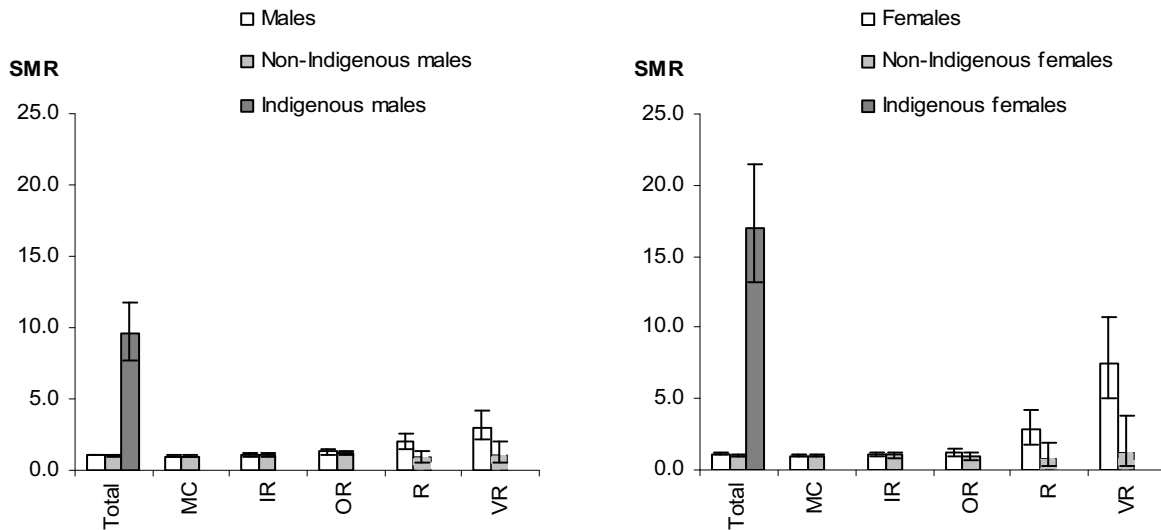


Notes

1. While the figure allows comparison of deaths between areas for each sex, it does not allow comparison between the sexes.
2. The presented SMR is the ratio of the observed number of deaths to the number expected if Major Cities rates applied in each area.
3. SMRs calculated for non-Indigenous Australian persons from Remote and Very Remote areas (dashed) should be treated with caution (see Appendix A).
4. The SMRs for Indigenous Australian persons are for Qld, WA, SA and NT combined (see Appendix A).

Source: AIHW mortality database.

Figure 8.13: Liver disease SMRs, by sex, 2002-04



Note: See notes for Figure 8.13.

Figure 8.14: Liver disease SMRs for persons aged 64 years and under, by sex, 2002-04

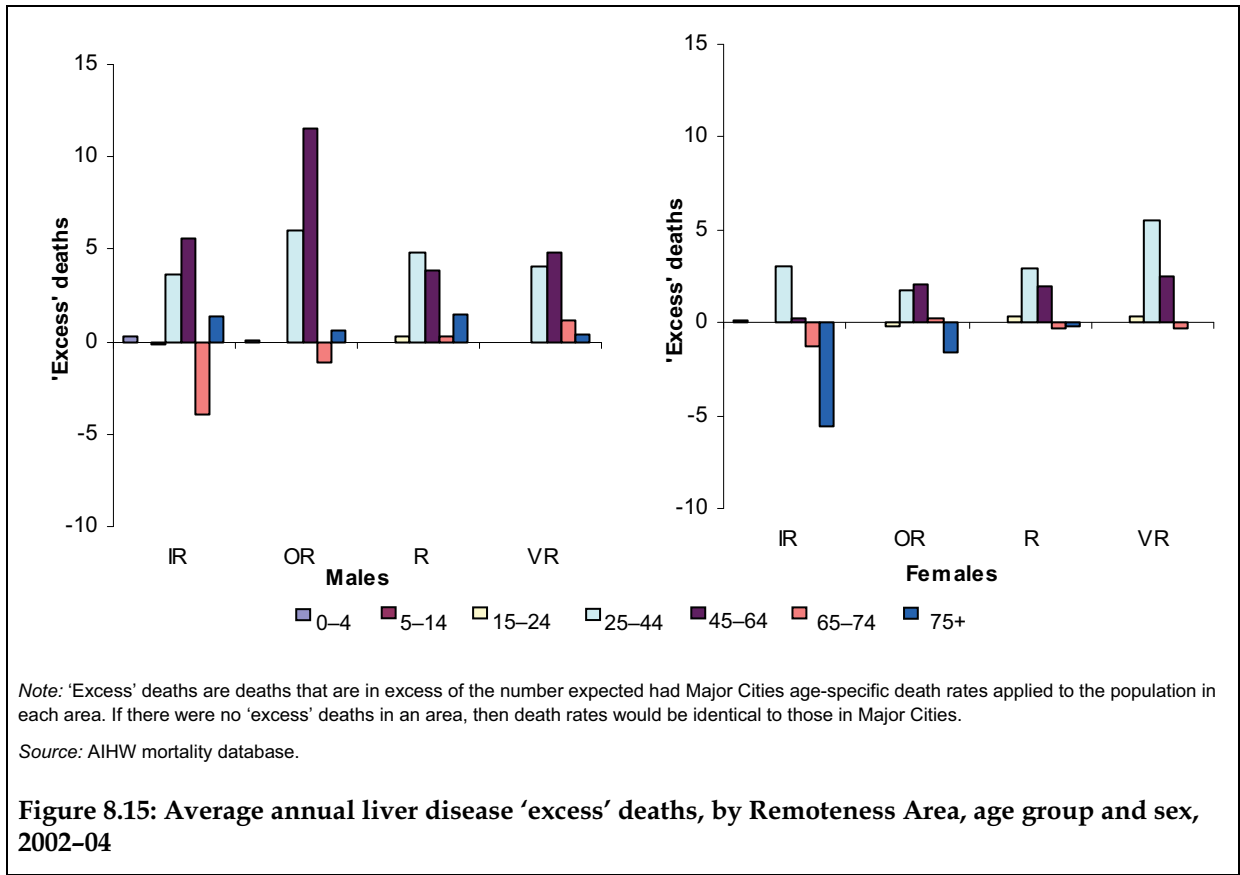


Table 8.12: SMIRs, average annual deaths and 'excess' deaths due to liver disease, 2002-04 and 1997-99

	Males						Females						Persons							
	MC		OR		VR		MC		OR		VR		MC		IR		OR		VR	
	Rate		Ratio		Ratio		Rate		Ratio		Ratio		Rate		Ratio		Ratio		Ratio	
2002-04																				
0-4	0	1.56	1.52	0.00	0.00	0.00	0	2.96	0.00	0.00	0.00	0.00	0	1.72	1.34	0.00	0.00	0.00	0.00	
5-14	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00	
15-24	0	0.00	0.00	23.85	0.00	0.00	0	1.01	0.00	0.00	15.84	26.22	0	0.68	0.00	19.08	14.62			
25-44	3	1.22	*1.69	*4.10	*5.87	*18.25	1	1.39	1.47	*5.73	*18.25	*18.25	2	*1.27	*1.62	*4.57	*9.32			
45-64	18	1.06	*1.24	*1.53	*2.38	*3.65	6	1.01	1.13	1.91	*3.65	*3.65	12	1.05	*1.22	*1.62	*2.65			
65-74	34	0.93	0.95	1.10	1.89	0.13	13	0.94	1.03	0.74	0.13	0.13	23	0.93	0.97	1.01	1.47			
75+	35	1.04	1.04	1.74	1.51	0.98	18	0.81	0.87	0.81	0.98	0.98	25	0.94	0.97	1.39	1.32			
Total	9	1.03	*1.17	*1.76	*2.63	*4.85	4	0.96	1.06	*1.93	*4.85	*4.85	6	1.01	*1.14	*1.81	*3.18			
Total <65	6	1.08	*1.31	*2.00	3.03	*7.50	2	1.08	1.19	*2.87	*7.50	*7.50	4	1.08	*1.28	*2.21	*4.05			
1997-99																				
Total	9	0.92	*1.12	*1.42	*1.93	*4.17	4	1.06	*1.25	*2.55	*4.17	*4.17	6	0.96	*1.15	*1.70	*2.43			
Total <65	6	0.93	1.12	1.40	*2.46	*4.31	2	1.08	*1.44	*3.11	*4.31	*4.31	4	0.97	*1.19	*1.78	*2.85			
Total†	*1.08	1.00	*1.21	*1.55	*2.14	*4.20	0.97	1.02	*1.21	*2.51	*4.20	*4.20	*1.05	1.00	*1.21	*1.80	*2.64			
Total <65†	*1.11	1.03	*1.24	*1.56	*2.78	*4.60	1.04	1.12	*1.49	*3.24	*4.60	*4.60	*1.09	1.06	*1.30	*1.95	*3.18			

(continued)

Table 8.12 (continued): SMRs, average annual deaths and 'excess' deaths due to liver disease, 2002-04 and 1997-99

	Males					Females					Persons				
	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR
Average annual number of excess deaths															
2002-04															
0-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-24	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
25-44	0	4	6	5	4	0	3	2	3	5	0	7	8	8	10
45-64	0	6	12	4	5	0	0	2	2	2	0	6	14	6	7
65-74	0	-4	-1	0	1	0	-1	0	0	0	0	-5	-1	0	1
75+	0	1	1	1	0	0	-6	-2	0	0	0	-4	-1	1	0
Excess total	0	7	17	11	10	0	-3	2	5	8	0	3	19	15	18
Deaths total	575	211	117	25	16	270	89	44	10	10	845	299	161	35	27
Excess <65	0	9	18	9	9	0	3	4	5	8	0	13	21	14	17
Deaths <65	331	121	74	18	13	124	45	23	8	10	455	165	97	26	23
1997-99															
Excess total	0	-15	12	6	6	0	4	9	7	6	0	-10	21	13	11
Excess total†	43	-1	19	7	6	-8	1	8	7	6	35	1	27	14	12
Deaths total	559	176	109	20	12	236	81	45	11	7	795	258	154	31	19
Excess <65	0	-7	7	4	6	0	3	8	5	4	0	-4	15	9	10
Excess <65†	33	3	13	5	7	4	4	9	6	4	37	7	21	10	11
Deaths <65	331	100	64	13	11	113	39	26	8	5	443	139	90	21	16

Notes

1. The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
2. The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
3. For further explanation, refer to section 2.3.

Table 8.13: SMIRs, average annual deaths and 'excess' deaths due to liver disease, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons					
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous		
	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate
2002-04																		
0-4	0	1.60	0.02	0.00	0.00	0.00	0	3.05	0.00	0.00	0.00	0.00	0	1.76	0.02	0.00	0.00	0.00
5-14	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
15-24	0	0.00	0.00	0.00	0.00	21.61	0	1.54	0.00	0.00	0.00	0.00	0	0.89	0.00	0.00	0.00	*64.83
25-44	3	1.14	1.43	0.82	0.65	*14.28	1	1.21	0.81	1.04	3.85	*30.73	2	1.16	1.24	0.88	1.44	*19.50
45-64	17	1.08	*1.18	0.96	1.24	*7.85	6	1.00	0.99	0.80	0.55	*10.58	11	1.06	1.14	0.92	1.10	*8.63
65-74	32	0.90	0.91	1.18	1.49	*3.57	13	0.96	1.04	0.52	0.02	1.87	22	0.92	0.95	1.02	1.18	*3.02
75+	34	1.01	1.03	1.72	1.89	3.21	18	0.82	0.85	0.52	1.19	4.19	24	0.93	0.95	1.26	1.65	3.80
Total	8	1.03	1.10	1.10	1.29	*8.33	4	0.95	0.94	0.69	1.02	*12.97	6	1.00	1.05	0.99	1.23	*9.77
Total <65	5	1.09	*1.21	0.93	1.13	*9.59	2	1.04	0.95	0.84	1.28	*16.97	4	1.08	*1.15	0.91	1.16	*11.75
1997-99																		
Total	9	0.92	1.06	0.95	0.50	*6.87	4	1.07	1.15	1.48	1.41	*13.53	6	0.96	1.09	1.08	0.69	*8.71
Total <65	6	0.93	1.04	0.79	0.54	*8.27	2	1.12	1.24	1.41	0.95	*16.30	4	0.98	1.09	0.92	0.61	*10.45
Total†	*1.12	1.01	*1.17	1.05	0.55	n.p.	0.99	1.05	1.13	1.47	1.41	n.p.	*1.08	1.02	*1.16	1.16	0.75	n.p.
Total <65†	*1.16	1.07	*1.20	0.91	0.62	n.p.	1.04	1.14	1.27	1.45	0.98	n.p.	*1.13	1.09	*1.21	1.04	0.69	n.p.

(continued)

Table 8.13 (continued): SMRs, average annual deaths and 'excess' deaths due to liver disease, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons						
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			
	MC	IR	OR	R	VR	Indigenous	MC	IR	OR	R	VR	Indigenous	MC	IR	OR	R	VR	Indigenous	
Average annual number of excess deaths																			
2002-04																			
0-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
25-44	0	2	3	0	0	11	0	1	-1	0	1	12	0	4	3	0	0	0	23
45-64	0	7	8	0	1	16	0	0	0	0	0	9	0	7	8	-1	0	0	25
65-74	0	-5	-2	1	0	2	0	-1	0	0	0	0	0	-6	-2	0	0	0	2
75+	0	1	0	1	0	0	0	-5	-2	-1	0	1	0	-5	-1	1	1	1	1
Excess total	0	5	9	1	1	30	0	-5	-2	-1	0	22	0	1	7	0	1	1	52
Deaths total	546	198	103	14	6	34	257	83	37	3	1	24	803	281	139	17	7	58	58
Excess <65	0	10	11	-1	0	28	0	2	-1	0	0	21	0	11	10	-1	1	1	49
Deaths <65	310	113	63	7	3	31	115	40	17	2	1	23	425	153	80	9	4	4	54
1997-99																			
Excess total	0	-15	6	-1	-2	22	0	6	5	2	0	18	0	-9	11	1	-2	40	40
Excess total†	57	1	14	1	-2	n.p.	-3	4	5	2	0	n.p.	54	5	19	2	-1	n.p.	n.p.
Deaths total	540	169	99	12	2	26	226	79	39	6	2	20	766	249	138	18	4	46	46
Excess <65	0	-7	2	-2	-1	21	0	4	4	1	0	17	0	-3	6	-1	-2	38	38
Excess <65†	44	6	9	-1	-1	n.p.	4	4	4	1	0	n.p.	49	11	14	0	-1	n.p.	n.p.
Deaths <65	316	95	56	7	2	24	105	37	20	3	1	18	421	133	77	10	2	42	42

Notes

- The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
- The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
- For further explanation, refer to section 2.3.

8.4 All other causes

Highlights

All other causes (not elsewhere classified) were responsible for 14% of all deaths, about 9%, 15% and 20% of excess deaths in regional, Remote and Very Remote areas.

Death rates for Indigenous Australians were about 3.3 times higher than the rates for non-Indigenous Australians in Major Cities.

SMRs increased from 1.0 and 1.1 in Inner Regional and Outer Regional areas, to 1.2 and about 2.0 in Remote and Very Remote areas. For non-Indigenous Australians, SMRs were slightly elevated in regional areas, but not significantly different from 1.0 in remote areas. Mortality for Indigenous Australians is the main driver for higher rates in remote areas.

This section describes all the other causes of death not elsewhere included in this report (that is, excluding neoplasms, circulatory and respiratory diseases, injury, diabetes, renal failure and liver disease). Causes include infectious diseases, diseases of the endocrine system (excluding diabetes), and conditions originating in the perinatal period, and so on.

Although findings refer to a very broad range of conditions and may have limited application for advising policy, they are included for the sake of completeness, and may suggest further research.

On average during the period, all other causes of death not elsewhere classified were responsible for 18,954 deaths annually – this is 14% of all deaths. Less than half (46%) were male; 64% were in Major Cities, 34% in regional areas and 2% in remote areas.

Death rates for Indigenous Australians were 3.3 times higher than the rates for non-Indigenous Australians in Major Cities.

In regional areas:

Death rates in Inner Regional and Outer Regional areas were 4% and 8% higher than in Major Cities.

For 0–64 year old males, death rates in Inner Regional areas appeared similar to those in Major Cities, while in Outer Regional areas rates were about 20% higher than in Major Cities.

The inter-regional pattern for non-Indigenous Australians was similar to that above.

Annually there were 4,339 and 2,012 deaths in Inner Regional and Outer Regional areas; about 45% were male.

Annually there were 184 and 141 ‘excess’ deaths in Inner Regional and Outer Regional areas; this is 9% of all ‘excess’ deaths in Inner Regional and Outer Regional areas. About half (56%) of the ‘excess’ deaths were male. The ‘excess’ deaths for males were concentrated mainly among the very young and those over 65 years. The ‘excess’ deaths for females were concentrated mainly among those aged above 75 years, and some from other groups, most notably those who were aged 0–4 and 45–64 years.

Compared with the previous reporting period (1997–99), there were 443 more deaths of males and 595 more deaths of females annually in 2002–04.

In remote areas:

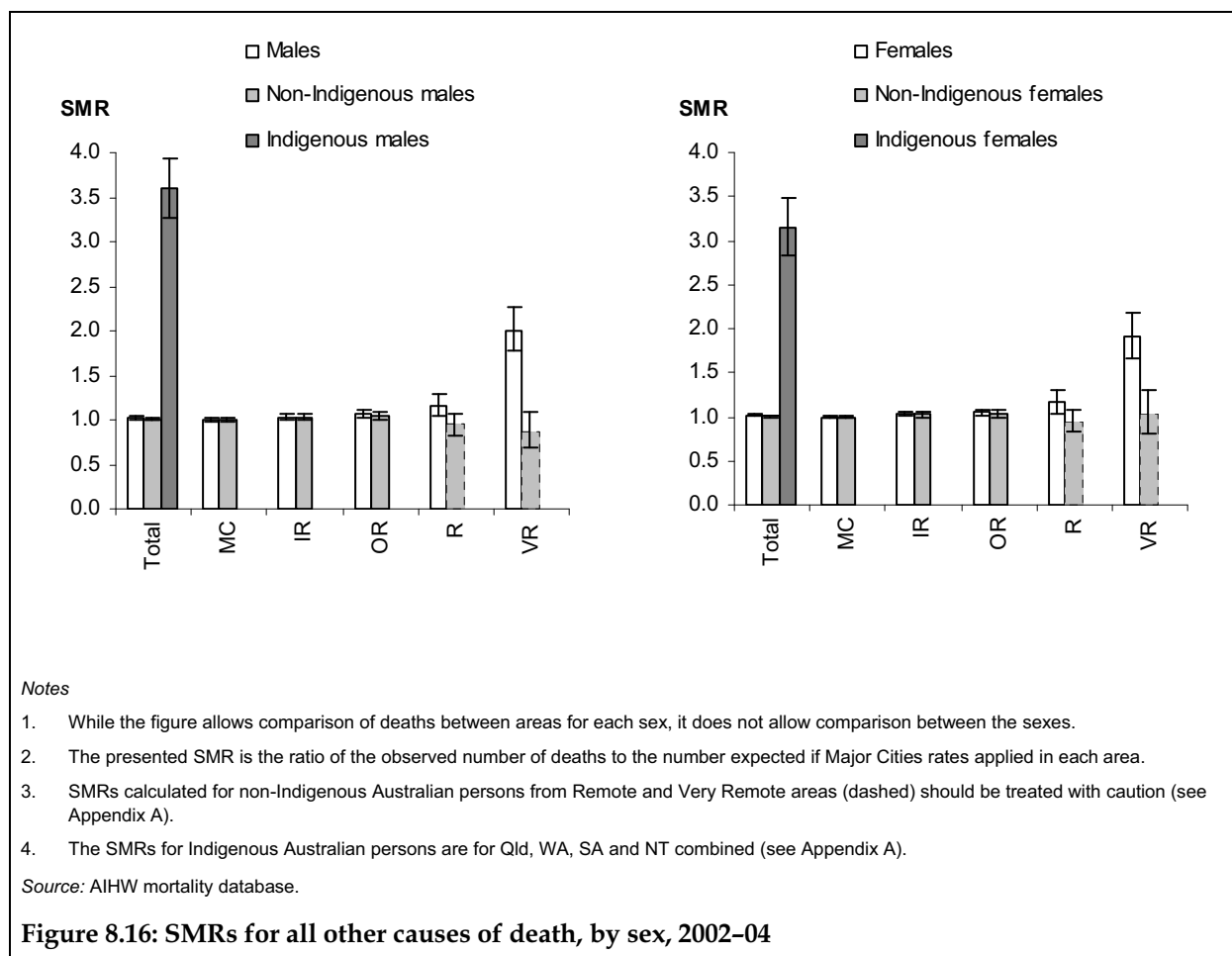
Death rates in Remote and Very Remote areas were 1.2 and 2.0 times those in Major Cities. For 0–64 year olds, death rates in these areas were 1.5 and 3.0 times those in Major Cities.

Death rates for non-Indigenous Australians from remote areas were not significantly different from those in Major Cities.

Annually there were 263 and 176 deaths in Remote and Very Remote areas; about 53% were male.

Annually there were 43 and 85 more deaths than expected in Remote and Very Remote areas; this is 15% and 20% of all ‘excess’ deaths in Inner Regional and Outer Regional areas. About half (55%) were male. The ‘excess’ deaths were concentrated among the very young (0–4 years) and those aged 25–64 years.

Compared with the previous reporting period (1997–99), there were 16 more deaths of males and 33 more deaths of females annually in 2002–04.



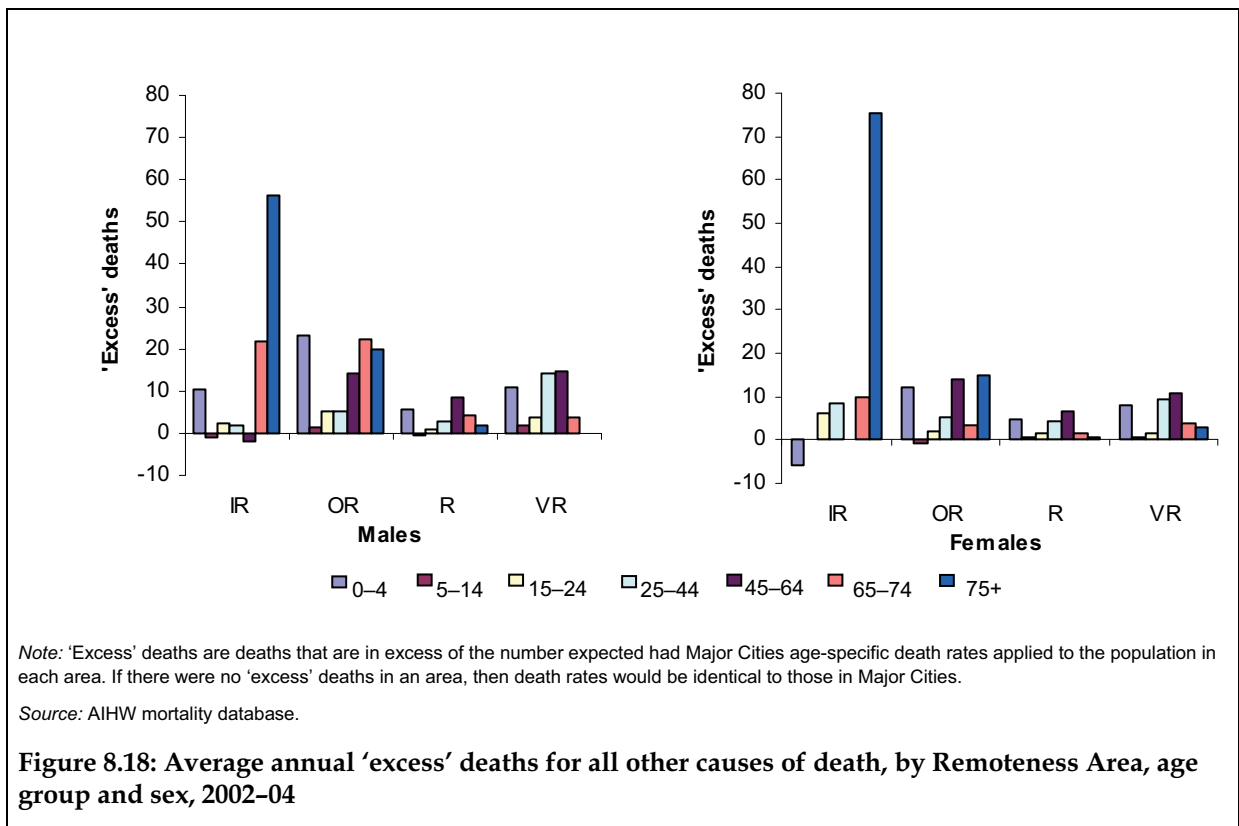
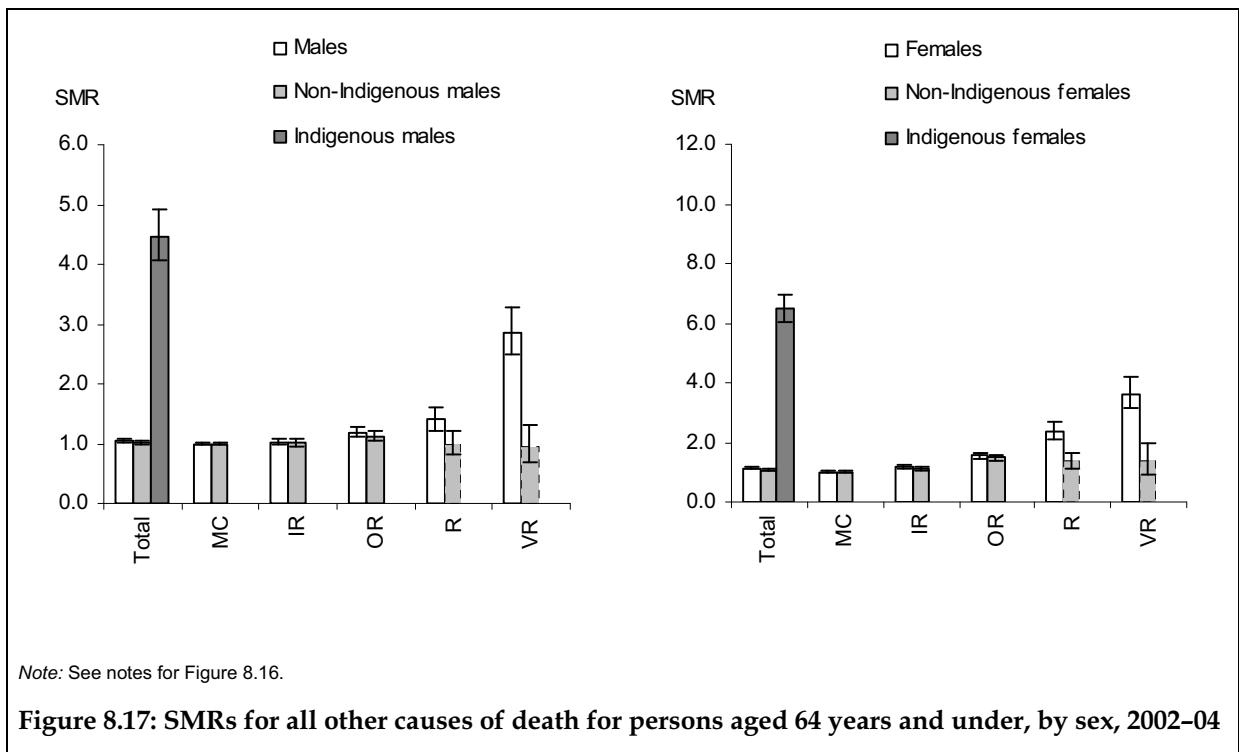


Table 8.14: SMIRs, average annual deaths and 'excess' deaths due to all other causes, 2002-04 and 1997-99

	Males						Females						Persons					
	MC		OR		VR		MC		OR		VR		MC		OR		VR	
	Rate	IR	Ratio	R	OR	VR	Rate	IR	Ratio	R	OR	VR	Rate	IR	Ratio	R	OR	VR
2002-04																		
0-4	97	1.08	*1.34	*1.43	*2.29	*1.48	82	0.95	*1.22	*1.48	*2.22	90	1.02	*1.28	*1.45	*2.26		
5-14	4	0.94	1.21	0.39	*3.54	1.55	3	1.00	0.84	1.55	2.00	3	0.96	1.06	0.85	*2.93		
15-24	8	1.11	*1.51	1.45	*4.21	*2.84	5	*1.45	1.32	*2.84	*3.22	7	*1.24	*1.44	*1.97	*3.84		
25-44	17	1.02	1.11	1.33	*3.74	*1.92	9	1.16	1.19	*1.92	*4.82	13	1.07	*1.14	*1.53	*4.10		
45-64	45	0.99	*1.12	*1.46	*2.67	*1.64	30	1.00	*1.19	*1.64	*3.47	37	1.00	*1.15	*1.52	*2.94		
65-74	181	*1.07	*1.16	1.24	*1.58	1.15	141	1.04	1.03	1.15	*1.92	160	*1.06	*1.11	1.20	*1.71		
75+	958	*1.05	1.04	1.03	0.99	1.01	1,101	*1.04	1.02	1.01	1.14	1,045	*1.05	1.03	1.02	1.07		
Total	80	*1.05	*1.10	*1.20	*1.96	*1.18	104	*1.04	*1.05	*1.18	*1.90	92	*1.04	*1.08	*1.19	*1.93		
Total <65	27	1.02	*1.19	*1.40	*2.86	*1.67	18	1.03	*1.20	*1.67	*3.08	22	1.02	*1.19	*1.50	*2.95		
1997-99																		
Total	80	0.98	1.00	*1.13	*1.77	1.05	93	*1.04	*1.10	1.05	*1.94	81	1.01	*1.05	*1.09	*1.84		
Total <65	33	0.93	1.01	*1.25	*2.19	*1.54	20	1.05	*1.09	*1.54	*2.93	25	0.97	1.04	*1.35	*2.45		
Total†	*1.09	*1.06	*1.09	*1.26	*2.03	1.05	*0.98	1.02	*1.07	1.05	*1.98	*1.03	*1.03	*1.08	*1.15	*2.01		
Total <65†	*1.22	*1.10	*1.20	*1.51	*2.74	*1.68	*1.08	*1.13	*1.18	*1.68	*3.27	*1.17	*1.12	*1.19	*1.57	*2.94		

(continued)

Table 8.14 (continued): SMRs, average annual deaths and 'excess' deaths due to all other causes, 2002-04 and 1997-99

	Males					Females					Persons				
	MC	IR	OR	R	VR	MC	IR	OR	R	VR	MC	IR	OR	R	VR
Average annual number of excess deaths															
2002-04															
0-4	0	11	23	6	11	0	-6	12	5	8	0	5	35	10	19
5-14	0	-1	1	-1	2	0	0	-1	0	0	0	-1	1	0	2
15-24	0	2	5	1	4	0	6	2	2	1	0	8	7	2	5
25-44	0	2	5	3	14	0	8	5	4	10	0	10	10	7	23
45-64	0	-2	14	8	14	0	0	14	6	11	0	-2	28	15	25
65-74	0	22	22	4	4	0	10	3	2	4	0	31	25	6	8
75+	0	57	20	2	0	0	76	15	0	3	0	132	35	2	3
Excess total	0	90	91	23	48	0	94	50	20	37	0	184	141	43	85
Deaths total	5,213	1,935	954	135	98	6,951	2,404	1,058	128	79	12,164	4,339	2,012	263	176
Excess <65	0	12	49	17	44	0	9	32	18	30	0	21	81	35	75
Deaths <65	1,539	506	302	60	68	1,051	347	198	44	45	2,590	853	500	104	113
1997-99															
Excess total	0	-35	1	15	40	0	72	81	5	35	0	37	82	19	75
Excess total†	413	86	66	26	46	-133	30	64	5	36	280	116	130	30	83
Deaths total	4,881	1,627	819	126	91	5,806	1,939	928	101	73	10,687	3,566	1,746	226	164
Excess <65	0	-41	3	13	35	0	17	16	16	30	0	-23	18	29	65
Excess <65†	328	49	52	22	41	83	42	29	18	32	411	91	80	40	73
Deaths <65	1,800	518	305	66	64	1,069	358	191	44	46	2,869	876	496	111	111

Notes

1. The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
2. The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
3. For further explanation, refer to section 2.3.

Table 8.15: SMIRs, average annual deaths and 'excess' deaths due to all other causes, for Indigenous Australians and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons					
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous		
	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate	MC	IR	OR	R	VR	Rate
2002-04																		
0-4	90	1.07	*1.24	1.17	0.62	*3.08	76	0.92	1.13	1.16	0.67	*2.76	83	1.00	*1.20	1.16	0.64	*2.94
5-14	4	1.00	1.20	0.46	2.70	2.07	3	0.88	0.84	1.38	1.20	2.22	3	0.95	1.04	0.84	2.07	*2.13
15-24	7	1.14	*1.56	1.57	1.54	*3.12	5	*1.43	1.22	1.63	2.80	*3.22	6	*1.26	*1.43	1.59	1.96	*3.16
25-44	15	1.02	0.93	*0.56	0.50	*8.43	9	1.15	1.05	0.50	2.00	*7.48	12	1.06	0.97	*0.54	0.96	*8.07
45-64	43	0.98	1.09	1.08	1.23	*5.45	29	1.00	*1.16	1.04	1.20	*6.37	36	0.99	*1.12	1.07	1.22	*5.85
65-74	176	1.07	*1.16	1.04	0.85	*3.74	137	1.06	1.02	0.92	1.04	*3.59	155	*1.06	*1.10	0.99	0.92	*3.66
75+	933	*1.06	1.04	0.99	0.87	1.34	1,070	*1.04	1.02	0.98	1.09	*1.53	1,017	*1.05	1.03	0.98	0.99	*1.46
Total	78	*1.05	*1.08	1.00	0.90	*3.64	102	*1.04	1.04	0.98	1.12	*3.12	90	*1.04	*1.06	0.99	1.00	*3.39
Total <65	25	1.02	*1.12	1.00	0.96	*4.47	17	1.01	*1.13	1.02	1.23	*4.14	21	1.01	*1.12	1.00	1.05	*4.33
1997-99																		
Total	77	0.99	0.98	0.95	0.91	*3.34	90	*1.05	*1.09	*0.86	0.91	*3.27	85	*1.02	*1.04	*0.91	0.91	*3.31
Total <65	31	*0.94	0.94	0.90	0.78	*3.88	19	*1.07	1.01	0.99	1.01	*4.11	25	0.99	0.97	0.93	0.85	*3.97
Total†	1.11	*1.05	*1.06	1.05	1.04	n.p.	0.98	0.98	1.02	*0.82	0.88	n.p.	1.04	1.01	*1.04	0.94	0.96	n.p.
Total <65†	1.28	*1.21	*1.22	1.18	1.04	n.p.	1.12	*1.18	*1.11	1.09	1.13	n.p.	1.22	*1.19	*1.17	1.15	1.07	n.p.

(continued)

Table 8.15 (continued): SMRs, average annual deaths and 'excess' deaths due to all other causes, for Indigenous Australian and non-Indigenous Australians, 2002-04 and 1997-99

	Males						Females						Persons						
	Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			Non-Indigenous			Indigenous			
	MC	IR	OR	R	VR	Indigenous	MC	IR	OR	R	VR	Indigenous	MC	IR	OR	R	VR	Indigenous	
Average annual number of excess deaths																			
2002-04																			
0-4	0	8	14	2	-1	34	0	-8	6	1	1	-1	23	0	0	20	3	-2	57
5-14	0	0	1	0	0	1	0	-1	-1	0	0	0	1	0	-1	0	0	0	2
15-24	0	3	5	1	0	4	0	5	1	0	0	0	3	0	8	6	1	1	6
25-44	0	1	-3	-3	-2	41	0	7	1	-2	1	1	22	0	9	-2	-5	0	63
45-64	0	-4	10	1	1	27	0	0	11	0	0	1	24	0	-4	22	2	2	51
65-74	0	19	21	1	-1	10	0	12	2	-1	0	0	10	0	31	23	0	-1	20
75+	0	62	18	0	-2	4	0	70	15	-2	2	2	9	0	132	32	-2	0	13
Excess total	0	88	66	0	-3	121	0	86	35	-2	3	3	91	0	174	101	-2	0	213
Deaths total	5,000	1,852	880	100	30	167	6,705	2,309	994	95	95	30	134	11,705	4,161	1,875	195	59	302
Excess <65	0	7	27	0	-1	107	0	4	19	0	0	2	73	0	11	46	0	1	180
Deaths <65	1,429	461	253	35	13	138	979	316	166	22	22	9	96	2,408	776	419	57	22	234
1997-99																			
Excess total	0	-21	-13	-5	-3	113	0	91	72	-12	-12	-2	87	0	70	59	-17	-5	200
Excess total†	0	76	40	5	1	n.p.	0	-30	20	-16	-3	-3	n.p.	0	46	60	-12	-2	n.p.
Deaths total	4,727	1,584	764	94	30	161	5,649	1,902	884	75	75	22	126	10,376	3,486	1,648	169	52	287
Excess <65	0	-34	-17	-4	-4	101	0	23	2	0	0	0	73	0	-11	-15	-5	-4	174
Excess <65†	0	85	46	6	1	n.p.	0	51	16	2	2	1	n.p.	0	136	62	8	1	n.p.
Deaths <65	1,705	490	259	41	14	136	1,014	342	161	24	24	8	97	2,719	832	419	64	22	233

Notes

- The first half of the table reports death rates (as SMRs) for the period 2002-04. The first two rows (shaded) in this section use Major Cities age-and sex-specific rates in 1997-99 as the standard and compare death rates in each of the areas with those in Major Cities in the same year (1997-99). The second two (unshaded) rows (marked with a †) use Major Cities age-and sex-specific rates in 2002-04 as the standard and compare death rates in each of the areas (including Major Cities) in 1997-99 with death rates in Major Cities in 2002-04.
- The second half of the table describes the actual number of deaths and 'excess deaths' that occurred in each population. Shaded rows 1 and 4 have used 1997-99 Major Cities rates of death as the basis for calculating the number of excess deaths. Unshaded rows 2 and 5 (marked with a †) have used 2002-04 Major Cities rates of death as the basis for calculating the number of excess deaths in 1997-99.
- For further explanation, refer to section 2.3.

9 Coastal/inland supplement

9.1 Introduction

This chapter briefly compares mortality in coastal and inland regional and remote areas with mortality in Major Cities. The nine non-contiguous geographic areas used here as the basis for reporting are Major Cities, Inland Inner Regional, Inland Outer Regional, Inland Remote, Inland Very Remote, Coastal Inner Regional, Coastal Outer Regional, Coastal Remote and Coastal Very Remote.

As demonstrated in the main body of this report, death rates can differ substantially within broad geographic (for example, Inner Regional) areas. The aim of this work is to uncover any substantial differences in health outcomes for people living in inland compared to coastal regional and remote areas. Identification of substantial differences may suggest further work in this area.

In this exploratory work, it has been important to be economic. Consequently, analysis has been restricted to 2001 and to 'all causes'.

This approach:

- capitalises on the existing 2001 SLA to ASGC Remoteness concordance made available by ABS, and avoids the need to map non-matching SLAs
- requires the development of population data for one year only (the year for which ABS SLA maps were available) (ABS 2001c).

From this work, there appear to be differences in the rate of death in coastal and inland areas (notably in those areas classified as Inner Regional and Remote). While some of the difference may be influenced by truly geographic factors, some may reflect retirement migration, differences in socioeconomic conditions and the percentage of the population who are Indigenous Australian.

SMRs for coastal and inland analysis were calculated using the same method as in the rest of the report (described in Appendix A), but utilising age-specific rates in the 2001 Major Cities population as the standard. Consequently, SMRs and excess deaths for the coastal/inland analysis are not strictly comparable to those described in the rest of this report.

Confidence intervals presented in the figures indicate whether SMRs are significantly different from 1.00 (that is, from Major Cities), and do not strictly allow inter-regional comparisons (for example, between inland Inner Regional and Coastal Very Remote areas). SMRs based on less than 20 observed deaths have been presented as shaded rather than solid bars.

To allow for any possible effect of migration, rates have also been calculated for that part of the population younger than 65 years.

Further work would include:

- validation of the areas selected to represent coastal and inland areas (that is, are the SLAs selected appropriate and do they have broad consensus)
- consideration of the use of meshblocks in the identification of coastal and inland areas (which would provide much tighter definition of coastal/inland)

- exploration of a range of specific causes of death, socioeconomic status and Indigenous Australian status contributing to inter-regional differences.

9.2 Coastal classifications

A coastal/inland classification was specifically developed at the AIHW for this report. Other coastal classifications have previously been developed by others, but they were not considered appropriate for this work. The ABS had previously identified all SLAs that 'touched' the coastline and had also identified those parts of the coast that had experienced population growth (pers. comm. Frank Blanchfield). The Bureau of Rural Sciences (BRS) had developed a coastal classification; however it classified some coastal areas (for example, in Western and Northern Australia) as inland (pers. comm. Frank Blanchfield).

The coastal classification used in this exploratory work has been developed without consultation, and so the results should be viewed as indicative of the sorts of differences that would be apparent under a more tightly defined and widely accepted coastal/inland definition (rather than definitive).

This classification attempts to identify all coastal fringe statistical local areas (SLAs) that occur in Inner Regional, Outer Regional, Remote and Very Remote areas. The balance of SLAs in Inner Regional, Outer Regional, Remote and Very Remote areas are classified as 'inland'. Areas that are classified as Major Cities are included in a separate 'Major Cities' category (that is, Major Cities are considered neither coastal nor inland).

The classification uses 2001 SLAs as its geographic basis.

Coastal SLAs were identified by eye from the ABS publication *ASGC 2001, Chapter 14 maps, geographic Australia* (ABS 2001c).

As it is based on SLAs, the boundary between coast and inland is necessarily ragged. Criteria for selection were:

- Coastal/inland boundary was targeted at 80 km from the coast wherever possible.
- Where they exist, the boundary follows natural breaks (for example, escarpments) and Major Cities boundaries. Escarpments had a substantial effect in New South Wales – consequently highland SLAs like Wingecarribee were excluded from coastal (and included in inland) categories even though they were relatively close to the coast.
- Where SLAs were large and extend large distances into the hinterland, they have been included or excluded on the basis of where the bulk of the people appear to live (that is, if major population centres were predominantly on the coast, then the SLA has been included as coastal).
- Hinterland SLAs have been included, particularly where the littoral SLAs (that is, those bounding the sea) fall far short of the target 80 km, and where the geography suggests or allows a degree of continuity between the immediate coastal SLA and the hinterland SLA.
- Major Cities SLAs have not been allocated to the 'inland' or 'coastal' grouping, even though most Major Cities SLAs in Australia are close to the coast (for example, Sydney) or distinctly inland (for example, Canberra). Instead, data for such SLAs have been reported in the third major group in this preliminary classification, 'Major Cities'.
- Some SLAs may contain areas classified as Inner Regional and other areas classified as Major Cities. The Inner Regional parts of such SLAs have been classified as coastal or

inland Inner Regional areas (as appropriate). Those parts of such SLAs that are classified as Major Cities areas have been allocated to the Major Cities group (that is, not to the coastal or to the inland group).

The SLAs identified as coastal in this classification have been included in Appendix D. All other SLAs are classified as inland or Major Cities. Some of the SLAs classified as coastal contain areas that are classified as Major Cities. This is because the ABS-defined boundaries of Remoteness Areas do not necessarily conform to SLA boundaries.

It is likely that the approximate and tentative nature of this preliminary classification will partially cloud mortality differences between inland and coastal areas, but that reported differences between these two areas are indicative of true differences.

9.3 Demographic characteristics of coastal and inland populations

In 2001, there are about 6.5 million people living outside Major Cities. According to the definition used in this report, 53% of these people live in coastal areas and 47% live in inland areas. These proportions differ from state to state (see Table 9.1).

Table 9.1: Percentage of the non-Major Cities population in each jurisdiction living in coastal and inland areas, 2001

Jurisdiction	Inland	Coastal
	Per cent	
NSW	56	44
Vic	79	21
Qld	32	68
WA	30	70
SA	46	54
Tas	5	95
ACT	100	0
NT	30	70
Other territories	0	100
Australia	47	53

Because of Tasmania's small geographical size relative to the size of its SLAs, most of this state is classified as coastal. At the other extreme, non-Major Cities parts of the Australian Capital Territory (except for Jervis Bay which is included under 'other territories') are classified as inland.

About 53%, 56%, 45% and 52% respectively of the populations living in Inner Regional, Outer Regional, Remote and Very Remote areas are classified as coastal (Figure 9.2).

The population in coastal Inner Regional areas tends to have proportionally fewer younger people and proportionally more old people than populations in inland Inner Regional areas (Figure 9.3).

The population in coastal Outer Regional areas tends to have proportionally more people of working age and fewer older people than inland Outer Regional areas (Figure 9.4).

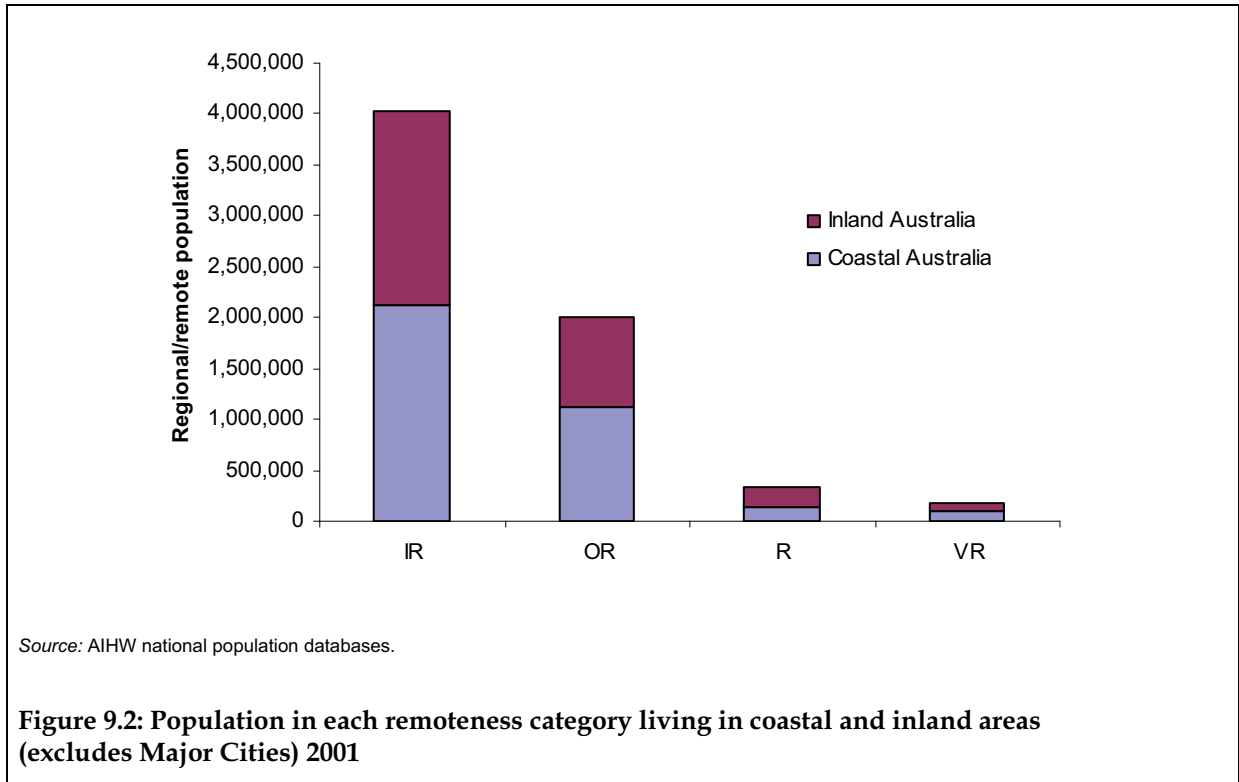
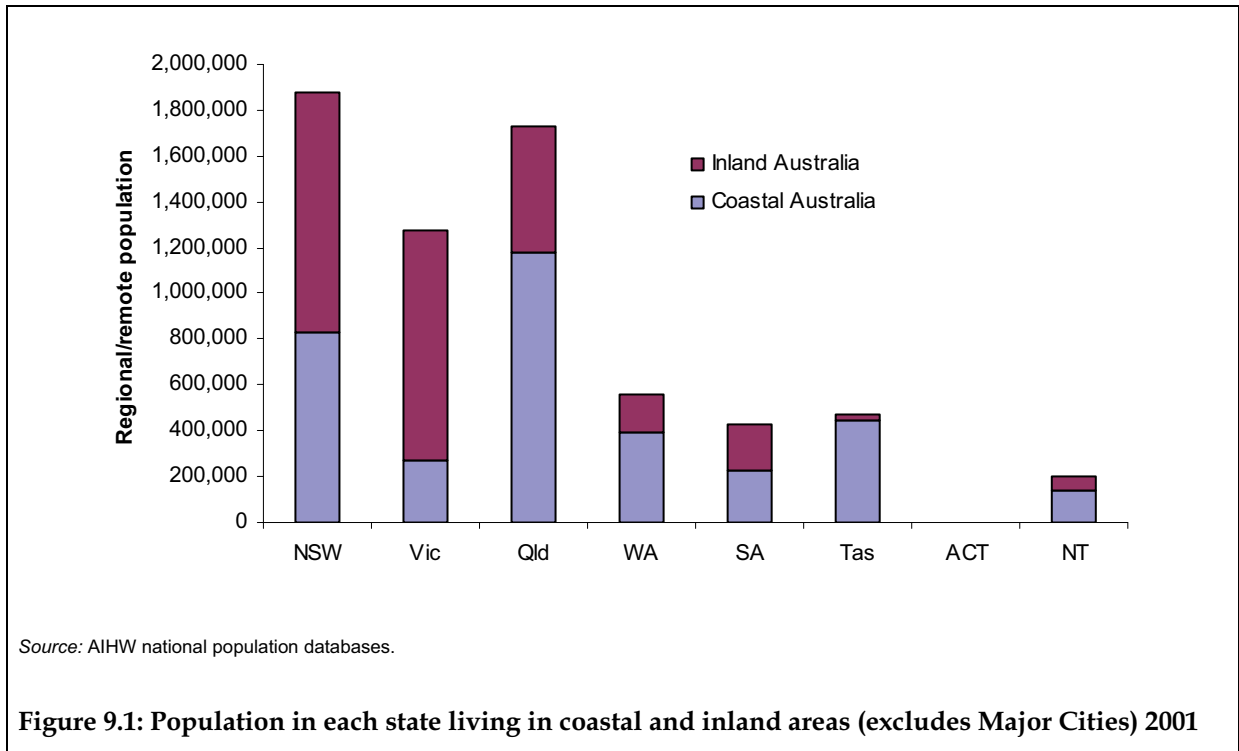
The population in coastal Remote areas tends to have fewer younger people and greater numbers of older people than inland Remote areas (similar to the coastal/inland comparison for Inner Regional areas) (Figure 9.5).

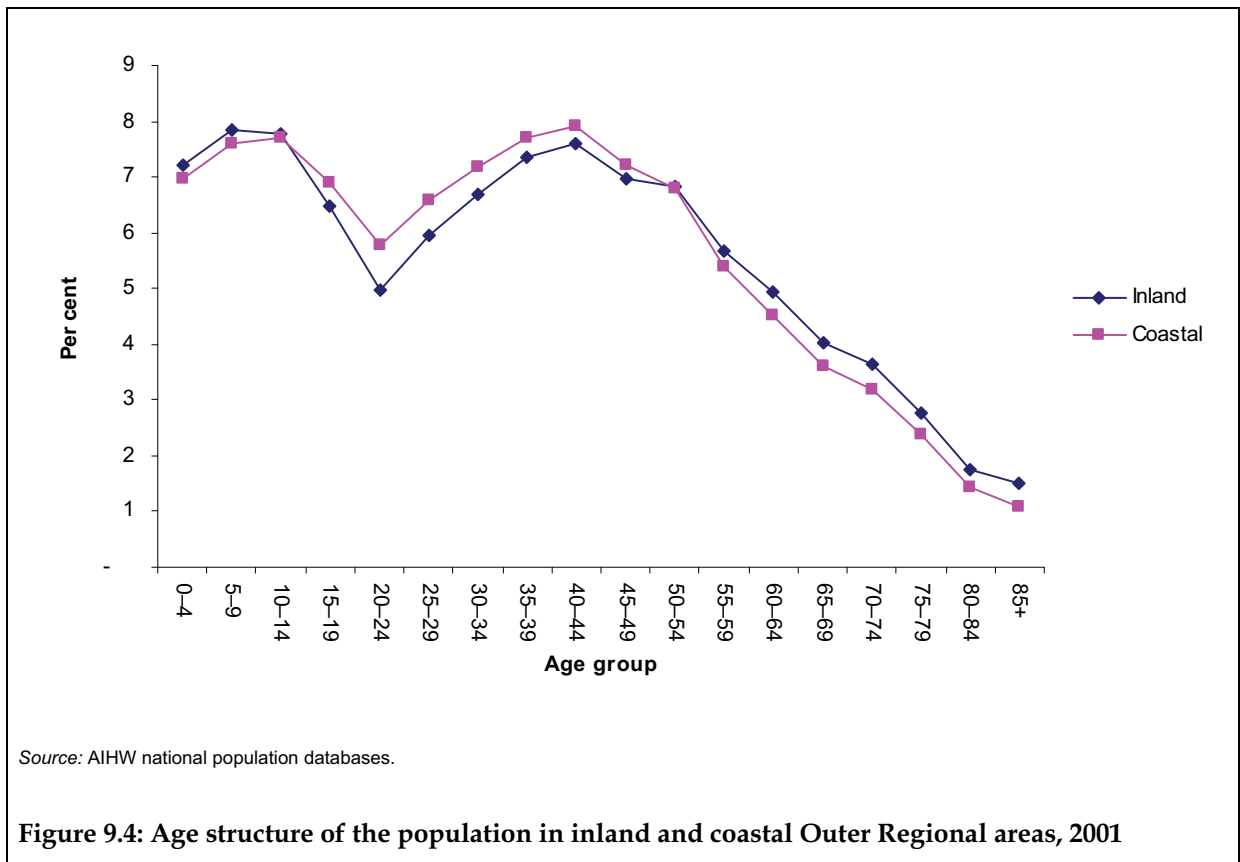
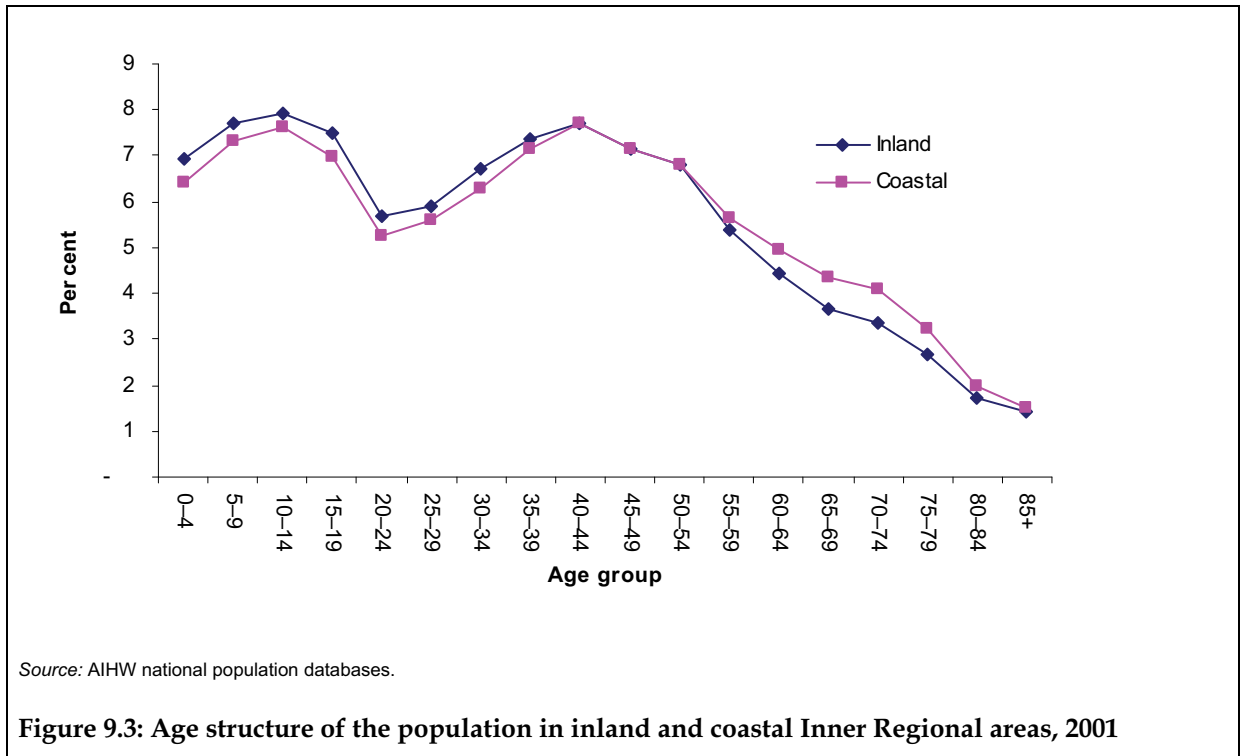
The age structure of the population in coastal Very Remote areas tends to have proportionally more children and fewer older people than inland Very Remote areas (Figure 9.6).

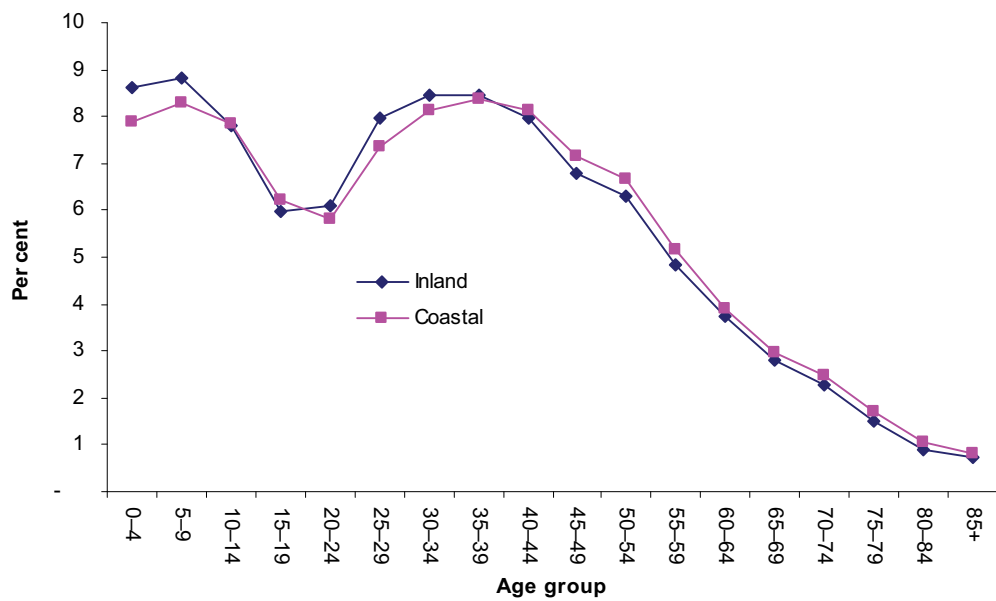
To date, population data for coastal and inland Remoteness Areas have been developed only for 2001.

Table 9.2: Population in each inland and coastal Remoteness Area, by jurisdiction, 2001

	MC	IR	OR	R	VR	Regional and remote	Australia
Inland							
NSW	n.a.	652,055	348,014	38,813	7,631	1,046,513	n.a.
Vic	n.a.	815,981	187,656	3,533	n.a.	1,007,170	n.a.
Qld	n.a.	287,866	168,447	63,475	28,992	548,779	n.a.
WA	n.a.	38,618	85,223	24,205	19,438	167,483	n.a.
SA	n.a.	101,738	74,252	11,056	9,060	196,106	n.a.
Tas	n.a.	1,635	23,919	226	n.a.	25,780	n.a.
ACT	n.a.	657	n.a.	n.a.	n.a.	657	n.a.
NT	n.a.	n.a.	n.a.	37,952	20,977	58,929	n.a.
Other	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<i>Australia</i>	<i>n.a.</i>	<i>1,898,549</i>	<i>887,511</i>	<i>179,259</i>	<i>86,098</i>	<i>3,051,417</i>	<i>n.a.</i>
Coastal							
NSW	n.a.	696,568	134,902	467	366	832,303	n.a.
Vic	n.a.	201,937	65,065	2,436	n.a.	269,438	n.a.
Qld	n.a.	650,662	477,049	28,979	23,729	1,180,418	n.a.
WA	n.a.	193,607	100,946	66,533	29,937	391,023	n.a.
SA	n.a.	85,466	104,623	34,553	5,718	230,360	n.a.
Tas	n.a.	298,359	136,899	8,146	2,611	446,015	n.a.
ACT	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
NT	n.a.	n.a.	106,842	3,956	28,041	138,839	n.a.
Other	n.a.	542	n.a.	n.a.	2,042	2,584	n.a.
<i>Australia</i>	<i>n.a.</i>	<i>2,127,141</i>	<i>1,126,326</i>	<i>145,069</i>	<i>92,444</i>	<i>3,490,980</i>	<i>n.a.</i>
Total							
NSW	4,696,401	1,348,623	482,916	39,280	7,997	1,878,816	6,575,217
Vic	3,528,119	1,017,917	252,721	5,969	n.a.	1,276,607	4,804,726
Qld	1,899,749	938,527	645,495	92,454	52,721	1,729,197	3,628,946
WA	1,342,653	232,225	186,169	90,738	49,375	558,506	1,901,159
SA	1,085,262	187,204	178,876	45,608	14,778	426,466	1,511,728
Tas	n.a.	299,994	160,818	8,372	2,611	471,795	471,795
ACT	318,660	657	n.a.	n.a.	n.a.	657	319,317
NT	n.a.	n.a.	106,842	41,908	49,018	197,768	197,768
Other	n.a.	542	n.a.	n.a.	2,042	2,584	2,584
Australia	12,870,844	4,025,689	2,013,837	324,329	178,542	6,542,396	19,413,240

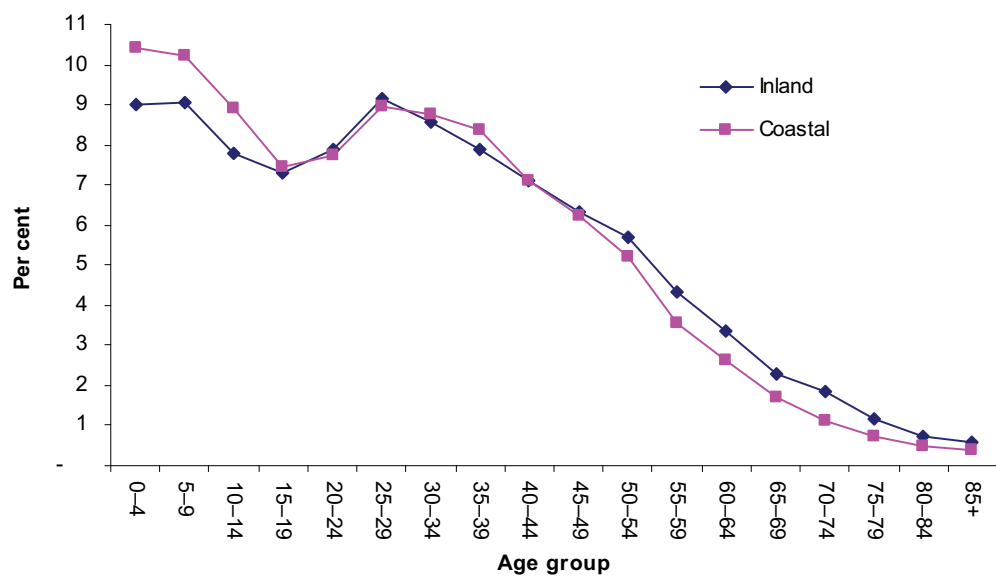






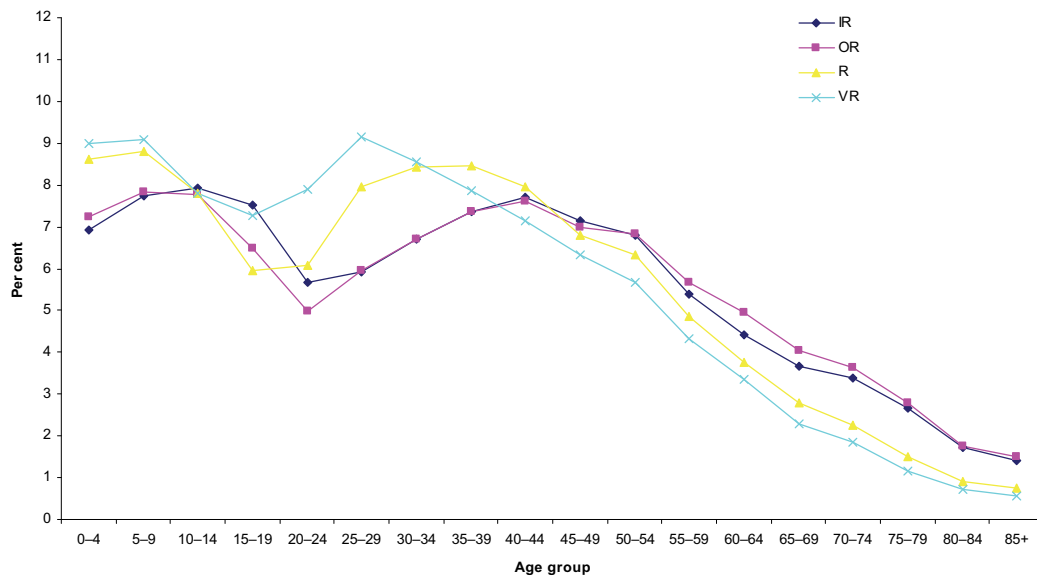
Source: AIHW national population databases.

Figure 9.5: Age structure of the population in inland and coastal Remote areas, 2001



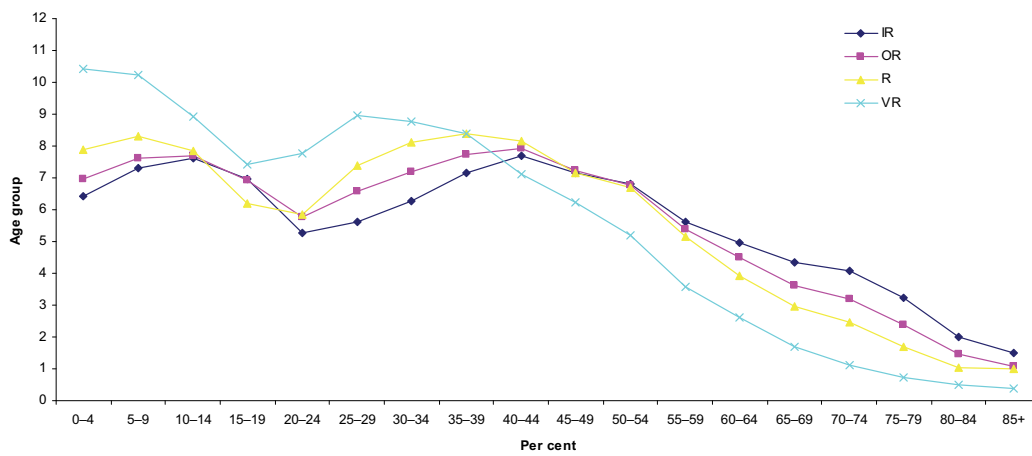
Source: AIHW national population databases.

Figure 9.6: Age structure of the population in inland and coastal Very Remote areas, 2001



Source: AIHW national population databases.

Figure 9.7: Age structure of the population in inland areas of Australia, by Remoteness Area, 2001



Source: AIHW national population databases.

Figure 9.8: Age structure of the population in coastal areas of Australia, by Remoteness Area, 2001

9.4 Indigenous Australian and non-Indigenous Australian populations

Of the 19,413,237 people who were living in Australia in 2001, 12,870,393 (66%) lived in Major Cities, 3,051,864 (16%) lived in inland areas, and 3,490,980 (18%) lived in coastal areas.

In 2001, 1.1% of those living in Major Cities were Indigenous Australians, compared with 4.5% and 5.2% in inland and coastal areas respectively. While 30% of the Indigenous Australian population lived in Major Cities, 30% lived in inland areas, while 40% lived in coastal areas.

There is a certain amount of symmetry in the distribution of the population in inland and coastal areas; while 10%, 5%, 1% and about 0.5% of the Australian population lived in inland Inner Regional, Outer Regional, Remote and Very Remote areas, the corresponding figures in coastal areas were 11%, 6%, 1% and about 0.5%.

The distribution of the Indigenous Australian population across these areas was relatively even, with 9%, 9%, 5% and 7% living in Inner Regional, Outer Regional, Remote and Very Remote parts of inland Australia, and 11%, 14%, 4% and 10% living in coastal areas of corresponding remoteness.

As remoteness increased in both inland and coastal areas, so did the proportion of the population who were Indigenous Australian. While Indigenous Australians were about 1% of the Major Cities population, in inland and coastal areas they comprised:

- 2% and 2% of the population in Inner Regional areas
- 5% and 6% of the population in Outer Regional areas
- 14% and 12% of the population in Remote areas
- 37% and 51% of the population in Very Remote areas.

Table 9.3: Numbers of Indigenous Australians and non-Indigenous Australians living in each coastal and remoteness Area, 2001

	Inland				Coastal				Australia	
	Major Cities	Inner Regional	Outer Regional	Remote	Very Remote	Inner Regional	Outer Regional	Remote		Very Remote
Indigenous	67,764	19,985	20,829	12,543	15,931	26,075	31,731	9,015	23,653	227,526
Non-Indigenous	6,275,545	924,196	431,895	82,615	30,620	1,025,241	540,357	67,370	25,286	9,403,125
All Australians	6,343,308	944,181	452,724	95,158	46,551	1,051,316	572,088	76,385	48,939	9,630,651
					Males (number)					
Indigenous	70,221	19,913	21,266	12,303	15,773	26,650	32,496	8,849	23,523	230,994
Non-Indigenous	6,456,863	934,905	413,519	71,797	23,774	1,049,175	521,742	59,836	19,982	9,551,592
All Australians	6,527,084	954,818	434,785	84,100	39,547	1,075,825	554,238	68,684	43,505	9,782,586
					Females (number)					
Indigenous	137,985	39,898	42,095	24,846	31,705	52,725	64,228	17,863	47,176	458,520
Non-Indigenous	12,732,408	1,859,102	845,413	154,412	54,394	2,074,416	1,062,098	127,206	45,268	18,954,717
All Australians	12,870,393	1,898,999	887,509	179,258	86,098	2,127,141	1,126,326	145,069	92,444	19,413,237
					Persons (number)					
Indigenous	1	2	5	14	37	2	6	12	51	2
					Per cent of the population in each area					
Indigenous	30	9	9	5	7	11	14	4	10	100
Non-Indigenous	67	10	4	1	0	11	6	1	0	100
All Australians	66	10	5	1	0	11	6	1	0	100

Note: In this table, the total population in Major Cities is smaller by about 450 than that described in Table 9.2, while the population in inland Inner Regional areas is larger by about 450. This discrepancy would disappear in a more highly refined classification.

Source: Developed from ABS population data and AIHW national population databases.

9.5 Socioeconomic status

Socioeconomic status is important because it influences mortality and health generally. Populations with low socioeconomic status have higher rates of death than populations with high socioeconomic status. Differences in the socioeconomic status of coastal and inland Remoteness Areas populations may explain some of the mortality differences between areas.

Reporting relies on the Australian Bureau of Statistics (ABS) Socioeconomic Indexes for Areas (SEIFA) index of disadvantage.

This description of socioeconomic status in coastal and inland Remoteness Areas uses data from 1,333 Statistical Local Areas. There were 12 SLAs for which it was not possible to match details of SEIFA with details of coastality and remoteness, and consequently these SLAs have been excluded from the analysis of SEIFA.

Table 9.4: SEIFA index of disadvantage for Remoteness Areas in coastal and inland regions, 2001

	Number of SLAs	Mean	Mean (weighted)	90th%	75th%	Median	25th%
National	1,333	999	n.p.	1,087	1,046	1,000	963
Major Cities	568	1,030	1,014	1,114	1,079	1,041	989
Inland							
Inner Regional	175	1,002	993	1,059	1,025	997	976
Outer Regional	164	981	979	1,033	1,005	980	959
Remote	55	982	978	1,030	998	984	968
Very Remote	47	885	858	997	979	921	812
Coastal							
Inner Regional	112	985	977	1,060	1,016	980	955
Outer Regional	156	980	971	1,050	1,013	977	951
Remote	28	975	974	1,033	1,007	978	957
Very Remote	28	852	830	1,042	995	880	708

Notes

1. SLAs included in the analysis have populations of diverse size.
2. 90th%, 75th% and 25th% represent the 90th, 75th and 25th percentiles.
3. The weighted mean SEIFA score is the sum of the SEIFA scores for SLAs weighted according to the size of the population in each SLA in relation to the size of the total population for that area (for example, inland Inner Regional).
4. Excludes 12 SLAs.

Source: ABS SEIFA index.

Table 9.4 reports the mean, median, quartiles and 90th percentiles of the SEIFA index of disadvantage for SLAs in each of the inland and coastal Remoteness Areas. A population weighted mean has also been reported because the population size of the SLAs differs substantially. As it turns out, the weighted means are not substantially different from the crude means.

Figure 9.10 better illustrates the inter-regional SEIFA differences.

Major Cities SLAs have the highest median SEIFA score (1,041).

Inland Inner Regional area SLAs have a slightly higher median SEIFA score (997) than coastal Inner Regional area SLAs (980).

Inland Outer Regional and Remote area SLAs have slightly lower median SEIFA scores (980 and 984 – similar to coastal Inner Regional SLAs).

Coastal Outer Regional and Remote area SLAs have median SEIFA scores (977 and 978 respectively) that are similar to those of Coastal Inner Regional SLAs (980).

Median SEIFA scores for Very Remote area SLAs are substantially lower than in the other areas (921 and 880 for inland and coastal SLAs respectively).

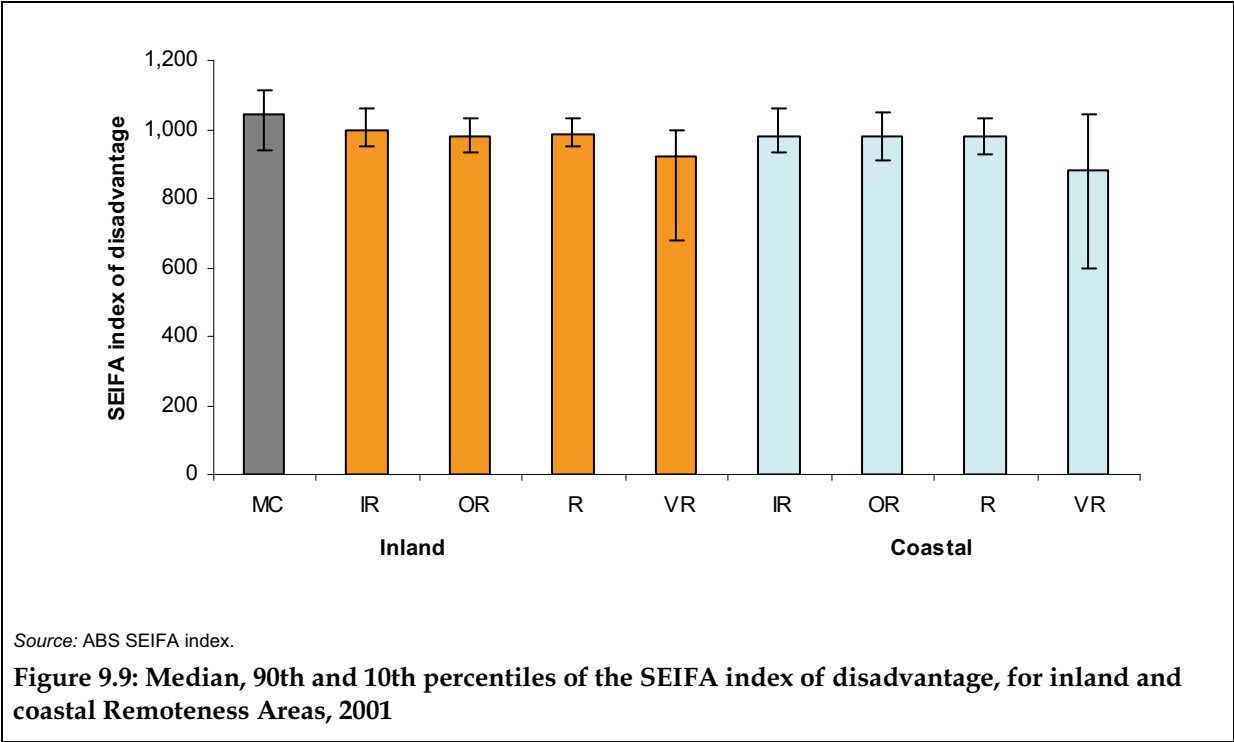


Table 9.5 and Figure 9.10 describe the percentage of SLAs in each area that are in each national quartile. For example, there are 334 SLAs in Australia that have SEIFA scores in the lowest quartile (that is, 75% of SLAs have higher SEIFA scores). Of these, 95 are in Major Cities, 28 in inland Inner Regional areas, 37 in coastal Inner Regional areas and 18 in coastal Very Remote areas. The 18 in coastal Very Remote areas equate to 64% of all coastal Very Remote SLAs, indicating that two-thirds of the SLAs in this area are amongst the most disadvantaged 25% of SLAs in Australia.

Table 9.5 and Figure 9.10 provide more perspective to an understanding of the differences between the areas. Inter-area comparisons echo Table 9.4 and Figure 9.9, showing lower levels of disadvantage in Major Cities SLAs than in the other areas, slightly less disadvantage in inland than in coastal Inner Regional SLAs, similarities between coastal Inner Regional, Outer Regional and Remote area SLAs, and the greatest disadvantage in Very Remote inland and coastal areas.

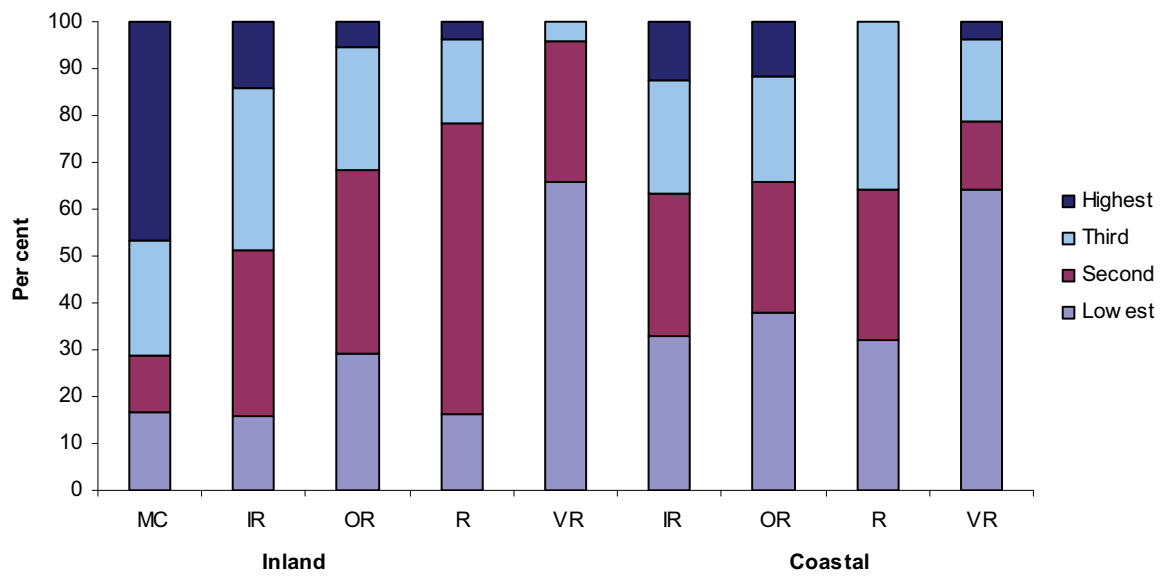
Table 9.5: Number and percentage of SLAs in the lowest, second, third and highest SEIFA index of disadvantage quartiles, for Remoteness Areas in coastal and inland regions, 2001

	Lowest	Second	Third	Highest	Lowest	Second	Third	Highest
	Number				Per cent			
National	334	334	331	334	25	25	25	25
Major Cities	95	69	139	265	17	12	24	47
Inland								
Inner Regional	28	62	60	25	16	35	34	14
Outer Regional	48	64	43	9	29	39	26	5
Remote	9	34	10	2	16	62	18	4
Very Remote	31	14	2	0	66	30	4	0
Coastal								
Inner Regional	37	34	27	14	33	30	24	13
Outer Regional	59	44	35	18	38	28	22	12
Remote	9	9	10	0	32	32	36	0
Very Remote	18	4	5	1	64	14	18	4

Notes

1. SLAs included in the analysis have populations of diverse size.
2. The number of SLAs is a count of the number of SLAs in each area that are in each quartile of the national population of SLAs. For example, one-quarter of SLAs in Australia had a SEIFA index lower than 963 (the 25th percentile). In Inland Very Remote areas, 31 SLAs (that is, 66% of all SLAs in inland Very Remote areas) would be included in this lowest national quartile.

Source: ABS SEIFA index.



Source: ABS SEIFA index.

Figure 9.10: Percentage of SLAs from each area in the lowest, second, third and highest national quartiles of the SEIFA index of disadvantage, 2001

9.6 Mortality in coastal and inland areas

Approximately 64% of deaths are of people in Major Cities (Table 9.6). Ten per cent and 13% respectively are of people in inland and coastal Inner Regional areas, 5% and 6% respectively from inland and coastal Outer Regional areas, and about 2% from inland and coastal remote areas combined.

Compared to death rates in Major Cities (Table 9.6, Figures 9.11 and 9.12), those in inland Inner Regional areas were 1.08 times as high, while in coastal Inner Regional areas they were 1.03 times as high (that is, lower than in inland Inner Regional areas). This is a relatively small yet statistically significant difference between these two Inner Regional areas.

Death rates in inland and coastal Outer Regional areas were both 1.13 times those in Major Cities.

Death rates in inland and coastal Remote areas were, respectively, 1.34 and 1.09 times those in Major Cities.

Death rates in Very Remote inland and coastal areas were, respectively, 1.59 and 1.76 times those in Major Cities areas.

The absolute magnitude of these differences in death rates can be expressed as the number of deaths in excess of what would be expected if Australian Major Cities rates applied everywhere.

However, in inland Inner Regional areas there were 980 more deaths in 2001 than would have been expected if Major Cities rates had been experienced. This compares with 503 excess deaths in coastal Inner Regional areas.

In inland Outer Regional areas, there were 777 excess deaths, while in coastal Outer Regional areas there were 826 excess deaths.

In inland and coastal Remote areas there were, respectively, 267 and 59 excess deaths in 2001.

In inland and coastal Very Remote areas there were, respectively, 188 and 194 excess deaths in 2001.

If analysis is restricted to deaths of people younger than 65 years of age (Figures 9.13 and 9.14), the inter-regional patterns generally hold.

The percentage of all excess deaths in inland and coastal areas of persons who were aged younger than 65 years was:

- 34% and 73% respectively in Inner Regional areas
- 34% and 49% respectively, in Outer Regional areas
- 55% and 79% respectively in Remote areas
- 80% and 92% respectively in Very Remote areas.

Tables 9.7 and 9.8 describe age-specific mortality for a number of life stages. The overall inland/coastal differences, apparent overall and for those younger than 65 years, also hold for life stages.

While inland/coastal comparisons in each of the states show overall similarity to the overall national pattern, there are differences in detail. These are described in Tables 9.9–9.15 and Figures 9.15–9.28.

Table 9.6: Population, annual deaths and annual excess deaths in each area, 2001

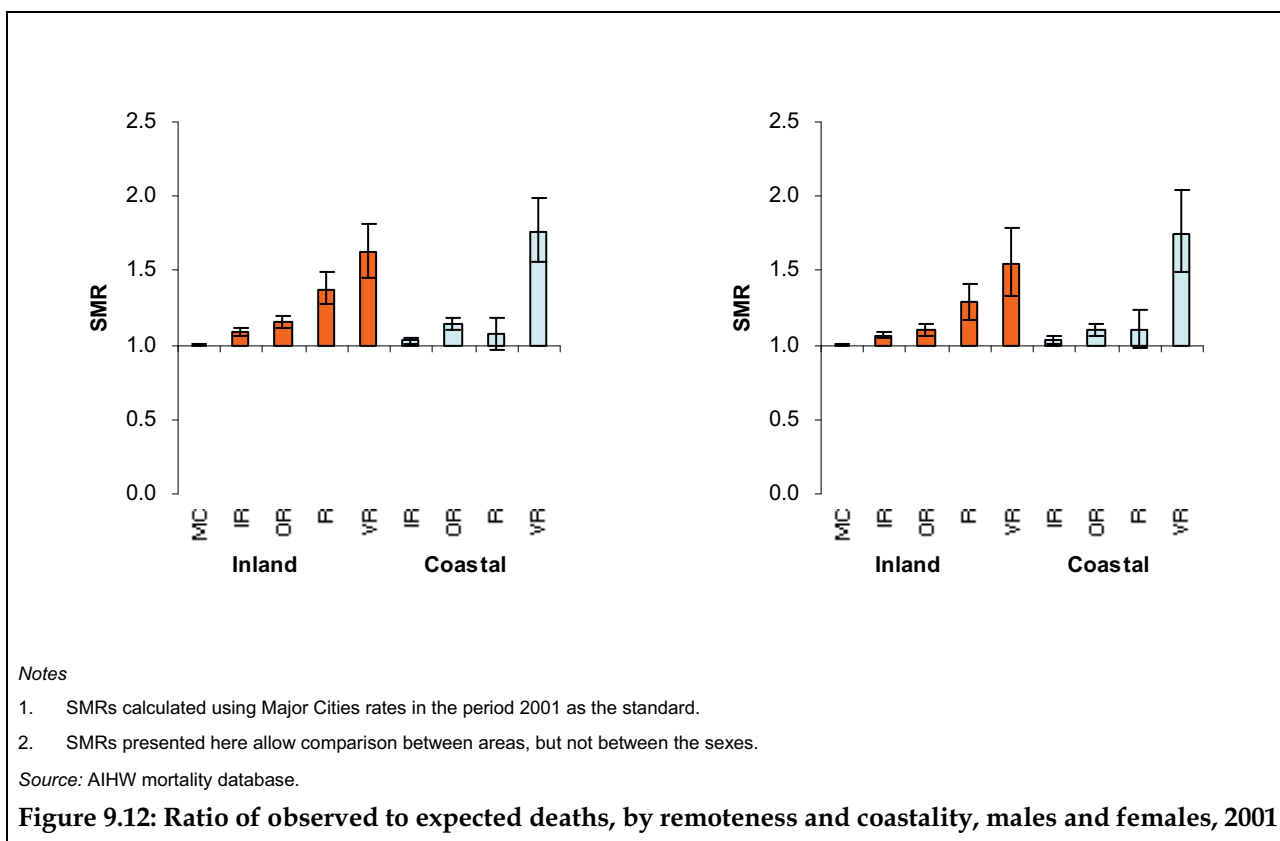
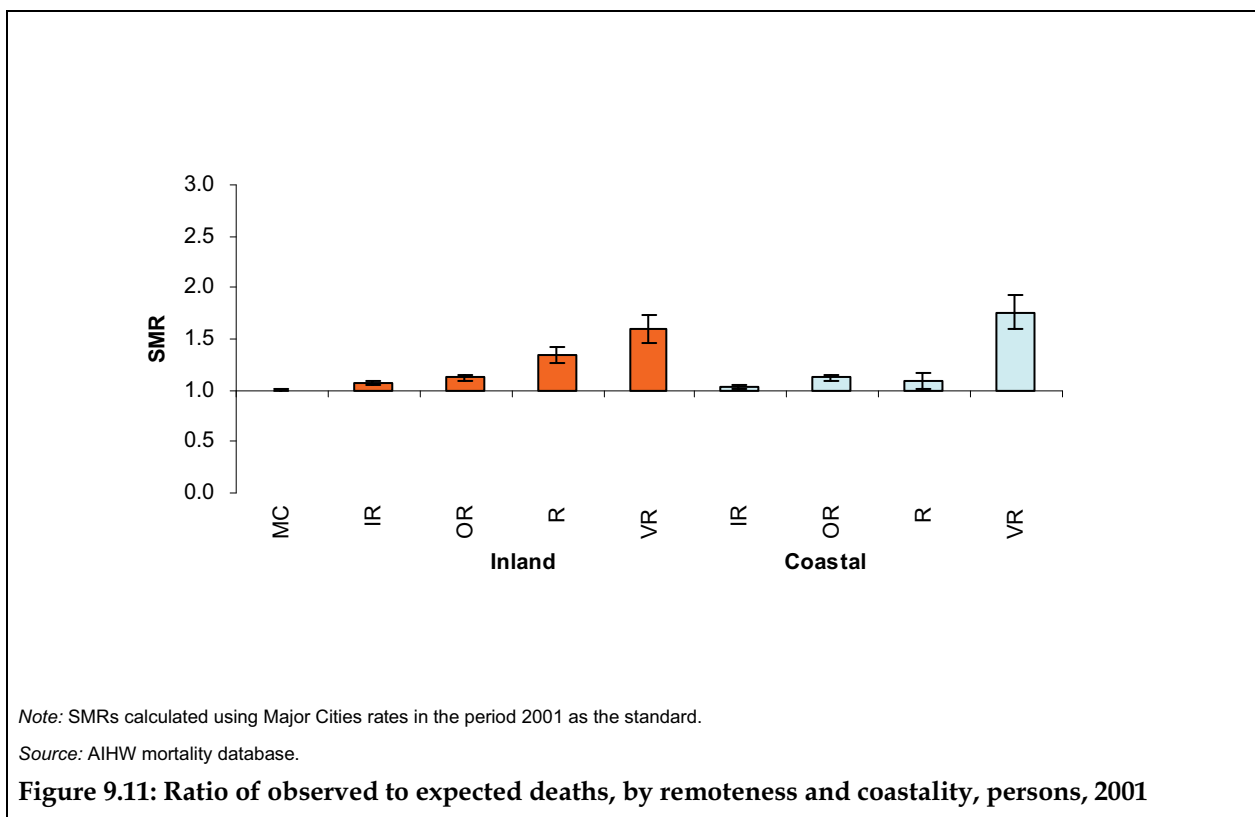
	MC	Inland				Coastal			
		IR	OR	R	VR	IR	OR	R	VR
Population									
Males	6,343,536	943,953	452,725	95,159	46,551	1,051,316	572,088	76,385	48,939
Females	6,527,307	954,596	434,786	84,101	39,547	1,075,825	554,238	68,684	43,505
Persons	12,870,843	1,898,549	887,511	179,259	86,098	2,127,141	1,126,326	145,069	92,444
Deaths									
Males	41,386	6,956	3,768	635	318	8,558	4,162	435	280
Females	40,153	6,400	3,136	418	187	7,541	3,247	312	168
Persons	81,538	13,355	6,903	1,053	505	16,099	7,409	747	448
SMRs									
Males	1.00	1.09	1.15	1.38	1.62	1.03	1.14	1.07	1.77
Females	1.00	1.07	1.10	1.29	1.55	1.03	1.11	1.11	1.75
Persons	1.00	1.08	1.13	1.34	1.59	1.03	1.13	1.09	1.76
'Excess' deaths									
Males	0	574	499	174	122	261	516	29	122
Females	0	406	278	93	66	242	311	30	72
Persons	0	980	777	267	188	503	826	59	194
SMRs (0–64 yrs)									
Males	1.00	1.12	1.22	1.64	2.37	1.13	1.28	1.23	2.56
Females	1.00	1.16	1.22	1.60	2.47	1.11	1.24	1.26	2.90
Persons	1.00	1.13	1.22	1.62		1.13	1.26	1.24	
'Excess' deaths (0–64 yrs)									
Males	0	196	173	101	103	246	273	30	113
Females	0	140	95	45	48	119	128	17	65
Persons	0	336	268	147	151	365	402	47	178

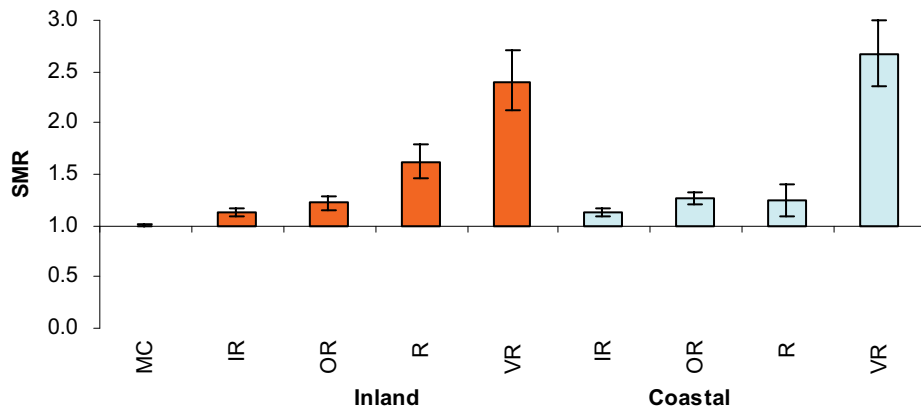
Notes

1. SMRs and 'excess' deaths are calculated using age-and sex-specific Major Cities rates in 2001 as the standard.
2. 'Excess' deaths indicate how many more deaths occurred than if death rates in the area had been the same as in Major Cities. Negative numbers of 'excess' deaths indicate fewer deaths than expected.

Source: AIHW mortality database.

Australia — total population

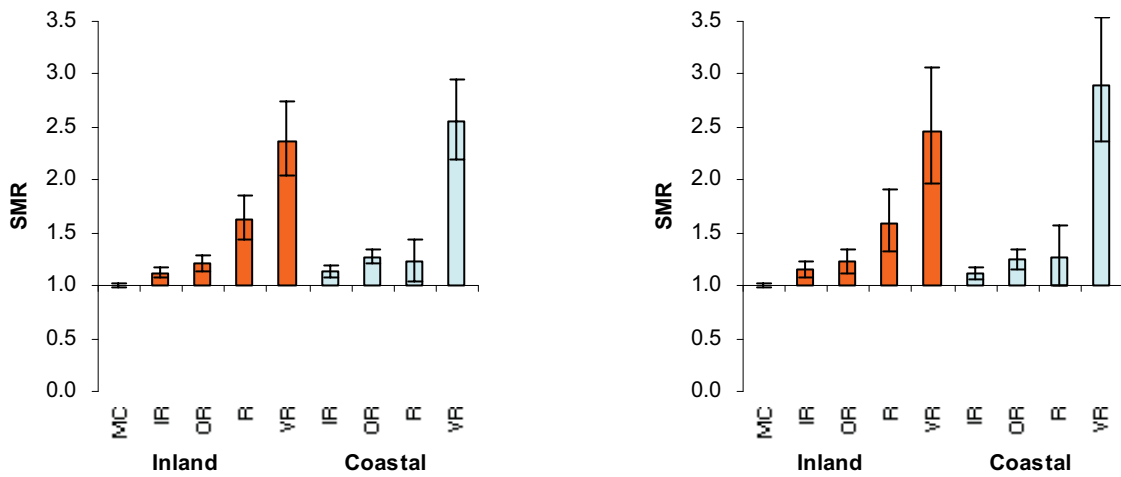




Note: SMRs calculated using Major Cities rates in the period 2001 as the standard.

Source: AIHW mortality database.

Figure 9.13: Ratio of observed to expected deaths, by region, 0-64 year old persons, 2001



Notes

1. SMRs calculated using Major Cities rates in the period 2001 as the standard.
2. SMRs presented here allow comparison between areas, but not between the sexes.

Source: AIHW mortality database.

Figure 9.14: Ratio of observed to expected deaths, by region, 0-64 year old males and females, 2001

Table 9.7: Life-stage SMRs, by Remoteness Areas and coastality, 2001

Life stage (years)	Inland					Coastal				
	MC	IR	OR	R	VR	IR	OR	R	VR	
	SMRs									
0–4	1.0	1.2	1.0	1.9	2.2	1.0	1.3	1.2	2.9	
5–14	1.0	1.1	1.3	2.5	1.3	1.3	1.0	0.4	1.4	
15–24	1.0	1.7	2.0	3.1	2.9	1.5	1.6	2.7	3.2	
25–44	1.0	1.1	1.2	1.7	3.5	1.2	1.3	1.4	3.2	
45–64	1.0	1.1	1.2	1.5	2.0	1.1	1.2	1.1	2.4	
65–74	1.0	1.1	1.2	1.3	1.8	1.0	1.1	1.0	1.9	
75+	1.0	1.1	1.1	1.2	0.9	1.0	1.1	1.0	0.8	

Note: SMRs have been standardised to the 2001 Major Cities age-specific death rates. This means that SMRs in this table are directly comparable to the SMR in Major Cities (1.00).

Source: AIHW mortality database.

Table 9.8: Life-stage 'excess' deaths, by Remoteness Areas and coastality, 2001

Life stage (years)	Inland					Coastal				
	MC	IR	OR	R	VR	IR	OR	R	VR	
	Excess deaths									
0–4	0	23	–3	16	11	7	23	3	20	
5–14	0	2	4	5	0	11	–1	–2	1	
15–24	0	79	44	21	12	59	37	13	14	
25–44	0	55	51	37	63	117	91	17	61	
45–64	0	178	171	68	66	171	252	16	81	
65–74	0	148	198	55	49	37	138	5	39	
75+	0	496	311	65	–12	101	286	7	–24	

Note: SMRs have been standardised to the 2001 Major Cities age-specific death rates. This means that SMRs in this table are directly comparable to the SMR in Major Cities (1.00).

Source: AIHW mortality database.

Mortality in States and Territories

Not all states have the full range of inland and coastal Inner Regional, Outer Regional, Remote and Very Remote areas.

There is a tendency for SMRs to be lower in coastal Inner Regional areas compared with inland Inner Regional areas. This may, at least partially, reflect retirement migration from Major Cities of wealthier individuals with lower risk of mortality.

Table 9.9: Population, annual deaths, SMRs and annual 'excess' deaths in each area, New South Wales, 2001

	MC	Inland				Coastal			
		IR	OR	R	VR	IR	OR	R	VR
Population									
Males	2,325,479	324,893	177,127	20,508	4,119	344,225	67,441	232	178
Females	2,370,922	327,162	170,887	18,305	3,512	352,343	67,461	235	188
Persons	4,696,401	652,055	348,014	38,813	7,631	696,568	134,902	467	366
Deaths									
Males	15,248	2,289	1,566	171	25	3,093	686	n.p.	n.p.
Females	14,500	2,239	1,299	128	19	2,916	512	n.p.	n.p.
Persons	29,748	4,528	2,864	299	44	5,709	1,198	n.p.	n.p.
SMRs									
Males	1.01	1.09	1.19	1.40	1.24	1.05	1.09	n.p.	n.p.
Females	0.99	1.11	1.10	1.34	1.55	1.00	1.02	n.p.	n.p.
Persons	1.00	1.10	1.15	1.37	1.36	1.03	1.06	n.p.	n.p.
'Excess' deaths									
Males	106	185	255	49	5	147	57	n.p.	n.p.
Females	-147	219	118	32	7	0	11	n.p.	n.p.
Persons	-41	404	372	81	12	147	68	n.p.	n.p.
SMRs (0-64 yrs)									
Males	1.01	1.10	1.23	1.73	1.49	1.21	1.28	n.p.	n.p.
Females	0.98	1.19	1.14	1.82	1.82	1.14	1.30	n.p.	n.p.
Persons	1.00	1.14	1.20	1.76	1.59	1.19	1.28	n.p.	n.p.
'Excess' deaths (0-64 yrs)									
Males	56	57	72	26	4	126	34	n.p.	n.p.
Females	-33	59	23	14	3	50	21	n.p.	n.p.
Persons	23	116	95	41	6	176	55	n.p.	n.p.

Notes

1. SMRs and 'excess' deaths are calculated using age-and sex-specific Major Cities rates in 2001 as the standard.
2. 'Excess' deaths indicate how many more deaths occurred than if death rates in the area had been the same as in Major Cities. Negative numbers of 'excess' deaths indicate fewer deaths than expected.

Source: AIHW mortality database.

Table 9.10: Population, annual deaths, SMRs and annual 'excess' deaths in each area, Victoria, 2001

	MC	Inland				Coastal			
		IR	OR	R	VR	IR	OR	R	VR
Population									
Males	1,731,713	404,188	94,279	1,807	—	100,362	32,700	1,246	—
Females	1,796,405	411,793	93,377	1,726	—	101,575	32,365	1,190	—
Persons	3,528,119	815,981	187,656	3,533	—	201,937	65,065	2,436	—
Deaths									
Males	11,232	3,197	830	20	—	779	331	12	—
Females	11,199	2,804	741	17	—	770	291	12	—
Persons	22,430	6,002	1,571	37	—	1,549	622	24	—
SMRs									
Males	0.98	1.11	1.07	1.19	n.a.	0.97	1.19	1.14	n.a.
Females	1.01	1.04	1.03	1.07	n.a.	1.08	1.20	1.61	n.a.
Persons	0.99	1.08	1.05	1.13	n.a.	1.02	1.19	1.33	n.a.
'Excess' deaths									
Males	-248	325	52	3	n.a.	-24	52	1	n.a.
Females	70	98	19	1	n.a.	54	48	4	n.a.
Persons	-177	422	71	4	n.a.	31	100	6	n.a.
SMRs (0-64 yrs)									
Males	0.95	1.13	1.12	0.43	n.a.	1.00	1.26	1.31	n.a.
Females	1.00	1.14	1.06	1.80	n.a.	1.12	1.29	1.97	n.a.
Persons	0.97	1.13	1.10	0.90	n.a.	1.04	1.27	1.54	n.a.
'Excess' deaths (0-64 yrs)									
Males	-137	91	20	-2	n.a.	1	16	1	n.a.
Females	0	53	5	1	n.a.	12	10	1	n.a.
Persons	-137	144	25	-1	n.a.	12	25	2	n.a.

Notes

1. SMRs and 'excess' deaths are calculated using age-and sex-specific Major Cities rates in 2001 as the standard.
2. 'Excess' deaths indicate how many more deaths occurred than if death rates in the area had been the same as in Major Cities. Negative numbers of 'excess' deaths indicate fewer deaths than expected.

Source: AIHW mortality database.

Table 9.11: Population, annual deaths, SMRs and annual 'excess' deaths in each area, Queensland, 2001

	MC	Inland				Coastal			
		IR	OR	R	VR	IR	OR	R	VR
Population									
Males	934,967	142,886	86,483	34,030	15,452	321,757	242,960	15,463	12,442
Females	964,781	144,980	81,963	29,444	13,540	328,905	234,089	13,516	11,287
Persons	1,899,749	287,866	168,447	63,475	28,992	650,662	477,049	28,979	23,729
Deaths									
Males	6,029	989	658	207	114	2,493	1,495	98	77
Females	5,593	929	512	129	70	2,087	1,143	53	56
Persons	11,622	1,918	1,170	336	184	4,580	2,638	151	133
SMRs									
Males	1.03	1.06	1.14	1.29	1.30	1.00	1.12	1.24	1.91
Females	1.00	1.09	1.17	1.27	1.16	1.01	1.08	1.10	2.35
Persons	1.02	1.07	1.15	1.28	1.24	1.00	1.10	1.18	2.07
'Excess' deaths									
Males	174	57	81	46	26	0	165	19	37
Females	24	76	73	27	9	13	83	5	32
Persons	199	133	155	74	36	13	247	24	69
SMRs (0-64 yrs)									
Males	1.05	1.44	1.34	1.43	1.88	1.12	1.30	1.66	2.87
Females	1.04	1.44	1.40	1.35	1.14	1.03	1.21	1.28	4.27
Persons	1.05	1.44	1.36	1.40	1.64	1.09	1.27	1.54	3.33
'Excess' deaths (0-64 yrs)									
Males	84	48	49	24	23	70	123	18	34
Females	31	32	30	9	2	9	46	4	28
Persons	115	80	79	33	25	80	168	22	62

Notes

1. SMRs and 'excess' deaths are calculated using age-and sex-specific Major Cities rates in 2001 as the standard.
2. 'Excess' deaths indicate how many more deaths occurred than if death rates in the area had been the same as in Major Cities. Negative numbers of 'excess' deaths indicate fewer deaths than expected.

Source: AIHW mortality database.

Table 9.12: Population, annual deaths, SMRs and annual 'excess' deaths in each area, Western Australia, 2001

	MC	Inland				Coastal			
		IR	OR	R	VR	IR	OR	R	VR
Population									
Males	663,369	19,645	44,603	13,143	11,020	97,103	51,043	35,413	16,218
Females	679,284	18,972	40,620	11,062	8,418	96,504	49,903	31,120	13,719
Persons	1,342,653	38,618	85,223	24,205	19,438	193,607	100,946	66,533	29,937
Deaths									
Males	3,918	136	277	95	61	625	329	125	85
Females	3,768	103	220	45	34	509	266	85	36
Persons	7,686	239	497	139	95	1,133	594	210	121
SMRs									
Males	0.96	1.10	1.21	1.34	1.78	0.96	0.97	0.93	1.56
Females	0.95	1.05	1.18	0.90	1.89	0.99	0.98	1.04	1.20
Persons	0.96	1.08	1.20	1.16	1.82	0.98	0.97	0.97	1.43
'Excess' deaths									
Males	-145	13	49	24	26	-23	-10	-9	30
Females	-188	4	33	-5	16	-6	-6	3	6
Persons	-333	17	82	19	43	-29	-16	-6	36
SMRs (0-64 yrs)									
Males	0.98	1.27	1.17	1.34	2.29	0.93	0.98	1.00	2.25
Females	0.93	0.83	1.76	0.60	2.85	0.95	1.07	1.33	1.96
Persons	0.96	1.12	1.36	1.11	2.45	0.94	1.02	1.10	2.16
'Excess' deaths (0-64 yrs)									
Males	-25	10	13	8	22	-12	-1	0	31
Females	-41	-3	28	-4	12	-5	3	9	11
Persons	-67	6	41	4	35	-16	2	9	42

Notes

1. SMRs and 'excess' deaths are calculated using age-and sex-specific Major Cities rates in 2001 as the standard.
2. 'Excess' deaths indicate how many more deaths occurred than if death rates in the area had been the same as in Major Cities. Negative numbers of 'excess' deaths indicate fewer deaths than expected.

Source: AIHW mortality database.

Table 9.13: Population, annual deaths, SMRs and annual 'excess' deaths in each area, South Australia, 2001

	MC	Inland				Coastal			
		IR	OR	R	VR	IR	OR	R	VR
Population									
Males	530,808	51,117	38,009	5,969	5,150	42,484	53,001	17,721	3,004
Females	554,454	50,620	36,244	5,087	3,911	42,982	51,623	16,832	2,714
Persons	1,085,262	101,738	74,252	11,056	9,060	85,466	104,623	34,553	5,718
Deaths									
Males	4,234	341	360	30	28	319	524	151	18
Females	4,406	320	297	27	14	242	409	130	19
Persons	8,640	661	657	57	42	562	933	282	37
SMRs									
Males	1.04	0.99	1.23	1.05	1.22	0.94	1.29	1.05	1.04
Females	1.06	1.03	1.13	1.19	1.32	0.84	1.16	1.10	1.51
Persons	1.05	1.01	1.18	1.11	1.25	0.89	1.23	1.07	1.24
'Excess' deaths									
Males	155	-4	67	1	5	-21	118	8	1
Females	234	9	34	4	3	-48	58	12	7
Persons	388	6	101	6	8	-69	176	20	7
SMRs (0-64 yrs)									
Males	1.03	0.91	1.30	1.17	1.69	1.22	1.29	0.97	1.24
Females	1.08	0.98	1.13	2.03	2.37	0.96	1.28	1.07	2.57
Persons	1.05	0.93	1.24	1.44	1.88	1.13	1.29	1.00	1.68
'Excess' deaths (0-64 yrs)									
Males	29	-8	20	2	6	16	28	-1	1
Females	43	-1	5	4	5	-2	15	1	4
Persons	72	-10	25	6	11	15	42	0	5

Notes

1. SMRs and 'excess' deaths are calculated using age-and sex-specific Major Cities rates in 2001 as the standard.
2. 'Excess' deaths indicate how many more deaths occurred than if death rates in the area had been the same as in Major Cities. Negative numbers of 'excess' deaths indicate fewer deaths than expected.

Source: AIHW mortality database.

Table 9.14: Population, annual deaths, SMRs and annual 'excess' deaths in each area, Tasmania, 2001

	MC	Inland				Coastal			
		IR	OR	R	VR	IR	OR	R	VR
Population									
Males	n.a.	849	12,224	121	n.a.	145,102	68,550	4,222	1,402
Females	n.a.	786	11,695	105	n.a.	153,257	68,348	3,924	1,209
Persons	n.a.	1,635	23,919	226	n.a.	298,359	136,899	8,146	2,611
Deaths									
Males	n.a.	4	77	1	n.a.	1,248	569	36	6
Females	n.a.	3	67	1	n.a.	1,317	493	23	10
Persons	n.a.	7	145	2	n.a.	2,565	1,061	59	16
SMRs									
Males	n.a.	0.95	0.95	1.61	n.a.	1.17	1.18	1.22	0.51
Females	n.a.	0.87	1.01	1.00	n.a.	1.21	1.21	1.10	1.20
Persons	n.a.	0.91	0.98	1.36	n.a.	1.19	1.19	1.17	0.79
'Excess' deaths									
Males	n.a.	0	-4	1	n.a.	182	86	6	-6
Females	n.a.	0	1	0	n.a.	228	85	2	2
Persons	n.a.	-1	-3	1	n.a.	411	171	9	-4
SMRs (0-64 yrs)									
Males	n.a.	0.99	1.00	1.60	n.a.	1.18	1.29	1.78	0.70
Females	n.a.	0.67	1.35	2.35	n.a.	1.38	1.21	1.10	0.74
Persons	n.a.	0.89	1.12	1.85	n.a.	1.25	1.26	1.55	0.71
'Excess' deaths (0-64 yrs)									
Males	n.a.	0	0	0	n.a.	45	36	6	-1
Females	n.a.	0	4	0	n.a.	54	14	0	0
Persons	n.a.	0	4	0	n.a.	99	50	7	-1

Notes

1. SMRs and 'excess' deaths are calculated using age-and sex-specific Major Cities rates in 2001 as the standard.
2. 'Excess' deaths indicate how many more deaths occurred than if death rates in the area had been the same as in Major Cities. Negative numbers of 'excess' deaths indicate fewer deaths than expected.

Source: AIHW mortality database.

Table 9.15 Population, annual deaths, SMRs and annual 'excess' deaths in each area, Northern Territory, 2001

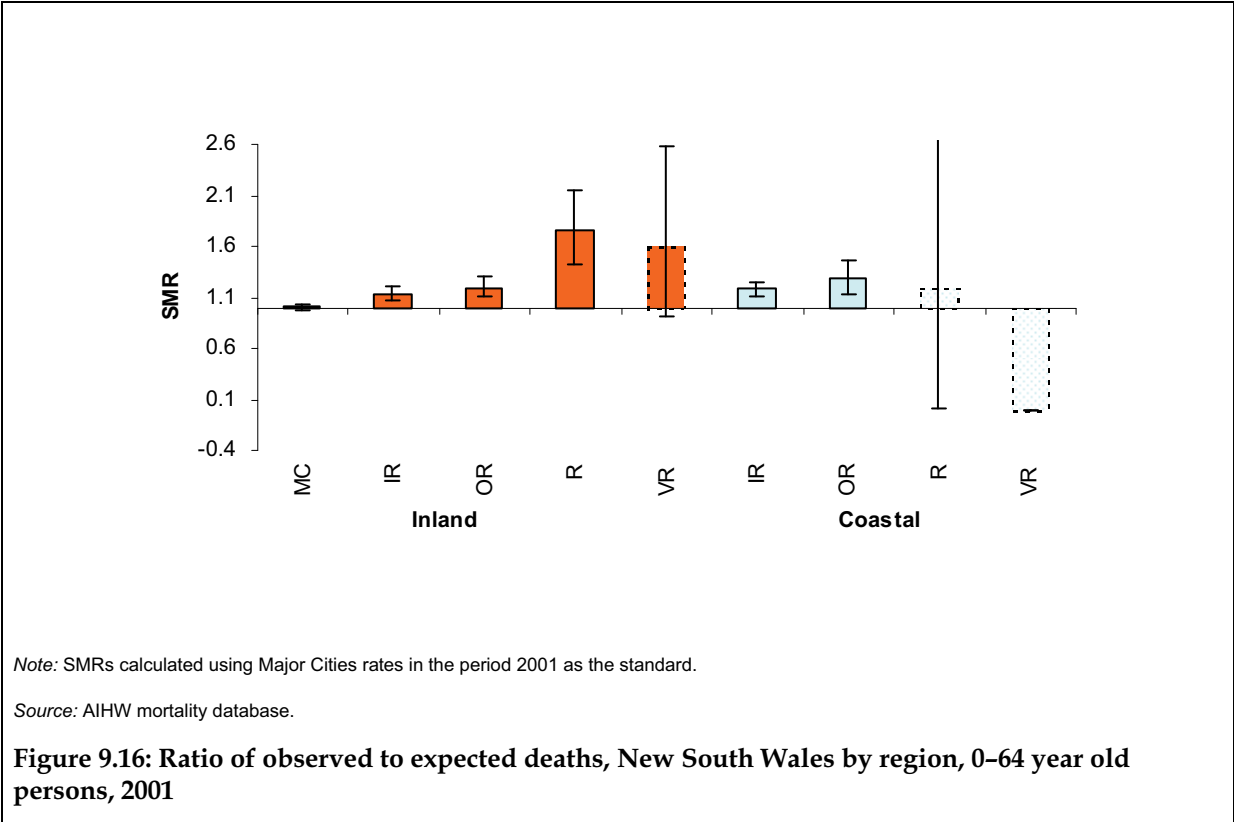
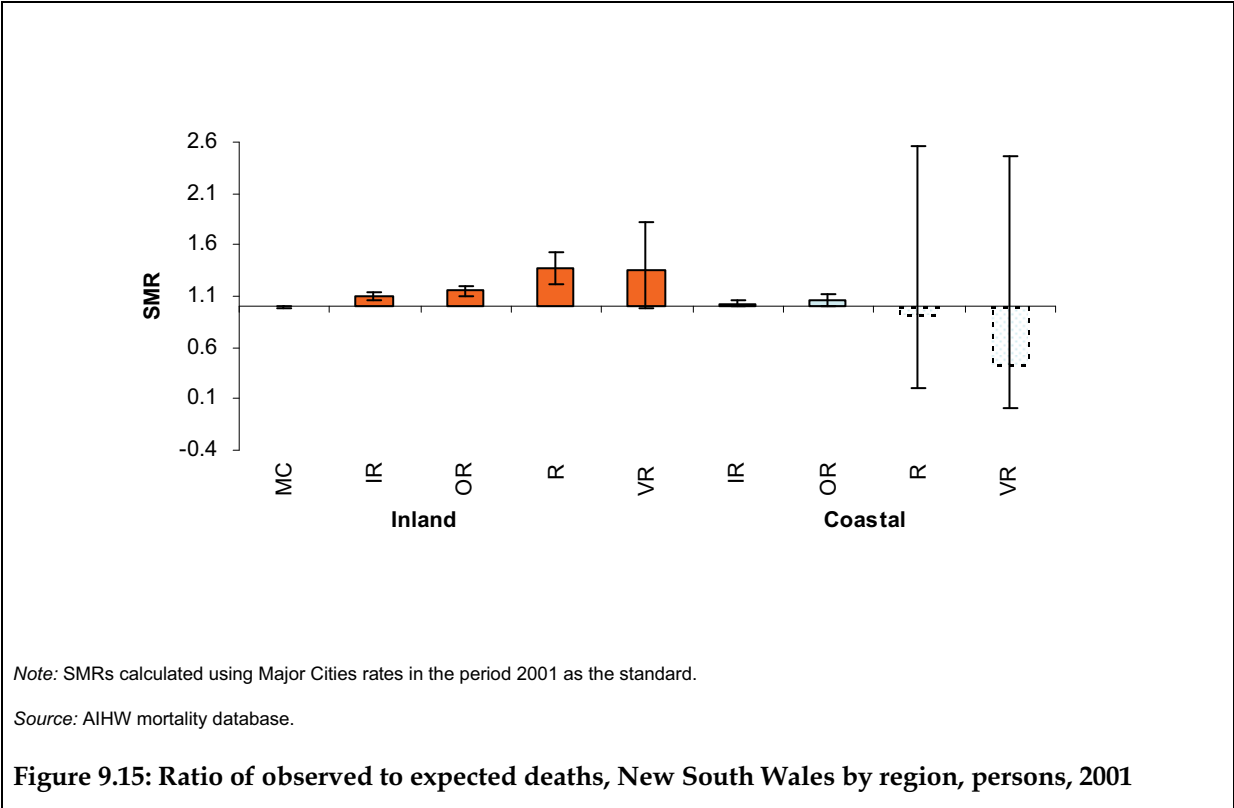
	MC	Inland				Coastal			
		IR	OR	R	VR	IR	OR	R	VR
Population									
Males	n.a.	n.a.	n.a.	19,580	10,811	n.a.	56,393	2,089	14,602
Females	n.a.	n.a.	n.a.	18,372	10,166	n.a.	50,449	1,867	13,439
Persons	n.a.	n.a.	n.a.	37,952	20,977	n.a.	106,842	3,956	28,041
Deaths									
Males	n.a.	n.a.	n.a.	111	90	n.a.	227	10	91
Females	n.a.	n.a.	n.a.	72	50	n.a.	135	7	46
Persons	n.a.	n.a.	n.a.	183	140	n.a.	362	17	137
SMRs									
Males	n.a.	n.a.	n.a.	1.80	2.90	n.a.	1.27	1.63	3.03
Females	n.a.	n.a.	n.a.	1.87	2.58	n.a.	1.32	2.33	2.48
Persons	n.a.	n.a.	n.a.	1.83	2.78	n.a.	1.29	1.86	2.82
'Excess' deaths									
Males	n.a.	n.a.	n.a.	49	59	n.a.	48	4	61
Females	n.a.	n.a.	n.a.	34	31	n.a.	33	4	27
Persons	n.a.	n.a.	n.a.	83	89	n.a.	81	8	88
SMRs (0-64 yrs)									
Males	n.a.	n.a.	n.a.	2.41	4.19	n.a.	1.42	2.64	3.52
Females	n.a.	n.a.	n.a.	2.34	4.65	n.a.	1.44	1.95	3.36
Persons	n.a.	n.a.	n.a.	2.38	4.34	n.a.	1.43	2.43	3.47
'Excess' deaths (0-64 yrs)									
Males	n.a.	n.a.	n.a.	43	47	n.a.	39	6	50
Females	n.a.	n.a.	n.a.	20	27	n.a.	19	2	22
Persons	n.a.	n.a.	n.a.	63	74	n.a.	58	8	72

Notes

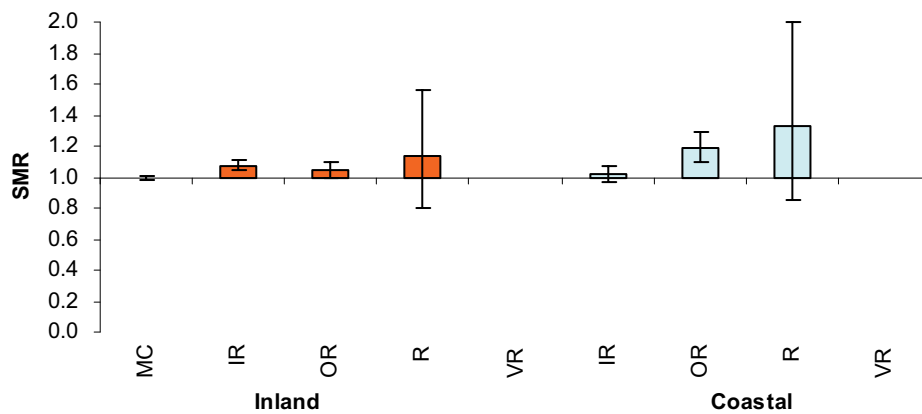
1. SMRs and 'excess' deaths are calculated using age-and sex-specific Major Cities rates in 2001 as the standard.
2. 'Excess' deaths indicate how many more deaths occurred than if death rates in the area had been the same as in Major Cities. Negative numbers of 'excess' deaths indicate fewer deaths than expected.

Source: AIHW mortality database.

New South Wales



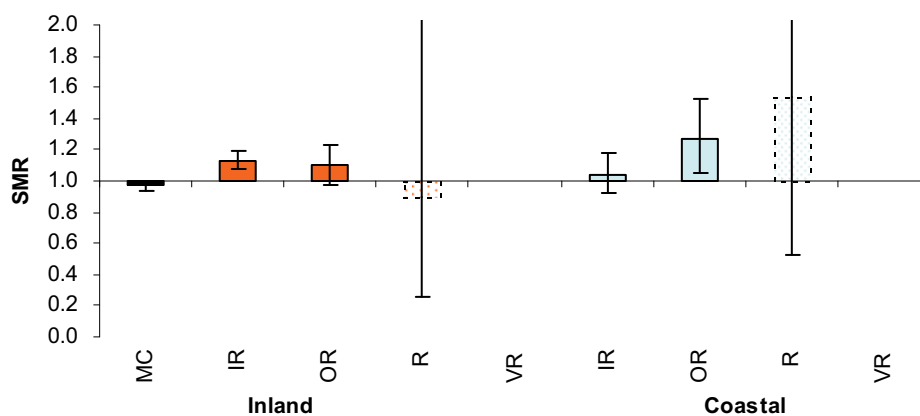
Victoria



Note: SMRs calculated using Major Cities rates in the period 2001 as the standard.

Source: AIHW mortality database.

Figure 9.17: Ratio of observed to expected deaths, Victoria by region, persons, 2001

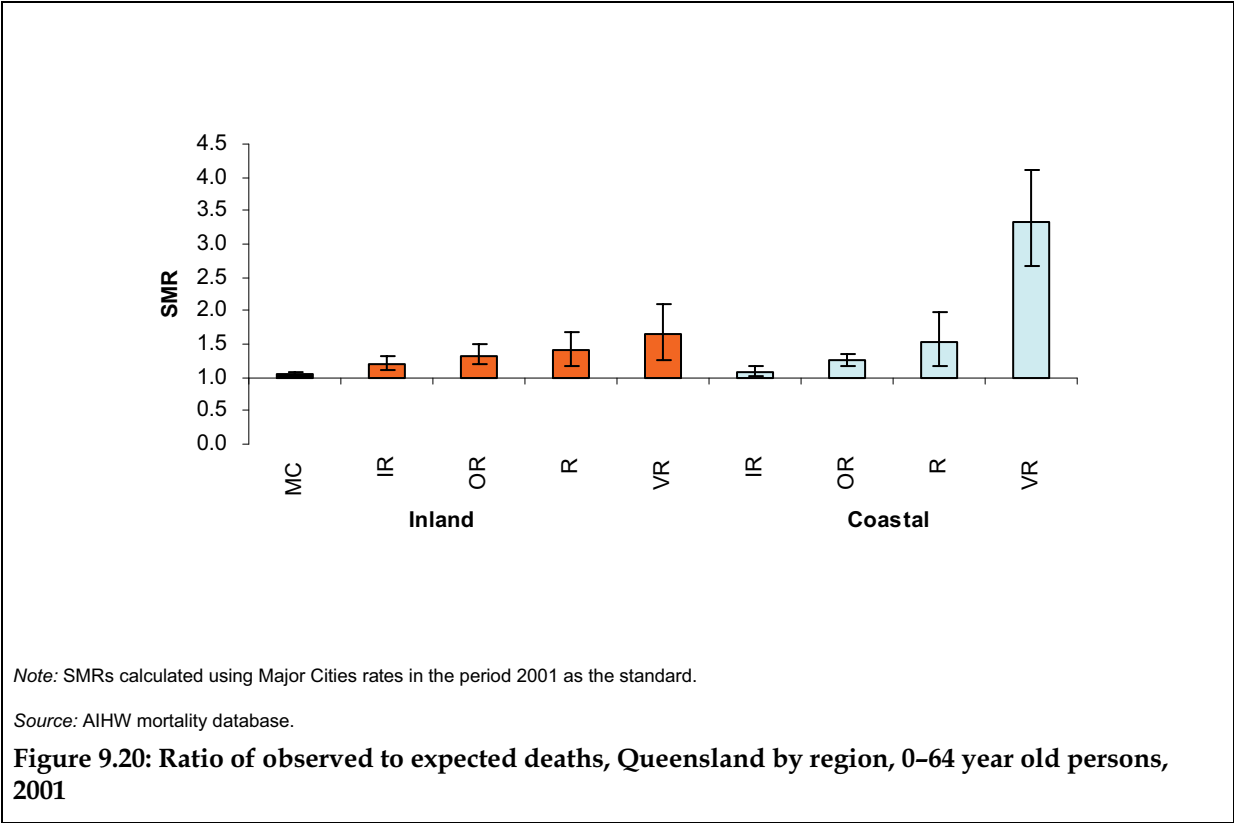
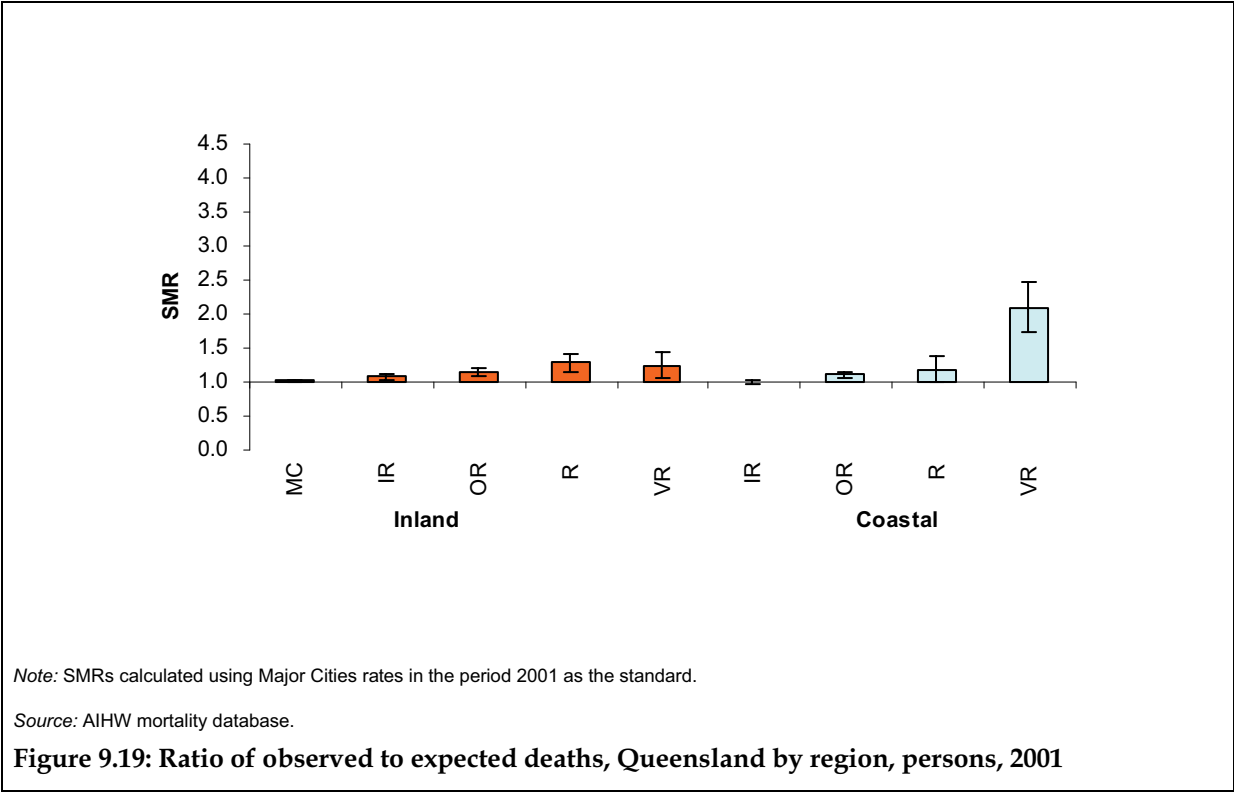


Note: SMRs calculated using Major Cities rates in the period 2001 as the standard.

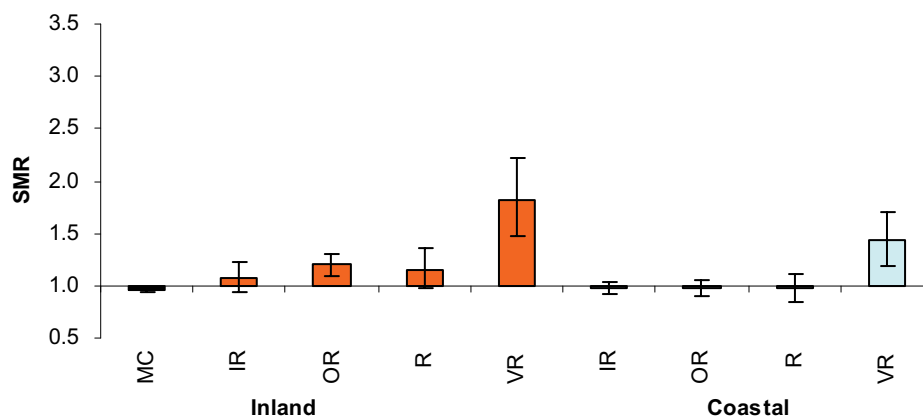
Source: AIHW mortality database.

Figure 9.18: Ratio of observed to expected deaths, Victoria by region, 0-64 year old persons, 2001

Queensland



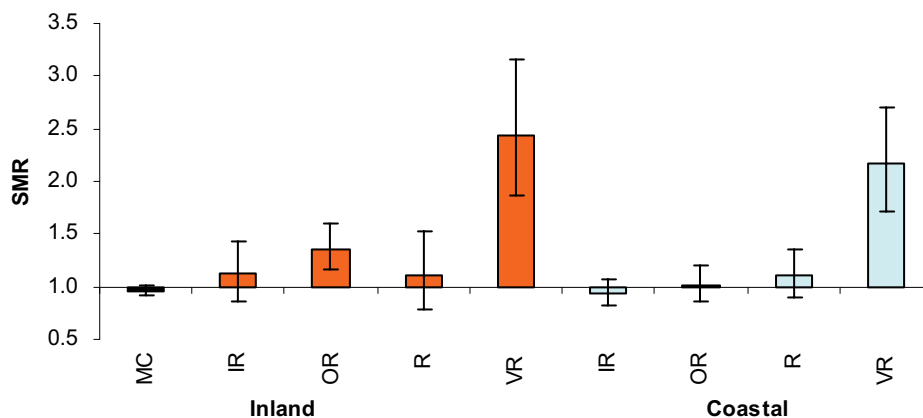
Western Australia



Note: SMRs calculated using Major Cities rates in the period 2001 as the standard.

Source: AIHW mortality database.

Figure 9.21: Ratio of observed to expected deaths, Western Australia by region, persons, 2001

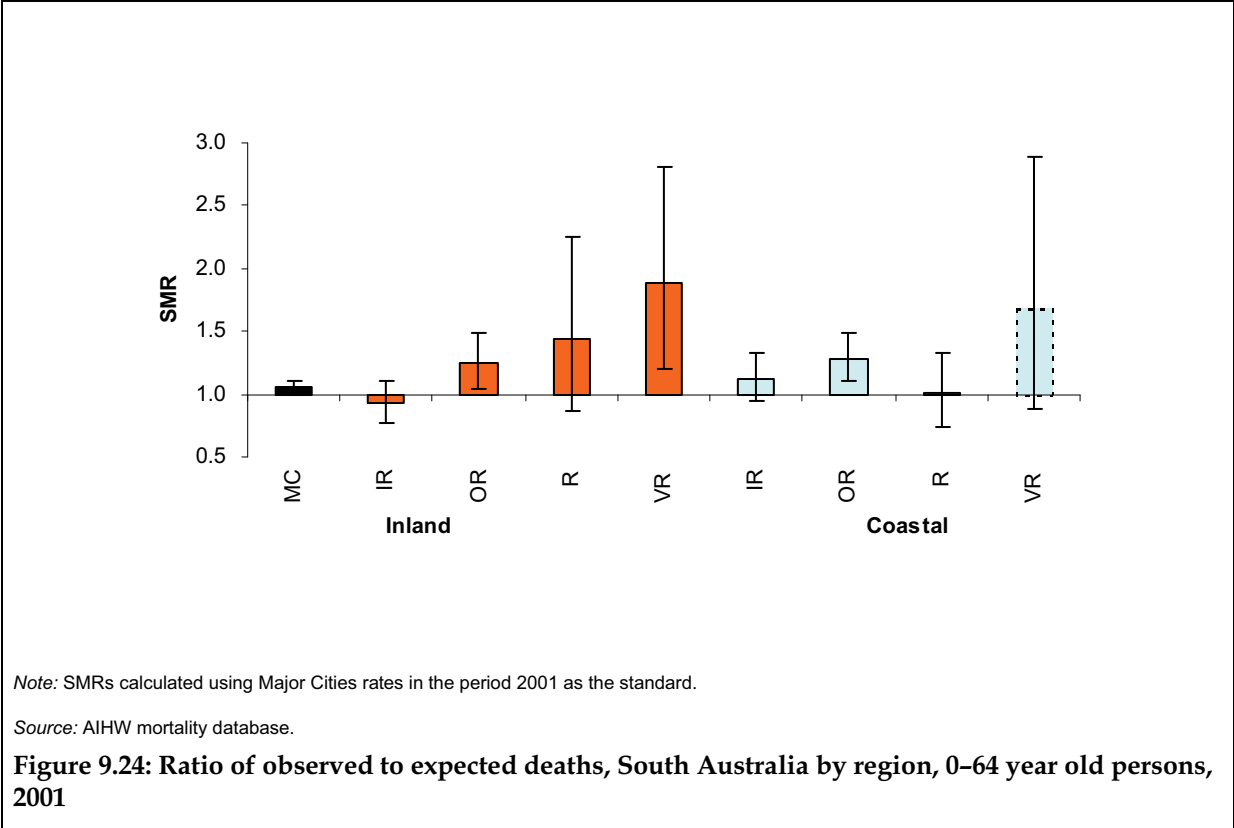
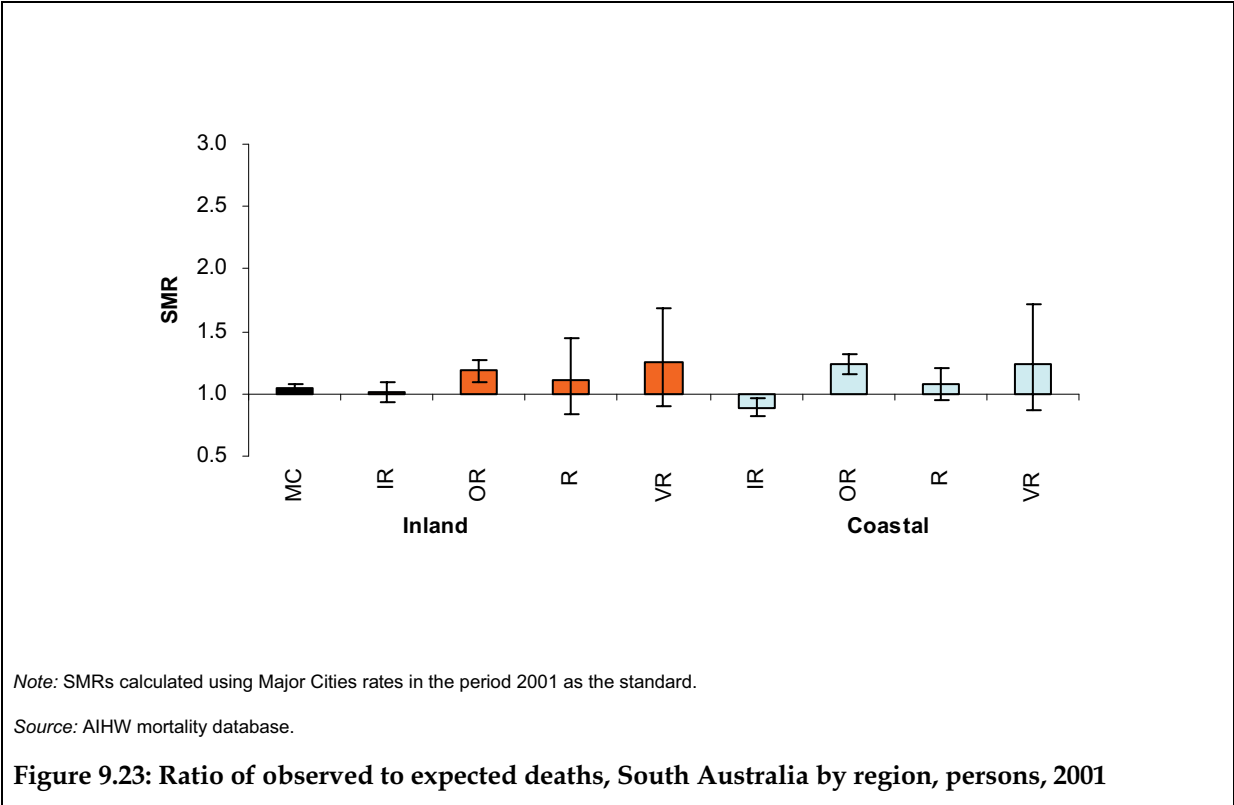


Note: SMRs calculated using Major Cities rates in the period 2001 as the standard.

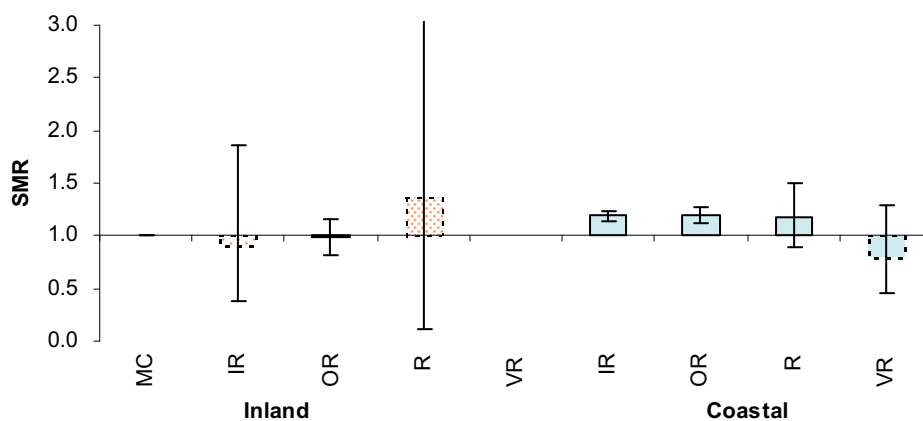
Source: AIHW mortality database.

Figure 9.22: Ratio of observed to expected deaths, Western Australia by region, 0-64 year old persons, 2001

South Australia



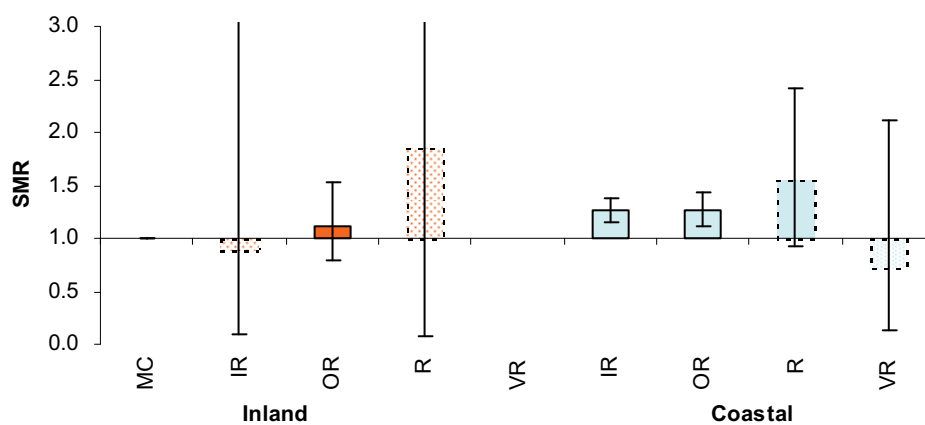
Tasmania



Note: SMRs calculated using Major Cities rates in the period 2001 as the standard.

Source: AIHW mortality database.

Figure 9.25: Ratio of observed to expected deaths, Tasmania by region, persons, 2001

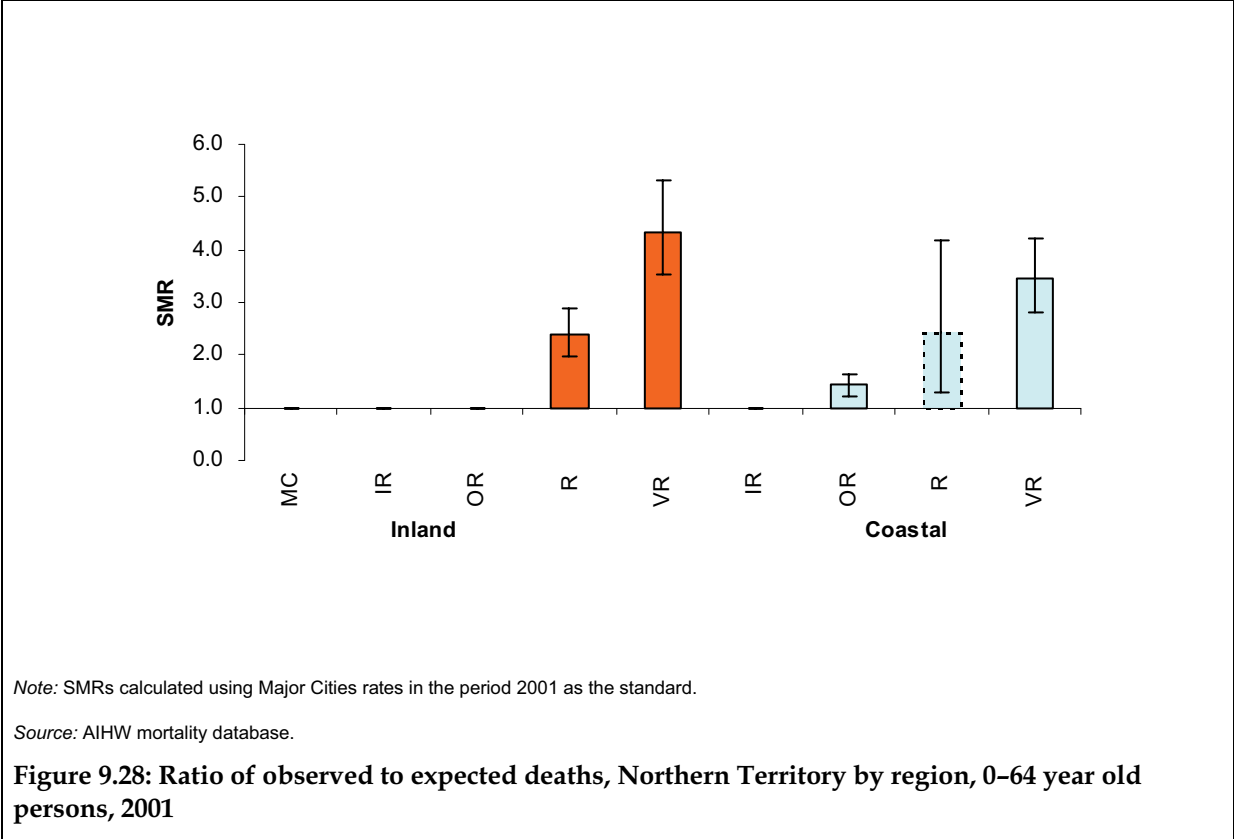
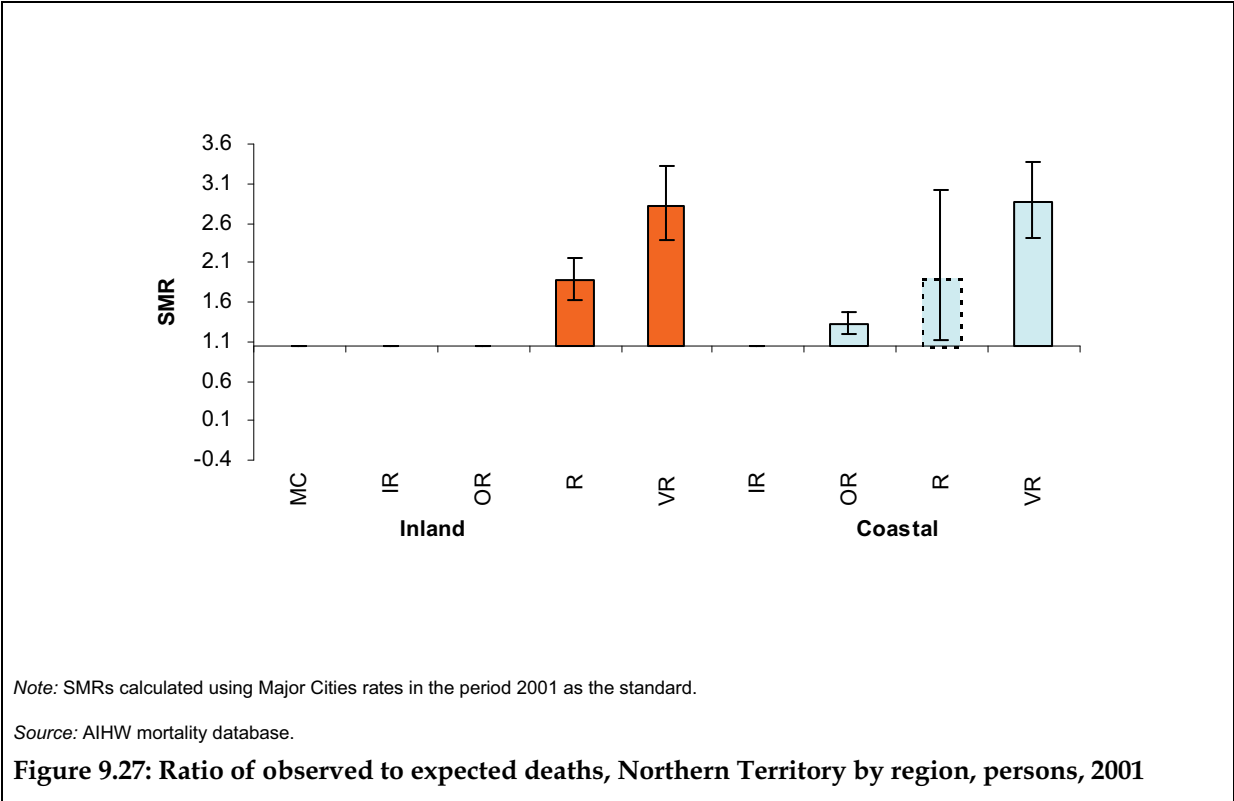


Note: SMRs calculated using Major Cities rates in the period 2001 as the standard.

Source: AIHW mortality database.

Figure 9.26: Ratio of observed to expected deaths, Tasmania by region, 0-64 year old persons, 2001

Northern Territory



Appendix A Technical notes

Statistical methods

The principal statistical method used in this work is indirect age standardisation, discussed below. Age standardisation has been employed to adjust for differences in the age and sex structure of the populations in each area; this is important because rates of death increase with age and are higher for males than for females.

The indirect method of age standardisation yields a standardised mortality ratio (SMR), the ratio of the number of observed deaths to the number that would be expected if Major Cities age-specific rates applied to the populations in each area.

Confidence intervals for SMRs have been calculated on the basis of the number of observed deaths using the square-root transform described in Breslow and Day (1987:70–1).

Throughout the report, confidence intervals are calculated at the 95% level of confidence. Reported statistics are taken to be significantly different if 95% confidence intervals do not overlap. In the text, rates described as ‘significantly different’ can be taken to be statistically significantly different at the 95% level. The small size of the population in Remote and Very Remote areas restricts the amount of data available to calculate rates; the level of uncertainty associated with rates calculated for these areas is certainly greater than for areas with large populations (such as Major Cities). Consequently, confidence intervals have been calculated and accompany presented rates so that the level of uncertainty associated with rates is clearly expressed. These confidence intervals do not describe the uncertainty associated with potential bias, for example, the uncertainty in identification of Indigenous Australian deaths. ‘Excess’ deaths have been expressed as the difference between the number of deaths observed and the number expected (Armitage & Berry 1987:403–5).

Age standardisation

Each population has its own characteristics. For example, Indigenous Australian populations tend to have proportionally larger numbers of children and smaller numbers of older people than non-Indigenous Australian populations. Similarly, there are differences between metropolitan, rural and remote populations in the age structure and in the proportion of the population who are male and female living in each area. Comparison of crude death rates (that is, the total number of deaths divided by the total population) may simply reflect the different age and sex structures of populations rather than any difference in the likelihood of death.

It is usual for the Institute to report rates that have been directly age standardised to the Australian population as it was in 2001. This involves applying the rates of disease or death for each sex and age group in the population of interest, to the number of people in the whole Australian population in 2001; the total number is then expressed as a rate. This approach works well when the population of interest is large, but works less well with small populations, especially if the disease or cause of death is relatively rare. In such situations it is better to use indirect rather than direct age standardisation.

For this report, the indirect method of standardisation has been used because several of the populations of interest are small and the numbers of deaths in these areas for some diseases are also relatively small. This method involves the following steps:

1. calculation of age-specific rates for the standard population (that is, the total and non-Indigenous Australian Major Cities population)
2. calculation of the number of deaths expected to occur, if the standard age-specific rates applied to the population in each area
3. comparison of the total number of deaths observed in the population of each area to the number expected (that is, the ratio of observed to expected deaths).

Standard rates

In this report, the annual death rate for each five-year age group of males and females from Major Cities in the period 2002–04 has been used as the standard. People who live in Major Cities of Australia have the lowest death rates and so are a useful standard population for this report. National age-specific rates were not used because this would entail comparison of mortality, not with the lowest rates in Australia, but with an average rate for Australians. This would have made comparisons between areas more difficult and it is potentially less meaningful than comparison with the most advantaged population group in the country (rather than with an ‘average’).

In describing mortality for Indigenous Australian and non-Indigenous Australian populations, it has been necessary to use the annual death rate for each five-year age group of non-Indigenous Australian males and females from Major Cities in the period 2002–04 as the standard. This second standard has been used for evaluating differences in mortality for Indigenous Australians and non-Indigenous Australians for several reasons:

- It was felt more logical to compare mortality for non-Indigenous Australians in each area with that for non-Indigenous Australians in Major Cities. Use of this standard ensures that SMRs in Major Cities will always be equal to ‘one’, making comparison between the other areas and Major Cities easier. Use of this standard also reflects a logical comparison: that Indigenous Australians and non-Indigenous Australians, irrespective of where they live, should reasonably expect to experience the same level of mortality as their Major Cities counterparts.
- Comparison with the ‘best’ rates in Australia (that is, those of non-Indigenous Australians from Major Cities) was thought to be potentially more useful than comparison with ‘average’ rates (that is, those of all people from Major Cities).
- Use of only one standard immediately encourages readers to subtract numbers of observed and expected deaths for the non-Indigenous Australian population from the total population to yield the number of observed and expected Indigenous Australian deaths in each area. Because of data quality issues pertaining to identification of Indigenous Australian deaths, we believe the results of such subtraction are likely to yield misleading results (see page 329); use of two different (but very similar) standards discourages such subtraction.

So, two standards have been used in this report:

- When describing mortality differentials for the total (Indigenous Australian plus non-Indigenous Australian) populations, age-specific death rates for the total populations of males and females living in Major Cities in 2002–04 have been used (separately) as the standard.

- When describing mortality differentials for the Indigenous Australian and the non-Indigenous Australian populations, age-specific death rates for the non-Indigenous Australian populations of males and females living in Major Cities in 2002–04 have been used (separately) as the standard.

The difference between the age-specific rates for each of these groups is small, because, proportionally, there are very few Indigenous Australians living in Major Cities (1%).

Use of these standards allows comparison of the observed number of deaths with the number expected if the lowest rates of death experienced by the largest proportion of the Australian population (those living in Major Cities) were to also be experienced by Indigenous Australians and by other people who live in regional and remote areas.

Expression of the ratio as a rate

Because the ratio of the observed to expected deaths is exactly the same as the ratio of the 'indirect age-standardised rates' in each area to that in Major Cities, the difference between the mortality in one area and that in Major Cities can be expressed either as:

- one rate is 'so many times as high as another', or
- there are 'so many times more deaths than expected'.

For example, if 100 deaths were observed in an area, and only 50 were expected, then there were two times as many deaths as expected, or, the death rate in the area was two times that in Major Cities.

Statistical significance

Because of the influence of chance and natural variation, calculated rates will vary a little from year to year. What may appear to be a slightly higher rate in one year, may be the same (or a slightly lower) rate a year later. To assist in determining whether calculated rates are meaningfully different from one another, confidence intervals have been provided where possible. Where confidence intervals overlap, the rates are assumed to be not significantly different, but where they miss each other completely, the differences are considered to be statistically significant. In addition, data for the three years 2002–04 have been aggregated throughout these analyses: the larger numbers increase our ability to calculate a more statistically stable rate.

Where there are exactly as many deaths as expected, the ratio or SMR will be 'one'.

In tables presented in this report, ratios of observed to expected deaths that are significantly greater than 'one' are in bold print and accompanied by an asterisk. This indicates that the difference exhibited in the years 2002–04 is likely to be a real difference that will be reflected in analyses of data from other years (unless there are other relevant changes that affect death rates).

Frequently the difference between the number of observed and expected deaths is not statistically significant (that is, the difference could have occurred by chance, and may not be due to any real difference in the death rates of the two populations). This can be due to the fact that there is little difference in the numbers of observed and expected deaths, or because the numbers of observed and expected deaths are so small as to make it next to impossible to distinguish a statistically significant difference.

In a number of places, ratios of observed to expected deaths that are not significantly different from 'one' have been included (and identified as such) in tables. However, all such non-significant figures should be treated cautiously.

Some graphs and tables show large fluctuations over time or between age groups. Many of the differences are not significant, the fluctuation a result of rates being influenced by chance events (in relatively small populations). Additionally, 'random' events can have a substantial impact on reported rates in small populations, particularly when the cause of death is usually uncommon.

Cause of deaths

In this report, mortality is described for all causes combined, as well as for a range of specific causes. These causes are similar, but not identical, to those reported in the previous edition of this report (AIHW 2003).

Unless otherwise stated, the cause of death reported is the underlying cause of death. Causes of death were classified using the International Classification of Diseases, version 10 (ICD-10).

For deaths described as due to injury or poisoning, the cause reported is the external cause (such as suicide or motor vehicle accident), rather than the nature of the injury, although the term 'injury' has been often used.

The ICD-10 codes used in this report are listed in Appendix B.

Indigenous Australian data quality issues

Of the issues to be considered when attempting to understand the health of regional and remote populations, Indigenous Australian health is the most critical. However, identification of Indigenous Australians in data collections is frequently poor.

Overall, identification of Indigenous Australian deaths in Australia is estimated to be no better than 60% (ABS 2005). Identification of Indigenous Australians in the National Mortality database for the period 2002–04 is estimated to be more reliable in Queensland, Western Australia, South Australia and the Northern Territory than in the other jurisdictions (ABS 2004; ABS 2005); identification is estimated at between 60% and almost 100%.

It is likely that identification of Indigenous Australian deaths is more accurate in areas where Indigenous Australians make up a larger proportion of the population, and less accurate where they are a small minority. It is therefore possible that identification of Indigenous Australian deaths in Very Remote areas (where Indigenous Australians constitute 45% of the population) is very good, but this hypothesis has not yet been rigorously tested. Reasons for assuming that identification is likely to be better in more remote areas include:

- The deceased (or their family) may be more likely to be known by the person completing certification.
- The importance of Indigenous Australian health issues and of the need for accurate identification may be appreciated in remote areas where there are more Indigenous people living in the area.

- Identification of Indigenous Australians in hospital morbidity data collections has been shown to be better in areas with higher proportions of Indigenous Australians in catchment areas (ABS & AIHW 1999; AIHW 2005b).
- The ABS has found better coverage of the Indigenous Australian population in deaths data for the states or territories with more remote areas such as Queensland, Western Australia, South Australia and the Northern Territory (ABS 2000).
- Mathematical modelling strongly suggests that similar accuracy in the identification of Indigenous Australian deaths at each level of remoteness is highly unlikely (AIHW 2003).
- Indigenous Australians may be more comfortable in identifying as Aboriginal and Torres Strait Islander in areas where they represent a relatively high proportion of the population in these areas such as in Remote and Very Remote areas.

Therefore, we conclude that there are likely to be different rates of identification by Indigenous Australians by region, and hence regional data for Indigenous Australians have not been presented in this report.

If Indigenous Australians in the mortality database are under-identified, then non-Indigenous Australians will be over-identified and consequently over-represented (as a consequence of some Indigenous Australians being incorrectly counted as non-Indigenous Australian and not stated Indigenous status). At a national level, this is unlikely to have a significant impact on the calculation of rates for non-Indigenous Australians. The effect on calculated rates for Major Cities and regional areas is also likely to be small.

Data issues affecting comparison with previously published data

There are a number of data issues that complicate comparison with previously published data. Briefly these can be grouped under the following headings:

- changes in ABS population estimates
- differences in the identification of Indigenous Australians across geography and over time
- records with missing geographic information
- changes in the age structure of available population data.

Calculation of death rates used to compare mortality in each of the areas relies on the availability of counts of both deaths and population.

Population data for intercensal years (for example, 2002, 2003 and 2004) are estimates based on the latest available information (for example, 1996 and 2001 Census). Population estimates for any particular year will therefore change slightly over time as they are updated on the basis of information from each successive census.

The last time mortality was compared across Remoteness Areas in this series of reports (AIHW 2003), ABS estimates of the regional populations in 1997–99 were based on extrapolation from the previous (1991 and 1996) census data.

Population data used in the analysis of 2002–04 mortality data in this report are based on extrapolation from 1996 and 2001 census population estimates. Future revisions of mortality for this period are likely to utilise population estimates updated in light of data from the 2006 census.

Currently available ABS population data for 1997–99 are based on interpolation between the 1996 census and the 2001 census, and is slightly different from the population data used in the previous report (AIHW 2003).

So as to compare mortality for 2002–04 with that for the previous reporting period, 1997–99 rates have been recalculated for this report, based on the more recent population data. Consequently, inter-regional comparisons of SMRs and the number of ‘excess’ deaths for 1997–99 are slightly different from those published previously in AIHW 2003.

Comparison of Indigenous Australian mortality over time was not possible, because of a likely increase in the propensity to identify as Indigenous Australian. The analysis was not conducted because any increase in calculated death rate may simply have reflected greater propensity to identify rather than any actual increase in the rate of death. For the same reasons, changes in mortality for non-Indigenous Australians were also not calculated.

Because of changes made to the coding of remoteness category in the data set between 2001 and 2005, and insufficient information about area of residence for the deceased, about 1,600 deaths from the 1997–99 period, or about 0.4% of all mortality records for the period, have been lost from this reanalysis of the 1997–99 data.

Finally, there has been a change in the age structure of the Indigenous Australian population data which affects the standardisation process. Previously, the oldest age group described in the Indigenous Australian population data was the ‘75 years and over’ category; in the most recently available data, the oldest age group is now ‘85 years and older’.

A further issue relates to coding of the causes of death described in this report. For a number of the more specific causes of death described in this report, the ICD-10 codes used to define cause of death are slightly different from those used in the previous edition of this report. Also, some previously reported causes have not been reported in this edition, and some new causes previously not reported have been included in this latest analysis.

Appendix B ICD-10 codes

Cause of death data have been reported using the International Statistical Classification of Diseases and Related Health Problems, 10th revision (ICD-10).

Table B1: ICD-10 chapter and cause codes

Chapter and cause	ICD-10
Neoplasms	C00–D48
Lung cancer	C33, C34
Colorectal cancer	C18–C21
Breast cancer	C50
Cervical cancer	C53
Prostate cancer	C61
Melanoma	C43
'Other' neoplasms	C00–D48 (excluding above)
Circulatory diseases	I00–I99
Ischaemic heart disease	I20–I25
Cerebrovascular disease	I60–I69
'Other' circulatory disease	I00–I99 (excluding above)
Respiratory diseases	J00–J99
Pneumonia and influenza	J10–J18
Asthma	J45–J46
Chronic obstructive pulmonary disease	J41–J44
'Other' respiratory disease	J00–J99 (excluding above)
Diseases of the digestive system	K00–K93
Liver diseases	K70–K93
'Other diseases'	K00–K93 (excluding above)
Injury (External causes)	V01–Y98
Motor vehicle traffic accidents (MVTA)	V09.2, V02–V04 (.1–.9), V12–V14 (.3–.9) V19 (.4–.6), V20–V28 (.3–.9), V29 (.4–.9) V30–V39 (.4–.9), V40–V49 (.4–.9), V50–V59 (.4–.9), V60–V69 (.4–.9) V70–V79 (.4–.9), V80 (.3–.5), V81.1, V82.1, V83–V86 (.0–.3), V87 (.0–.8), V89.2
All other land transport accidents	V01.0–V89.9, excluding codes in MVTA above
Suicide	X60–X84
Falls	W00–W19
Interpersonal violence	X85–Y09
'Other' injury/poisoning	V00–Y98 (excluding above)
Other causes	All codes excluding those above
Diabetes	E10–E14
Renal failure	N17–N19
'Other' causes (n.e.c.)	All other codes

Appendix C Population tables

Table C1: Population distribution in each ASGC Remoteness Area, persons, 2001

	MC	IR	OR	R	VR	Australia
	'000					
Males	6,344	1,995	1,025	172	95	9,631
Females	6,527	2,030	989	153	83	9,783
Persons	12,871	4,026	2,014	324	179	19,413

Source: AIHW population database based on SLA resident estimates compiled by ABS.

Table C2: Percentage of the population in each ASGC Remoteness Area who are Indigenous Australians, by state/territory, 2001

	MC	IR	OR	R	VR	Australia
	Per cent Indigenous Australian					
NSW	1.0	3.0	5.0	16.0	29.0	2.0
Vic	—	1.0	2.0	1.0	..	1.0
Qld	2.0	2.0	6.0	12.0	36.0	3.0
WA	2.0	2.0	5.0	12.0	39.0	3.0
SA	1.0	1.0	3.0	3.0	30.0	2.0
Tas	..	3.0	5.0	5.0	8.0	4.0
ACT	1.0	1.0	..	..	..	1.0
NT	..	..	10.0	24.0	74.0	29.0
Australia	1.0	2.0	5.0	12.0	45.0	2.0

Note: In those jurisdictions where the Remoteness Area was not represented .. indicates not applicable.

Source: AIHW population database based on SLA resident estimates compiled by ABS.

Table C3: Distribution of non-Indigenous Australian and Indigenous Australian populations, by state/territory and ASGC Remoteness Area, 2001

	MC	IR	OR	R	VR	Australia
	'000					
NSW						
Non-Indigenous	4,640	1,305	457	33	5	6,440
Indigenous	57	44	26	6	2	135
Persons	4,696	1,349	483	39	8	6,575
Vic						
Non-Indigenous	3,514	1,008	248	6	..	4,777
Indigenous	14	10	4	<1	..	28
Persons	3,528	1,018	253	6	..	4,805
Qld						
Non-Indigenous	1,869	916	604	81	34	3,503
Indigenous	31	23	41	12	19	126
Persons	1,900	939	645	92	53	3,629
WA						
Non-Indigenous	1,321	227	176	80	30	1,835
Indigenous	21	5	10	11	19	66
Persons	1,343	232	186	91	49	1,901
SA						
Non-Indigenous	1,073	185	173	44	10	1,486
Indigenous	12	2	6	1	4	26
Persons	1,085	187	179	46	15	1,512
Tas						
Non-Indigenous	..	291	153	8	2	454
Indigenous	..	9	8	<1	<1	17
Persons	..	300	161	8	3	472
ACT						
Non-Indigenous	315	<1	..	..	..	315
Indigenous	4	<1	..	..	..	4
Persons	319	<1	..	..	..	319
NT						
Non-Indigenous	..	..	96	32	13	141
Indigenous	..	..	11	10	36	57
Persons	..	..	107	42	49	198
Australia						
Non-Indigenous	12,732	3,933	1,908	284	98	18,955
Indigenous	138	93	106	40	81	458
Persons	12,871	4,026	2,014	324	179	19,413

Note: In those jurisdictions where the Remoteness Area was not represented . . . indicates not applicable.

Source: AIHW population database based on SLA resident estimates compiled by ABS.

Appendix D Coastal/inland SLAs

Table D1: SLAs considered coastal under the classification used in this report

SLA name	SLA code	SLA name	SLA code	SLA name	SLA code
New South Wales					
Ballina (A)	10250	Great Lakes (A)	13400	Penrith (C)	16350
Baulkham Hills (A)	10500	Greater Taree (A)	13350	Port Stephens (A)	16400
Bega Valley (A)	10550	Hastings (A) - pt B	13754	Pristine Waters (A) Nymboida	16421
Bellingen (A)	10600	Hastings (A) Part A	13751	Pristine Waters (A) Ulmara	16422
Byron (A)	11350	Hornsby (A)	14000	Richmond Valley (A) bal.	16612
Camden (A)	11450	Kempsey (A)	14350	Richmond Valley (A) Casino	16611
Campbelltown (A)	11500	Kiama (A)	14400	Shellharbour (C)	16900
Cessnock (C)	11720	Kyogle (A)	14550	Shoalhaven (C) Pt A Nowra	16951
Coffs Harbour (C) Pt A	11801	Lismore (C) Pt A	14851	Sutherland Shire (A) East	17151
Coffs Harbour (C) Pt B	11804	Lake Macquarie (C)	14650	Shoalhaven (C) Pt B	16952
Copmanhurst (A)	12250	Lismore (C) Pt B	14854	Sutherland Shire (A) West	17152
Dungog (A)	12700	Liverpool (C)	14900	Tweed (A) Pt A	17551
Eurobodalla (A)	12750	Lord Howe island (A)	18859	Tweed (A) Pt B	17552
Gloucester (A)	13050	Macleay (A)	15000	Wollongong (C)	18450
Gosford (C)	13100	Maitland (C)	15050	Wyong (A)	18550
Grafton (C)	13200	Nambucca (A)	15700		
Victoria					
Bass Coast (S) Bal.	20744	Geelong	22753	South Barwon Inner	22756
Bass Coast (S) Phillip Island	20741	Geelong West	22754	South Gippsland (S) Central	26171
Bass Strait Islands	28649	Glenelg (S) - Portland	22413	South Gippsland (S) East	26174
Bellarine - Inner	22751	Glenelg (S) – Heywood	22411	Surf Coast (S) East	26493
Cardinia (S) South	21454	Greater Geelong (C) Pt B)	22757	Surf Coast (S) West	26495
Casey (C) – South	21618	Greater Geelong (C) Pt C	22758	Warnambool (C)	26730
Colac-Otway (S) South	21755	Mornington Peninsula (S) East	25341	Wellington (S) Alberton	26811
Corangamite (S) South	21832	Mornington Peninsula (S) South	25344	Wellington (S) Rosedale	26814
Corio Inner	22752	Mornington Peninsula (S) West	25345	Wellington (S) Sale	26815
E Gippsland (S) — Bairnsdale	22111	Moyne (S) - South	25496	Wyndham (C) North	27261
E Gippsland (S) Orbost	22113	Newtown	22755	Wyndham (C) West	27267
E Gippsland (S) South West	22115	Queenscliffe (B)	26080	Wyndham (C) - South	27264
French Island	28529				

(continued)

Table D1 (continued): SLAs considered coastal under the classification used in this report

SLA name	SLA code	SLA name	SLA code	SLA name	SLA code
Queensland					
Aitkenville	37001	Cranbrook	37007	Morayfield	32018
Aurukun (S)	30250	Currajong	37012	Moreton Island	31394
Bowen (S)	30950	Deception Bay	32016	Mornington (S)	35250
Bribie Island	32002	Douglas	37014	Mount Morgan (S)	35350
Broadsound (S)	31700	Douglas (S)	32800	Mt Louisa-Mt St John-Bohle	37033
Bundaberg (C)	31810	Fitzroy (S) Pt A	33151	Mudgeeraba	33565
Burdekin (S)	31900	Fitzroy (S) Pt B	33154	Mundingburra	37034
Burke (S)	31950	Garbutt	37015	Murray	37038
Burnett (S) Pt A	31981	Gladstone (C)	33350	Noosa (S) bal.	35758
Burnett (S) Pt B	31984	Gold Coast (C) bal. in BSD	33496	Noosa (S) Noosa-Noosaville	35752
Burpengary-Narangba	32005	Guanaba-Currumbin Valley	33542	Noosa (S) Sunshine-Peregian	35755
Caboolture (S) bal. in BSD	32023	Gulliver	37018	Noosa (S) Tewantin	35756
Caboolture (S) Central	32008	Heatley	37023	North Ward-Castle Hill	37041
Caboolture (S) East	32013	Hermit Park	37026	Oonooba –Idalia-Cluden	37044
Caboolture (S) Pt B	32031	Hervey Bay (C) Pt A	33751	Pallarenda-Shelley Beach	37047
Cairns (C) Barron	32062	Hervey Bay (C) Pt B	33754	Pimlico	37051
Cairns (C) Central suburbs	32065	Hinchinbrook (S) excl. Palm Island	33801	Pine Rivers (S) bal.	35988
Cairns (C) City	32066	Hinchinbrook (S) Palm Island	33804	Railway estate	37054
Cairns (C) Mt Whitfield	32068	Hyde Park-Mysterton	37027	Redland (S) bal.	36283
Cairns (C) Northern suburbs	32072	Isis (S)	34000	Redland Bay	36265
Cairns (C) Pt B	32078	Johnstone (S)	34150	Rockhampton (C)	36350
Cairns (C) Trinity	32074	Kelso	36801	Rosslea	37058
Cairns (C) western suburbs	32076	Kirwan	36804	Rowes Bay-Belgian Gardens	37062
Calliope (S) Pt A	32101	Livingstone (S)	34550	Sarina (S)	36550
Calliope (S) Pt B	32104	Mackay (C) Pt A	34762	Sheldon— Mt Cotton	36267
Caloundra (C) hinterland	32136	Mackay (C) Pt B	34765	South Townsville	37065
Caloundra (C) Rail corridor	32138	Magnetic Island	37031	Stuart-Roseneath	37068
Caloundra (S) Caloundra N	32132	Maroochy (S) bal.	34918	Thuringowa (C) Pt A bal.	36807
Caloundra (S) Caloundra S	32133	Maroochy (S) bal. in S C'st SSD	34917	Thuringowa (C) Pt B	36831
Caloundra (S) Kawana	32135	Maroochy (S) Buderim	34902	Tiaro (S)	36850
Cardwell (S)	32200	Maroochy (S) Coastal North	34905	Torres (S)	36950
Carpentaria (S)	32250	Maroochy (S) Maroochydoore	34907	Townsville (C) Pt B	37084
City	37003	Maroochy (S) Mooloolaba	34911	Unincorp. islands	9999

(continued)

Table D1 (continued): SLAs considered coastal under the classification used in this report

SLA name	SLA code	SLA name	SLA code	SLA name	SLA code
Cook (S) excl Weipa	32501	Maroochy (S) Nambour	34914	Vincent	37071
Cook (S) Weipa only	32504	Maryborough (C)	34950	West End	37074
Cooloola (S) excl. Gympie	32532	Mirani (S)	35050	Whitsunday (S)	37330
Cooloola (S) Gympie	32535	Miriam Vale (S)	35100	Wulguru	37078
Coomera-Cedar Creek	33532				
Western Australia					
Albany (C) bal.	50084	Dardanup (S) Pt B	52664	Mandurah (C)	55110
Albany (C) Central	50081	Denmark (S)	52730	Manjimup (S)	55180
Armadale (C)	50210	Derby-West Kimberley (S)	52800	Murray (S)	56230
Ashburton (S)	50250	Esperance (S)	53290	Nannup (S)	56300
Augusta Margaret River (S)	50280	Exmouth (S)	53360	Northampton (S)	56790
Broome (S)	50980	Geraldton (C)	53500	Port Headland (T)	57280
Bunbury (C)	51190	Gingin (S)	53570	Ravensthorpe (S)	57420
Busselton (S)	51260	Greenough (S) Pt A	53851	Rockingham (C)	57490
Capel (S) Pt A	51401	Greenough (S) Pt B	53854	Roebourne (S)	57560
Capel (S) Pt B	51404	Harvey (S) Pt A	53991	Serpentine Jarrahdale (S)	57700
Carnamah (S)	51470	Harvey (S) Pt B	53994	Shark Bay (S)	57770
Carnarvon (S)	51540	Irwin (S)	54060	Swan (C)	58050
Chapman Valley (S)	51610	Jerramungup (S)	54130	Wanneroo (C) North East	58761
Chittering (S)	51680	Joondalup (C) North	54171	Wanneroo (C) North West	58764
Cockburn (C)	51820	Joondalup (C) South	54174	Wanneroo (C) South	58767
Coorow (S)	52030	Kalamunda (S)	54200	Waroona (S)	58820
Dandaragan (S)	52590	Kwinana (T)	54830	Wyndham-East Kimberley (S)	59520
Dardanup (S) Pt A	52661				
South Australia					
Adelaide Hills (DC) Central	40121	Mallala (DC)	43920	The Coorong (DC)	47800
Adelaide Hills (DC) Ranges	40124	Mount Gambier (C)	44620	Tumby Bay (DC)	47910
Alexandrina (DC) Coastal	40221	Mount Remarkable (DC)	44830	Unincorp Lincoln	49179
Barunga West (DC)	40430	Onkaparinga (C) Hills	45342	Unincorp Murray Mallee	49109
Ceduna (DC)	41010	Onkaparinga (C) South Coast	45346	Unincorp West Coast	49249
Cleve (DC)	41190	Playford (C) Hills	45684	Unincorp Whyalla	49389
Copper Coast (DC)	41560	Playford (C) west	45686	Unincorp Yorke	48969
Elliston (DC)	41750	Playford (C) west central	45688	Victor Harbour (DC)	48050
Franklin Harbour (DC)	41960	Port Augusta (C)	46090	Wakefield (DC)	48130
Grant (DC)	42250	Port Pirie C Dists (M) bal.	46454	Wattle Range (DC) West	48344
Kangaroo Island (DC)	42750	Port Pirie C Dists (M) City	46451	Whyalla (C)	48540
Lacepede (DC)	43360	Robe (DC)	46860	Yankalilla (DC)	48750
Port Lincoln (C)	46300	Salisbury (C)Bal	47148	Yorke Peninsula (DC) North	48831
Lower Eyre Peninsula (DC)	43710	Streaky Bay (DC)	47490	Yorke Peninsula (DC) South	48834

(continued)

Table D1 (continued): SLAs considered coastal under the classification used in this report

SLA name	SLA code	SLA name	SLA code	SLA name	SLA code
Tasmania					
Break O'Day (M)	60210	Georgetown (M) Pt B	62212	Launceston (C) Pt B	64012
Brighton (M)	60410	Glamorgan/Spring Bay (M)	62410	Launceston (C) Pt C	64013
Burnie (C) Pt A	60611	Glenorchy (C)	62610	Meander Valley (M) Pt A	64211
Burnie (C) Pt B	60612	Hobart (C) Inner	62811	Northern Midlands (M) Pt A	64611
Central Coast (M) Pt A	60811	Hobart (C) Remainder	62812	Sorell (M) Pt A	64811
Central Coast (M) Pt B	60812	Huon Valley (M)	63010	Sorell (M) Pt B	64812
Circular Head (M)	61210	Kentish (M)	63210	Tasman (M)	65210
Clarence (C)	61410	King Island	63410	Waratah/Wynyard (M) Pt A	65411
Derwent Valley (M) Pt A	61511	Kingborough (M) Pt A	63611	Waratah/Wynyard (M) Pt B	65412
Devonport (C)	61610	Kingborough (M) Pt B	63612	West Coast (M)	65610
Dorset (M)	61810	Latrobe (M) Pt A	63811	West Tamar (M) Pt A	65811
Flinders Island	62010	Latrobe (M) Pt B	63812	West Tamar (M) Pt B	65812
Georgetown (M) Pt A	62211	Launceston (C) Inner	64011		
Northern Territory					
Alawa	71004	Groote Eylandt	71609	Narrows	71084
Anula	71008	Gulf	71809	Nhulunbuy	72409
Bakewell	72802	Jabiru	72000	Nightcliff	71088
Bathurst Melville	70609	Jingili	71034	Palmerston (C) Bal	72824
Brinkin	71014	Karama	71038	Parap	71094
City Inner	71018	Larrakeyah	71044	Rapid Creek	71098
City Remainder	71138	Leanyer	71048	South Alligator	73309
Coconut Grove	71024	Lee Point Leanyer Swamp	71052	Stuart Park	71104
Coormalie	70700	Litchfield (S) Pt A	72304	The Gardens	71108
Cox Finnis	70759	Litchfield (S) Pt B	72308	Tiwi	71114
Daley	70809	Ludmilla	71054	Wagaman	71118
Driver	72804	Malak	71058	Wanguri	71124
Durack	72806	Marrara	71064	West Arnhem	74809
East Arm	71169	Millner	71068	Winnellie	71128
East Arnhem bal.	71209	Moil	71074	Woodroffe	72818
Fannie Bay	71028	Moulden	72814	Wulagi	71134
Gray	72808	Nakara	71078		
Other areas					
Christmas island	92009	Cocos (Keeling) Islands	93009	Jervis Bay Territory	91009

Notes

1. SLAs are 2001 SLAs (i.e. as defined in the 2001 ASGC).
2. Parts of some coastal SLAs are also defined as Major Cities.
3. bal. indicates balance of region.
4. unicorp. means unincorporated.

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