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 Regioanl 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 rates[5] 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 differences[6] 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.

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[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 rates[7] 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 differences[8] 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.

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[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

	Males					Females				
Cause of death	**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

	Males					Females				
Cause of death	**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

	Males					Females				
Cause of death	**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**

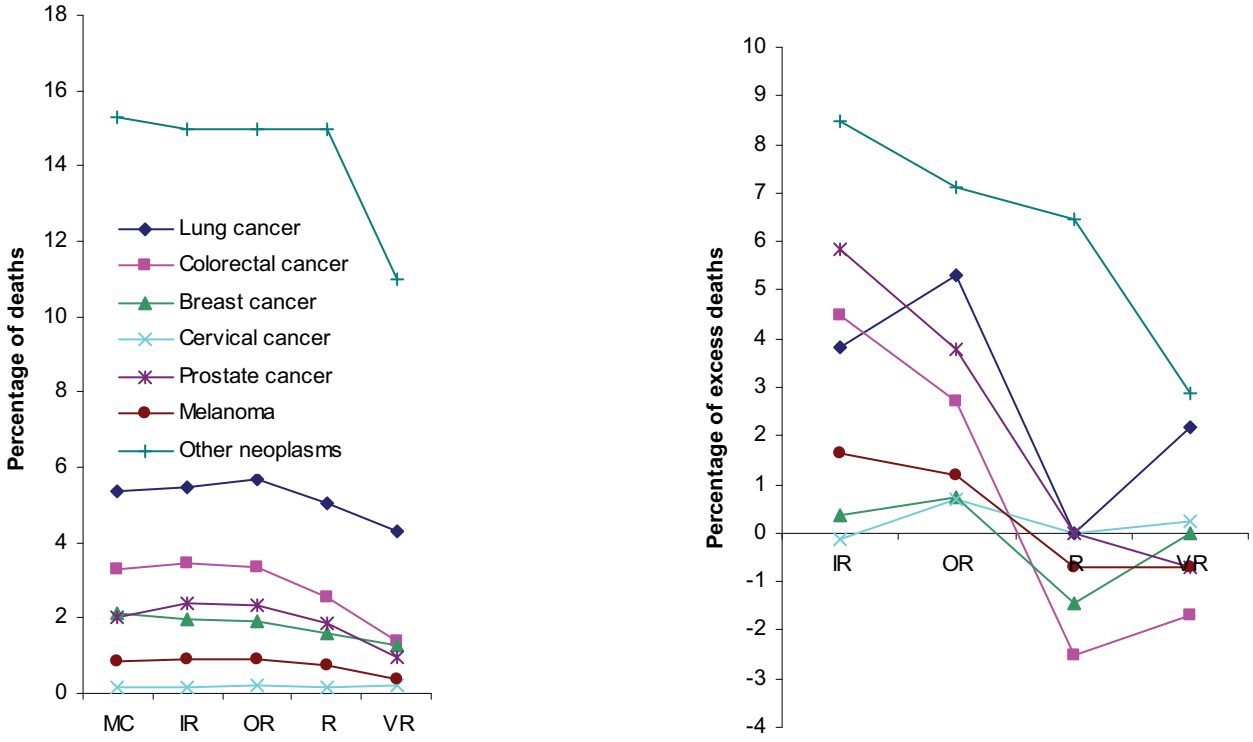
Table 4.4: Average annual deaths and 'excess' deaths of non-Indigenous Australians aged 64 years and under, by type of neoplasm, 2002–04

	Males					Females				
Cause of death	**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

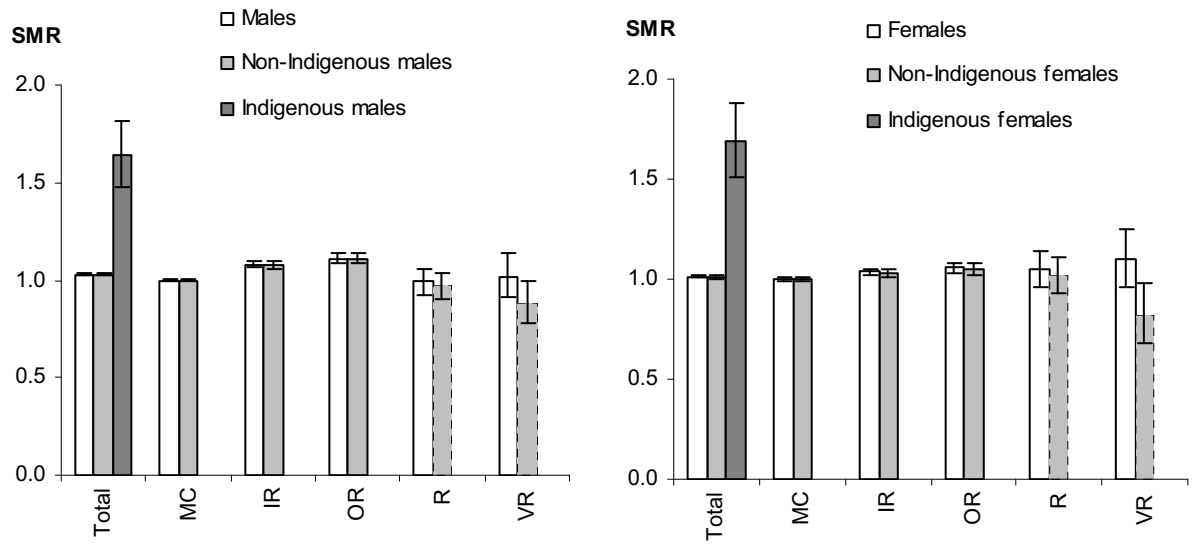
	Males		Females	
Cause of death	**Total population**	**0–64 years**	**Total population**	**0–64 years**
		Deaths		
Lung cancer	33	19	23	16
Colorectal cancer	6	n.p.	6	n.p.
Breast cancer	n.p.	n.p.	16	9
Cervical cancer	. .	. .	6	n.p.
Prostate cancer	n.p.	n.p.	. .	. .
Melanoma	n.p.	n.p.	0	0
Other neoplasm	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

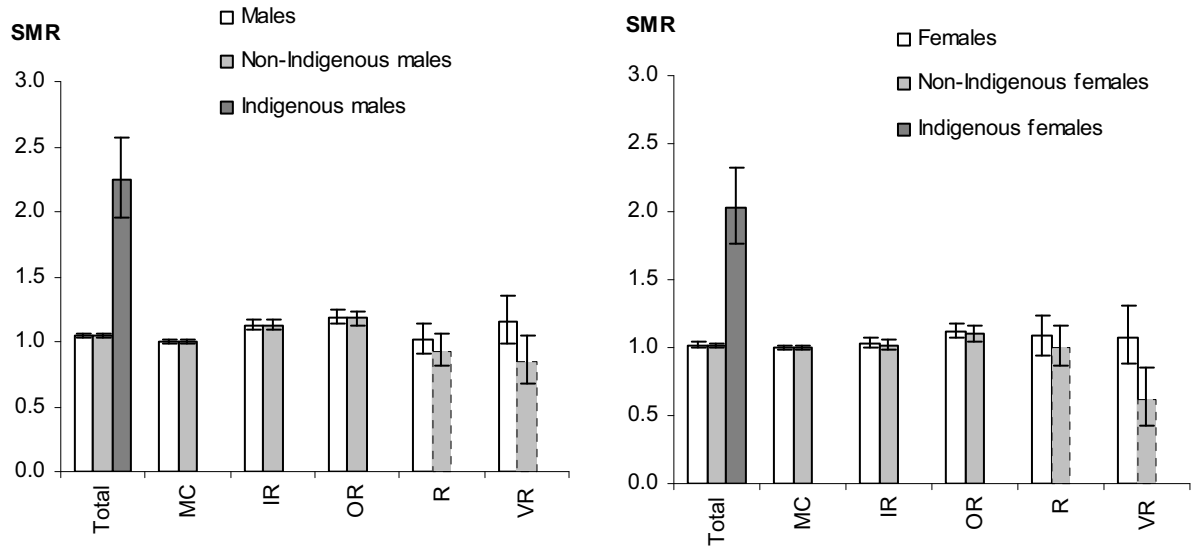


Notes

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).

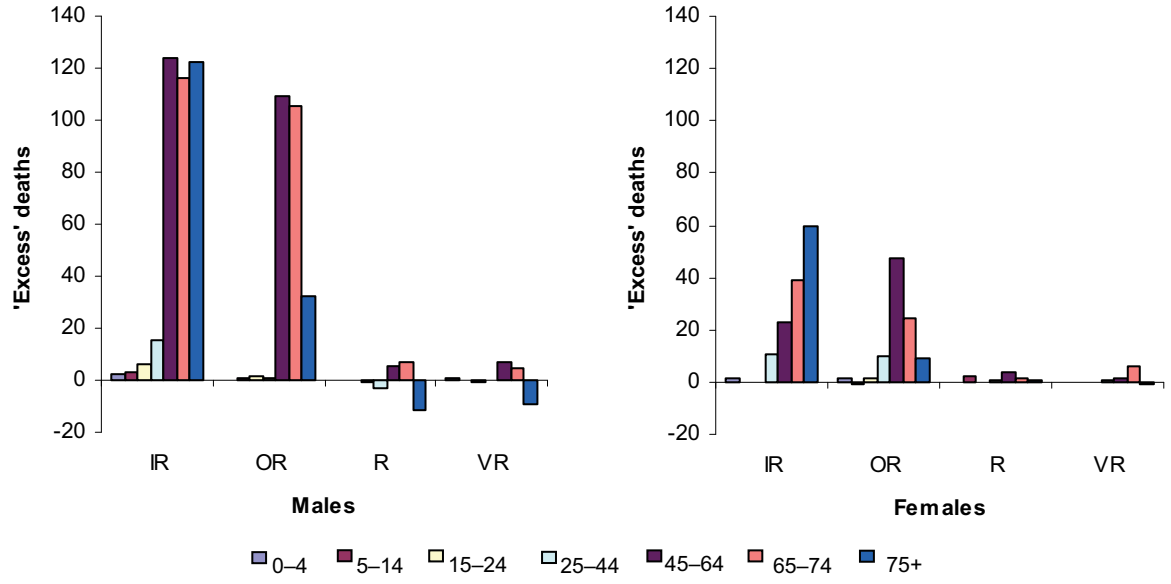
Source: AIHW mortality database.

Figure 4.2: SMRs for all neoplasms, by sex, 2002–04



Note: See notes for Figure 4.2.

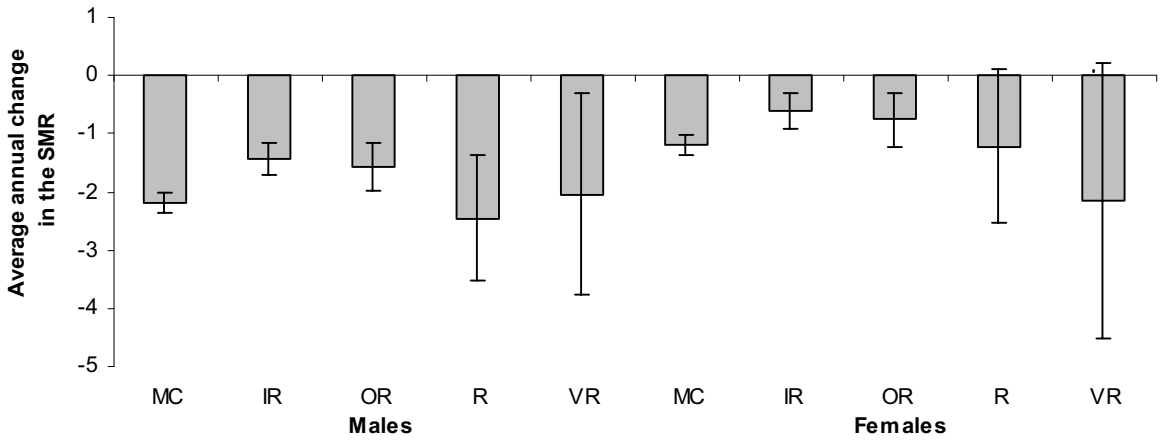
Figure 4.3: SMRs for all neoplasms for persons aged 64 years and under, 2002–04



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 4.4: Average annual 'excess' deaths due to all neoplasms, by area, age group and sex, 2002–04



Notes

1. SMRs, expressed as multiples of 100, were calculated using Major Cities rates in the period 2001–03 as the standard.
2. Error bars indicate 95% confidence intervals. These indicate the amount of uncertainty about the precision of the calculated rate.

Source: AIHW 2006a.

Figure 4.5: Average annual change in the ratio of observed to expected deaths due to all neoplasms, 1992–2003

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

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 4.7: 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					*Indigenous*	Non-Indigenous					*Indigenous*	Non-Indigenous					*Indigenous*
	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*	3	1.12	1.27	1.18	0.89	*1.26*	3	1.35	1.14	1.12	2.08	*1.15*
5–14	3	***1.46**	1.33	0.18	1.99	*1.45*	3	0.96	0.69	***3.80**	0.36	*0.78*	3	1.21	1.02	1.93	1.19	*1.13*
15–24	4	***1.57**	1.26	0.09	0.00	*0.62*	3	1.07	1.42	0.61	2.10	*n.p.*	4	***1.36**	1.33	0.29	0.73	*0.62*
25–44	17	***1.18**	1.01	***0.58**	0.32	***2.06**	21	1.05	1.13	0.91	0.53	***2.07**	19	***1.10**	1.07	0.75	***0.42**	***2.06**
45–64	188	***1.12**	***1.20**	0.98	0.91	***2.38**	161	1.02	***1.10**	0.99	***0.62**	***2.08**	174	***1.07**	***1.16**	0.99	***0.80**	***2.23**
65–74	861	***1.08**	***1.16**	1.09	1.06	***1.57**	515	***1.05**	***1.07**	1.04	0.85	***1.93**	680	***1.06**	***1.12**	1.07	1.00	***1.72**
75+	2,026	***1.05**	1.04	0.92	***0.79**	*0.85*	1,138	***1.03**	1.01	1.02	1.03	*0.85*	1,484	***1.04**	1.03	0.96	0.88	*0.85*
Total	202	***1.08**	***1.11**	0.97	0.88	***1.64**	162	***1.03**	***1.05**	1.02	***0.82**	***1.69**	182	***1.06**	***1.08**	0.99	***0.86**	***1.66**
Total <65	57	***1.13**	***1.18**	0.93	0.85	***2.25**	52	1.02	***1.11**	1.00	***0.61**	***2.03**	55	***1.08**	***1.15**	0.96	***0.76**	***2.13**
1997–99																		
Total	205	***1.05**	***1.07**	1.05	0.94	***1.56**	163	1.00	1.01	0.93	0.93	***1.57**	184	***1.03**	***1.04**	1.00	0.94	***1.57**
Total <65	60	***1.13**	***1.13**	1.02	1.04	***2.14**	54	***1.04**	1.03	0.89	0.98	***1.90**	57	***1.09**	***1.09**	0.97	1.02	***2.02**
Total†	***1.11**	***1.15**	***1.17**	***1.15**	1.03	*n.p.*	***1.07**	***1.05**	***1.06**	0.99	0.99	*n.p.*	***1.09**	***1.10**	***1.12**	***1.08**	1.02	*n.p.*
Total <65†	***1.15**	***1.25**	***1.26**	1.13	1.14	*n.p.*	***1.12**	***1.18**	***1.17**	1.01	1.12	*n.p.*	***1.14**	***1.22**	***1.22**	1.08	1.13	*n.p.*

(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	
	Rate	Ratio					Rate	Ratio					Rate	Ratio				
	Average annual number of excess deaths																	
2002–04																		
0–4	0	2	0	0	0	*0*	0	0	0	0	0	*0*	0	3	1	0	0	*0*
5–14	0	4	1	0	0	*0*	0	0	–1	1	0	*0*	0	3	0	1	0	*0*
15–24	0	7	1	–1	0	*0*	0	1	2	0	0	*0*	0	7	3	–1	0	*0*
25–44	0	17	0	–4	–2	*5*	0	6	8	–1	–2	*8*	0	23	8	–4	–4	*14*
45–64	0	115	99	–1	–3	*34*	0	15	40	0	–6	*27*	0	130	139	–2	–9	*60*
65–74	0	105	102	7	2	*11*	0	38	25	2	–2	*13*	0	143	127	9	0	*24*
75+	0	111	36	–8	–7	*–3*	0	57	8	1	1	*–3*	0	169	44	–7	–6	*–6*
Excess total	0	361	240	–7	–10	*47*	0	117	83	3	–9	*45*	0	478	322	–4	–19	*92*
Deaths total	12,988	5,108	2,452	259	78	*120*	10,700	3,762	1,676	172	40	*111*	23,688	8,871	4,128	432	118	*231*
Excess <65	0	145	102	–6	–5	*39*	0	22	49	0	–8	*35*	0	166	151	–6	–13	*74*
Deaths <65	3,281	1,263	661	76	27	*71*	2,965	1,012	510	60	12	*68*	6,246	2,276	1,171	136	39	*139*
1997–99																		
Excess total	0	228	145	12	–5	*38*	0	–6	9	–11	–3	*33*	0	222	154	0	–8	*71*
Excess total†	1,275	591	325	34	2	*n.p.*	631	148	82	–2	0	*n.p.*	1,907	739	406	32	2	*n.p.*
Deaths total	12,424	4,622	2,266	268	77	*107*	10,116	3,306	1,506	150	41	*89*	22,540	7,928	3,772	418	118	*196*
Excess <65	0	140	76	2	1	*34*	0	39	15	–7	0	*27*	0	179	91	–4	1	*61*
Excess <65†	424	245	131	10	4	*n.p.*	307	145	67	1	2	*n.p.*	731	390	198	11	6	*n.p.*
Deaths <65	3,256	1,213	645	87	33	*63*	2,882	968	470	54	19	*57*	6,138	2,182	1,114	141	52	*120*

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 thos 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.

4.1 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).

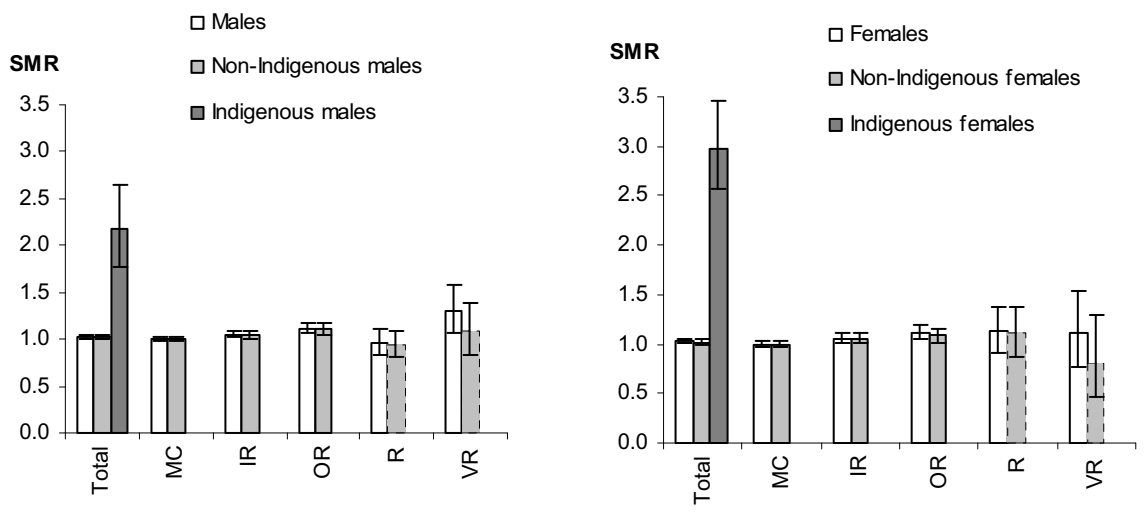
Death rates for remote area non-Indigenous Australians were not significantly different from those in Major Cities.

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.

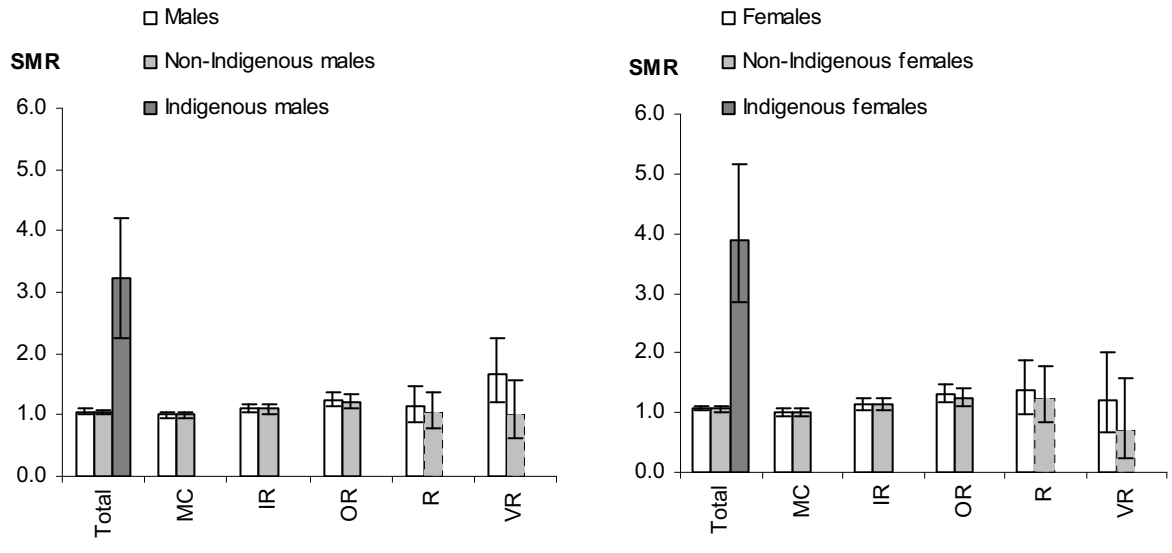


Notes

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).

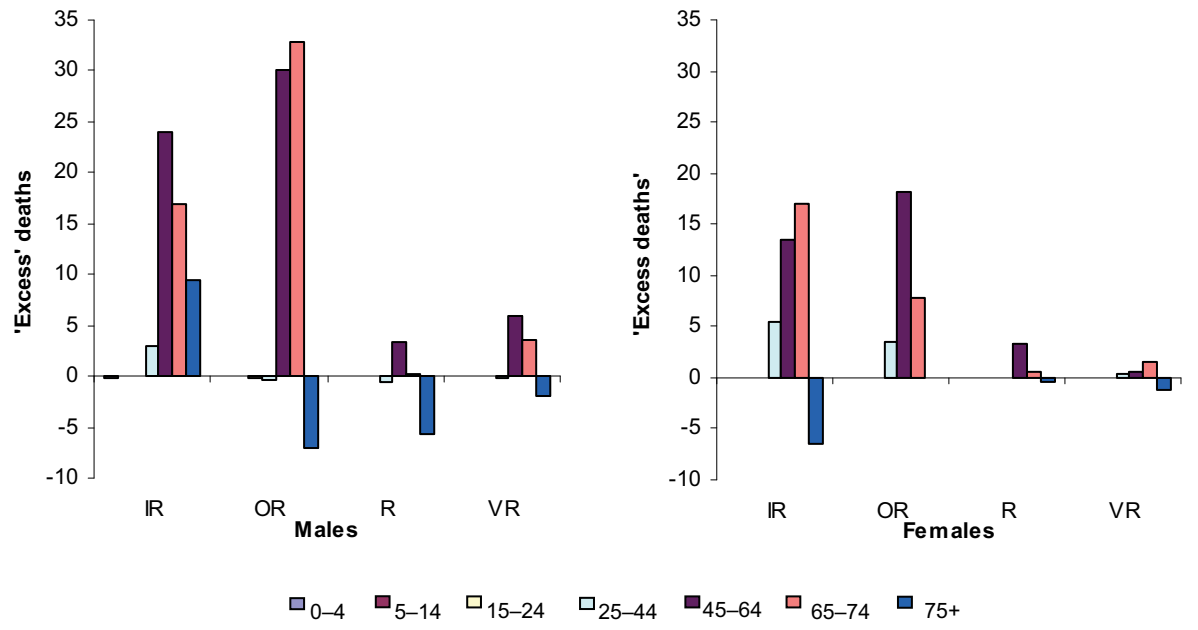
Source: AIHW mortality database.

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



Note: See notes for Figure 4.6.

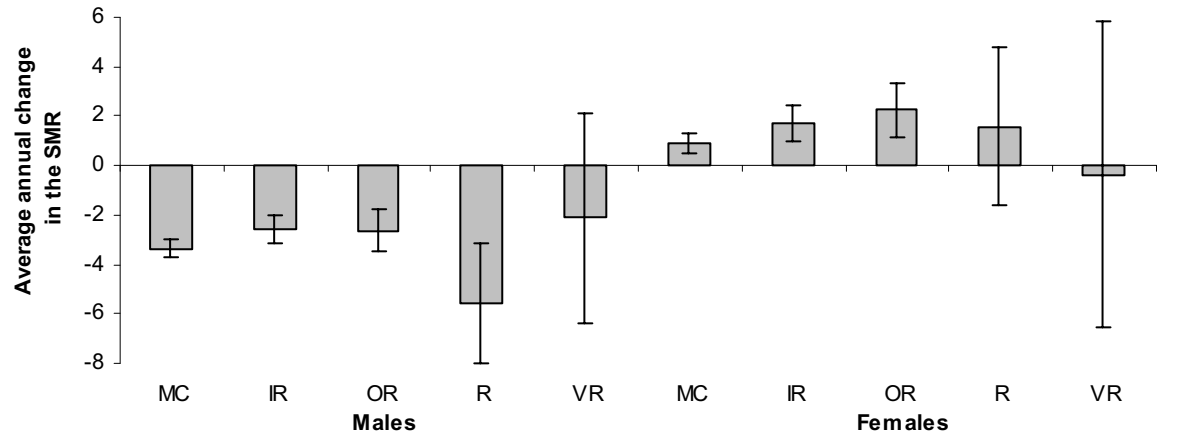
Figure 4.7: Lung cancer SMRs for persons aged 64 years and under, by sex, 2002–04



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 4.8: Average annual lung cancer 'excess' deaths, by area, age group and sex, 2002–04



Notes

1. SMRs, expressed as multiples of 100, were calculated using Major Cities rates in the period 2001–03 as the standard.
2. Error bars indicate 95% confidence intervals. These indicate the amount of uncertainty about the precision of the calculated rate.

Source: AIHW 2006a.

Figure 4.9: Average annual change in the ratio of observed to expected deaths due to lung cancer, 1992–2003

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	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
5–14	0	2.20	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0	2.20	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	1.05	0.03	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	***1.47**	1.36	0.70	1.32
45–64	44	***1.10**	***1.25**	1.19	***1.72**	26	1.10	***1.28**	1.39	1.14	35	***1.10**	***1.26**	***1.25**	***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**
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
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**
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**
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**
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**
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**
Total <65	***1.22**	***1.36**	***1.56**	***1.46**	***2.60**	0.99	1.07	0.94	1.29	***2.18**	***1.13**	***1.24**	***1.33**	***1.41**	***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	MC	IR	OR	R	VR	MC	IR	OR	R	VR
	Rate		Ratio			Rate		Ratio			Rate		Ratio		
								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	3	0	0	0	0	5	4	0	0	0	8	3	0	0
45–64	0	24	30	3	6	0	13	18	3	1	0	37	48	7	6
65–74	0	17	33	0	4	0	17	8	1	1	0	34	41	1	5
75+	0	9	–7	–6	–2	0	–6	0	–1	–1	0	3	–7	–6	–3
Excess total	0	53	55	–3	8	0	29	29	3	1	0	82	85	1	9
Deaths total	2,885	1,122	559	60	33	1,606	585	275	31	11	4,492	1,707	834	91	44
Excess <65	0	27	30	3	6	0	19	22	3	1	0	46	51	6	7
Deaths <65	701	272	154	21	15	430	167	91	13	5	1,131	439	245	34	20
1997–99															
Excess total	0	11	40	8	10	0	–20	–15	4	4	0	–9	25	12	13
Excess total†	412	158	113	18	14	–64	–39	–23	3	4	348	119	90	21	17
Deaths total	2,919	1,054	548	71	34	1,391	443	196	27	12	4,311	1,497	744	99	47
Excess <65	0	26	35	4	10	0	10	–3	2	4	0	36	33	6	14
Excess <65†	130	70	59	7	11	–3	9	–3	2	4	127	79	56	10	15
Deaths <65	718	268	165	24	19	374	133	58	11	7	1,092	401	224	34	26

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: 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					*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	
	Rate	Ratio					Rate	Ratio					Rate	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*
5–14	0	2.25	0.00	0.00	0.00	*0.00*	0	0.00	0.00	0.00	0.00	*0.00*	0	2.25	0.00	0.00	0.00	*0.00*
15–24	0	2.38	0.08	0.00	0.00	*0.00*	0	0.00	0.00	0.00	0.00	*0.00*	0	1.59	0.05	0.00	0.00	*0.00*
25–44	1	1.41	0.96	0.52	1.10	*1.75*	1	***1.63**	1.64	0.63	0.21	***5.88**	1	***1.52**	1.28	0.57	0.75	***3.86**
45–64	43	***1.08**	***1.23**	1.08	1.00	***3.34**	25	***1.11**	***1.23**	1.30	0.74	***3.67**	34	***1.09**	***1.23**	1.15	0.92	***3.47**
65–74	224	1.04	***1.19**	1.00	1.41	***2.01**	93	***1.11**	1.09	1.08	0.88	***2.46**	156	***1.06**	***1.16**	1.02	1.29	***2.16**
75+	398	1.03	0.98	0.79	0.84	*0.93*	153	0.97	0.97	0.99	0.86	*0.88*	249	1.01	0.98	0.85	0.84	*0.92*
Total	44	***1.05**	***1.11**	0.94	1.08	***2.17**	24	***1.05**	***1.08**	1.10	0.80	***2.98**	33	***1.05**	***1.10**	0.99	1.01	***2.45**
Total <65	12	***1.10**	***1.22**	1.05	1.00	***3.23**	7	***1.13**	***1.25**	1.25	0.70	***3.88**	10	***1.11**	***1.23**	1.12	0.91	***3.50**
1997–99																		
Total	47	1.01	***1.08**	1.14	1.28	***1.97**	22	0.96	0.92	1.11	1.09	***2.84**	34	1.00	1.04	***1.14**	1.23	***2.24**
Total <65	13	***1.11**	***1.27**	1.13	***1.93**	***3.02**	7	1.09	0.91	1.14	1.45	***3.96**	10	***1.10**	***1.16**	1.13	***1.81**	***3.37**
Total†	***1.18**	***1.16**	***1.24**	***1.32**	***1.47**	*n.p.*	0.97	***0.93**	***0.89**	1.09	1.08	*n.p.*	***1.10**	***1.08**	***1.13**	***1.25**	***1.36**	*n.p.*
Total <65†	***1.21**	***1.27**	***1.46**	1.29	***2.20**	*n.p.*	1.03	***1.13**	0.95	1.18	1.51	*n.p.*	***1.15**	***1.22**	***1.28**	***1.26**	***2.01**	*n.p.*

(continued)

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		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	4	0	0	0	*0*	0	5	2	0	0	*2*	0	9	2	–1	0	*2*
45–64	0	19	26	1	0	*13*	0	14	14	2	–1	*10*	0	33	41	4	–1	*23*
65–74	0	14	32	0	3	*5*	0	17	6	1	0	*4*	0	31	37	1	2	*9*
75+	0	11	–5	–4	–1	0	0	–7	–3	0	0	0	0	5	–7	–5	–1	0
Excess total	0	48	53	–3	2	*18*	0	29	19	3	–1	*16*	0	77	73	–1	0	*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*
Excess <65	0	23	26	1	0	*13*	0	19	17	2	–1	*12*	0	42	43	3	–1	*25*
Deaths <65	680	260	145	18	7	*19*	409	159	82	10	2	*16*	1,089	418	226	28	8	*35*
1997–99																		
Excess total	0	13	41	9	5	*14*	0	–18	–16	2	1	*12*	0	–5	26	11	6	*26*
Excess total†	432	140	104	16	8	*n.p.*	–38	–35	–23	2	0	*n.p.*	394	105	81	18	8	*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*
Excess <65	0	26	34	2	6	*11*	0	10	–5	1	1	*9*	0	36	29	3	7	*20*
Excess <65†	123	55	50	5	7	*n.p.*	12	15	–3	1	1	*n.p.*	135	70	47	6	8	*n.p.*
Deaths <65	00	261	159	21	13	*16*	362	129	53	8	3	*13*	1,062	390	212	29	16	*29*

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.

4.2 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 overwight 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 0.8[9] and 0.7 times those in Major Cities.

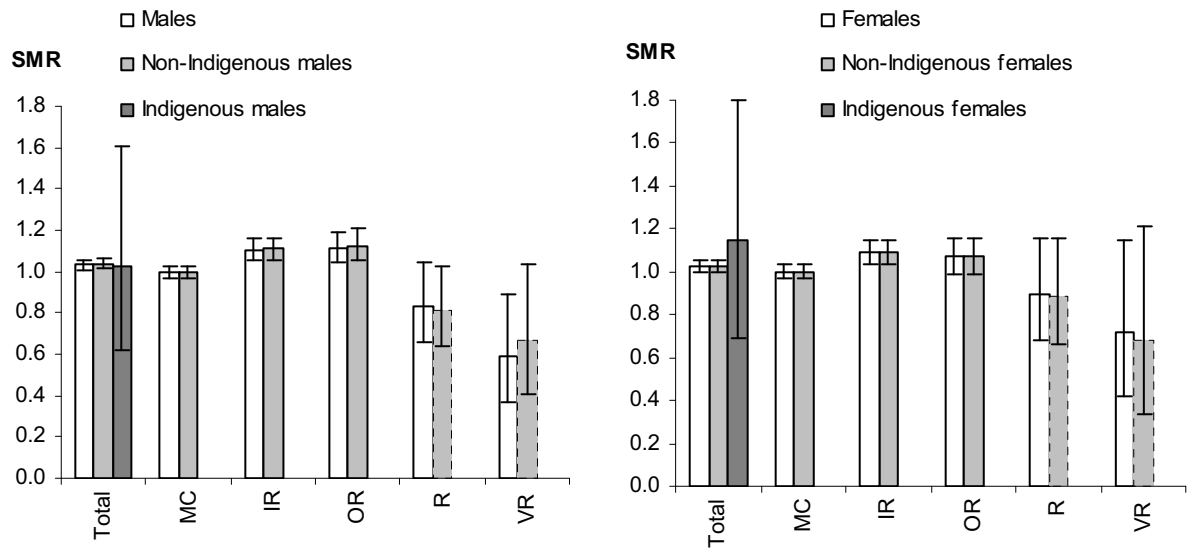
Annually there are 46 and 13 deaths in Remote and Very Remote areas; about 60% were male.

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

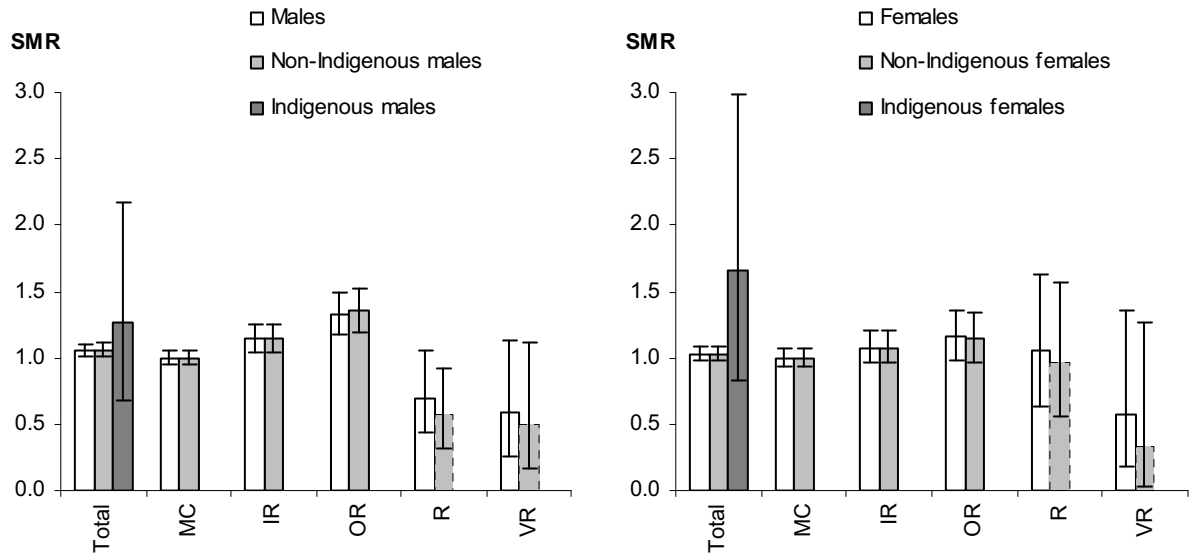


Notes

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).

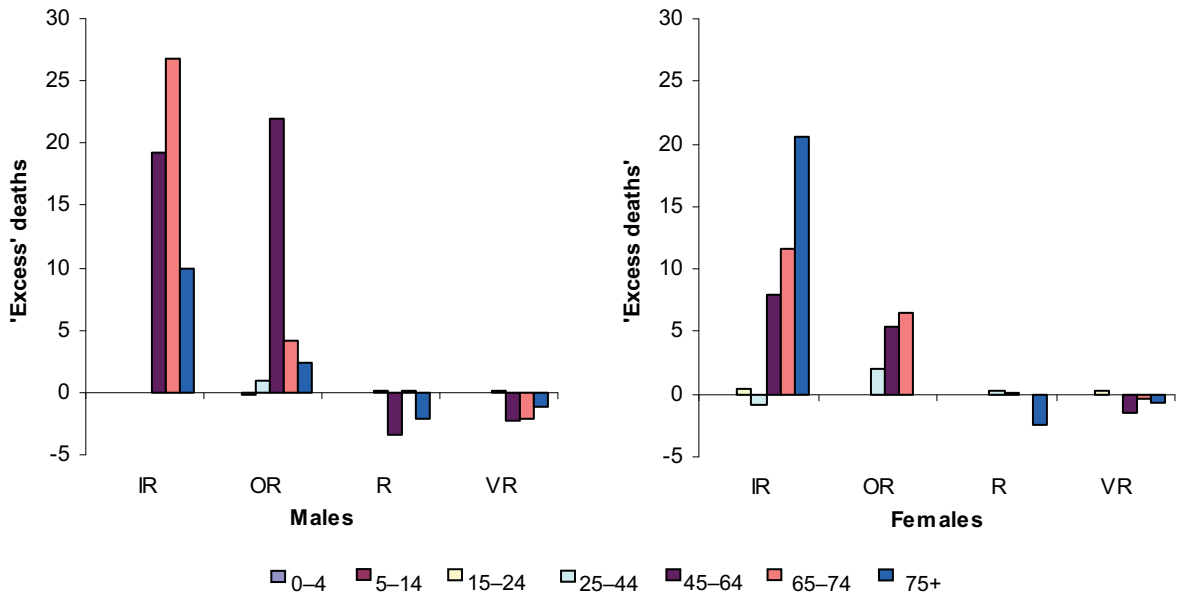
Source: AIHW mortality database.

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



Note: See notes for Figure 4.10.

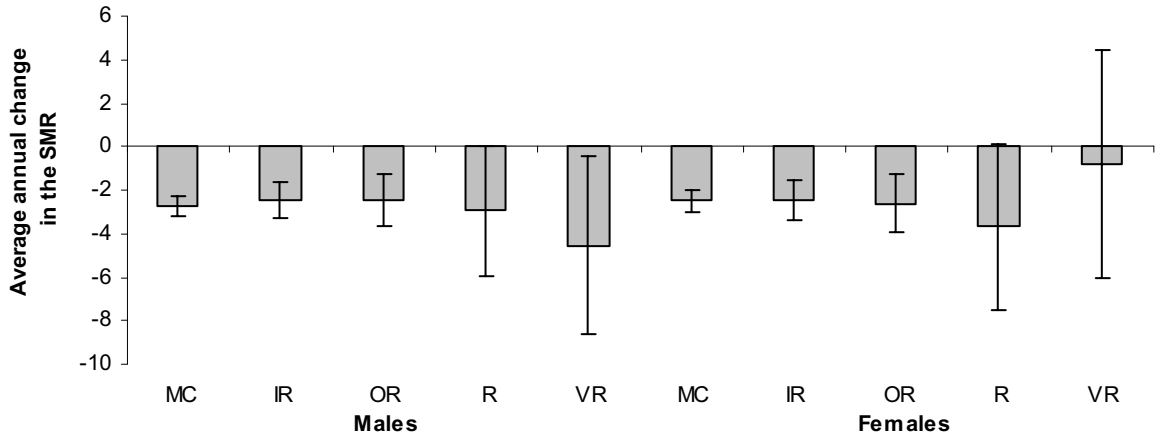
Figure 4.11: Colorectal cancer SMRs for persons aged 64 years and under, by sex, 2002–04



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 4.12: Average annual colorectal cancer 'excess' deaths, by area, age group and sex, 2002–04



Notes

1. SMRs, expressed as multiples of 100, were calculated using Major Cities rates in the period 2001–03 as the standard.
2. Error bars indicate 95% confidence intervals. These indicate the amount of uncertainty about the precision of the calculated rate.

Source: AIHW 2006a.

Figure 4.13: Average annual change in the ratio of observed to expected deaths due to colorectal cancer, 1992–2003

Table 4.10: 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
	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
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
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
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
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**
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
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
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**
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**
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**
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
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
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

(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
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	0	1	0	0	0	–1	2	0	0	0	–1	3	0	0
45–64	0	19	22	–3	–2	0	8	5	0	–1	0	27	27	–3	–4
65–74	0	27	4	0	–2	0	12	6	0	0	0	38	11	0	–2
75+	0	10	2	–2	–1	0	21	0	–2	–1	0	31	2	–5	–2
Excess total	0	56	29	–5	–5	0	40	14	–2	–2	0	95	43	–7	–8
Deaths total	1,453	590	281	27	8	1,318	490	211	19	6	2,771	1,080	493	46	13
Excess <65	0	19	23	–3	–2	0	7	7	0	–1	0	26	30	–3	–3
Deaths <65	393	155	92	7	3	290	105	54	7	2	683	260	145	14	5
1997–99															
Excess total	0	36	14	2	–5	0	38	27	–2	–1	0	73	41	0	–6
Excess total†	261	129	60	8	–3	163	92	52	1	0	424	220	113	9	–3
Deaths total	1,573	594	287	37	9	1,377	490	232	21	7	2,950	1,084	519	57	16
Excess <65	0	28	8	1	–3	0	19	12	–1	1	0	47	20	0	–2
Excess <65†	99	62	25	3	–2	64	40	23	1	1	163	102	48	4	–1
Deaths <65	451	179	88	13	3	321	124	64	6	4	772	303	152	19	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		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	*0.00*	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	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*
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					*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	
	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	1	0	0	0	*0*	0	1	0	0	0	*0*
25–44	0	0	1	0	0	*1*	0	–1	1	0	0	*1*	0	–1	2	0	–1	*1*
45–64	0	19	22	–4	–2	*0*	0	8	5	0	–1	*1*	0	27	27	–4	–3	*1*
65–74	0	28	5	1	–1	*0*	0	10	7	0	0	*0*	0	38	13	1	–1	*0*
75+	0	10	3	–2	0	*0*	0	20	–1	–2	0	*–1*	0	30	2	–5	–1	*–1*
Excess total	0	57	31	–5	–3	*0*	0	38	13	–2	–2	*1*	0	95	44	–8	–5	*1*
Deaths total	1,412	575	273	24	7	*6*	1,280	474	203	17	4	*6*	2,691	1,049	476	41	10	*13*
Excess <65	0	19	23	–4	–2	*1*	0	7	6	0	–1	*1*	0	26	29	–4	–3	*2*
Deaths <65	380	150	88	5	2	*4*	281	102	50	6	1	*4*	660	251	138	11	2	*8*
1997–99																		
Excess total	0	36	17	2	–3	*–1*	0	40	31	–1	0	*–1*	0	77	48	1	–3	*–2*
Excess total†	330	178	86	10	0	*n.p.*	221	132	72	4	1	*n.p.*	551	309	159	14	1	*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*
Excess <65	0	29	9	1	–2	*0*	0	21	13	0	1	*0*	0	49	23	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.*
Deaths <65	442	176	87	12	2	*2*	314	123	63	6	3	*2*	756	299	151	19	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.

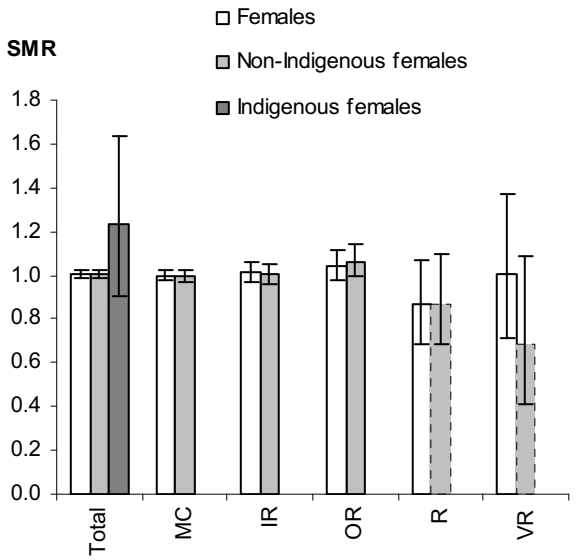
Death rates for non-Indigenous Australian women in remote areas were lower (0.8 times), but not significantly lower than those in Major Cities.

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.

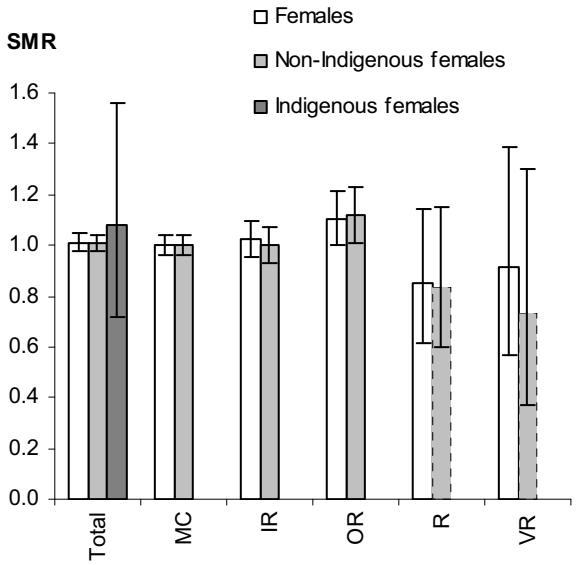


Notes

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).

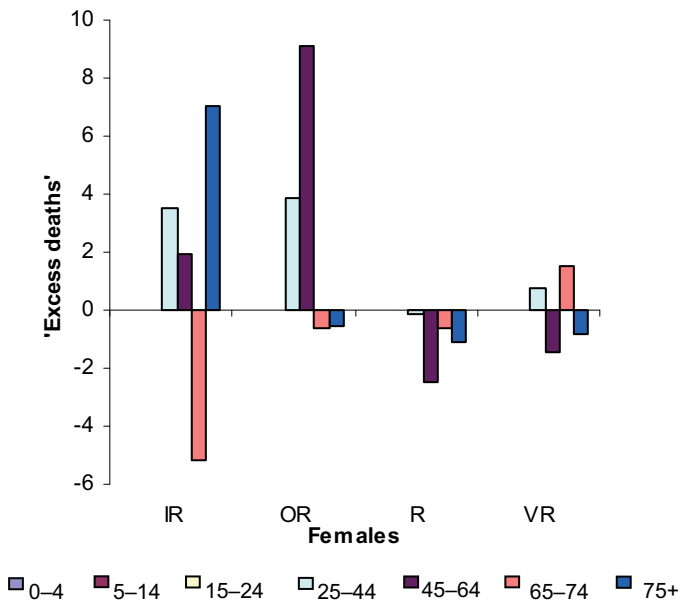
Source: AIHW National Mortality Database.

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



Note: See notes for Figure 4.14.

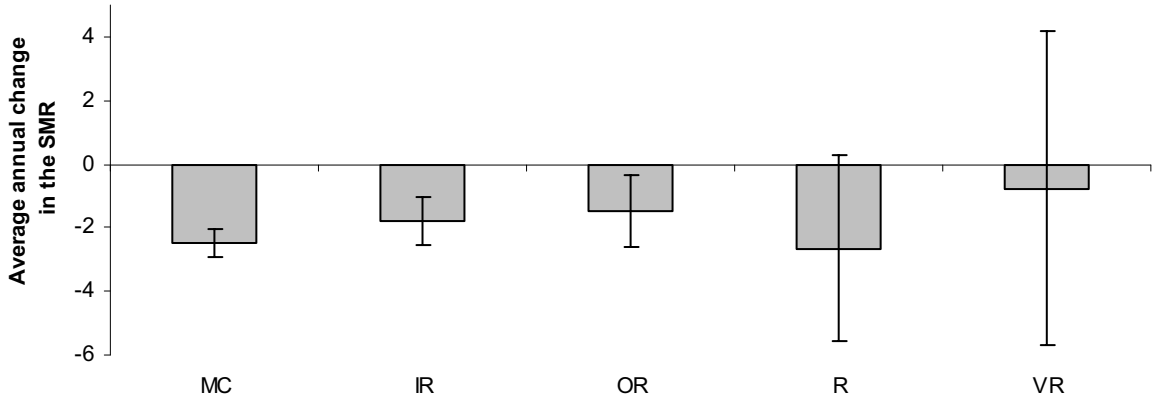
Figure 4.15: Breast cancer SMRs for females aged 64 years and under, by sex, 2002–04



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 4.16: Average annual breast cancer 'excess' deaths, by area, age group and sex, 2002–04



Notes

1. SMRs, expressed as multiples of 100, were calculated using Major Cities rates in the period 2001–03 as the standard.
2. Error bars indicate 95% confidence intervals. These indicate the amount of uncertainty about the precision of the calculated rate.

Source: AIHW 2006a.

Figure 4.17: Average annual change in the ratio of observed to expected deaths due to breast cancer, 1992–2003

Table 4.12: 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
	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.
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.
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.
25–44	n.p.	n.p.	n.p.	n.p.	n.p.	0	4	4	0	1	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	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.
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.
Excess total	n.p.	n.p.	n.p.	n.p.	n.p.	0	7	12	–4	0	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	28	13	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	–3	–1	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	15	7	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.
Excess total†	n.p.	n.p.	n.p.	n.p.	n.p.	135	34	18	–1	–1	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	28	10	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.
Excess <65†	n.p.	n.p.	n.p.	n.p.	n.p.	92	30	11	0	0	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	16	7	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: 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					*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	
	Rate			Ratio			Rate			Ratio			Rate			Ratio		
2002–04																		
0–4	n.p.	n.p.	n.p.	n.p.	n.p.	*n.p.*	0	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.	*n.p.*	0	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.	*n.p.*	0	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.	*n.p.*	6	1.05	1.23	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.	*n.p.*	41	0.99	1.09	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.	*n.p.*	73	0.97	1.02	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.	*n.p.*	129	1.04	1.02	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.	*n.p.*	26	1.01	1.06	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.	*n.p.*	13	1.00	***1.12**	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.	*n.p.*	27	1.00	1.00	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.	*n.p.*	15	1.01	0.98	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.	*n.p.*	***1.11**	***1.09**	***1.10**	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.	*n.p.*	***1.18**	***1.23**	***1.19**	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	
	Average annual number of excess deaths																	
2002–04																		
0–4	n.p.	n.p.	n.p.	n.p.	n.p.	*n.p.*	0	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.	*n.p.*	0	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.	*n.p.*	0	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.	*n.p.*	0	2	4	–1	0	*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.	*n.p.*	0	–2	9	–2	–1	*–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.	*n.p.*	0	–4	1	0	–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.	*n.p.*	0	8	2	–1	–1	*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.	*n.p.*	0	4	16	–4	–3	*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.	*n.p.*	1,704	581	273	25	6	*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.	*n.p.*	0	0	14	–3	–1	*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.	*n.p.*	764	253	132	13	4	*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.	*n.p.*	0	–1	0	–4	–2	*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.	*n.p.*	163	45	23	–1	–1	*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.	*n.p.*	1,670	542	251	25	6	*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.	*n.p.*	0	3	–2	–3	–1	*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.	*n.p.*	117	47	19	0	0	*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.	*n.p.*	780	252	120	14	4	*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.

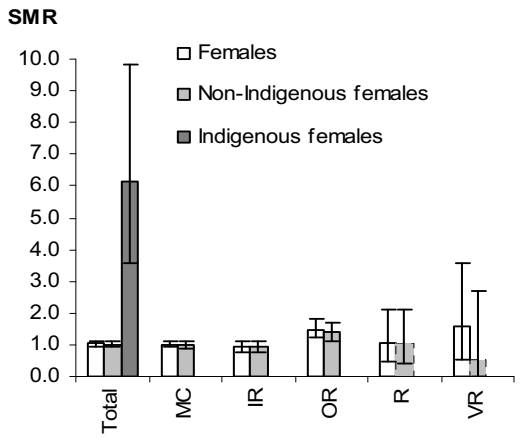
Death rates for remote area non-Indigenous Australian women were not significantly different from those in Major Cities.

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.

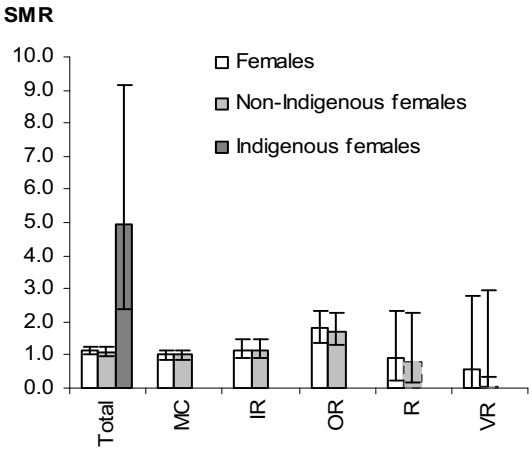


Notes

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).

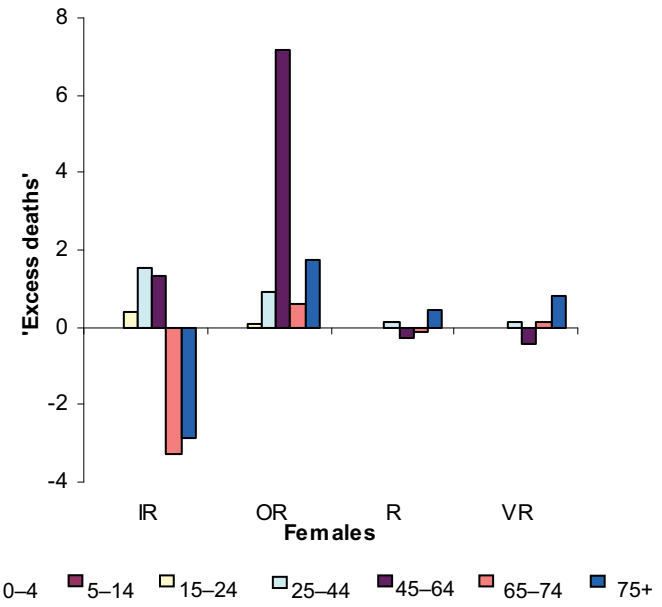
Source: AIHW mortality database.

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



Note: See notes for Figure 4.18.

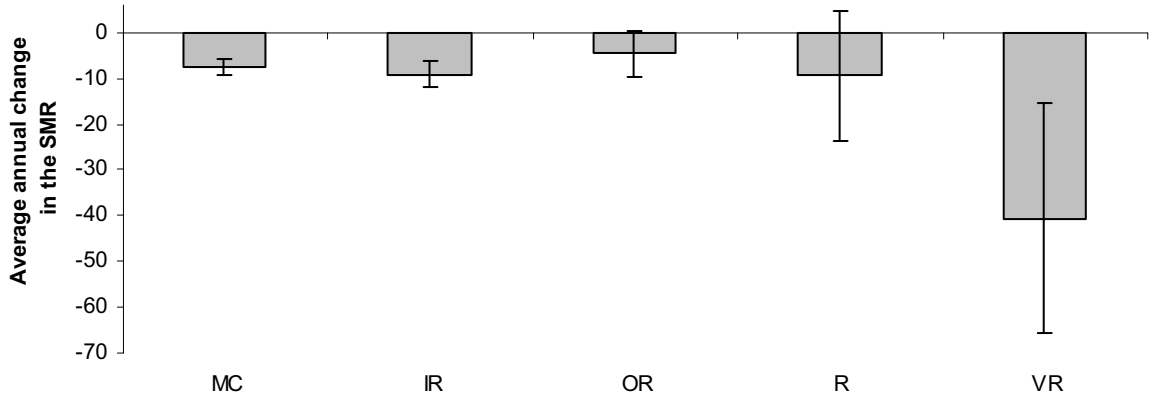
Figure 4.19: Cervical cancer SMRs for females aged 64 years and under, by sex, 2002–04



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 National Mortality Database.

Figure 4.20: Average annual cervical cancer 'excess' deaths, by area, age group and sex, 2002–04



Notes

1. SMRs, expressed as multiples of 100, were calculated using Major Cities rates in the period 2001–03 as the standard.
2. Error bars indicate 95% confidence intervals. These indicate the amount of uncertainty about the precision of the calculated rate.

Source: AIHW 2006a.

Figure 4.21: Average annual change in the ratio of observed to expected deaths due to cervical cancer, 1992–2003

Table 4.14: SMRs, average annual deaths and 'excess' deaths due to cervical 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	4.68	3.08	0.00	0.00	. .	. .	. .	. .	. .
25–44	. .	. .	. .	. .	. .	1	1.25	1.30	1.29	1.40	. .	. .	. .	. .	. .
45–64	. .	. .	. .	. .	. .	3	1.09	***2.02**	0.72	0.00	. .	. .	. .	. .	. .
65–74	. .	. .	. .	. .	. .	6	0.66	1.14	0.73	1.91	. .	. .	. .	. .	. .
75+	. .	. .	. .	. .	. .	11	0.83	1.25	1.67	4.50	. .	. .	. .	. .	. .
Total	. .	. .	. .	. .	. .	2	0.94	***1.49**	1.08	1.55	. .	. .	. .	. .	. .
Total <65	. .	. .	. .	. .	. .	1	1.15	***1.81**	0.92	0.55	. .	. .	. .	. .	. .
1997–99															
Total	. .	. .	. .	. .	. .	3	0.95	***1.27**	1.57	***3.38**	. .	. .	. .	. .	. .
Total <65	. .	. .	. .	. .	. .	1	1.05	1.19	1.47	***2.90**	. .	. .	. .	. .	. .
Total†	. .	. .	. .	. .	. .	***1.27**	***1.21**	***1.62**	***1.98**	***4.25**	. .	. .	. .	. .	. .
Total <65†	. .	. .	. .	. .	. .	***1.27**	***1.34**	***1.52**	1.84	***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	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	2	1	0	0	. .	. .	. .	. .	. .
45–64	. .	. .	. .	. .	. .	0	1	7	0	0	. .	. .	. .	. .	. .
65–74	. .	. .	. .	. .	. .	0	–3	1	0	0	. .	. .	. .	. .	. .
75+	. .	. .	. .	. .	. .	0	–3	2	0	1	. .	. .	. .	. .	. .
Excess total	. .	. .	. .	. .	. .	0	–3	11	0	1	. .	. .	. .	. .	. .
Deaths total	. .	. .	. .	. .	. .	143	45	32	3	2	. .	. .	. .	. .	. .
Excess <65	. .	. .	. .	. .	. .	0	3	8	0	0	. .	. .	. .	. .	. .
Deaths <65	. .	. .	. .	. .	. .	67	25	18	1	0	. .	. .	. .	. .	. .
1997–99															
Excess total	. .	. .	. .	. .	. .	0	–3	7	2	3	. .	. .	. .	. .	. .
Excess total†	. .	. .	. .	. .	. .	35	9	12	2	3	. .	. .	. .	. .	. .
Deaths total	. .	. .	. .	. .	. .	166	51	32	5	4	. .	. .	. .	. .	. .
Excess <65	. .	. .	. .	. .	. .	0	1	2	1	2	. .	. .	. .	. .	. .
Excess <65†	. .	. .	. .	. .	. .	17	7	5	1	2	. .	. .	. .	. .	. .
Deaths <65	. .	. .	. .	. .	. .	79	26	15	3	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 4.15: 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		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	*0.00*	. .	. .	. .	. .	. .	. .
5–14	. .	. .	. .	. .	. .	. .	0	0.00	0.00	0.00	0.00	*0.00*	. .	. .	. .	. .	. .	. .
15–24	. .	. .	. .	. .	. .	. .	0	4.76	3.30	0.00	0.00	*0.00*	. .	. .	. .	. .	. .	. .
25–44	. .	. .	. .	. .	. .	. .	1	1.13	1.04	0.86	0.19	***4.51**	. .	. .	. .	. .	. .	. .
45–64	. .	. .	. .	. .	. .	. .	3	1.14	***2.02**	0.74	0.00	***5.50**	. .	. .	. .	. .	. .	. .
65–74	. .	. .	. .	. .	. .	. .	6	0.68	0.97	0.81	0.00	***8.49**	. .	. .	. .	. .	. .	. .
75+	. .	. .	. .	. .	. .	. .	10	0.79	1.14	1.80	2.14	***10.41**	. .	. .	. .	. .	. .	. .
Total	. .	. .	. .	. .	. .	. .	2	0.93	***1.38**	1.06	0.51	***6.12**	. .	. .	. .	. .	. .	. .
Total <65	. .	. .	. .	. .	. .	. .	1	1.16	***1.73**	0.78	0.07	***4.96**	. .	. .	. .	. .	. .	. .
1997–99																		
Total	. .	. .	. .	. .	. .	. .	3	0.96	1.21	1.20	1.05	***6.80**	. .	. .	. .	. .	. .	. .
Total <65	. .	. .	. .	. .	. .	. .	1	1.07	1.13	0.93	0.68	***6.28**	. .	. .	. .	. .	. .	. .
Total†	. .	. .	. .	. .	. .	. .	***1.31**	***1.28**	***1.62**	1.60	1.40	*n.p.*	. .	. .	. .	. .	. .	. .
Total <65†	. .	. .	. .	. .	. .	. .	***1.35**	***1.55**	***1.62**	1.32	0.96	*n.p.*	. .	. .	. .	. .	. .	. .

(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*
	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*	. .	. .	. .	. .	. .	. .
5–14	. .	. .	. .	. .	. .	. .	0	0	0	0	0	*0*	. .	. .	. .	. .	. .	. .
15–24	. .	. .	. .	. .	. .	. .	0	0	0	0	0	*0*	. .	. .	. .	. .	. .	. .
25–44	. .	. .	. .	. .	. .	. .	0	1	0	0	0	*1*	. .	. .	. .	. .	. .	. .
45–64	. .	. .	. .	. .	. .	. .	0	2	7	0	0	*1*	. .	. .	. .	. .	. .	. .
65–74	. .	. .	. .	. .	. .	. .	0	–3	0	0	0	*1*	. .	. .	. .	. .	. .	. .
75+	. .	. .	. .	. .	. .	. .	0	–3	1	1	0	*1*	. .	. .	. .	. .	. .	. .
Excess total	. .	. .	. .	. .	. .	. .	0	–3	8	0	0	*5*	. .	. .	. .	. .	. .	. .
Deaths total	. .	. .	. .	. .	. .	. .	138	43	28	3	0	*6*	. .	. .	. .	. .	. .	. .
Excess <65	. .	. .	. .	. .	. .	. .	0	3	7	0	0	*3*	. .	. .	. .	. .	. .	. .
Deaths <65	. .	. .	. .	. .	. .	. .	64	24	16	1	0	*3*	. .	. .	. .	. .	. .	. .
1997–99																		
Excess total	. .	. .	. .	. .	. .	. .	0	–2	5	1	0	*7*	. .	. .	. .	. .	. .	. .
Excess total†	. .	. .	. .	. .	. .	. .	39	11	11	1	0	*n.p.*	. .	. .	. .	. .	. .	. .
Deaths total	. .	. .	. .	. .	. .	. .	162	50	29	3	1	*8*	. .	. .	. .	. .	. .	. .
Excess <65	. .	. .	. .	. .	. .	. .	0	2	1	0	0	*4*	. .	. .	. .	. .	. .	. .
Excess <65†	. .	. .	. .	. .	. .	. .	20	9	5	0	0	*n.p.*	. .	. .	. .	. .	. .	. .
Deaths <65	. .	. .	. .	. .	. .	. .	77	26	13	2	0	*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.

4.5 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:

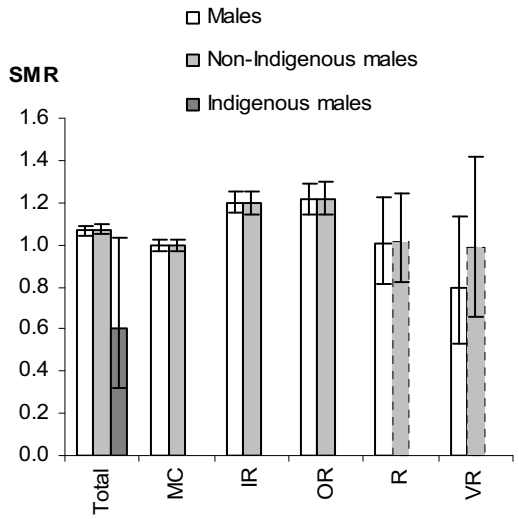
Death rates for the total male population, the non-Indigenous Australian population and the population of 0–64 year olds were not significantly different from those in Major Cities.

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.

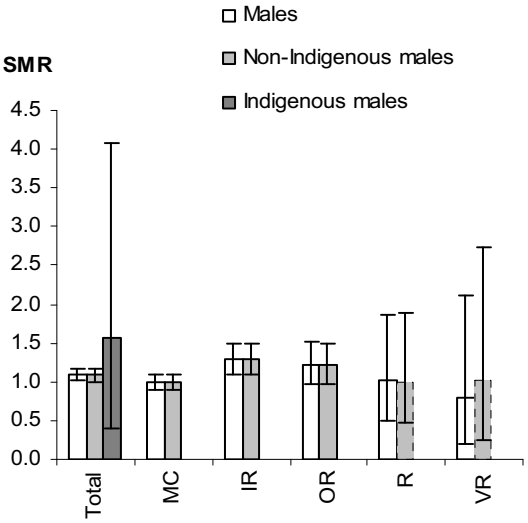


Notes

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).

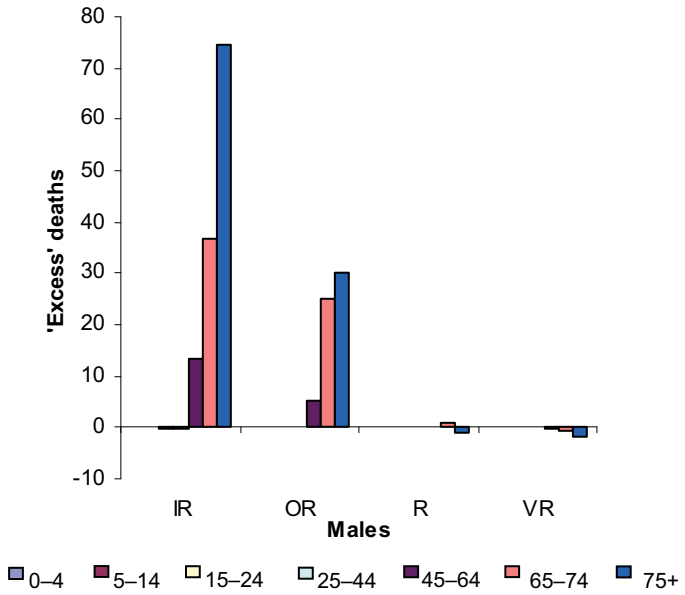
Source: AIHW mortality database.

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



Note: See notes for Figure 4.22.

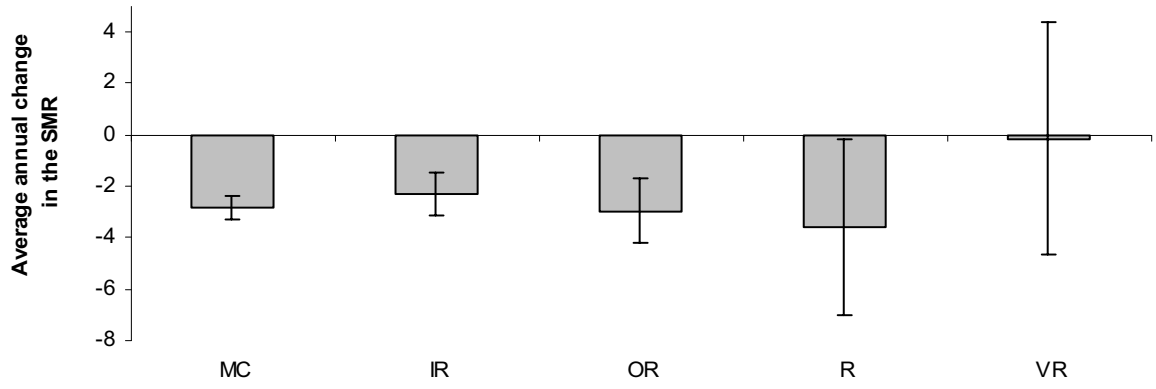
Figure 4.23: Prostate cancer SMRs for persons aged 64 years and under, by sex, 2002–04



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 4.24: Average annual prostate cancer 'excess' deaths, by area, age group and sex, 2002–04



Notes

1. SMRs, expressed as multiples of 100, were calculated using Major Cities rates in the period 2001–03 as the standard.
2. Error bars indicate 95% confidence intervals. These indicate the amount of uncertainty about the precision of the calculated rate.

Source: AIHW 2006a.

Figure 4.25: Average annual change in the ratio of observed to expected deaths due to prostate cancer, 1992–2003

Table 4.16: 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
	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		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	*0.00*	..	..	..	..	..	..	..	..	..	..	..	..
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		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*	..	..	..	..	..	..	..	..	..	..	..	..
5–14	0	0	0	0	0	*0*	..	..	..	..	..	..	..	..	..	..	..	..
15–24	0	0	0	0	0	*0*	..	..	..	..	..	..	..	..	..	..	..	..
25–44	0	0	0	0	0	*0*	..	..	..	..	..	..	..	..	..	..	..	..
45–64	0	13	5	0	0	*0*	..	..	..	..	..	..	..	..	..	..	..	..
65–74	0	36	25	1	0	*–1*	..	..	..	..	..	..	..	..	..	..	..	..
75+	0	71	30	0	0	*–3*	..	..	..	..	..	..	..	..	..	..	..	..
Excess total	0	119	60	0	0	*–3*	..	..	..	..	..	..	..	..	..	..	..	..
Deaths total	1,645	724	334	31	10	*4*	..	..	..	..	..	..	..	..	..	..	..	..
Excess <65	0	13	5	0	0	*0*	..	..	..	..	..	..	..	..	..	..	..	..
Deaths <65	126	57	27	3	1	*1*	..	..	..	..	..	..	..	..	..	..	..	..
1997–99																		
Excess total	0	73	55	6	3	*0*	..	..	..	..	..	..	..	..	..	..	..	..
Excess total†	136	121	77	8	3	*n.p.*	..	..	..	..	..	..	..	..	..	..	..	..
Deaths total	1,498	608	306	34	11	*5*	..	..	..	..	..	..	..	..	..	..	..	..
Excess <65	0	13	7	2	0	*1*	..	..	..	..	..	..	..	..	..	..	..	..
Excess <65†	–1	5	3	1	0	*n.p.*	..	..	..	..	..	..	..	..	..	..	..	..
Deaths <65	104	49	26	4	1	*1*	..	..	..	..	..	..	..	..	..	..	..	..

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.

4.6 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:

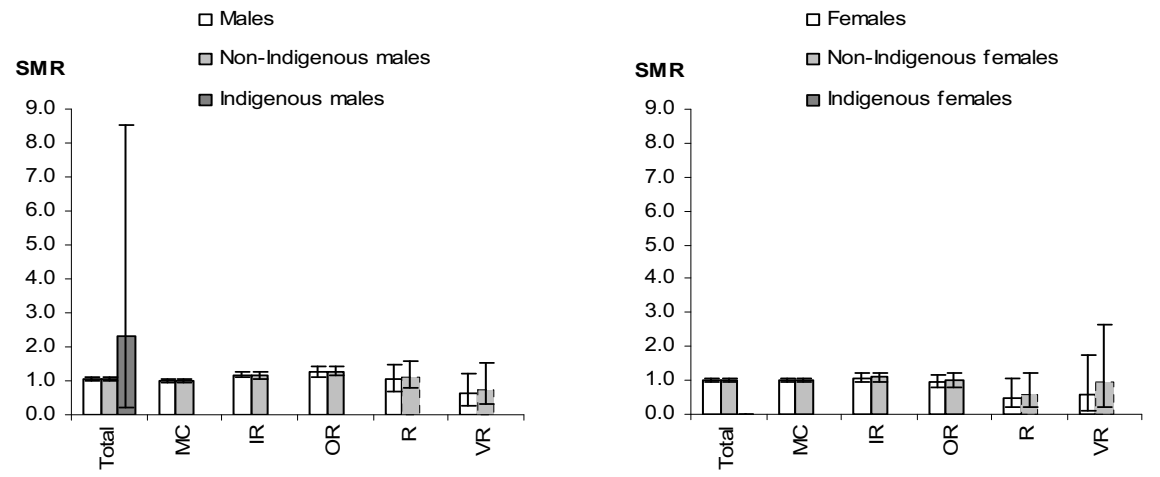
Death rates for the total population, 0–64 year olds and for non-Indigenous Australian people in remote areas were not significantly different from those in Major Cities.

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.

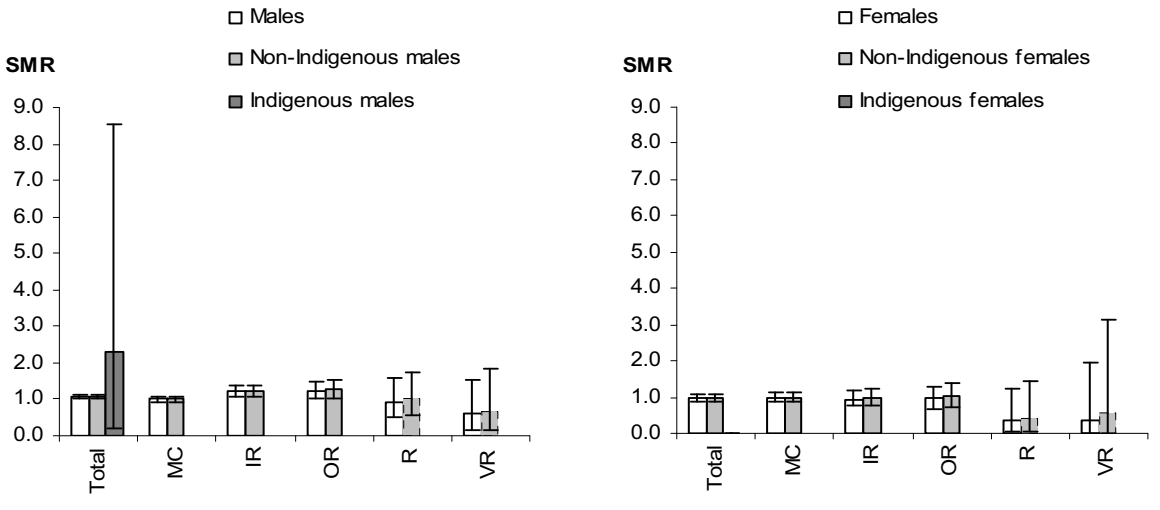


Notes

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).

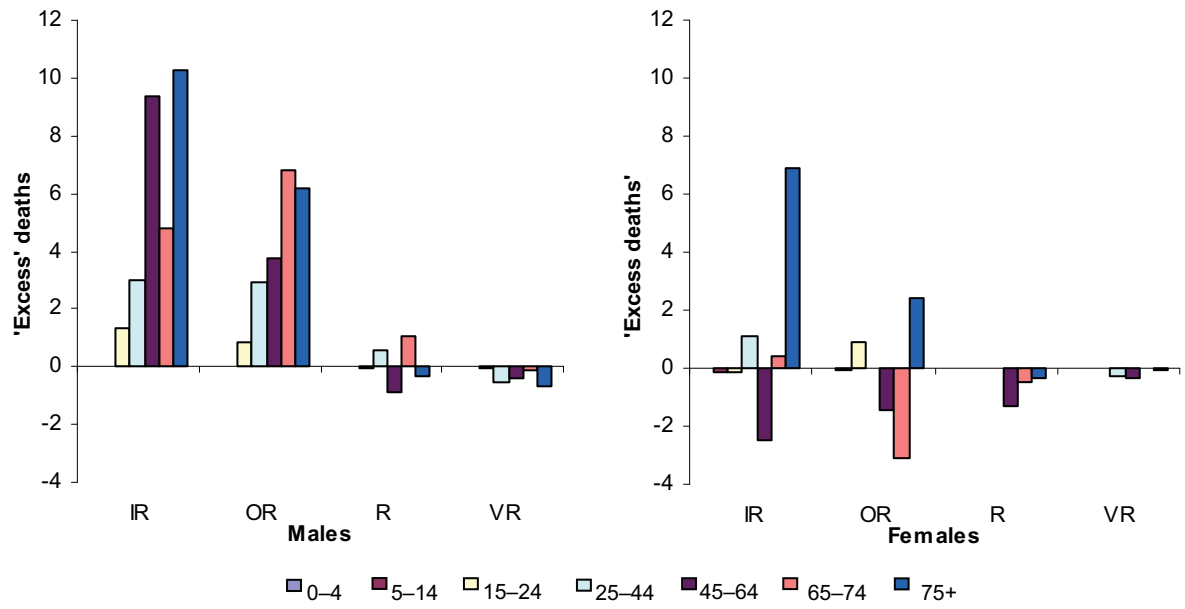
Source: AIHW mortality database.

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



Note: See notes for Figure 4.26.

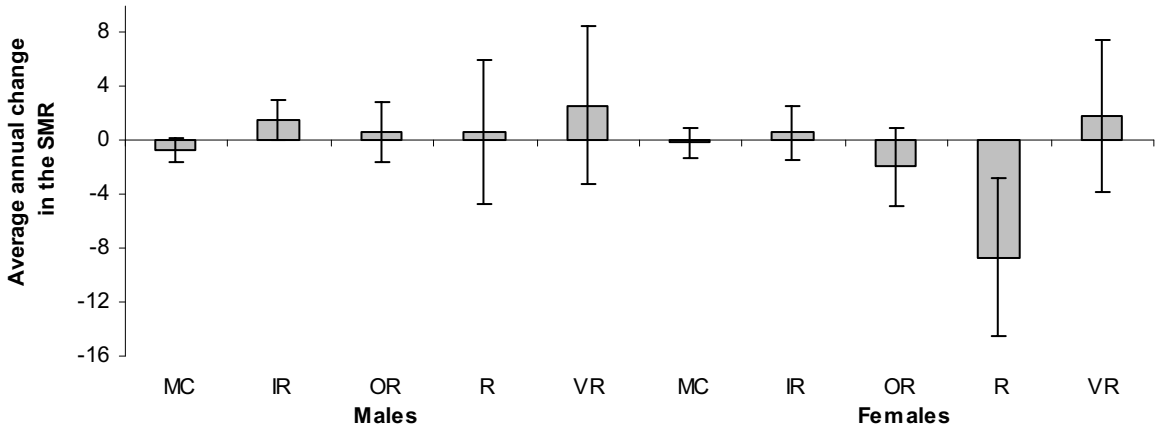
Figure 4.27: Melanoma SMRs for persons aged 64 years and under, by sex, 2002–04



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 4.28: Average annual melanoma 'excess' deaths, 2002–04



Notes

1. SMRs, expressed as multiples of 100, were calculated using Major Cities rates in the period 2001–03 as the standard.
2. Error bars indicate 95% confidence intervals. These indicate the amount of uncertainty about the precision of the calculated rate.

Source: AIHW 2006a.

Figure 4.29: Average annual change in the ratio of observed to expected deaths due to melanoma, 1992–2003

Table 4.18: 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
	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
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
15–24	0	3.62	4.31	0.00	0.00	0	0.06	14.21	0.00	0.00	0	2.81	***6.50**	0.00	0.00
25–44	2	1.28	1.53	1.55	0.09	1	1.16	1.01	0.97	0.03	2	1.23	1.33	1.34	0.07
45–64	9	***1.19**	1.15	0.78	0.80	4	0.89	0.87	0.14	0.51	7	1.09	1.06	0.60	0.72
65–74	26	1.12	***1.34**	1.42	0.89	10	1.03	0.59	0.41	1.10	18	1.09	1.14	1.16	0.94
75+	56	***1.16**	1.22	0.90	0.41	21	***1.21**	1.17	0.76	0.82	35	***1.18**	***1.20**	0.86	0.53
Total	7	***1.17**	***1.26**	1.04	0.63	4	1.07	0.97	0.50	0.61	5	***1.14**	***1.17**	0.88	0.62
Total <65	3	***1.22**	***1.24**	0.93	0.62	2	0.95	0.96	0.37	0.36	2	***1.13**	1.15	0.76	0.54
1997–99															
Total	6	***1.25**	1.06	0.84	0.43	4	1.01	1.01	1.00	0.95	5	***1.17**	1.04	0.89	0.60
Total <65	3	***1.43**	***1.24**	0.87	0.44	2	1.01	1.17	1.15	0.86	2	***1.27**	***1.21**	0.96	0.57
Total†	0.97	***1.21**	1.02	0.81	0.43	1.07	1.08	1.08	1.08	1.06	1.00	***1.16**	1.04	0.90	0.61
Total <65†	0.99	***1.41**	1.22	0.87	0.45	1.12	1.13	1.31	1.30	1.00	1.04	***1.31**	***1.25**	1.00	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

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 4.19: 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	
	Rate	Ratio					Rate	Ratio					Rate	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*
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	***3.69**	4.56	0.00	0.00	*0.00*	0	0.06	15.26	0.00	0.00	*0.00*	0	2.86	***6.90**	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	0.06	*0.00*	1	1.27	1.39	1.56	0.11	*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*	7	1.10	1.09	0.67	0.81	*2.32*
65–74	25	1.09	***1.34**	1.51	1.15	*0.00*	10	1.09	0.64	0.47	1.75	*0.00*	17	1.09	1.15	1.26	1.28	*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*	34	***1.16**	***1.22**	0.91	0.70	*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*	5	***1.14**	***1.19**	0.96	0.79	*2.32*
Total <65	3	***1.23**	***1.26**	1.03	0.67	*2.32*	2	0.98	1.02	0.43	0.57	*0.00*	2	***1.15**	***1.18**	0.86	0.64	*2.32*
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*
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*
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.*
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.*

(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	*n.p.*	–4	18	–2	–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	*n.p.*	10	15	6	0	–1	*n.p.*
Deaths <65	150	69	32	4	1	*0*	92	28	16	2	1	*0*	243	98	49	6	2	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.

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.

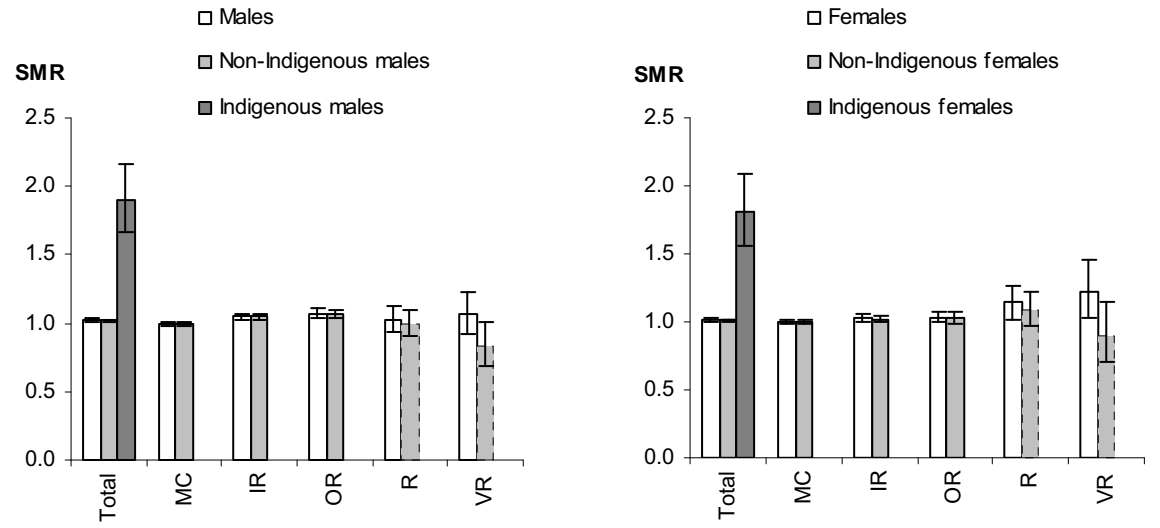
Death rates for Remote area non-Indigenous Australians were not significantly different from those in Major Cities, and were about 15% lower for people from Very Remote areas.

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).

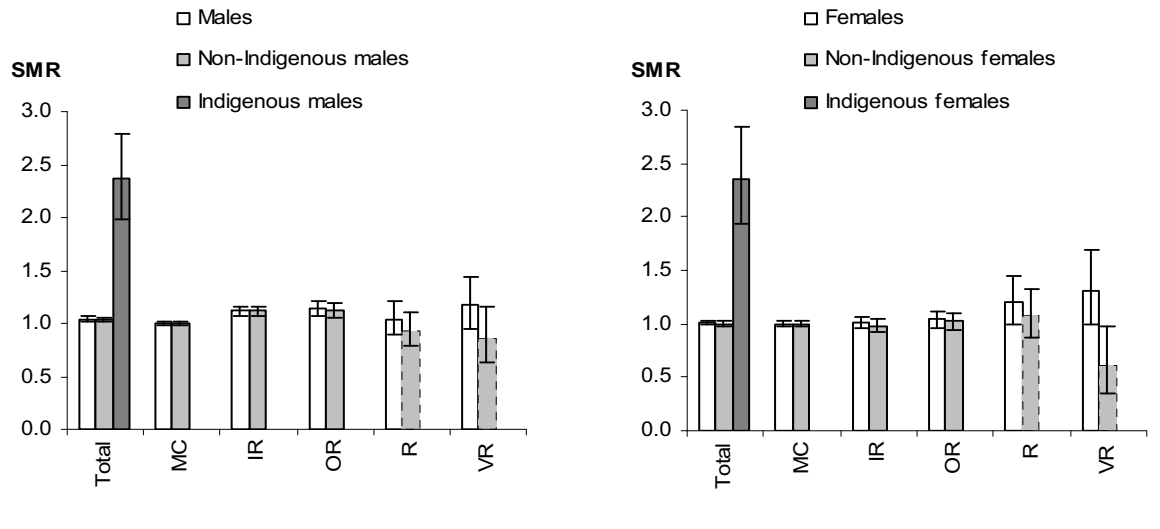


Notes

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).

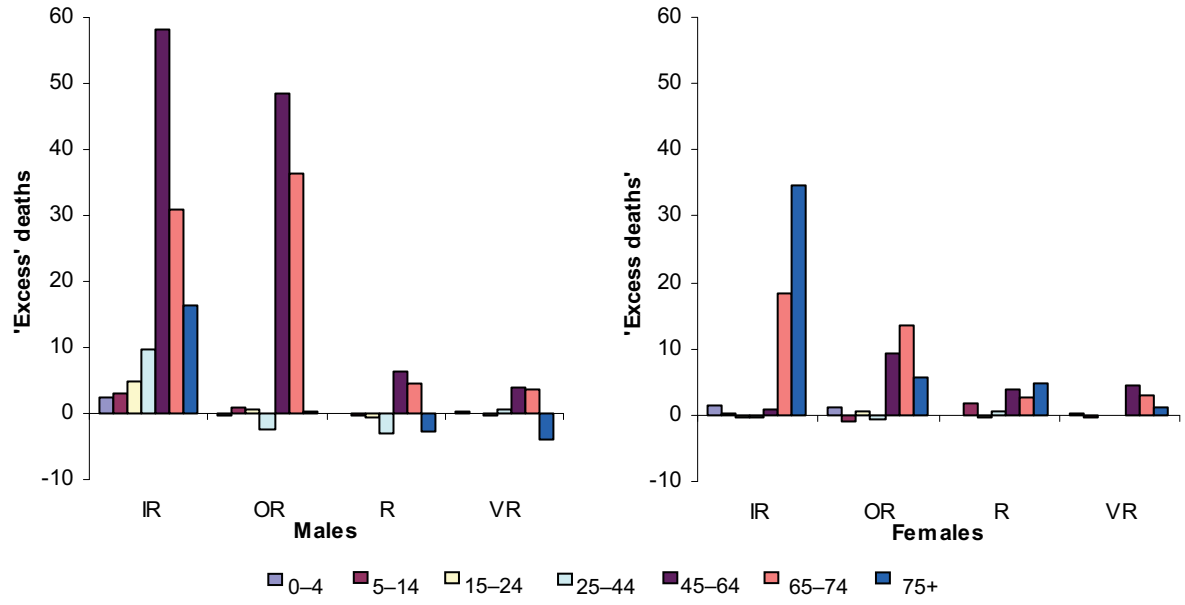
Source: AIHW mortality database.

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



Note: See notes for Figure 4.30.

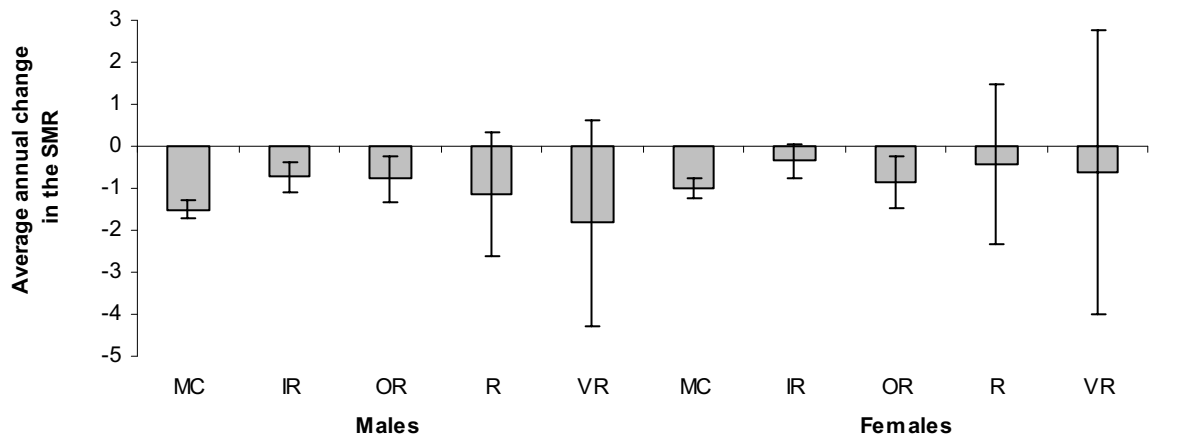
Figure 4.31: All other neoplasm SMRs for persons aged 64 years and under, by sex, 2002–04



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 4.32: Average annual all other neoplasm 'excess' deaths, 2002–04



Notes

1. SMRs, expressed as multiples of 100, were calculated using Major Cities rates in the period 2001–03 as the standard.
2. Error bars indicate 95% confidence intervals. These indicate the amount of uncertainty about the precision of the calculated rate.

Source: AIHW 2006a.

Figure 4.33: Average annual change in the ratio of observed to expected deaths due to all other neoplasms, 1992–2003

Table 4.20: 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
	Rate	Ratio				Rate	Ratio				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
	Average annual number of excess deaths														
2002–04															
0–4	0	3	0	0	0	0	2	1	0	0	0	4	1	0	1
5–14	0	3	1	0	0	0	0	–1	2	0	0	3	0	2	0
15–24	0	5	1	–1	0	0	0	1	0	0	0	4	1	–1	0
25–44	0	10	–3	–3	1	0	0	–1	1	0	0	9	–3	–2	1
45–64	0	58	48	6	4	0	1	9	4	5	0	59	58	10	9
65–74	0	31	36	5	4	0	18	13	3	3	0	49	50	7	7
75+	0	16	0	–3	–4	0	35	6	5	1	0	51	6	2	–3
Excess total	0	126	84	4	4	0	55	29	14	8	0	181	113	18	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
Excess <65	0	78	47	2	5	0	2	10	6	4	0	80	57	8	9
Deaths <65	1,986	752	389	55	30	1,398	471	232	37	19	3,384	1,223	621	93	49
1997–99															
Excess total	0	54	23	0	2	0	–40	–19	–7	5	0	14	4	–8	7
Excess total†	357	181	88	8	6	205	29	12	–4	7	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
Excess <65	0	45	24	2	7	0	0	4	–2	4	0	45	28	–1	11
Excess <65†	163	100	53	6	9	48	15	12	–1	5	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

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 4.21: 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		MC	IR	OR	R	VR		MC	IR	OR	R	VR	
	Rate	Ratio					Rate	Ratio					Rate	Ratio				
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**	***0.41**	***2.27**
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	*n.p.*	***1.05**	1.00	1.00	0.89	0.93	*n.p.*	***1.06**	***1.03**	***1.03**	0.96	0.86	*n.p.*
Total <65†	***1.11**	***1.18**	***1.14**	1.03	0.90	*n.p.*	***1.06**	***1.07**	***1.09**	0.86	1.00	*n.p.*	***1.09**	***1.13**	***1.12**	0.97	0.93	*n.p.*

(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		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*	0	1	1	0	0	*0*	0	3	1	0	0	*0*
5–14	0	3	1	0	0	*0*	0	0	–1	1	0	*0*	0	3	0	1	0	*0*
15–24	0	5	1	–1	0	*0*	0	0	1	0	0	*0*	0	5	1	–1	0	*0*
25–44	0	11	–3	–3	–2	*5*	0	–3	–1	0	–1	*3*	0	8	–4	–4	–2	*8*
45–64	0	55	41	1	–1	*21*	0	–4	6	1	–3	*17*	0	50	47	2	–4	*39*
65–74	0	24	33	4	0	*9*	0	16	14	1	–1	*6*	0	40	46	5	–1	*15*
75+	0	10	1	–2	–5	*1*	0	34	7	5	2	*0*	0	43	8	3	–3	*1*
Excess total	0	110	74	–1	–7	*36*	0	43	26	8	–2	*27*	0	153	101	8	–10	*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*
Excess <65	0	76	41	–3	–2	*27*	0	–7	5	2	–4	*21*	0	70	46	–1	–6	*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*
1997–99																		
Excess total	0	72	26	–4	–9	*31*	0	–26	–12	–10	–2	*17*	0	46	14	–14	–11	*48*
Excess total†	394	136	61	1	–7	*n.p.*	231	–9	–3	–9	–2	*n.p.*	625	128	57	–7	–9	*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	*113*
Excess <65	0	51	18	–2	–3	*25*	0	4	5	–5	–1	*13*	0	55	23	–7	–4	*38*
Excess <65†	189	98	43	1	–2	*n.p.*	73	27	17	–3	0	*n.p.*	262	125	59	–2	–2	*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*

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.