

## 7. Incidence of cancer

While the causes of cancer are not fully understood, environmental factors that are cancer-causing or cancer-promoting include tobacco smoke, ultra-violet radiation from sunlight, hazardous substances (e.g. in uranium mines; asbestos; benzene), and certain viruses (e.g. HIV, Hepatitis B). Even though less than half of the Australian population are men, more men than women are diagnosed with cancer every year, and this reflects their greater exposure to many of these factors, through their behaviours, activities and work (28). The most common cancers suffered by men are prostate, bowel, melanoma and lung cancer.

Table 7.1 shows the number and rate by age and sex of all cancers, and of selected cancers, by cause. For all cancers, rates for males were higher than for females in the younger and older age groups. This was also the case for lung cancer. Male rates for colorectal cancer were higher than females in all age groups. For men, rates of prostate cancer increased with age.

**Table 7.1: Incidence of cancer by type, age and sex, South Australia, 2000-05**

Cancer	Males		Females		Rate Ratio <sup>2</sup>
	No.	Rate <sup>1</sup>	No.	Rate <sup>1</sup>	RR
<b>All cancers</b>					
0 to 14 years	139	15.7	123	14.6	1.08
15 to 24 years	236	37.9	186	31.5	1.20
25 to 34 years	503	80.6	569	94.4	0.85
35 to 44 years	1,026	150.6	1,617	237.2	0.63
45 to 54 years	2,637	415.4	3,405	525.8	0.79
55 to 64 years	5,396	1,131.6	4,431	916.8	1.23
65 to 74 years	8,086	2,428.0	4,882	1,349.8	1.80
75+ years	9,566	3,696.4	7,582	1,893.5	1.95
<b>All ages</b>	<b>27,589</b>	<b>610.6</b>	<b>22,795</b>	<b>494.4</b>	<b>1.24</b>
<b>Prostate cancer</b>					
Under 50 years	74	154.9	na	na	na
50 to 59 years	895	154.9	na	na	na
60 to 69 years	2,091	544.8	na	na	na
70 to 79 years	2,632	913.6	na	na	na
80+ years	1,314	1,024.0	na	na	na
<b>All ages</b>	<b>6,932</b>	<b>503.0</b>	<b>na</b>	<b>na</b>	<b>na</b>
<b>Colorectal cancer<sup>3</sup></b>					
Under 40 years	55	4.4	46	3.8	1.16
40 to 49 years	165	24.5	163	23.9	1.03
50 to 59 years	564	97.6	386	65.7	1.49
60 to 69 years	998	260.0	604	152.0	1.71
70 to 79 years	1,262	438.1	1,009	294.4	1.49
80+ years	669	521.3	991	423.8	1.23
<b>All ages</b>	<b>3,713</b>	<b>112.0</b>	<b>3,199</b>	<b>92.3</b>	<b>1.21</b>
<b>Lung cancer<sup>3</sup></b>					
Under 40 years	7	0.6	16	1.3	0.46
40 to 49 years	82	12.2	90	13.2	0.92
50 to 59 years	312	54.0	194	33.0	1.64
60 to 69 years	665	173.3	361	90.8	1.90
70 to 79 years	1,167	405.1	556	162.2	2.50
80+ years	605	471.5	369	157.8	2.99
<b>All ages</b>	<b>2,838</b>	<b>85.6</b>	<b>1,586</b>	<b>45.8</b>	<b>1.87</b>

<sup>1</sup>Rate is the average annual number of new cases of cancer per 100,000 population

<sup>2</sup>Rate ratio

<sup>3</sup>'Under 40 years' includes data for people aged 20 to 39 years

## Cancer

The incidence of cancer increases with age. While incidence for men lags behind that for women in the age groups 35 to 45 and 45 to 54 years, rates for both sexes then grow rapidly, but particularly for men, with rates increasing to almost twice those of women (Figure 7.1).

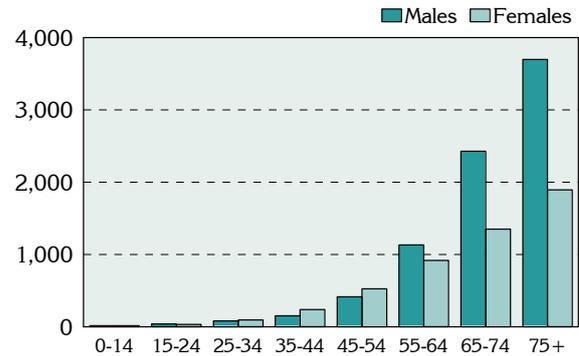
For both males and females, there was little variation in incidence of cancer by socioeconomic status, with just a 2% difference in rates between the highest SES and lowest SES areas. Rates for males were higher across all areas than those for females (Figure 7.2).

While cancer incidence was higher for males than for females in all remoteness classes, there was little variation in male rates by remoteness (Figure 7.3). However, for females, there was a marked difference in incidence in the Major Cities and Very Remote areas, with 21% fewer new cases recorded in the most remote areas (a rate ratio of 0.79).

## Cancer incidence, South Australia, 2000-05

**Figure 7.1: Cancer by age and sex**

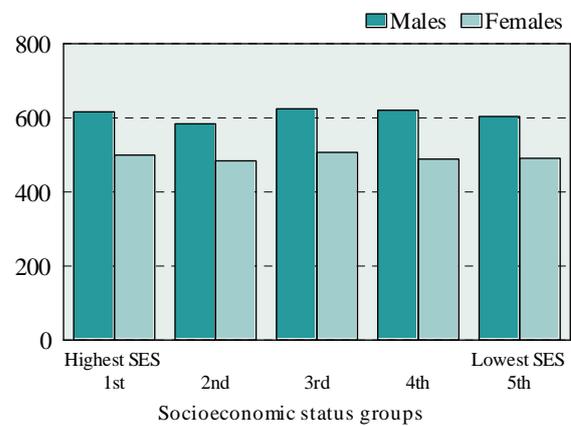
*Average yearly rate per 100,000*



**Figure 7.2: Cancer by socioeconomic status of area and sex**

Rate ratio: Male 0.98; Female 0.98

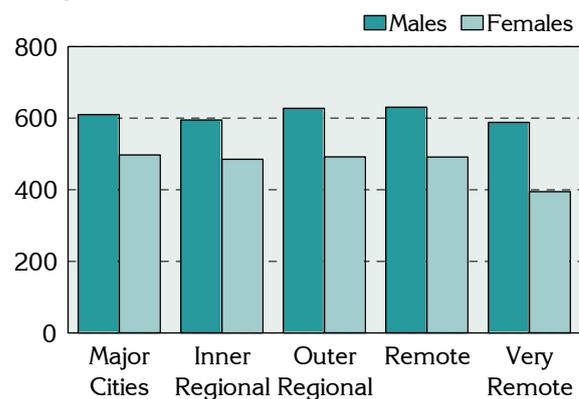
*Rate per 100,000*



**Figure 7.3: Cancer by remoteness**

Rate ratio: Male 0.96; Female 0.79

*Rate per 100,000*



## Cancer incidence in males, 2000 to 2005

The numbers of new cases of cancer recorded for males in the Central Northern Adelaide and Southern Adelaide Health Regions over the six years from 2000 to 2005 were consistent with the levels expected from the State rate (with standardised ratios (SRs) of 99 and 102, respectively). At the sub-region/district level, there was slightly more variation, although the only statistically significant ratios were those in Urban Beaches District and Western sub-region (higher than expected) and Northern sub-region (lower than expected).

In country South Australia, a number of health regions had incidence rates consistent with the State rate, while Mid North had a lower than expected incidence rate (an SR of 91\*), and the only statistically significant variation from the State rate.

**Table 7.2: Incidence of cancer in males, by Health Region, South Australia, 2000-05**

Health Region	Number	Rate <sup>1</sup>	SR <sup>2</sup>
<b>Central Northern Adelaide</b>	<b>13,421</b>	<b>603.1</b>	<b>99</b>
Northern sub-region	4,826	580.8	95**
Western sub-region	4,490	634.0	104*
Central East sub-region	4,105	598.3	98
<b>Southern Adelaide</b>	<b>6,055</b>	<b>622.8</b>	<b>102</b>
Urban Beaches District	2,985	641.7	105**
Hills District	1,377	634.6	104
Outer Southern District	1,693	583.7	96
<b>Metropolitan Adelaide (excl. Gawler)</b>	<b>19,475</b>	<b>609.1</b>	<b>100</b>
<b>Hills Mallee Southern</b>	<b>2,309</b>	<b>612.4</b>	<b>100</b>
<b>South East</b>	<b>1,091</b>	<b>624.2</b>	<b>102</b>
<b>Wakefield</b>	<b>2,022</b>	<b>613.6</b>	<b>100</b>
<b>Mid North</b>	<b>602</b>	<b>557.4</b>	<b>91*</b>
<b>Riverland</b>	<b>658</b>	<b>642.8</b>	<b>105</b>
<b>Eyre</b>	<b>658</b>	<b>646.2</b>	<b>106</b>
<b>Northern &amp; Far Western</b>	<b>774</b>	<b>607.4</b>	<b>99</b>
<b>Country South Australia (incl. Gawler)</b>	<b>8,113</b>	<b>614.3</b>	<b>101</b>

<sup>1</sup> Rate is the number of cancer incidences per 100,000 population

<sup>2</sup> SR = Standardised Ratio, percentage of variation in the region from the ratio of 100 in South Australia

### Metropolitan Adelaide

SLAs with elevated ratios of new cases of cancer in males were spread across Metropolitan Adelaide in no particular pattern. They included Port Adelaide Enfield - Coast (an SR of 122\*\*, 638 cases), Salisbury - Inner North (119\*\*, 302), Holdfast Bay - South (115\*\*, 407) and Mitcham - Hills (115\*\*, 525) (Map 7.1).

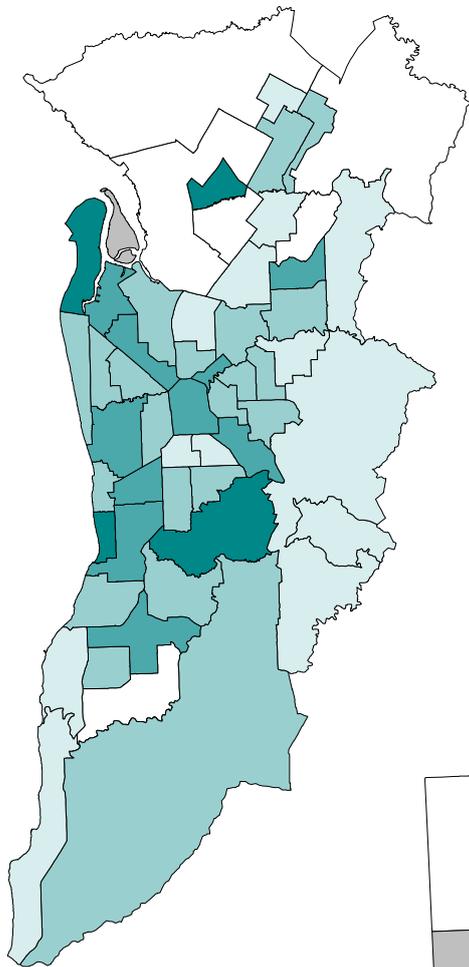
Lower than expected ratios were recorded in Playford - Hills and - West; Onkaparinga - Hackham; Salisbury - Central and Balance; and Tea Tree Gully - North.

### Country SA

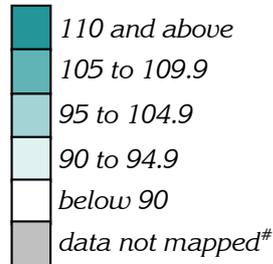
In country South Australia (Map 7.2), elevated ratios were found in Renmark Paringa - Paringa (an SR of 133, 45 cases), Streaky Bay (132\*, 52), Le Hunte (130, 34), Tatiara (122\*, 149), The Coorong (121\*, 139), Wattle Range - West (117\*, 195), Port Lincoln (117\*\*, 270), Kimba (116, 31) and Mid Murray (115\*, 228).

Ratios were lowest in the SLAs of Anangu Pitjantjatjara, Unincorporated Far North, Northern Areas, Flinders Ranges, Orroroo/Carrieton, Mount Remarkable, Elliston, Lower Eyre Peninsula, Barunga West and Grant.

# Map 7.1 and Map 7.2: Cancer incidence in males, Metropolitan Adelaide and country SA, 2000 to 2005

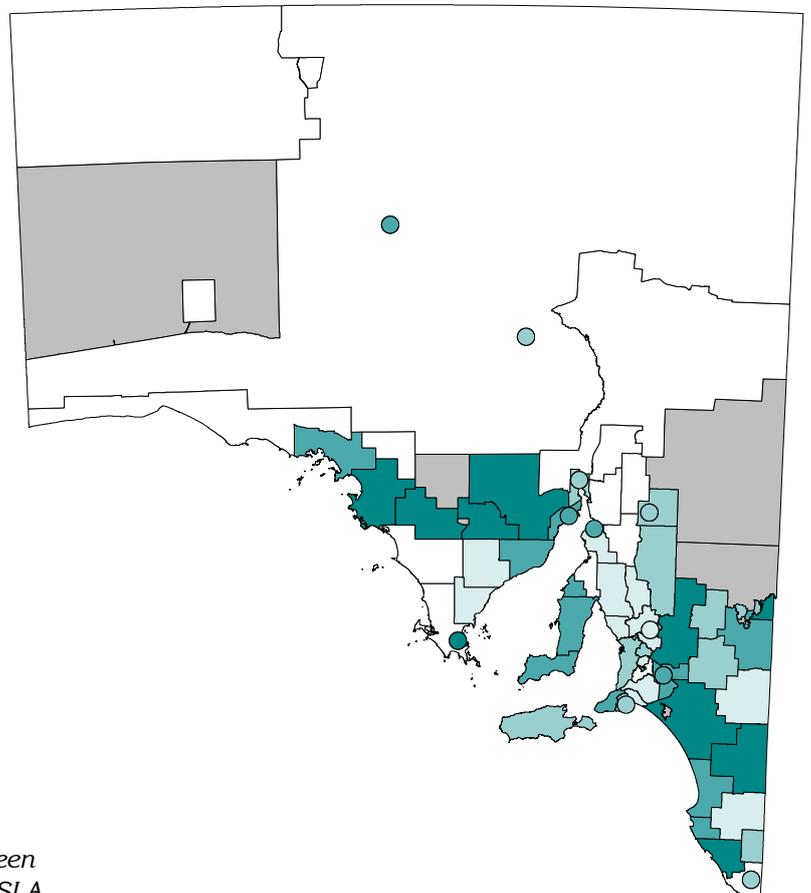


Standardised ratio (as an index)\*, by SLA

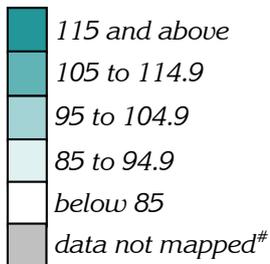


\* Expected numbers were derived by indirect standardisation, based on totals for the metropolitan region

# Data not mapped because there were between one to four cases over the time period; or the SLA has a population of less than 100



Standardised ratio (as an index)\*, by SLA



\* Expected numbers were derived by indirect standardisation, based on SA totals

# Data not mapped because there were between one to four cases over the time period; or the SLA has a population of less than 100

# Prostate cancer

Prostate cancer is the most common type of cancer that afflicts Australian men and the second highest cause of cancer deaths in men. Each year in Australia, close to 3000 men die of prostate cancer - equal to the number of women who die from breast cancer annually - and around 18,700 new cases are diagnosed in Australia every year (27). There is a deficit in knowledge about prostate cancer among men in the at-risk age group (40 -80 years) in areas that could lead to delays in diagnosis and treatment (28).

Prostate cancer can be cured if detected early and treated while still confined to the prostate gland, although screening tests are still not definitive.

Rates of prostate cancer are shown for men from ages 50 years and above, as the incidence of prostate cancer before this age is very low (Figure 7.4). The incidence of prostate cancer increases sharply with age.

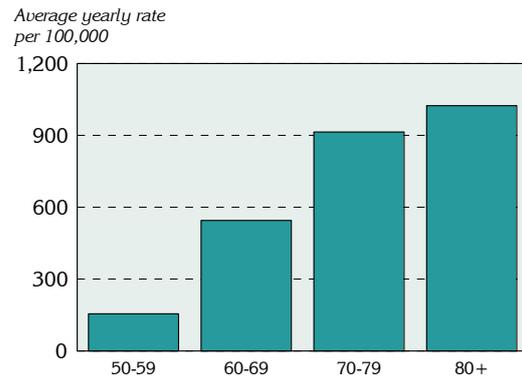
Incidence rates for prostate cancer decreased as socioeconomic status declined, with rates in the lowest SES group 16% lower than in the highest SES areas (a rate ratio of 0.84) (Figure 7.5).

The rates of prostate cancer were similar across the Major Cities, Inner Regional, Outer Regional and Remote area, with the incidence rate highest in Major Cities and lowest in Very Remote, with a differential of 20% (Figure 7.6).

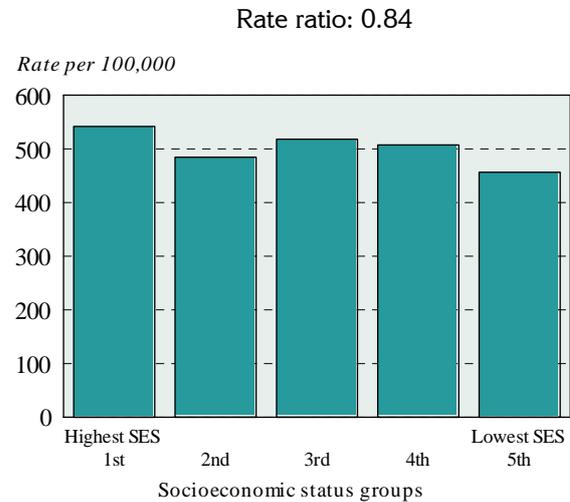
The lower incidence in both the lowest SES areas and the most remote areas is likely to reflect, at least in part, the lower levels of access by men in these areas to screening services.

## Prostate cancer, males aged 50 years and over, South Australia, 2000-05

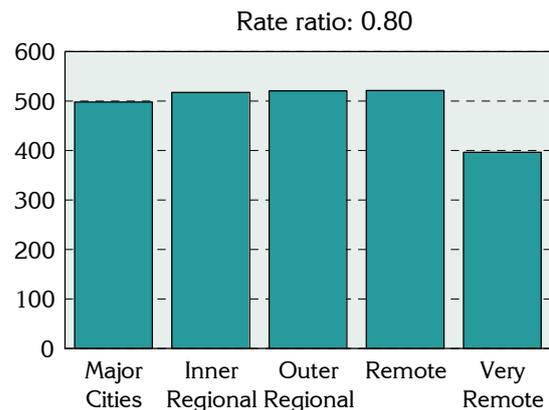
**Figure 7.4: Prostate cancer by age**



**Figure 7.5: Prostate cancer by socioeconomic status of area**



**Figure 7.6: Prostate cancer by remoteness**



## Prostate cancer incidence, 2000 to 2005

The incidence of prostate cancer recorded for men in the Central Northern Adelaide Health Region was 3% below the level expected from the State rate (a standardised ratio (SR) of 97, 3,294 cases); in Southern Adelaide Health Region, it was 4% above the level expected (an SR of 104, 1,541 cases). Neither ratio was statistically significant.

In country South Australia, Hills Mallee Southern Health Region had an elevated ratio of statistical significance, and Northern & Far Western had fewer cases than expected, again with a ratio of statistical significance.

**Table 7.3: Incidence of prostate cancer, males 50 years and over, by Health Region, South Australia, 2000-05**

Health Region	Number	Rate <sup>1</sup>	SR <sup>2</sup>
<b>Central Northern Adelaide</b>	<b>3,294</b>	<b>486.7</b>	<b>97</b>
Northern sub-region	1,163	470.6	94
Western sub-region	1,074	488.7	97
Central East sub-region	1,057	503.4	100
<b>Southern Adelaide</b>	<b>1,541</b>	<b>521.7</b>	<b>104</b>
Urban Beaches District	750	519.6	103
Hills District	382	586.2	117**
Outer Southern District	409	476.4	95
<b>Metropolitan Adelaide (excl. Gawler)</b>	<b>4,834</b>	<b>497.3</b>	<b>99</b>
<b>Hills Mallee Southern</b>	<b>655</b>	<b>558.1</b>	<b>111**</b>
<b>South East</b>	<b>272</b>	<b>518.7</b>	<b>103</b>
<b>Wakefield</b>	<b>531</b>	<b>518.8</b>	<b>103</b>
<b>Mid North</b>	<b>152</b>	<b>448.3</b>	<b>89</b>
<b>Riverland</b>	<b>180</b>	<b>578.7</b>	<b>115</b>
<b>Eyre</b>	<b>155</b>	<b>500.1</b>	<b>99</b>
<b>Northern &amp; Far Western</b>	<b>152</b>	<b>402.4</b>	<b>80**</b>
<b>Country South Australia (incl. Gawler)</b>	<b>2,098</b>	<b>516.6</b>	<b>103</b>

<sup>1</sup> Rate is the number of cancer incidences per 100,000 population

<sup>2</sup> SR = Standardised Ratio, percentage of variation in the region from the ratio of 100 in South Australia

### Metropolitan Adelaide

SLAs with elevated numbers of new cases of prostate cancer were generally in higher SES areas (Map 7.3): the highest of these were Mitcham - Hills (an SR of 145\*\*, 169 cases), Salisbury - Inner North (125, 69), Burnside - South-West (122\*, 137), Adelaide (116, 68) and Norwood Payneham St Peters - West (115, 84).

SLAs with lower than expected numbers included Onkaparinga - Hackham; Salisbury - Central, Balance and - South-East; Playford - Hills; Adelaide Hills - Ranges; Port Adelaide Enfield - Park, - Inner and - Port; Marion - South; Unley - West; and Norwood Payneham St Peters - East.

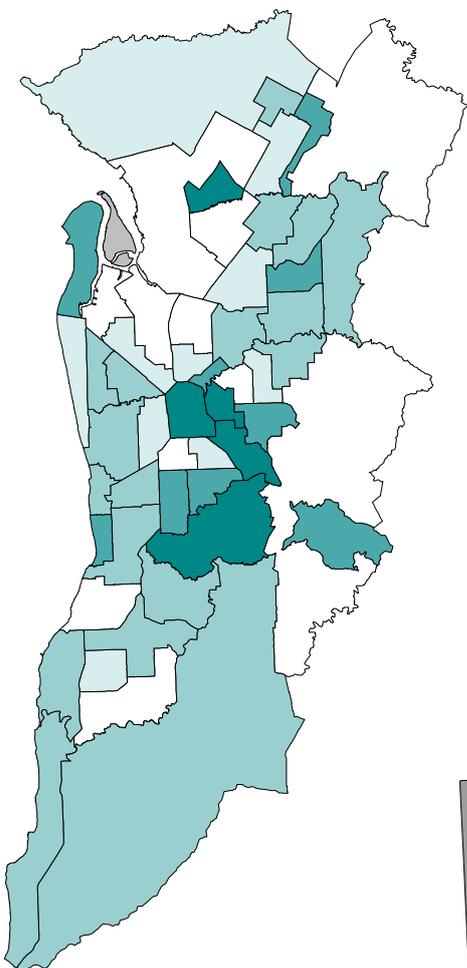
### Country SA

The most highly elevated ratios for prostate cancer in country SA (Map 7.4) were in the SLAs of Southern Mallee (an SR of 175\*, 20 cases); Renmark Paringa - Paringa (155, 13) and - Renmark (146\*\*, 56); Streaky Bay (154, 15); Adelaide Hills - North (154\*\*, 38); Tatiara (150\*\*, 45); Franklin Harbour (150, 12); Karoonda East Murray (149, 10); Kimba (144, 10); The Coorong (138\*, 40); and Yankalilla (131, 34).

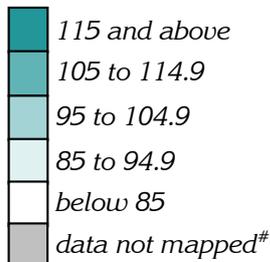
SLAs with lower than expected ratios include Port Pirie Districts Balance, Robe, Mount Barker Balance and Port Augusta.

Areas with no recorded cases were Maralinga Tjarutja, Anangu Pitjantjatjara and Unincorporated Riverland.

# Map 7.3 and Map 7.4: Prostate cancer incidence, males 50 years and over, Metropolitan Adelaide and country SA, 2000 to 2005

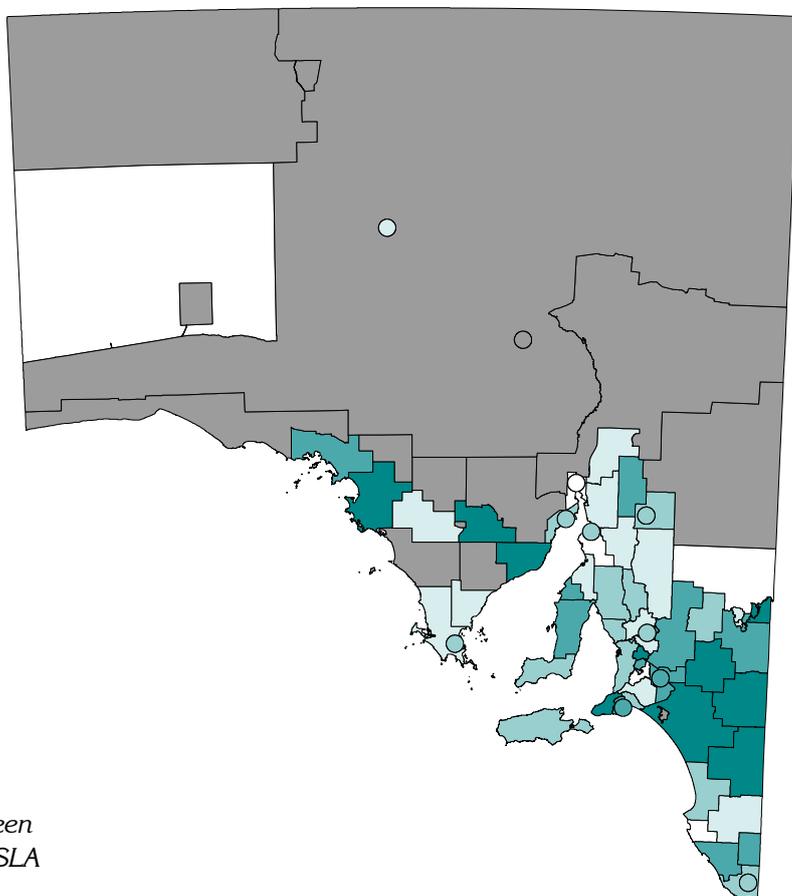


Standardised ratio (as an index)\*, by SLA

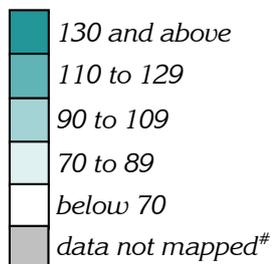


\* Expected numbers were derived by indirect standardisation, based on totals for the metropolitan region

# Data not mapped because there were between one to four cases over the time period; or the SLA has a population of less than 100



Standardised ratio (as an index)\*, by SLA



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## Colorectal cancer

The term “colorectal cancer” refers to the specific cancer called “adenocarcinoma” which arises from the inner surface lining of the bowel. It is the commonest form of bowel cancer, with other types being comparatively rare. Population screening for colorectal cancer involves the faecal occult blood test (FOBT), a simple non-invasive process to detect small amounts of blood in the bowel motion, an early warning sign of bowel cancer (29). Having an FOBT every two years can reduce the risk of dying from bowel cancer by up to one third (29).

There is evidence that men older than 50 years make suboptimal use of preventive health services, such as bowel cancer screening by FOBT; and a lower use of cancer screening activities has been reported by men aged 50–64 years who live alone, who lack private health insurance, and who smoke (30). Barriers to FOBT screening include the inconvenience of the procedure, lack of perceived benefit from screening, anxiety over possible results, cost, and cultural beliefs and attitudes (29).

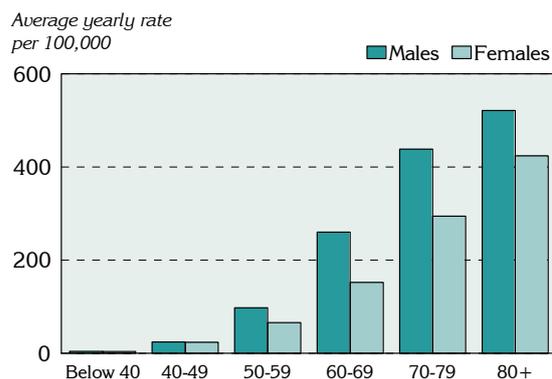
As seen for all cancers and prostate cancer, the incidence of colorectal cancer is strongly related to age, with higher rates for males with increasing age (Figure 7.7).

There was little variation in incidence of colorectal cancer by socioeconomic status for either males or females, and what variation there was had different impacts, with slightly higher incidence rates for men, and slightly lower for women, in the lowest SES areas (Figure 7.8). Rates for males were highest in the middle SES group.

There was a distinct gradient across the remoteness areas in incidence for males, with rates increasing from the Major Cities areas to the Remote areas, before dropping markedly in the Very Remote areas. For females, there was a very slight increase across the remoteness areas, followed by a marked decline in rates in the Very Remote class (Figure 7.9).

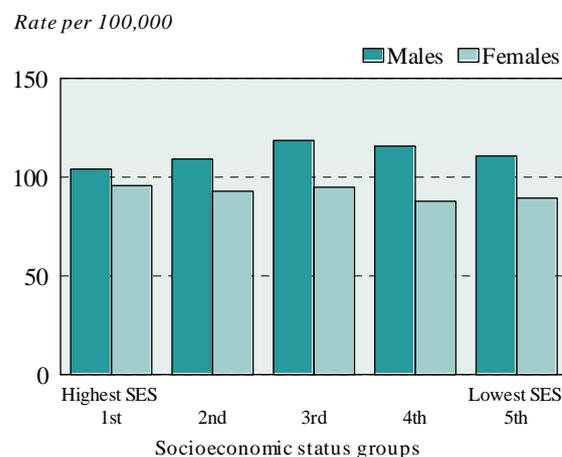
## Colorectal cancer, South Australia, 2000-05

**Figure 7.7: Colorectal cancer by age and sex**



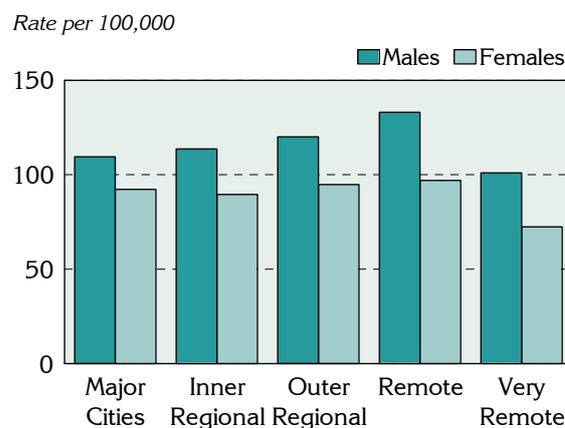
**Figure 7.8: Colorectal cancer by socioeconomic status of area and sex**

Rate ratio: Male 1.06; Female 0.93



**Figure 7.9: Colorectal cancer by remoteness and sex**

Rate ratio: 0.92; Female 0.78



## Colorectal cancer incidence for males, 2000 to 2005

Over this six year period, the incidence of colorectal cancer for males at the health region level in Metropolitan Adelaide was consistent with the State rate for this disease. Northern sub-region had a statistically significantly lower standardised ratio (SR) of 90\*\*.

With the exception of Hills Mallee Southern (with a ratio consistent with the State rate) and Mid North (a lower ratio), country South Australian health regions all had more new cases than expected from the State rate; however, the only statistically significant elevated ratio was that in Wakefield (an SR of 114\*).

**Table 7.4: Incidence of colorectal cancer in males, by Health Region, South Australia, 2000-05**

Health Region	Number	Rate <sup>1</sup>	SR <sup>2</sup>
<b>Central Northern Adelaide</b>	<b>1,782</b>	<b>109.4</b>	<b>98</b>
Northern sub-region	607	100.5	90**
Western sub-region	617	118.4	106
Central East sub-region	559	110.9	99
<b>Southern Adelaide</b>	<b>784</b>	<b>110.0</b>	<b>98</b>
Urban Beaches District	389	113.5	101
Hills District	165	103.6	93
Outer Southern District	230	109.1	97
<b>Metropolitan Adelaide (excl. Gawler)</b>	<b>2,566</b>	<b>109.6</b>	<b>98</b>
<b>Hills Mallee Southern</b>	<b>306</b>	<b>109.6</b>	<b>98</b>
<b>South East</b>	<b>153</b>	<b>119.7</b>	<b>107</b>
<b>Wakefield</b>	<b>311</b>	<b>127.4</b>	<b>114*</b>
<b>Mid North</b>	<b>81</b>	<b>100.9</b>	<b>90</b>
<b>Riverland</b>	<b>92</b>	<b>122.2</b>	<b>109</b>
<b>Eyre</b>	<b>97</b>	<b>129.8</b>	<b>116</b>
<b>Northern &amp; Far Western</b>	<b>107</b>	<b>115.5</b>	<b>103</b>
<b>Country South Australia (incl. Gawler)</b>	<b>1,147</b>	<b>117.8</b>	<b>105</b>

<sup>1</sup> Rate is the number of cancer incidences per 100,000 population

<sup>2</sup> SR = Standardised Ratio, percentage of variation in the region from the ratio of 100 in South Australia

### Metropolitan Adelaide

There were 35% more new male cases of colorectal cancer in Charles Sturt - North-East than expected from the State rate (an SR of 135\*\*, 86 cases) (Map 7.5). Other elevated ratios, although none of statistical significance, were in Port Adelaide Enfield - Port (an SR of 127, 33 cases) and - Coast (119, 84); Adelaide Hills - Ranges (125, 27); Tea Tree Gully - Hills (121, 35); Marion - North (119, 93); and West Torrens - West (117, 107).

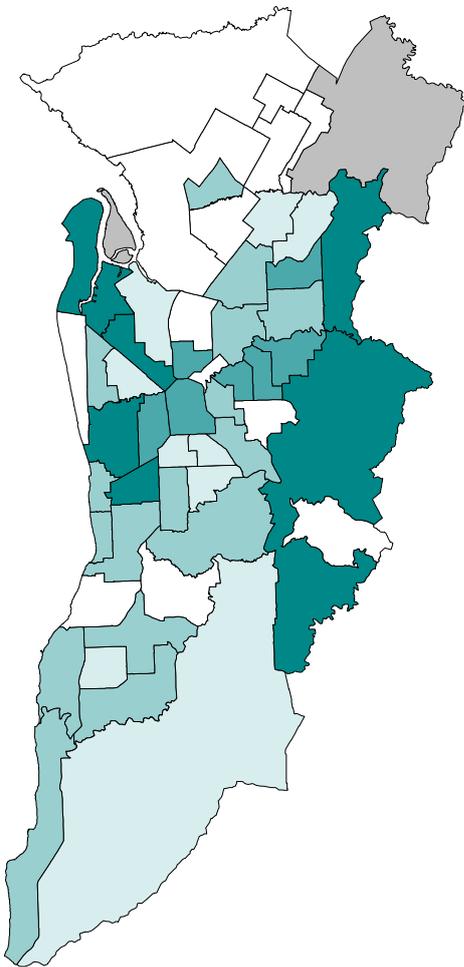
The SLAs with lower than expected ratios include Playford - West Central, - East Central, - West and - Elizabeth; Walkerville; Marion - South; Port Adelaide Enfield - Inner; Charles Sturt - Coastal; Salisbury Balance and - Central; Adelaide Hills - Central; Burnside - North-East; and Onkaparinga - Reservoir.

### Country SA

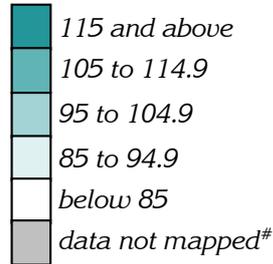
SLAs with elevated ratios in country SA (Map 8.6) included Renmark Paringa - Paringa (an SR of 208\*, 9 cases), Streaky Bay (169, 9), Goyder (167\*, 21), Kimba (165, 6), Robe (162, 7), Yorke Peninsula - South (149, 25), Port Lincoln (143\*, 44), Wakefield (142, 27), Berri & Barmera - Berri (135, 20), Barossa - Barossa (132, 23), Kangaroo Island (131, 15), Ceduna (131, 9) and Murray Bridge (130\*, 58).

The lowest ratios in country SA were in Grant; Loxton Waikerie - West; Adelaide Hills - North and Balance; Barossa - Tanunda; and Mount Remarkable.

# Map 7.5 and Map 7.6: Colorectal cancer incidence for males, Metropolitan Adelaide and country SA, 2000 to 2005



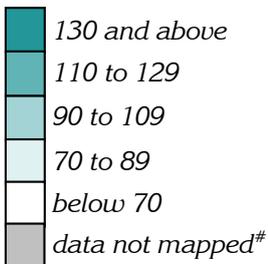
Standardised ratio (as an index)\*, by SLA



\* Expected numbers were derived by indirect standardisation, based on totals for the metropolitan region

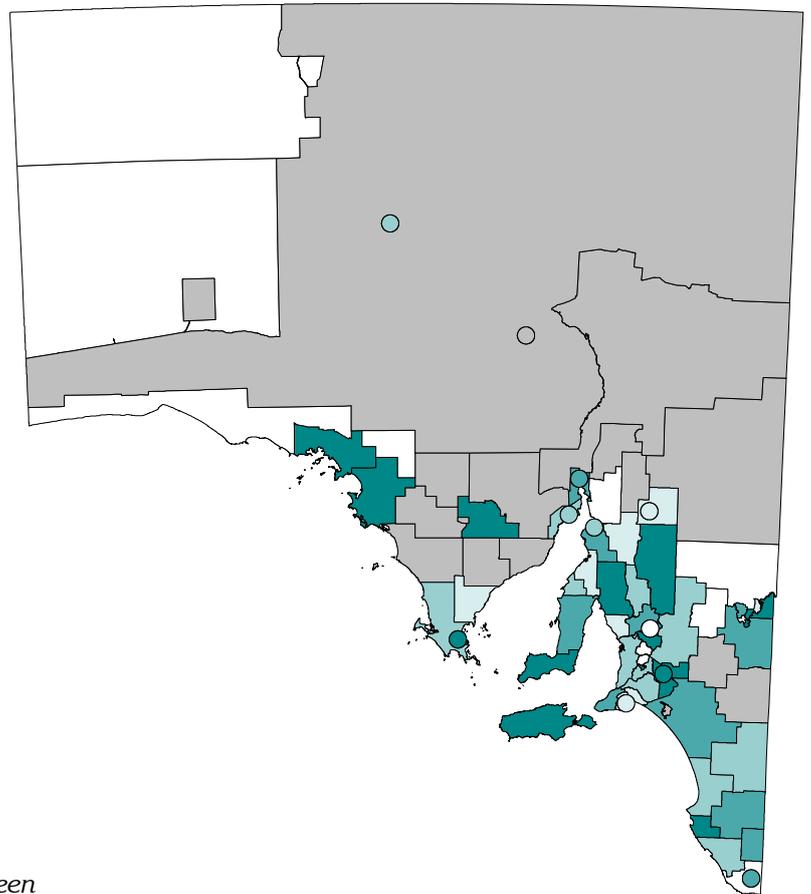
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# Lung cancer

Lung cancer is primarily a preventable disease (31). Tobacco smoking is by far the main cause of lung cancer, with 90% of cases in men and 65% in women caused by smoking (32). The risk of lung cancer increases with years of smoking and amount smoked. Lung cancer occurs most often in older persons as it usually takes decades for cancer-causing agents in tobacco smoke to take full effect (33). Exposure to second hand smoke is a cause of lung cancer in non-smokers (32). Other factors known to increase lung cancer risk include occupational exposure to certain industrial carcinogens including asbestos (33).

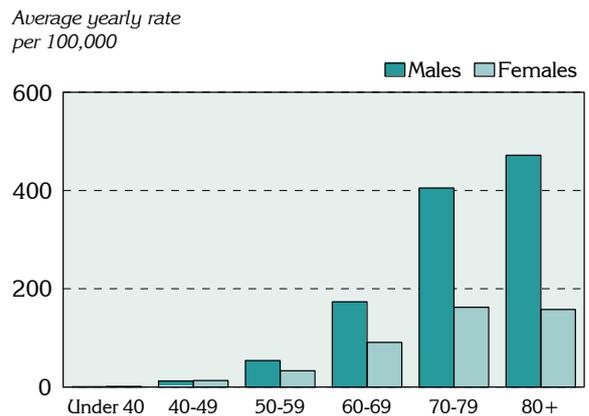
The incidence of lung cancer is strongly related to age, increasing by over three times between the 50 to 59 and 60 to 69 year age groups, and more than doubling between the 60 to 69 and 70 to 79 year age groups for men, with slightly lower rates of increase for women (Figure 7.10). Apart from in the 40 to 49 year age group (with similar rates), incidence for men is substantially higher than for women in each age group.

There was a strong, continuous socioeconomic gradient evident in lung cancer incidence rates for males, with the rate in the lowest SES areas 55% higher than in the highest SES areas (Figure 7.11). Rates for females also showed a socioeconomic gradient, with 38% more new cases in the lowest SES areas compared to the highest SES areas: however, the gradient was not continuous, with the highest incidence rate in the second SES group.

In the Major Cities and Inner Regional areas, males had higher rates of new cases of lung cancer than females; however, in Remote and Very Remote areas, females had substantially higher rates, particularly so in the Very Remote areas. As a result, the rate of new cases for females in the Very Remote areas was almost eleven times (10.72) that in the Major Cities areas. This was the more remarkable given that, overall, lung cancer incidence for females was only 53% that of males. Despite being much lower, the ratio of the incidence rates for males between the Very Remote and Major Cities areas was still a substantial 1.68, indicating 68% more new cases of lung cancer in the most remote areas (Figure 7.12).

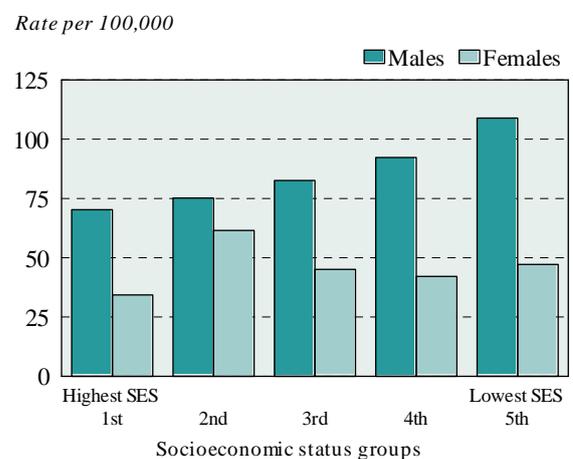
## Lung cancer, South Australia, 2000-05

**Figure 7.10: Lung cancer by age**



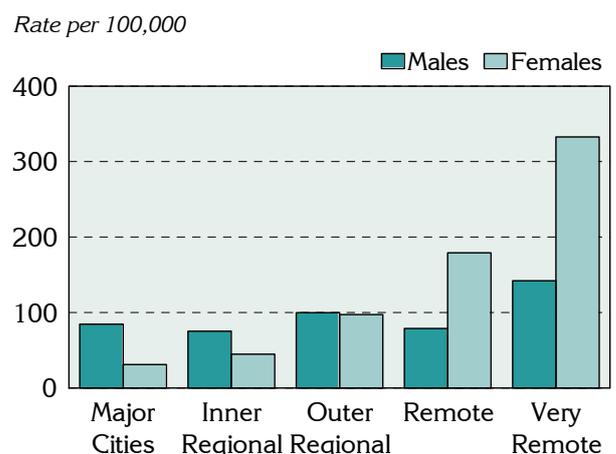
**Figure 7.11: Lung cancer by socioeconomic status of area and sex**

Rate ratio: Male 1.55; Female 1.38



**Figure 7.12: Lung cancer by remoteness**

Rate ratio: Male 1.68 Females 10.72



## Lung cancer incidence for males, 2000 to 2005

In the Central Northern Adelaide Health Region, the number of new cases of lung cancer among males was at the level expected from the State rate (a standardised ratio (SR) of 100, 1,400 cases). This overall ratio hides variations at the sub-region level, and the more substantial variations at the SLA level described below. Similarly, in Southern Adelaide Health Region, there were 6% fewer cases than expected (an SR of 94, 575 cases), with marked variations between districts and SLAs.

In country South Australia, Northern & Far Western had a highly elevated ratio (SR of 154\*\*), and, in Riverland, there were 15% more new cases than expected (an SR of 115). The lowest ratio was in Hills Mallee Southern (an SR of 89).

**Table 7.5: Incidence of lung cancer for males, by Health Region, South Australia, 2000-05**

Health Region	Number	Rate <sup>1</sup>	SR <sup>2</sup>
<b>Central Northern Adelaide</b>	<b>1400</b>	<b>85.8</b>	<b>100</b>
Northern sub-region	565	95.8	112**
Western sub-region	460	85.9	100
Central East sub-region	375	74.2	87**
<b>Southern Adelaide</b>	<b>575</b>	<b>80.3</b>	<b>94</b>
Urban Beaches District	293	82.7	97
Hills District	98	62.7	73**
Outer Southern District	184	89.5	105
<b>Metropolitan Adelaide (excl. Gawler)</b>	<b>1974</b>	<b>84.2</b>	<b>98</b>
<b>Hills Mallee Southern</b>	<b>212</b>	<b>75.8</b>	<b>89</b>
<b>South East</b>	<b>111</b>	<b>88.2</b>	<b>103</b>
<b>Wakefield</b>	<b>223</b>	<b>90.9</b>	<b>106</b>
<b>Mid North</b>	<b>68</b>	<b>84.3</b>	<b>98</b>
<b>Riverland</b>	<b>74</b>	<b>98.9</b>	<b>115</b>
<b>Eyre</b>	<b>59</b>	<b>79.5</b>	<b>93</b>
<b>Northern &amp; Far Western</b>	<b>117</b>	<b>131.5</b>	<b>154**</b>
<b>Country South Australia (incl. Gawler)</b>	<b>864</b>	<b>89.1</b>	<b>104</b>

<sup>1</sup> Rate is the number of cancer incidences per 100,000 population

<sup>2</sup> SR = Standardised Ratio, percentage of variation in the region from the ratio of 100 in South Australia

### Metropolitan Adelaide

The geographic distribution of new cases of lung cancer at the SLA level (Map 7.7) was strongly associated with the distribution of the socioeconomically disadvantaged population.

SLAs with the highest incidence included Salisbury - Inner North (with twice the number of cases expected from the State rate, an SR of 203\*\*, 46 cases) and - North-East (140\*, 47); Playford - West Central (140, 23) and - Elizabeth (129\*, 64); Port Adelaide Enfield - Inner (137\*, 61), - Park (128, 48) and - Port (126, 25); Charles Sturt - North-East (121, 60); Onkaparinga - Hackham (117, 21); and Mitcham - West (116, 56).

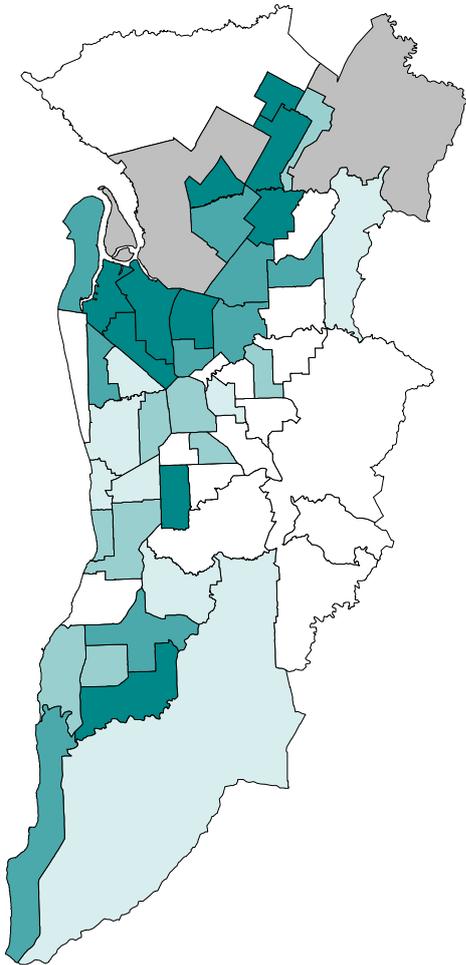
Lower than expected ratios were recorded for Adelaide Hills - Ranges and - Central; Mitcham - Hills and - North-East; Walkerville; Tea Tree Gully - North and - South; Charles Sturt - Coastal; Salisbury Balance; Playford - West; Burnside - North-East and - South-West; Campbelltown - East; Marion - South; Unley - West; Norwood Payneham St Peters - East; and Holdfast Bay - North.

### Country SA

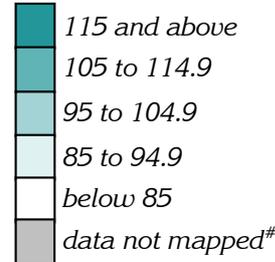
Highly elevated ratios were recorded in Unincorporated Far North (with over twice the number of cases expected from the State rate, an SR of 228\*, 8 cases); Coober Pedy (209\*, 11); Ceduna (191\*, 9); Whyalla (155\*\*, 56); Renmark Paringa - Paringa (147, 5); Mid Murray (146\*, 30); Tumby Bay (144, 10); Copper Coast (141\*, 44); Yorke Peninsula - South (141, 18) and - North (138, 31); Port Augusta (139, 31); Kingston (136, 7); and Goyder (135, 13) (Map 7.8).

SLAs with the lowest ratios were Mount Barker - Balance, Clare and Gilbert Valleys, Northern Areas, Adelaide Hills - North and Barossa - Angaston. Maralinga Tjarutja, Kimba and Unincorporated Pirie all recorded zero cases of lung cancer.

# Map 7.7 and Map 7.8: Lung cancer incidence for males, Metropolitan Adelaide and country SA, 2000 to 2005

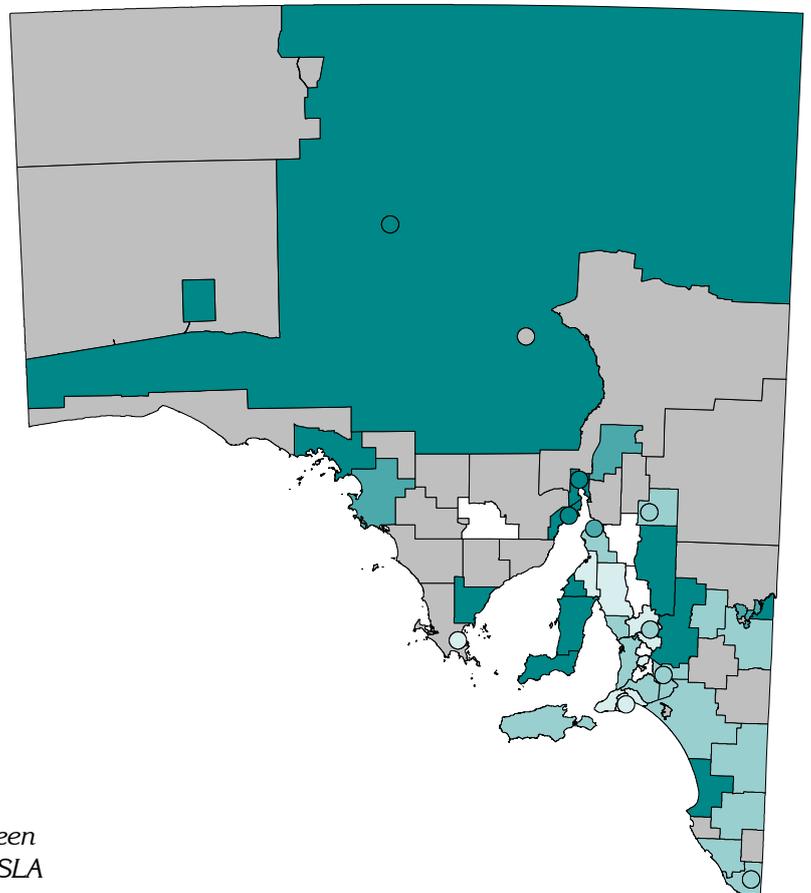


Standardised ratio (as an index)\*, by SLA

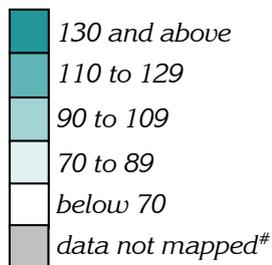


\* Expected numbers were derived by indirect standardisation, based on totals for the metropolitan region

# Data not mapped because there were between one to four cases over the time period; or the SLA has a population of less than 100



Standardised ratio (as an index)\*, by SLA



\* Expected numbers were derived by indirect standardisation, based on SA totals

# Data not mapped because there were between one to four cases over the time period; or the SLA has a population of less than 100

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