

4. Men's use of services

Introduction

This chapter focuses on men's use of health services. It is assumed that men are less interested in or concerned with their health, and therefore may be less likely to seek help for health related problems (4). Commonly, men are seen as infrequent consumers of health services and, as a consequence, may be blamed for their own poor health (6). When men do access health care, it is more often in relation to physical health problems, rather than emotional or mental health difficulties (15).

Community health services

Community health services offer early intervention, prevention, treatment, and health promotion and education services. Only clients attending for sessions on a one-to-one basis are included in this analysis (that is, the data exclude group sessions).

These data were not available for services in country South Australia on a basis consistent with that for Metropolitan Adelaide.

Community health services were used less by men than by women in each of the age groups shown (Figure 4.1), other than the 0 to 14 year age group. The difference is most notable in the 15 to 24, 25 to 34 and 35 to 44 year age groups. Male service use declined with each increase in age, before stabilising in the 55 to 74 year group, and increasing in the 75 year and over group.

Figure 4.2 shows the rate of community health service clients by sex and by the socioeconomic status of their usual address. Men made up a smaller proportion of clients than did women in each socioeconomic group, notably in the second most disadvantaged and most disadvantaged groups. Overall, community health service use increased with disadvantage, being almost 6 times higher in the most disadvantaged areas for men (rate ratio 5.73), and almost four times for women (a rate ratio of 3.91).

Community health service clients, Metropolitan Adelaide, 2005/06

Figure 4.1: Clients, by age and sex

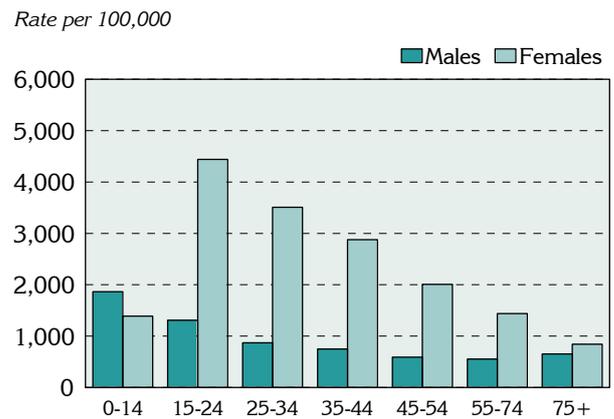


Figure 4.2: Clients by socioeconomic status and sex

Rate ratio: Male 5.73, Female 4.12

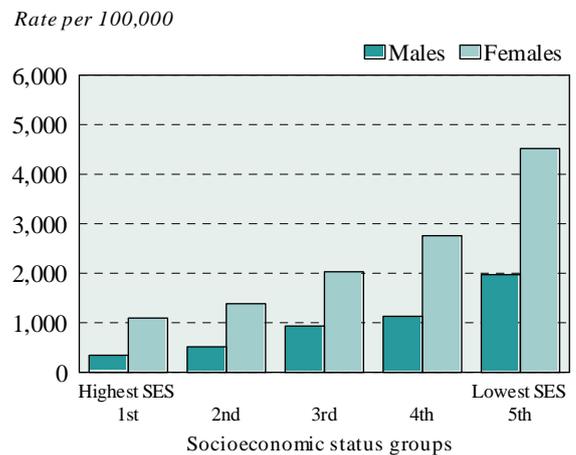


Table 4.1: Community health services, clients by age and sex, Metropolitan Adelaide, 2005/06

Age group (years)	Males		Females		RR M:F ¹
	No.	Rate ²	No.	Rate ²	
0 to 14	1,874	1,862.7	1,339	1,390.4	1.34
15 to 24	1,051	1,306.7	3,460	4,439.4	0.29
25 to 34	663	868.7	2,579	3,509.3	0.25
35 to 44	604	747.9	2,338	2,877.0	0.26
45 to 54	451	589.5	1,621	2,006.2	0.29
55 to 74	548	551.6	1,550	1,439.1	0.38
75+	222	651.5	443	840.4	0.78
Total			13,33		
	5,413	987.7	0	2,337.7	0.42

¹ RR M:F is the ratio of the rate for males to that for females

² Rate is the number of community health service clients per 100,000 population

Community health services, male clients, 2005/06

The number of males using community health services in the Southern Adelaide Health Region was 13% above the level expected from the rate for Metropolitan Adelaide (a standardised ratio of 113^{**}): at the district level, there were 86% more clients than expected from males living in the Outer Southern District (Table 4.2). Whereas rates in the Central Northern Adelaide Health Region were slightly lower than expected (an SR of 95^{**}), there was much variability at the sub-regional level, from 60% above average in the Western sub-region to 64% below average in the Central East sub-region.

Table 4.2: Community health services, male clients by Health Region, Metropolitan Adelaide, 2005/06

Health Region	Number	Rate ¹	SR ²
Central Northern Adelaide	3,615	934.3	95^{**}
Northern sub-region	1,624	914.9	93 ^{**}
Western sub-region	1,605	1,584.0	160 ^{**}
Central East sub-region	386	357.2	36 ^{**}
Southern Adelaide	1,798	1,115.9	113^{**}
Urban Beaches District	484	750.8	76 ^{**}
Hills District	228	608.7	62 ^{**}
Outer Southern District	1,086	1,834.5	186 ^{**}
Metropolitan Adelaide (excl. Gawler)	5,413	987.7	100

¹ Rate is the number of community health service clients per 100,000 population

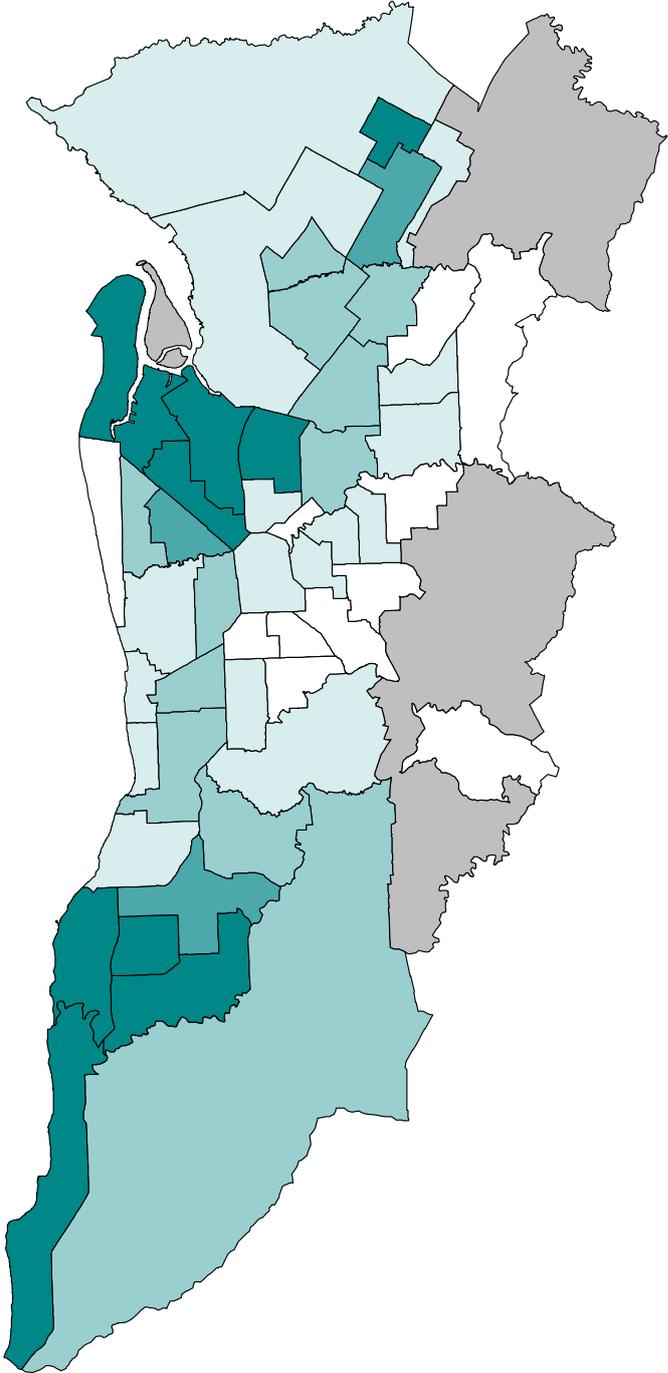
² SR = Standardised Ratio, percentage of variation in the region from the ratio of 100 in South Australia

Metropolitan Adelaide

SLAs with highly elevated rates of male clients were located in three distinct areas (Map 4.1), reflecting some of the areas of greatest socioeconomic disadvantage (Map 3.9, above). In the north-western suburbs, the Port Adelaide Enfield SLAs of - Park (nearly six times the expected level, an SR of 575^{**}, 435 clients), - Inner (249^{**}, 243), - Port (242^{**}, 128) and - Coast (175^{**}, 233); and Charles Sturt - North-East (256^{**}, 329), had consistently high ratios. In the outer south, the Onkaparinga SLAs of - North Coast (an SR of 264^{**}, 226 clients), - Hackham (219^{**}, 158), - South Coast (196^{**}, 252) and - Morphett (187^{**}, 223) also had elevated ratios. Playford - West Central (an SR of 206^{**}, 154 clients) was the only SLA in the outer north with a ratio in this range.

The lowest ratios in Metropolitan Adelaide, indicating fewer clients than expected from the rate for Metropolitan Adelaide, were Burnside - North-East and - South-West; Adelaide Hills - Central; Playford - Hills; Mitcham - North-East; Tea Tree Gully - Hills and - North; Unley - East and - West; Campbelltown - East; Walkerville, and Charles Sturt - Coastal.

Map 4.1: Community health services, male clients, Metropolitan Adelaide, 2005/06



Standardised ratio (as an index)*, by SLA

- 130 and above
- 110 to 129
- 90 to 109
- 70 to 89
- below 70
- data not mapped#

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

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

Community mental health services

Community mental health services offer a wide range of assistance and programs, ranging from acute crisis intervention and assessment, formal case management, rehabilitation and recovery programs, and peer and carer support networks. Community mental health services for adult clients are provided from a number of locations in Metropolitan Adelaide and country South Australia. Mental health services provided through CAMHS for children and adolescents and their families are shown overleaf.

The largest numbers of clients of community mental health services per head of population were those in the 25 to 34 and 35 to 44 year age groups (Figure 4.3 and Table 4.3). Men were more likely to be clients than were women in all except the 55 to 74, and the 75 year and over age groups. The pattern of use across the age groups is similar for men and women.

Clients of these services were also likely to be from the more disadvantaged areas, with rates for both males and females increasing with increasing socioeconomic disadvantage (Figure 4.4). The overall differential in rates between the most and least disadvantaged areas was more than double for both males and three times for females (rate ratios of 2.24 and 3.03, respectively).

Clients of community mental services were more predominant among the populations of the Major Cities, Outer Regional and Remote areas (Figure 4.5). The pattern of client rates in this graph is likely to be influenced by differences in the availability of services between the remoteness areas.

Community mental health service clients, South Australia, 2005/06

Figure 4.3: Clients by age and sex

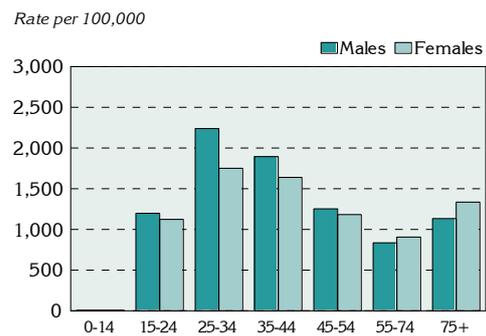


Figure 4.4: Clients by socioeconomic status and sex

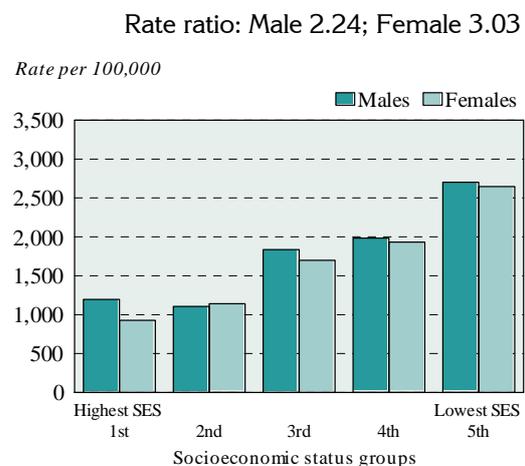


Figure 4.5: Clients by remoteness and sex

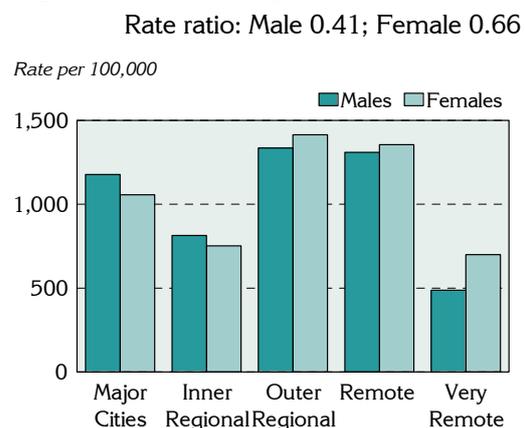


Table 4.3: Community mental health service clients by age and sex, South Australia, 2005/06

Age group (years)	Males		Females		RR M:F ¹
	No.	Rate ²	No.	Rate ²	
0 to 14	13	8.9	10	7.2	1.24
15 to 24	1,292	1,198.8	1,146	1,123.8	1.07
25 to 34	2,268	2,240.3	1,710	1,751.5	1.28
35 to 44	2,140	1,894.3	1,844	1,639.0	1.16
45 to 54	1,367	1,252.7	1,319	1,181.6	1.06
55 to 74	1,208	834.6	1,374	905.4	0.92
75+	536	1,133.2	944	1,334.8	0.85
Total	8,824	1,147.0	8,347	1,062.2	1.08

¹ RR M:F is the ratio of the rate for males to that for females

² Rate is the number of community mental health service clients per 100,000 population

Community mental health services, male clients, 2005/06

Males in the Central Northern Adelaide Health Region were 12% more likely to be clients of a community mental health service than expected from the State rate (a standardised ratio (SR) of 112^{**}): the ratio in the Western sub-region was 45% above average. In the Southern Adelaide Health Region, the ratio was 24% lower than expected (an SR of 76^{**}), with lower than expected numbers in the three districts. In country South Australia (with 4% fewer clients than expected), the ratio of male clients for both Northern & Far Western (an SR of 172^{**}) and Mid North (146^{**}) were elevated.

Table 4.4: Community mental health services, male clients by Health Region, South Australia, 2005/06

Health Region	Number	Rate ¹	SR ²
Central Northern Adelaide	5088	1,282.8	112^{**}
Northern sub-region	2070	1,207.7	105 [*]
Western sub-region	1810	1,666.4	145 ^{**}
Central East sub-region	1208	1,036.0	90 ^{**}
Southern Adelaide	1407	867.1	76^{**}
Urban Beaches District	674	981.6	86 ^{**}
Hills District	154	421.0	37 ^{**}
Outer Southern District	579	1,015.3	89 ^{**}
Metropolitan Adelaide (excl. Gawler)	6495	1,162.1	101
Hills Mallee Southern	433	760.5	66 ^{**}
South East	300	951.1	83 ^{**}
Wakefield	509	1,043.1	91 [*]
Mid North	240	1,676.8	146 ^{**}
Riverland	115	707.3	62 ^{**}
Eyre	230	1,342.7	117 [*]
Northern & Far Western	502	1,970.3	172 ^{**}
Country South Australia (incl. Gawler)	2329	1,106.7	96

¹ Rate is the number of community mental health service clients per 100,000 population

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

Metropolitan Adelaide

The overall distribution at the SLA level of male clients of community mental health services is consistent with the pattern of socioeconomic disadvantage shown in Map 4.2. There were almost three times more clients than expected in the SLA of Adelaide (an SR of 278^{**}, 359 clients), and almost two and a half times more clients than expected in Playford - Elizabeth (246^{**}, 332). Highly elevated rates were also found in the western SLAs of Port Adelaide, in - Port (an SR of 227^{**}, 149 clients), - Coast (203^{**}, 326), - Park (170^{**}, 151) and - East (164^{**}, 314). Charles Sturt - North-East (175^{**}, 275), Playford - West Central (an SR of 202^{**}, 143 clients), in the north, and Onkaparinga - North Coast (161^{**}, 162), in the south, also had higher ratios than expected.

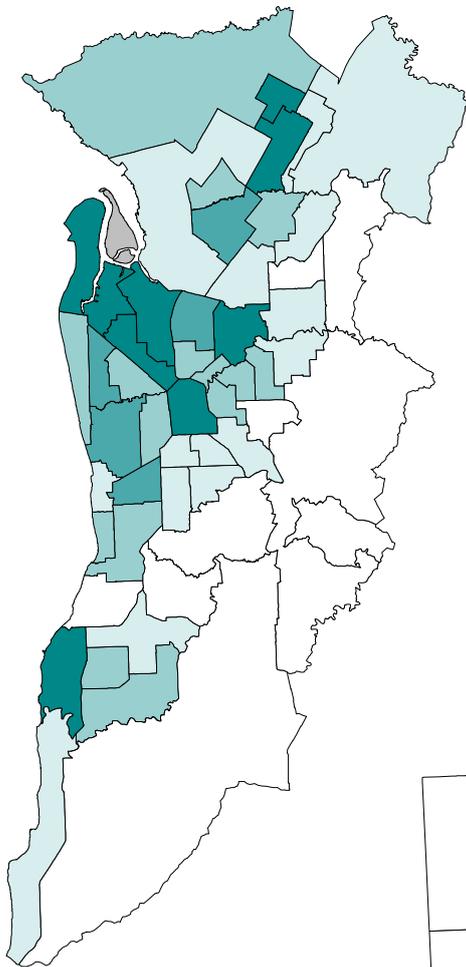
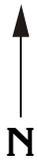
The north-eastern SLAs of Tea Tree Gully - Central and - Hills; Adelaide Hills - Central and - Ranges; Burnside - North-East; and Mitcham - Hills; and in the south, Onkaparinga - Hills and - Reservoir; and Marion - South, all had many fewer clients than expected.

Country SA

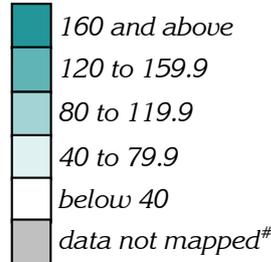
Highly elevated ratios were recorded for males in Peterborough (over four and a half times the expected number of clients, an SR of 457^{**}, 45 clients), Port Augusta (278^{**}, 221), Port Lincoln (215^{**}, 173), Whyalla (193^{**}, 235) and Port Pirie Districts - City (188^{**}, 138) using community mental health services (Map 4.3). There were also higher than expected ratios for Flinders Ranges (184^{*}, 16) and Yorke Peninsula - South (150^{*}, 32).

A number of SLAs had over 70% fewer clients than expected: these were Adelaide Hills - North (21, 8), Roxby Downs (25, 7), Mount Barker Balance (28, 13) and Grant (29, 14). Other SLAs with lower than expected ratios included Karoonda East Murray, Naracoorte and Lucindale, Adelaide Hills Balance, The Coorong, Unincorporated Far North, Robe, Orroroo/Carrieton, Streaky Bay, Alexandrina - Strathalbyn, and Loxton Waikerie - East.

Map 4.2 and Map 4.3: Community mental health services, male clients, Metropolitan Adelaide and country SA, 2005/06

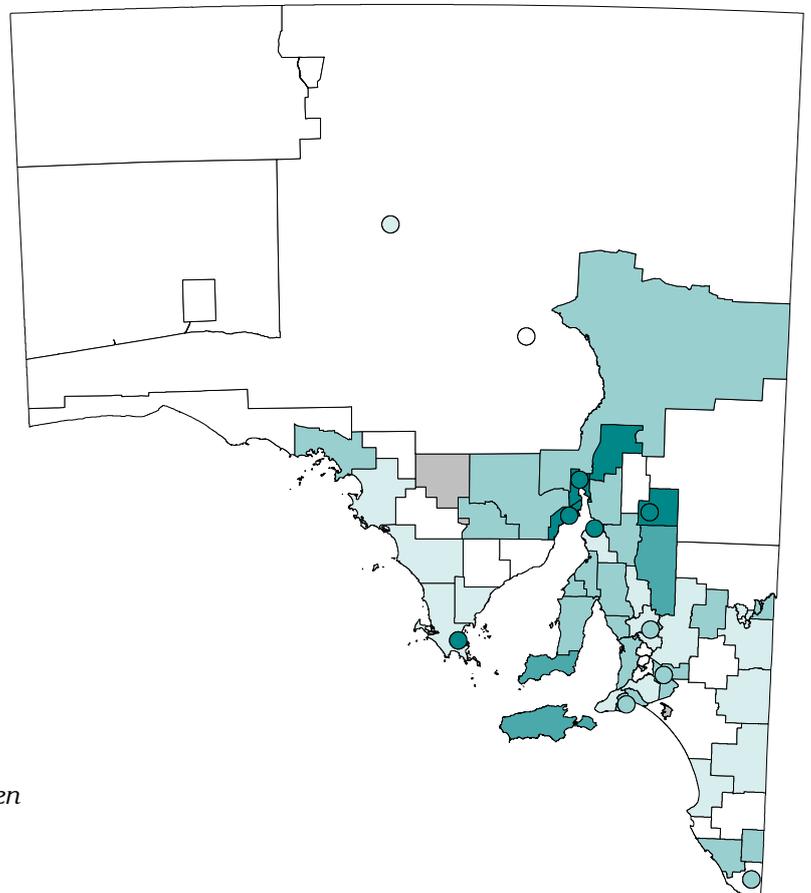


Standardised ratio (as an index)*, by SLA

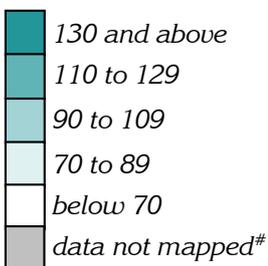


* Expected numbers were derived by indirect standardisation, based on totals for the metropolitan region

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

Child and Adolescent Mental Health Service

The Child and Adolescent Mental Health Service (CAMHS) provides a confidential counselling service for children and young people and their families: the majority (99.4%) of children are aged from 0 to 19 years. Services are provided by child and family specialists including psychologists, psychiatrists, social workers, nurses, occupational therapists and speech pathologists who are experienced in helping children with emotional, behavioural or mental health difficulties, and their families.

The use of CAMHS by children and adolescents varies by age and sex, although male rates were higher than those for females in all but the 15 to 19 year age group (Figure 4.6 and Table 4.5).

There is a clear pattern of increasing rates of use of these services with increasing disadvantage, with the rate of male clients in the most disadvantaged groups almost six times the rate in the least disadvantaged group (Figure 4.7). Similarly, female rates were over four times higher in the most disadvantaged group. Across all groups, except the highest SES group, rates were higher for boys than for girls.

The highest rates of clients were in the Outer Regional and Remote areas for both males and females (Figure 4.8). Even so, the ratios between the rates in the most and least disadvantaged areas were substantial, being 1.50 for males and 1.63 for females. The pattern of client rates in this graph is likely to be influenced by differences in the availability of services between the remoteness areas.

Child and Adolescent Mental Health Service clients, South Australia, 2005/06

Figure 4.6: Clients by age and sex

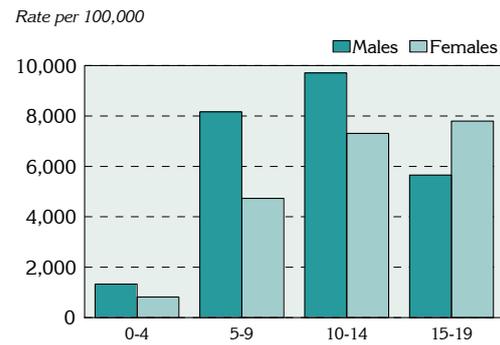


Figure 4.7: Clients by socioeconomic status and sex

Rate ratio: Male 5.77; Female 4.37

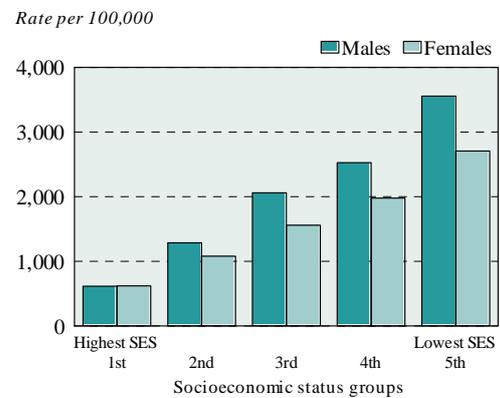


Figure 4.8: Clients by remoteness and sex

Rate ratio: Male 1.50; Female 1.63

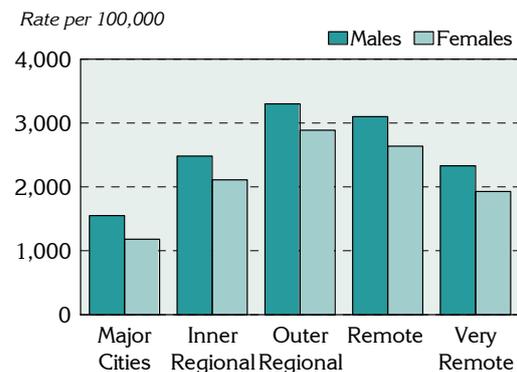


Table 4.5: Child and Adolescent Mental Health Service clients by age and sex, South Australia, 2004/05 to 2006/07

Age group (years)	Males		Females		RR M:F ¹
	No.	Rate ²	No.	Rate ²	
0 to 4	754	443.2	471	271.4	1.63
5 to 9	4,280	2,721.4	2545	1577.3	1.73
10 to 14	4,866	3,236.7	3749	2435.9	1.33
15 to 19 ³	2,174	1,885.9	3071	2599.5	0.73
Total	12,074	2,036.1	9,836	1,620.6	1.26

¹ RR M:F is the ratio of the rate for males to that for females

² Rate is the average number of child and adolescent mental health service clients per 100,000 population over a three-year period

³ Includes a small number of clients aged 20 to 24 years

Child and Adolescent Mental Health Service, male clients, 2005/06

There were fewer male CAMHS clients in Central Northern Adelaide (a standardised ratio (SR) of 73**, 4,201 clients) and Southern Adelaide (SR 81**, 151) Health Regions than expected from the State rate: this is because of the larger than expected number of male clients from country South Australia (42% more). In this context, the number of male clients from Outer Southern District was highly elevated, with an SR of 129**, compared with the Metropolitan average of 76**. Ratios were elevated, and some highly elevated, in all health regions, with the exception of Wakefield.

Table 4.6: Child and Adolescent Mental Health Service, male clients by Health Region, South Australia, 2004/05 to 2006/07

Health Region	Number	Rate ¹	SR ²
Central Northern Adelaide	4,201	1,489.0	73**
Northern sub-region	2,424	2,013.2	99
Western sub-region	1,230	1,636.5	80**
Central East sub-region	547	631.8	31**
Southern Adelaide	2,151	1,648.0	81**
Urban Beaches District	660	1,285.4	63**
Hills District	308	901.0	44**
Outer Southern District	1,183	2,629.4	129**
Metropolitan Adelaide (excl. Gawler)	6,352	1,539.3	76**
Hills Mallee Southern	1,410	2,727.0	134**
South East	692	2,746.5	135**
Wakefield	834	1,917.3	94
Mid North	420	3,144.6	154**
Riverland	675	4,942.8	243**
Eyre	463	3,312.9	163**
Northern & Far Western	724	3,821.8	188**
Country South Australia (incl. Gawler)	5,218	2,893.5	142**

¹ Rate is the number of CAMHS clients per 100,000 population

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

Metropolitan Adelaide

The overall distribution at the SLA level of male clients of CAMHS (Map 4.4) is consistent with the pattern of socioeconomic disadvantage shown in Map 3.9, above. SLAs with elevated ratios included Playford - West Central (an SR of 270**, 203 clients) and - Elizabeth (239**, 360); Port Adelaide Enfield - Park (178**, 178) and Salisbury Balance (145**, 86) in the north; and Onkaparinga - Hackham (169**, 194), - Morphett (152**, 296) and - South Coast (144**, 271), in the south.

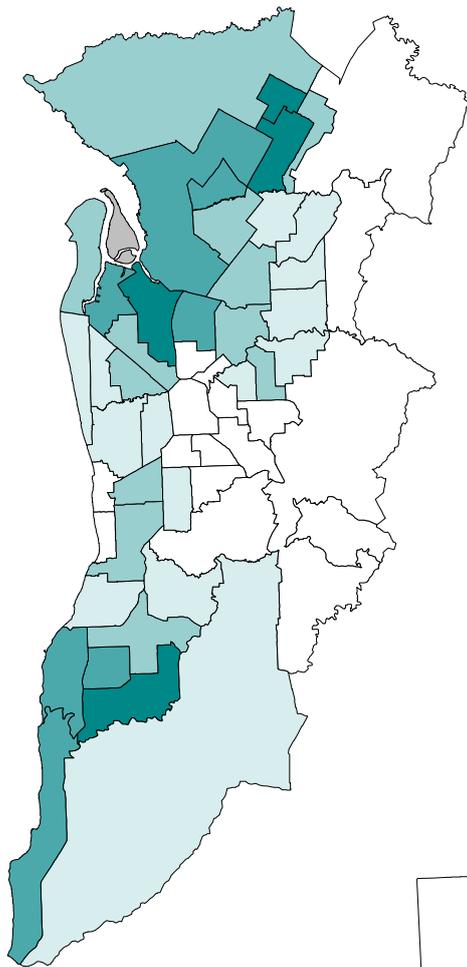
A number of SLAs in the eastern suburbs had the lowest ratios in Metropolitan Adelaide: they included the SLA of Adelaide; Burnside - South-West and - North-East; Norwood Payneham St Peters - West; Unley - East and - West; Mitcham - North-East; Prospect; and Walkerville.

Country SA

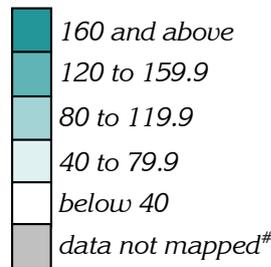
The ratio in Roxby Downs was three and a half times that expected from the State rate (an SR of 354**, 73 clients); and in Berri & Barmera - Berri, the ratio was more than three times that expected (311**, 172). All of the larger towns had elevated ratios: Murray Bridge (an SR of 286**, 391 clients), Port Lincoln (274**, 274), Port Pirie Districts - City (258**, 281), Port Augusta (243**, 277), Peterborough (238**, 47), Mount Gambier (185**, 315) and Whyalla (174**, 282).

The lowest ratios were recorded for Barunga West, Unincorporated North, Adelaide Hills - North, Anangu Pitjantjatjara, Kangaroo Island, Grant, Unincorporated Far North, Mount Remarkable, Orroroo/Carrieton, Port Pirie Districts Balance, Yankalilla and Kingston.

Map 4.4 and Map 4.5: Child and Adolescent Mental Health Service, male clients, Metropolitan Adelaide and country SA, 2005/06



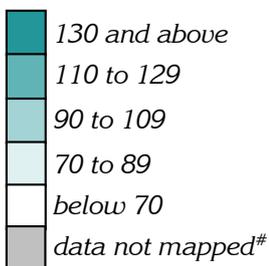
Standardised ratio (as an index)*, by SLA



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

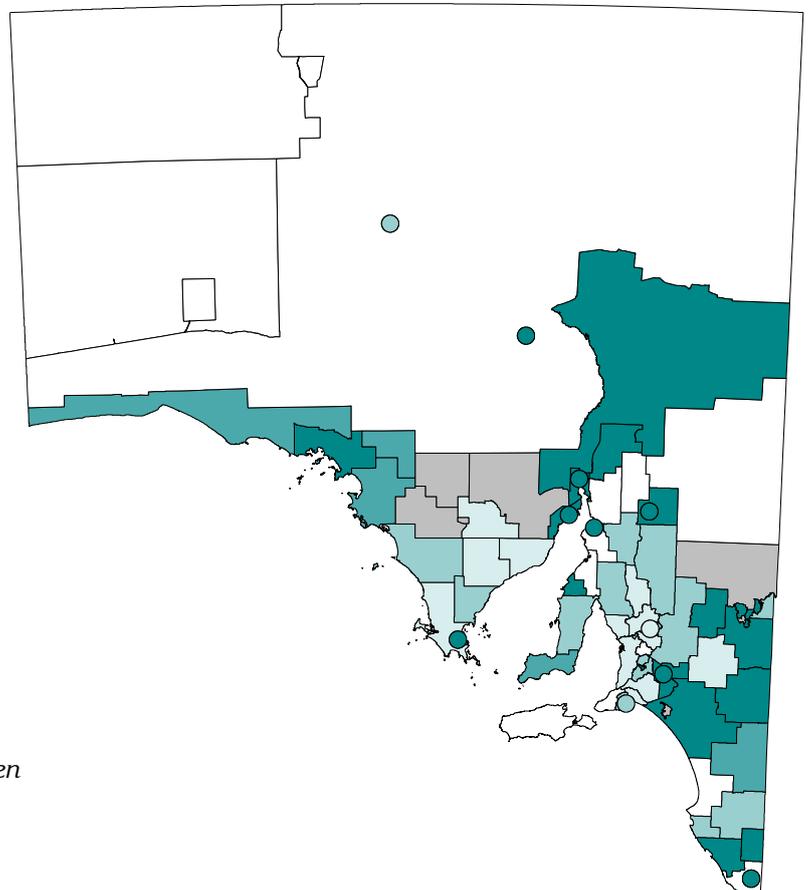
[#] Data not mapped because there were between one to four clients over the time period; or the SLA has a population of less than 100

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 clients over the time period; or the SLA has a population of less than 100



Domiciliary care services

Domiciliary Care Service clients receive services which are either centre-based (e.g. podiatry) or are provided in the home, and, without which, clients would be at risk of institutionalisation.

These data were not available for country South Australia.

There were relatively few clients under 45 years of age (Figure 4.9 and Table 4.7). The rate of clients increased for both males and females after 45 years, with the majority of clients in the 75 year and over age group. There were more females than males receiving services in each age group.

Males were less likely to be clients of these services than females in each SES group, with the gap generally increasing with increasing socioeconomic disadvantage (Figure 4.10). Both male and female client rates increased with increased disadvantage, other than the rate of male clients in the 3rd group. Overall, rates for males in the most disadvantaged areas were 34% above those in the highest SES areas; and, for females, the differential was over two and a half times (a rate ratio of 2.48).

Domiciliary care service clients, Metropolitan Adelaide, 2006

Figure 4.9: Clients by age and sex

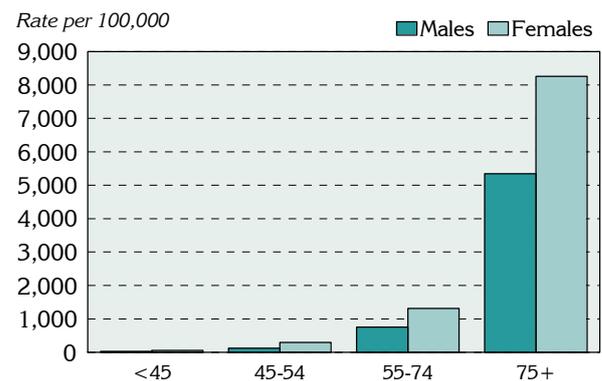


Figure 4.10: Clients by socioeconomic status and sex

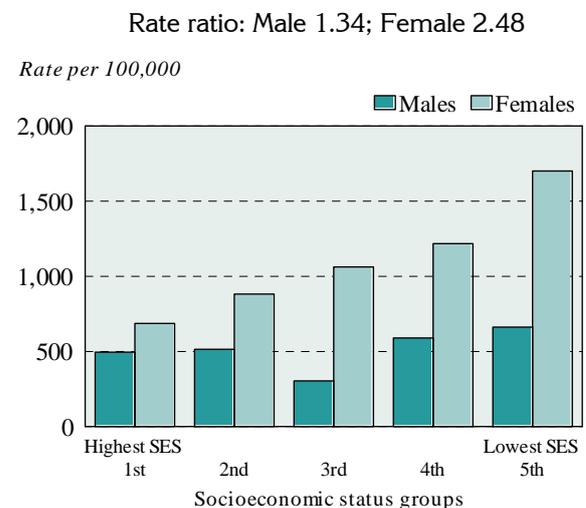


Table 4.7: Domiciliary care service clients by age and sex, Metropolitan Adelaide, 2006¹

Age group (years)	Males		Females		RR M:F ²
	No.	Rate ³	No.	Rate ³	
0 to 14	16	15.8	19	19.6	0.81
15 to 24	28	34.3	27	33.8	1.01
25 to 34	14	18.3	38	51.1	0.36
35 to 44	44	54.3	96	117.5	0.46
45 to 54	96	124.8	241	295.9	0.42
55 to 74	749	753.2	1,432	1,314.6	0.57
75 and over	1,825	5,341.9	4,369	8,255.7	0.65
Total	2,772	503.5	6,222	1,079.9	0.47

¹ Estimated Residential Population (ERP) average for 2006

² RR M:F is the ratio of the rate for males to that for females

³ Rate is the number of domiciliary care service clients per 100,000 population

Domiciliary care services, male clients, 2006

There were relatively more male clients of domiciliary care services living in the Central Northern Adelaide Health Region (9% above the expected level, a standardised ratio (SR) of 109**), and relatively fewer in Southern Adelaide Health Region (20% below the expected level (an SR of 80**). Within the metropolitan regions, the Northern sub-region had the most highly elevated ratio, with 33% more clients than expected (an SR of 133**); and Hills District had the lowest, with 36% fewer clients than expected (an SR of 64**).

Table 4.8: Domiciliary care services, male clients by Health Region, Metropolitan Adelaide, 2006

Health Region	Number	Rate ¹	SR ²
Central Northern Adelaide	2,096	546.6	109**
Northern sub-region	898	667.9	133**
Western sub-region	713	559.4	111**
Central East sub-region	485	399.1	79**
Southern Adelaide	676	404.5	80**
Urban Beaches District	346	416.2	83**
Hills District	116	323.1	64**
Outer Southern District	214	444.8	88
Metropolitan Adelaide (excl. Gawler)	2,772	503.5	100

¹ Rate is the number of Domiciliary care service clients per 100,000 population

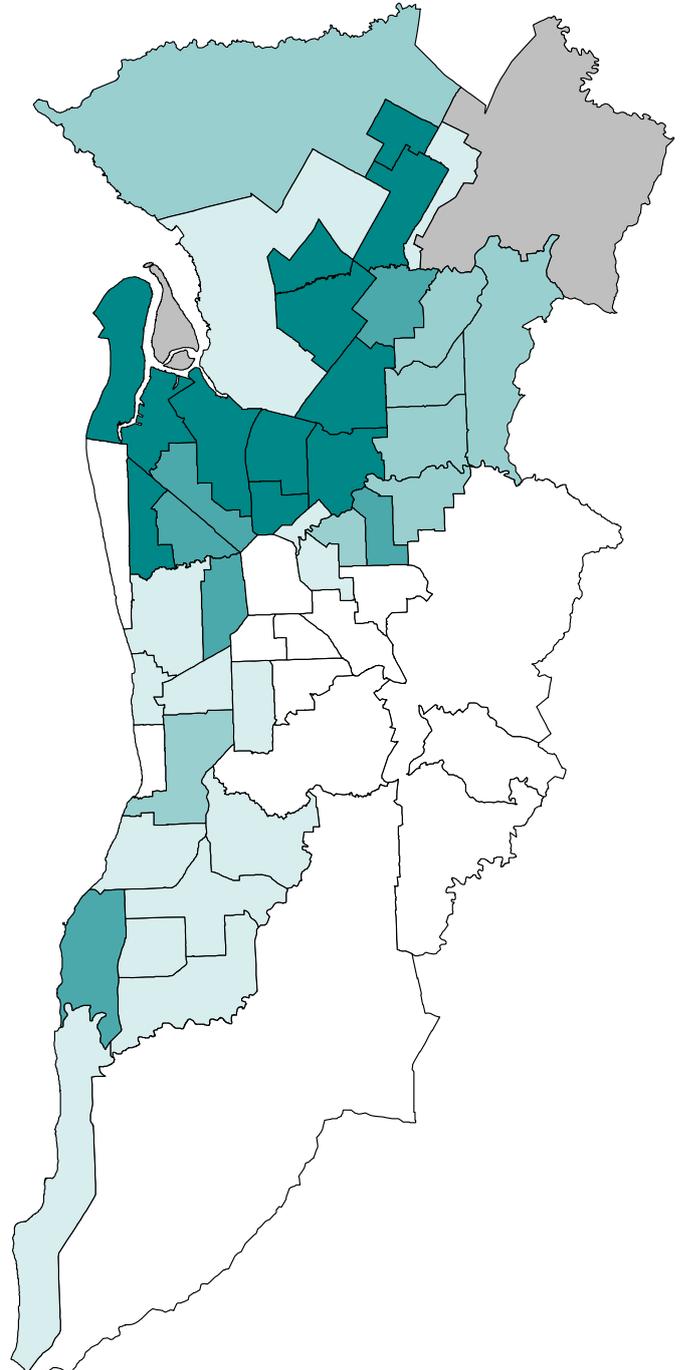
² SR = Standardised Ratio, percentage of variation in the region from the ratio of 100 in South Australia

Metropolitan Adelaide

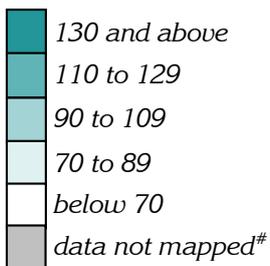
Elevated ratios were found throughout the outer northern and north western SLAs of Playford - Elizabeth (an SR of 196**, 130 clients) and - West Central (169**, 35); Port Adelaide Enfield - East (162**, 131), - Park (153**, 63), - Port (149**, 41), - Inner (141**, 86) and - Coast (132**, 98); Prospect (156**, 71); Salisbury - South-East (153**, 111), - Inner North (144**, 41) - Central (132**, 72); and in Charles Sturt - Inner West (131**, 104) (Map 45.6).

There were 74% fewer clients than expected in Adelaide Hills - Ranges (an SR of 26, 5 clients). Other SLAs with less than expected ratios included Burnside - North-East and - South-West; Mitcham - Hills and - North-East; Unley - East and - West; Holdfast Bay - South; Charles Sturt - Coastal; Adelaide; Playford - Hills and Onkaparinga - Hills.

Map 4.6: Domiciliary care services, male clients, Metropolitan Adelaide, 2006



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 clients over the time period; or the SLA has a population of less than 100

Royal District Nursing Service

The Royal District Nursing Service (RDNS) provides a range of health care services, including general and specialised nursing, to clients with the dual objectives of improving their health status whilst also enabling them to enjoy the benefits of remaining at home, thus retaining their independence and an active role in their health care.

The proportion of the male population who were clients of these services was higher than that of the female population in all age groups (Figure 4.11 and Table 4.9). The rates of clients increased with age, with a substantially higher rate for both men and women in the 75 year and over age group.

Client rates were lowest in the highest socioeconomic group for both males and females (Figure 4.12), with the highest rate for males in the second highest SES group, where rates for males and women were the same. Overall, there was a differential in rates between the lowest and highest SES areas of 63% for males and 47% for females.

Royal District Nursing Service clients, Metropolitan Adelaide, 2005/2006

Figure 4.11: Clients by age and sex

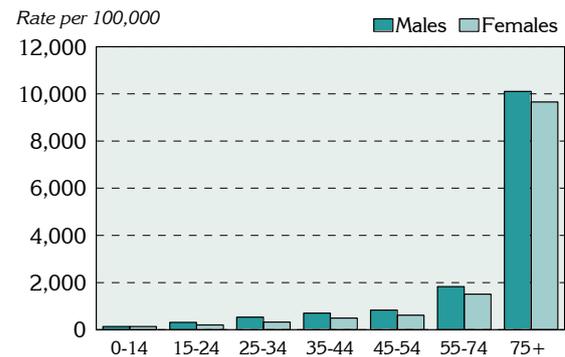


Figure 4.12: Clients by socioeconomic status and sex

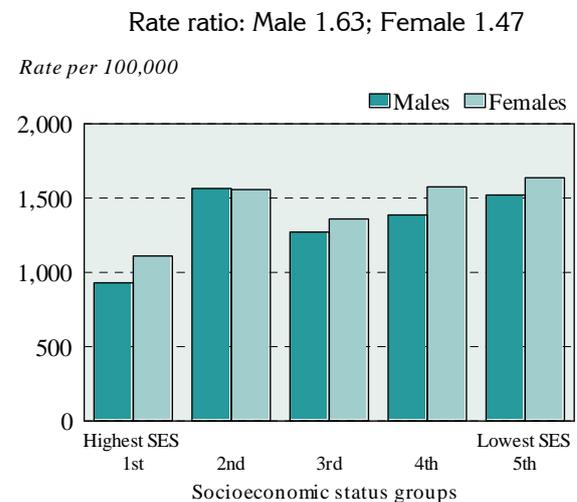


Table 4.9: Royal District Nursing Service clients by age and sex, Metropolitan Adelaide, 2005/2006¹

Age group (years)	Males		Females		RR M:F ²
	No.	Rate ³	No.	Rate ³	
0 to 14	137	136.3	131	136.1	1.00
15 to 24	253	315.2	159	203.6	1.55
25 to 34	410	537.6	240	327.2	1.64
35 to 44	572	708.4	404	497.2	1.42
45 to 54	635	830.2	500	618.3	1.34
55 to 74	1,815	1,826.8	1,627	1,510.5	1.21
75 and over	3,443	10,105.3	5,091	9,657.6	1.05
Total	7,266	1,325.8	8,151	1,429.5	0.93

Royal District Nursing Service, male clients, 2005/2006

The number of male clients of the Royal District Nursing Service (RDNS) varied little across the regions and sub-regions/districts, with the exception of Hills District, with 21% fewer clients than expected from the metropolitan rate, and Outer Southern District, with 10% more than expected.

Table 4.10: Royal District Nursing Service, male clients by Health Region, Metropolitan Adelaide, 2005/2006

Health Region	Number	Rate ¹	SR ²
Central Northern Adelaide	5,009	1,315.5	99
Northern sub-region	1,794	1,264.7	95*
Western sub-region	1,594	1,326.6	100
Central East sub-region	1,622	1,364.8	103
Southern Adelaide	2,257	1,349.5	102
Urban Beaches District	1,137	1,421.5	107*
Hills District	382	1,040.8	79**
Outer Southern District	739	1,459.5	110**
Metropolitan Adelaide (excl. Gawler)	7,266	1,325.8	100

¹ Rate is the number of RDNS clients per 100,000 population

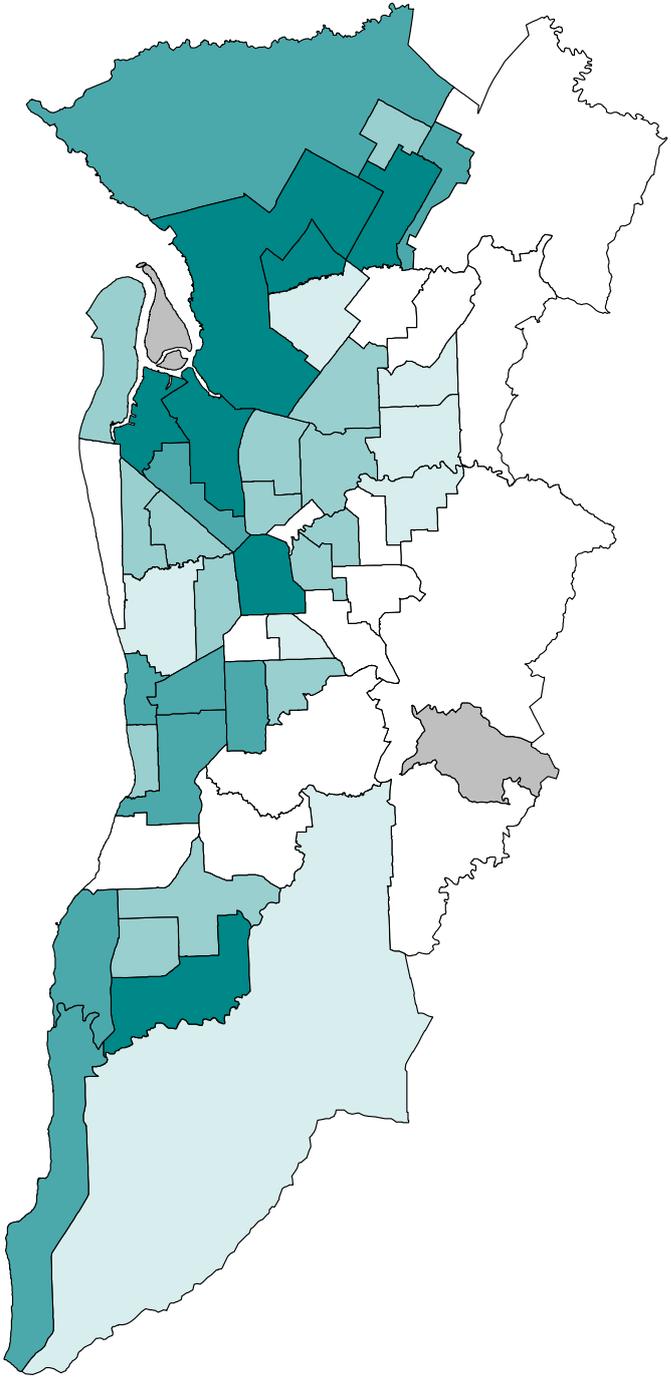
² SR = Standardised Ratio, percentage of variation in the region from the ratio of 100 in South Australia

Metropolitan Adelaide

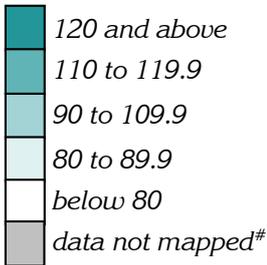
There were 7,226 RDNS male clients in Metropolitan Adelaide (an SR of 100). The most highly elevated ratios were recorded in the SLA of Adelaide (a standardised ratio (SR) of 515**, 527 clients); in the north-western SLAs of Port Adelaide Enfield - Port (133**, 96) and - Park (121*, 132); and further north in Salisbury Balance (127, 51) and - Inner North (124*, 125); and Playford - Elizabeth (125**, 205) (Map 4.7). There was also a higher than expected ratio in Onkaparinga - Hackham (an SR of 132**, 94 clients).

Lower than expected ratios were found across a number of north-eastern, eastern and south-eastern SLAs, including Adelaide Hills - Central and - Ranges; Tea Tree Gully - North and - Hills; Burnside - South-West and - North-East; Walkerville; Mitcham - Hills; Playford - Hills; Unley - West; Salisbury - North-East and Campbelltown - West. Marion - South, Onkaparinga - Reservoir and Charles Sturt - Coastal also had lower than expected ratios.

Map 4.7: Royal District Nursing Service, male clients, Metropolitan Adelaide, 2005/2006



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 clients over the time period; or the SLA has a population of less than 100

Community dental services and dental health

Dental decay and gum disease are costly health burdens both economically and for sufferers; they are also some of the most preventable health conditions.

This section contains information about the number of children and adults attending clinics of the South Australian Dental Service (SADS) and its School Dental Service (SDS). It also includes a measure of dental health for 12 year old children attending an SDS clinic: the DMFT score for children at this age with Decayed, Missing or Filled Teeth.

Note that young people aged 18 years can attend either the SADS or the SDS.

Note: The participation data include a small proportion of repeat visits, where a patient has attended more than one clinic in a year – that is, multiple attendances within a clinic are counted as ‘one’, but matching to individuals is not possible between clinics. Attendances at the Dental Hospital have been excluded.

Children and young people aged 1 to 18 years, 2005/06

Figure 4.13 shows the proportion of the population aged 1 to 18 years (by age group) attending the South Australian Dental Service, including a School Dental Service (SDS) clinic, in 2005/06.

Participation was greatest at ages 5 to 9 and 10 to 14 years. The decline at ages 15 to 18 years is likely to reflect both an age-related decrease in participation, and the lower proportion of the population at these ages attending a school and therefore not participating in the program (calls to the clinics are made through schools).

There was a marked socioeconomic gradient in participation rates, with 32 % more males and 39% more females in the most disadvantaged areas attending a clinic (Figure 4.14).

Participation increased strongly with remoteness from the Major Cities areas through to the Remote areas, with a marked drop in the Very Remote areas (Figure 4.15). This marked decline is likely, in part, to reflect the lower level of access to services in these areas. The rates in the Remote areas are higher than in the Major Cities areas by 50.0% for males and 60.5% for females.

Attendance of children and young people at a government dental clinic, South Australia, 2005/06

Figure 4.13: By age and sex

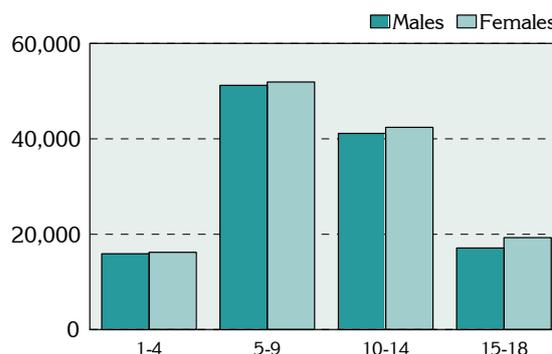


Figure 4.14: By socioeconomic status of area and sex

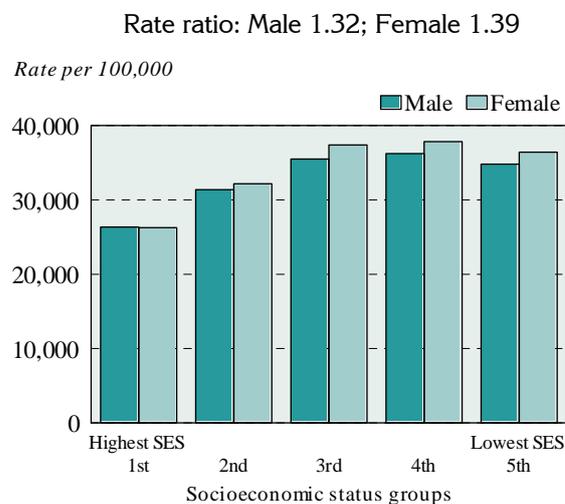
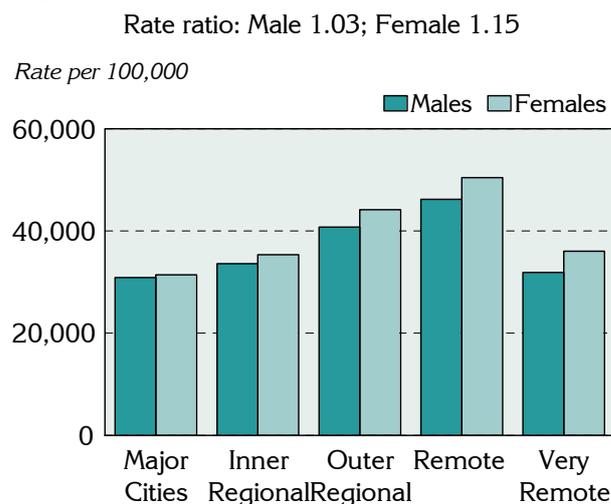


Figure 4.15: By remoteness and sex



Attendance of males, 1 to 18 years of age, at a government dental clinic, 2005/06

There were relatively fewer young males from the Central Northern Adelaide Health Region (11% fewer than expected, a standardised ratio (SR) of 89**) attending a clinic of the South Australian Dental Service (SADS) or its School Dental Service (SDS), and relatively more from the Southern Adelaide Health Region (3% above the expected level (an SR of 103**). Within the regions, Central East sub-region had the lowest ratio, with 36% fewer patients than expected (an SR of 64**); and Outer Southern District had the highest, with 17% more clients than expected (an SR of 117**).

Standardised ratios were generally above average at the health region level in country SA, with the most highly elevated ratios in South East, Eyre and Riverland (with SRs of 141**, 139** and 133**, respectively).

Table 4.11: Attendance of males, 1 to 18 years of age, at an SDS clinic by Health Region, South Australia, 2005/06

Health Region	Number	Rate ¹	SR ²
Central Northern Adelaide	25,476	29,496.9	89**
Northern sub-region	13,643	31,575.1	96**
Western sub-region	7,080	33,975.2	103*
Central East sub-region	4,753	21,293.3	64**
Southern Adelaide	12,726	33,906.3	103**
Urban Beaches District	4,073	30,184.3	91**
Hills District	3,032	32,026.0	97
Outer Southern District	5,621	38,574.5	117**
Metropolitan Adelaide (excl. Gawler)	38,202	30,832.6	93**
Hills Mallee Southern	4,686	31,300.9	95**
South East	3,950	46,641.0	141**
Wakefield	4,831	36,625.4	111**
Mid North	1,349	32,451.3	98
Riverland	1,936	44,111.0	133**
Eyre	2,158	46,063.1	139**
Northern & Far Western	2,552	37,414.6	113**
Country South Australia (incl. Gawler)	21,462	37,864.1	115**

¹ Rate is the number of SDS clinic attendances per 100,000 population

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

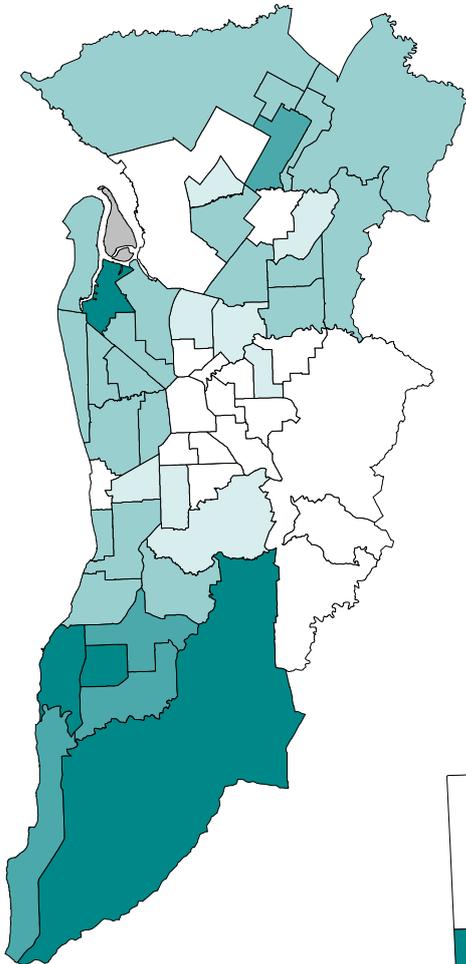
Metropolitan Adelaide

Attendance of young males at a government dental clinic was very low in the higher socioeconomic SLAs, and only moderate in many low socioeconomic SLAs: some of the SLAs with the lowest socioeconomic status also had very low participation (Map 4.8). For example, the highest rate was in Port Adelaide Enfield - Port (an SR of 137**, 490 patients) and the next highest ratios were all in the outer south, in the Onkaparinga SLAs of - Hills, - Morphett, - North Coast, - South Coast and - Hackham. Compared with these ratios, the highly disadvantaged population in the SLA of Playford - Elizabeth had a moderately elevated ratio of 112**, with a very low SR of 78** in Salisbury Balance. Adelaide, Walkerville and Norwood Payneham St Peters had the lowest ratios, with 50% or fewer clients than expected from the State rate.

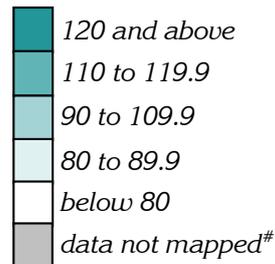
Country SA

The map of attendance at a government dental clinic of young males from country South Australia (Map 4.9) was also inconsistent with the pattern seen in many other maps in this report, or with the pattern of socioeconomic disadvantage seen in the map of the IRSD (Map 3.10). The most highly elevated standardised ratios were found in both higher SES areas such as Roxby Downs, and lower SES areas such as Whyalla. The highest of many very elevated ratios were in Streaky Bay, Cleve, Le Hunte, Kimba and Elliston on the Eyre Peninsula; Kangaroo Island; and in Wattle Range - West, Kingston and Robe in the South East; and in Unincorporated Riverland. Some of these areas have relatively large Aboriginal populations, and the high rates may, in part, indicate a particular effort to provide services to these young people. The lowest rates of participation were in Anangu Pitjantjatjara, The Coorong and Unincorporated Flinders, with lack of access to services likely to be in part the reason for this outcome.

Map 4.8 and Map 4.9: Attendance of males, 1 to 18 years of age, at a government dental clinic, Metropolitan Adelaide and country SA, 2005/06

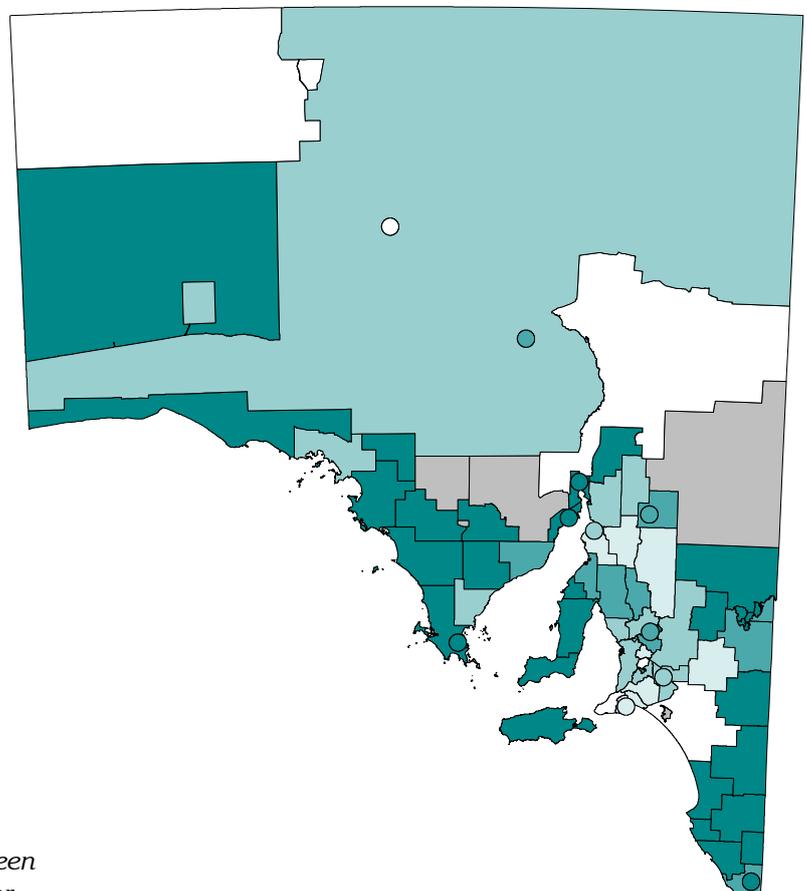


Standardised ratio (as an index)*, by SLA

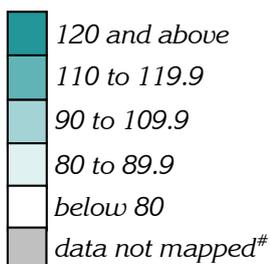


* Expected numbers were derived by indirect standardisation, based on totals for the metropolitan region

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

Adults aged 18 years and over, 2005/06

The use of public dental services through the SA Dental Service (SADS) for the adult population increased with age, with the most marked increases at older ages (Figure 4.16). Participation rates were higher for women than for men at ages up to 55 to 64 years, were equal in the 65 to 74 year age group, and then were greater for men.

There was a substantial socioeconomic gradient in participation rates for adults, of over two and a half times more men and over three times more women in the most disadvantaged areas attending a SADS clinic (Figure 4.17).

Participation increased strongly with remoteness, with differentials in rates between the Very Remote and Major Cities areas of 79% for men and 93% for women (Figure 4.18).

Attendance of adults, aged 18 years and over, at a SADS clinic, South Australia, 2005/06

Figure 4.16: By Age and sex

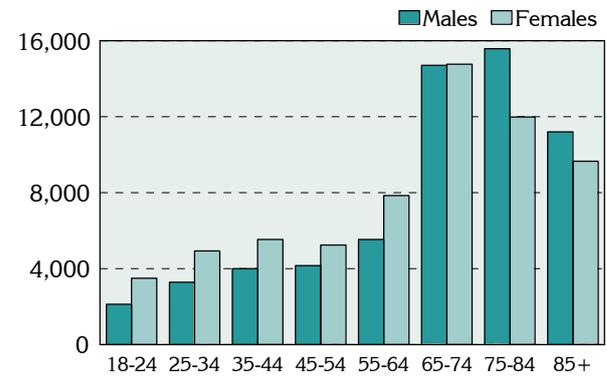


Figure 4.17: By socioeconomic status of area and sex

Rate ratio: Male 2.65; Female 3.28

Rate per 100,000

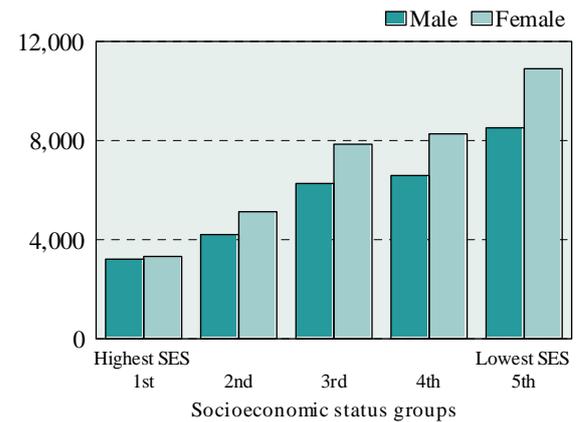
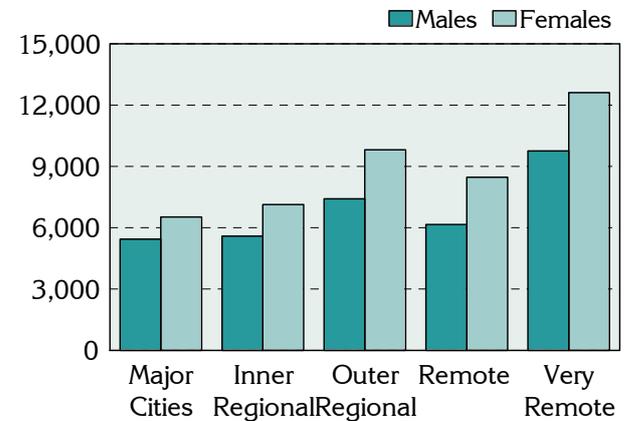


Figure 4.18: By remoteness and sex

Rate ratio: Male 1.79; Female 1.93

Rate per 100,000



Attendance of males, aged 18 years and over, at a SADS clinic, 2005/06

There were relatively fewer adult males (aged 18 years and over) from the Central Northern Adelaide and Southern Adelaide Health Regions attending a South Australian Dental Service (SADS) clinic (both with 6% fewer adults participating than expected, a standardised ratio (SR) of 94^{**}). Within the regions, Hills District and Central East sub-regions had the lowest ratios, with 56% and 36% fewer male clients than expected, respectively; and Outer Southern District had the highest, with 26% more clients than expected (an SR of 126^{**}).

Country SA had an overall participation ratio of 15% above the State rate, and standardised ratios at the health region level above average in all but South East, with the most highly elevated ratios in Northern & Far Western, Riverland and Mid North (with SRs of 163^{**}, 132^{**} and 128^{**}, respectively).

Table 4.12: Dental participation of males aged 18 years and over by Health Region, South Australia, 2005/06

Health Region	Number	Rate ¹	SR ²
Central Northern Adelaide	15,869	5,410.1	94^{**}
Northern sub-region	7183	6,039.1	105 ^{**}
Western sub-region	5429	6,313.4	110 ^{**}
Central East sub-region	3257	3,684.9	64 ^{**}
Southern Adelaide	6,704	5,422.6	94^{**}
Urban Beaches District	3038	5,542.7	96 [*]
Hills District	716	2,525.2	44 ^{**}
Outer Southern District	2950	7,290.3	126 ^{**}
Metropolitan Adelaide (excl. Gawler)	22,573	5,413.8	94
Hills Mallee Southern	3,003	6,005.0	104[*]
South East	1,195	4,992.8	87^{**}
Wakefield	2,750	6,523.5	113^{**}
Mid North	972	7,355.9	128^{**}
Riverland	996	7,599.2	132^{**}
Eyre	864	6,420.8	111^{**}
Northern & Far Western	1,710	9,410.6	163^{**}
Country South Australia (incl. Gawler)	11,490	6,601.7	115^{**}

¹ Rate is the number of SDS clinic attendances per 100,000 population

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

Metropolitan Adelaide

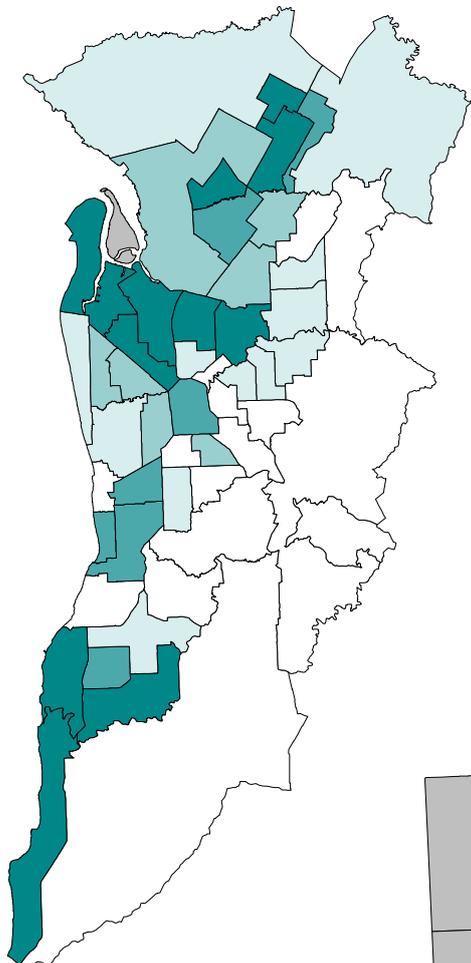
The distribution across Metropolitan Adelaide of participation rates for adult males (Map 4.10) was highly consistent with the pattern of socioeconomic disadvantage as described by the IRSD (Map 3.9), and showed the dichotomy between SLAs whose populations are users of public (health) services, and those whose populations are not. The most highly elevated ratios were recorded for men in the Port Adelaide Enfield SLAs of - Park, - Port, - East, - Inner and - Coast (with SRs of 176^{**}, 144^{**}, 133^{**}, 132^{**} and 132^{**}, respectively); the Onkaparinga SLAs of - Hackham, - North Coast and - South Coast (170^{**}, 166^{**} and 135^{**}, respectively); Charles Sturt - North-East (152^{**}); Salisbury - Inner North (147^{**}); and Playford - Elizabeth and - West Central (144^{**} and 136^{**}, respectively).

A large number of SLAs also had ratios indicating participation at rates of less than 50% of the State average. These were largely located near to the city, as well as to the east, north-east and south-east, with some on the coast.

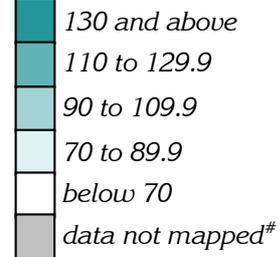
Country SA

There were also distinct areas of high and low participation rates in country SA, with highly elevated ratios in many of the towns and more remote areas of the State (Map 4.11). SLAs with more than twice the expected number of adult clients were Unincorporated West Coast (with an SR of 288^{**}, 25 patients), Coober Pedy (281^{**}, 170), Yorke Peninsula - South (257^{**}, 314), Unincorporated Whyalla (237^{**}, 15) and Streaky Bay (226^{**}, 115). The larger country towns with highly elevated ratios were Port Augusta (185^{**}, 545), Whyalla (177^{**}, 839), Peterborough (176^{**}, 94), Port Pirie Districts - City 160^{**}, 515) and Victor Harbor (157^{**}, 615). SLAs with the lowest ratios were widely spread.

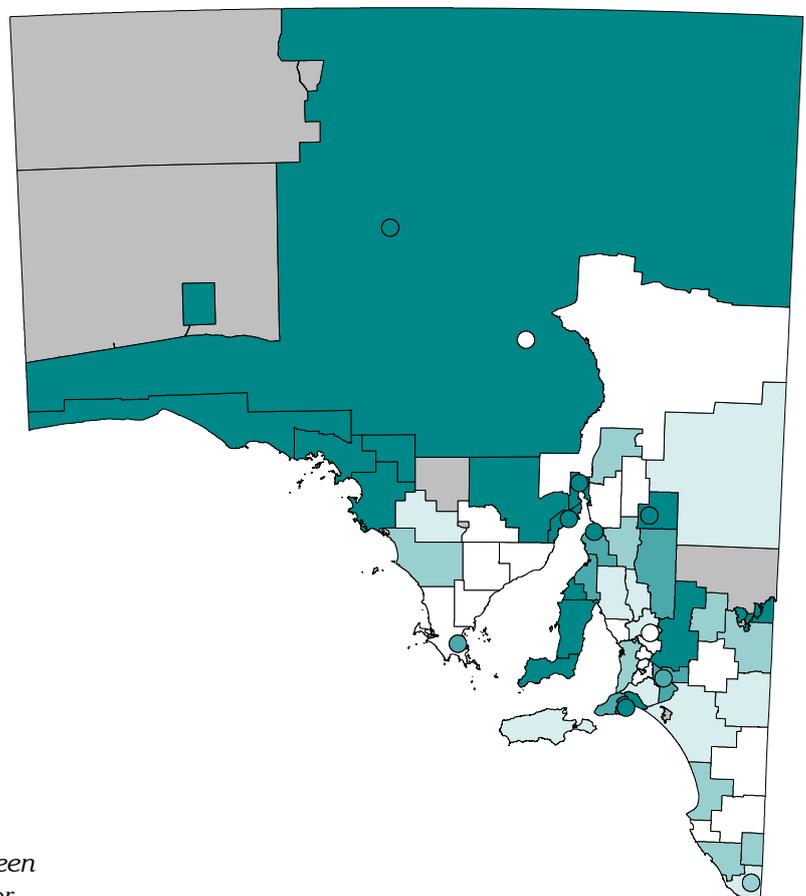
Map 4.10 and Map 4.11: Attendance of men, aged 18 years and over, at a SADS clinic, Metropolitan Adelaide and country SA, 2005/06



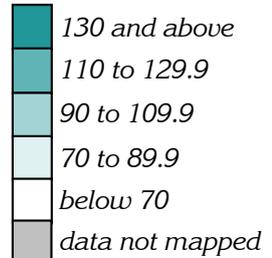
Standardised ratio (as an index)*, by SLA



* Expected numbers were derived by indirect standardisation, based on totals for the metropolitan region
 # Data not mapped because there were between one to four admissions 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 admissions over the time period; or the SLA has a population of less than 100

Dental health of 12 year old children: with decayed, missing or filled teeth, 2004-06

Overall, Australian children experience comparatively low levels of dental decay. However, a minority of children experience extensive decay and carry most of the burden of this disease (44). Fluoride in drinking water plays a crucial role in the prevention of dental caries. While some water supplies outside the metropolitan regions have optimal levels of fluoride to protect against dental caries, many do not (45).

Children in the highest socioeconomic group had lower rates of decayed missing or filled teeth, compared with children in the lowest socioeconomic group, for both boys (32% higher) and girls (13% higher) (Figure 4.19). Overall, the rates of decayed missing and filled teeth were higher for females, attending the School Dental Service, in all socioeconomic groups.

The dental health of 12 year old children with decayed, missing or filled teeth is shown in Figure 5.14 by remoteness (Figure 4.20.) With the exception of the Remote Areas, male rates were lower than those for females, and substantially so in the Very Remote areas.

Dental health of 12 year old children: with decayed, missing or filled teeth, South Australia, 2004-06

Figure 4.19: By socioeconomic status of area and sex

Rate ratio: Male 1.32; Female 1.13

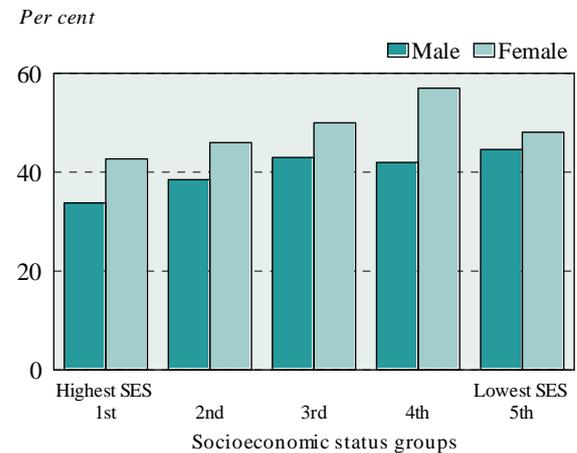
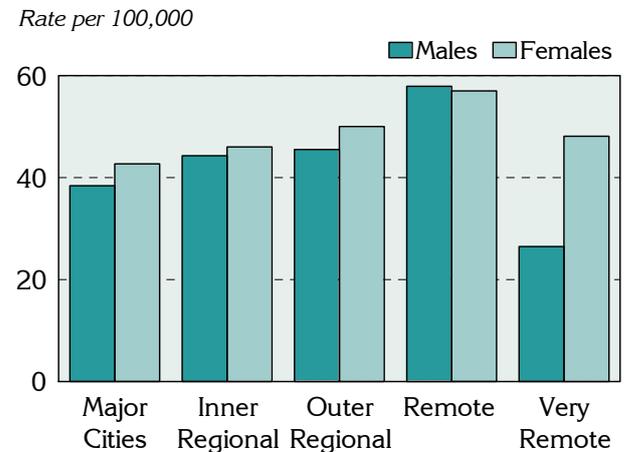


Figure 4.20: By remoteness and sex

Rate ratio: Male 0.69; Female 1.13



Dental health of 12 year old boys: with decayed, missing or filled teeth, 2004-06

In South Australia, 40.9% of 12 year old boys had decayed, missing or filled teeth. In Central Northern Adelaide (39.8%, 1,513) and Southern Adelaide (35.2%, 686) Health Regions, there were lower proportions of boys with these dental problems. At the sub-region/district level, Northern sub-region and Urban Beaches District had the highest proportions, with 41.7% and 38.8%, respectively.

In country SA, the proportion of the population of 12 year old boys who had decayed, missing or filled teeth was markedly higher than the average in Eyre (56.7%, 89 children): rates in all other regions were within 10% of the average, other than Mid North, with a notably low proportion of 38.6%.

Table 4.13: Dental health of 12 year old boys: with decayed, missing or filled teeth by Health Region, South Australia, 2004-06

Health Region	Number	Per cent
Central Northern Adelaide	1,513	39.8
Northern sub-region	828	41.7
Western sub-region	419	38.5
Central East sub-region	266	36.7
Southern Adelaide	686	35.2
Urban Beaches District	208	38.8
Hills District	155	30.4
Outer Southern District	323	35.8
Metropolitan Adelaide (excl. Gawler)	2,199	38.3
Hills Mallee Southern	271	45.8
South East	315	46.6
Wakefield	327	43.2
Mid North	74	38.6
Riverland	125	46.2
Eyre	89	56.7
Northern & Far Western	160	50.4
Country South Australia (incl. Gawler)	1,361	46.0

Metropolitan Adelaide

The highest proportions of the population of boys aged 12 years who had decayed, missing or filled teeth were in the SLAs of Salisbury Balance (54.4%, 21 boys), - Inner North (50.7%, 76) and - Central (46.3%, 74); Adelaide Hills - Ranges (50.3%, 26); Mitcham - West (48.9%, 55); and Playford - Hills (46.0%, 12) and - East Central (46.0%, 73) (Map 4.12).

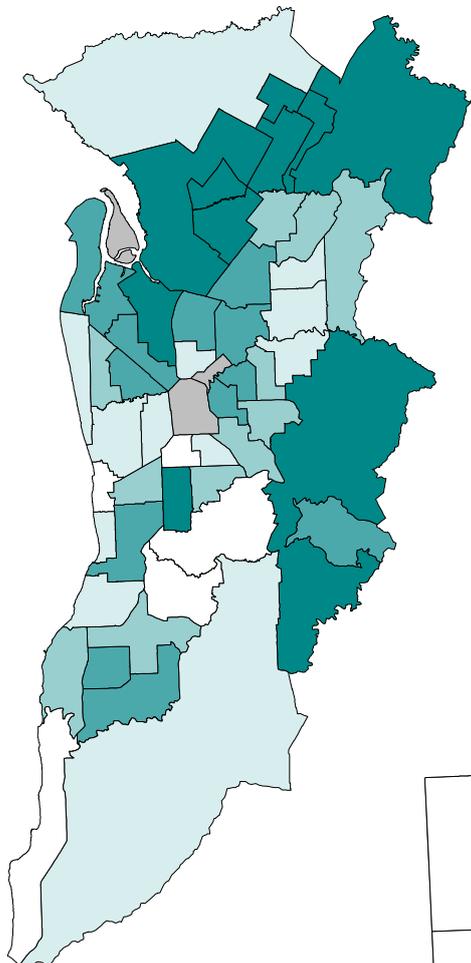
The SLAs with the lowest proportions included Unley - West, Holdfast Bay - North, Mitcham - Hills, and Onkaparinga - South Coast and - Reservoir.

Country SA

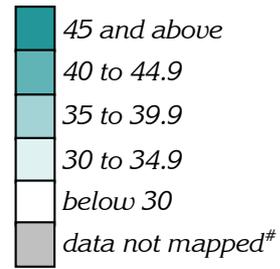
Yorke Peninsula - South (65.8%, 5), Kangaroo Island (64.3%, 36 boys), Port Lincoln (61.7%, 65) and Flinders Ranges (60.1%, 12) all had proportions of close to two thirds of boys with decayed, missing or filled teeth (Map 4.13). High proportions were also found in Goyder (55.9%, 19 boys), Whyalla (54.4%, 86), Berri & Barmera - Berri (53.4%, 27), Yankalilla (53.1%, 7), Robe (52.6%, 8), Wattle Range - East (52.2%, 21) and Alexandrina - Strathalbyn (51.2%, 18).

The lowest proportions were in The Coorong, Adelaide Hills - North, Port Pirie Districts Balance, and Clare and Gilbert Valleys.

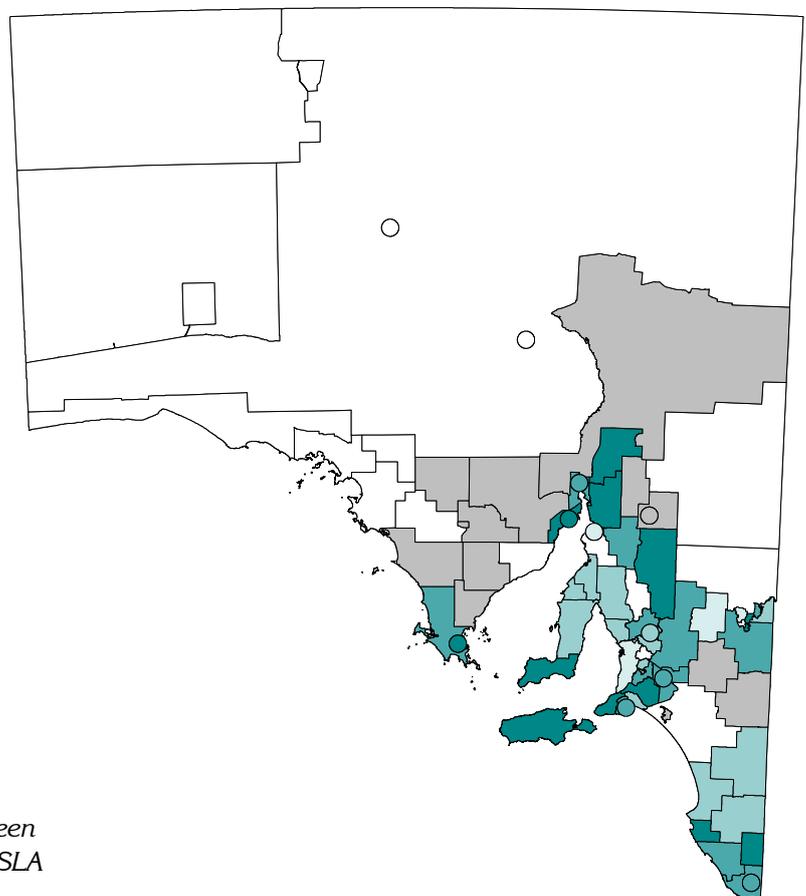
Map 4.12 and Map 4.13: Dental health of 12 year old boys: with decayed, missing or filled teeth, Metropolitan Adelaide and country SA, 2004-06



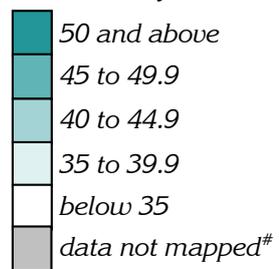
Per cent children with decayed, missing or filled teeth, by SLA



[#] 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



Per cent children with decayed, missing or filled teeth, by SLA



[#] 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

General medical practitioner services

GPs comprise the largest group of health practitioners providing primary care services in South Australia, with 7.7 million services provided under Medicare in 2004-05. GPs are frequently the first point of contact with the health care system for the approximately 85% of the population who visit them each year (48). As such, they are a significant group of providers of health care.

The data reported here are of services funded under Medicare. The data are provided for 2004/05, as data from later periods were not available to this project by sex.

All services

When compared with females, males used fewer GP services in each age group, other than at 0 to 14 years (Figure 4.21 and Table 4.14). There was a notable difference in service use between males and females from the ages of 15 through to around 64 years, after which the difference narrowed. Both men's and women's service use increased with age.

The use of GP services increased in a step-wise fashion when viewed by SES, with males in the lowest SES areas using 30% more services than those in the highest SES areas (Figure 4.22). The pattern for females was similar, with a slightly smaller SES differential (24%).

Male use of these services was notably lower than that for females across all remoteness classes, and declines with increasing remoteness (Figure 4.23). Service use for both males and females was 21% lower in the Very Remote areas, when compared with the Major Cities areas.

General practitioner services, South Australia, 2004/05

Figure 4.21: Services by age and sex

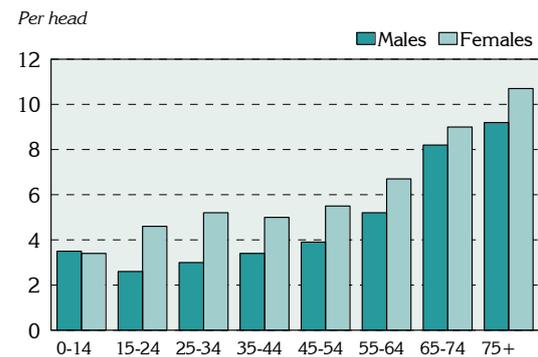


Figure 4.22: Services by socioeconomic status and sex

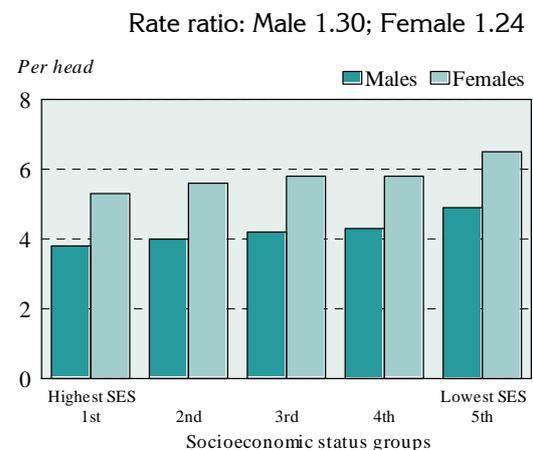


Figure 4.23: Services by remoteness and sex

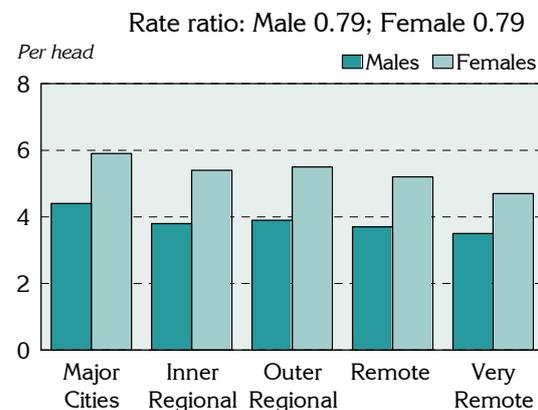


Table 4.14: GP services by age and sex, South Australia, 2004/05

Age group (years)	Males		Females		RR M:F ¹
	No.	Rate ²	No.	Rate ²	
0 to 14	509,785	349,266	474,982	341,706	1.02
15 to 24	277,336	262,219	456,729	459,026	0.57
25 to 34	308,853	303,631	510,673	524,146	0.58
35 to 44	381,434	338,182	561,117	500,207	0.68
45 to 54	422,666	393,355	604,196	549,791	0.72
55 to 74	445,903	518,567	585,665	671,553	0.77
75+	456,505	816,587	547,098	903,212	0.90
Total	423,240	915,935	747,230	1,069,932	0.86

¹ RR M:F is the ratio of the rate for males to that for females

² Rate is the number of GP services per 100,000 population

Source: Calculated on data provided by SA Health from a file purchased from Medicare Australia.

General medical practitioner services, males, 2004/05

In Metropolitan Adelaide, males used 4% more GP services than expected (a standardised ratio (SR) of 104**), with 6% more services than expected in the Central Northern Adelaide Health Region (an SR of 106**), and 1% fewer than expected in Southern Adelaide (99**). The variation at the sub-region/district level was greater, from 11% more services than expected in the Northern and Western sub-regions, to 13% fewer in Hills District.

For country SA, all but the Northern & Far Western Health Region (with an SR of 106**) had fewer services than expected.

Table 4.15: GP services, males, by Health Region, South Australia, 2004/05

Health Region	Number	Rate ¹	SR ²
Central Northern Adelaide	1,696,640	447,718.0	106**
Northern sub-region	761,585	468,300.9	111**
Western sub-region	500,681	470,622.8	111**
Central East sub-region	434,374	395,105.9	93**
Southern Adelaide	676,324	417,319.5	99**
Urban Beaches District	291,813	425,863.1	101**
Hills District	138,802	368,966.9	87**
Outer Southern District	245,709	439,377.9	104**
Metropolitan Adelaide (excl. Gawler)	2,372,964	438,612.0	104**
Hills Mallee Southern	239,194	391,267.7	92**
South East	97,439	309,678.5	73**
Wakefield	213,586	404,368.7	95**
Mid North	66,747	412,312.1	97**
Riverland	58,791	345,717.0	82**
Eyre	66,975	380,219.0	90**
Northern & Far Western	110,028	448,320.9	106**
Country South Australia (incl. Gawler)	852,760	386,269.1	91**

¹ Rate is the number of GP services per 100,000 population

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

Metropolitan Adelaide

The number of GP services received by males was above the State average rate in the north-west SLAs of Playford - Elizabeth (SR of 140**, 74,364 services), - West Central (135**, 34,577), - East Central (132**, 51,577) and - West (118**, 21,428); Salisbury - Inner North (137**, 66,356) and - Central (122**, 65,305); Port Adelaide Enfield - Park (132**, 42,132) and - Coast (116**, 68,825); and Charles Sturt - North-East (122**, 65,305) and - Inner East (115**, 53,348) (Map 4.14). Services were also higher in the SLAs of Adelaide (117**, 36,499) and Onkaparinga - North Coast (115**, 44,449).

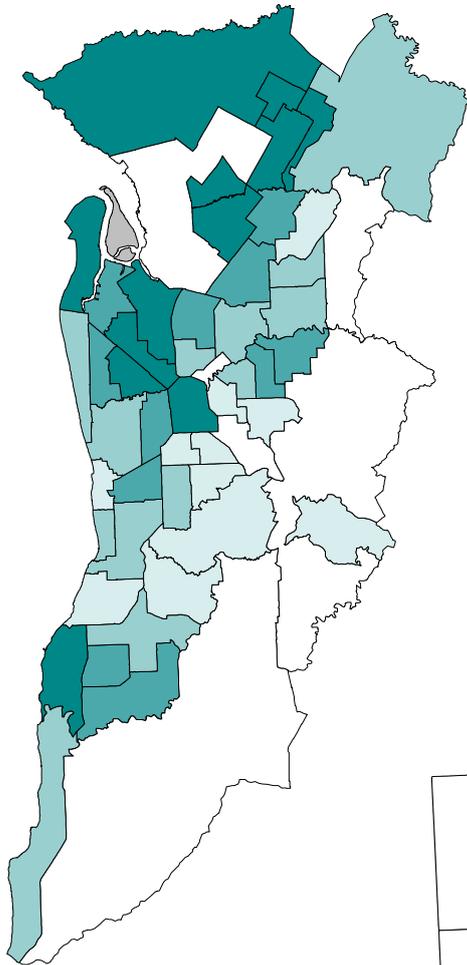
Lower than expected ratios were recorded in Burnside - South-West and - North-East, Walkerville, Tea Tree Gully - Hills, Salisbury Balance, Onkaparinga - Hills, Adelaide Hills - Ranges and Mitcham - North-East.

Country SA

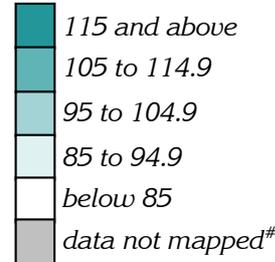
There were elevated ratios of GP services to males in Unincorporated Riverland (an SR of 159**, 470 services), Unincorporated Lincoln (133, 38), Le Hunte (121**, 3,651), Coober Pedy (119**, 6,468), Port Augusta (118**, 33,814) and Whyalla (117**, 52,466) (Map 4.15).

A number of SLAs in the Northern & Far Western Health Region had fewer GP services to males than expected, including, Unincorporated Pirie, Unincorporated Flinders Ranges, Roxby Downs, Unincorporated Far North, Flinders Ranges, Northern Areas and Unincorporated Whyalla in the northern parts of the State. In the south east, Grant, Robe, Kingston, Mount Gambier, Wattle Range - West, Naracoorte and Lucindale, and Kangaroo Island also had lower than expected ratios. Other areas with low ratios included Karoonda East Murray, Loxton Waikerie - West and - East, Renmark Paringa - Renmark and - Paringa, Ceduna, Streaky Bay, Lower Eyre Peninsula, Mid Murray, Yorke Peninsula - South, Unincorporated West Coast, Adelaide Hills - North and Balance, Mount Barker Balance, and Light.

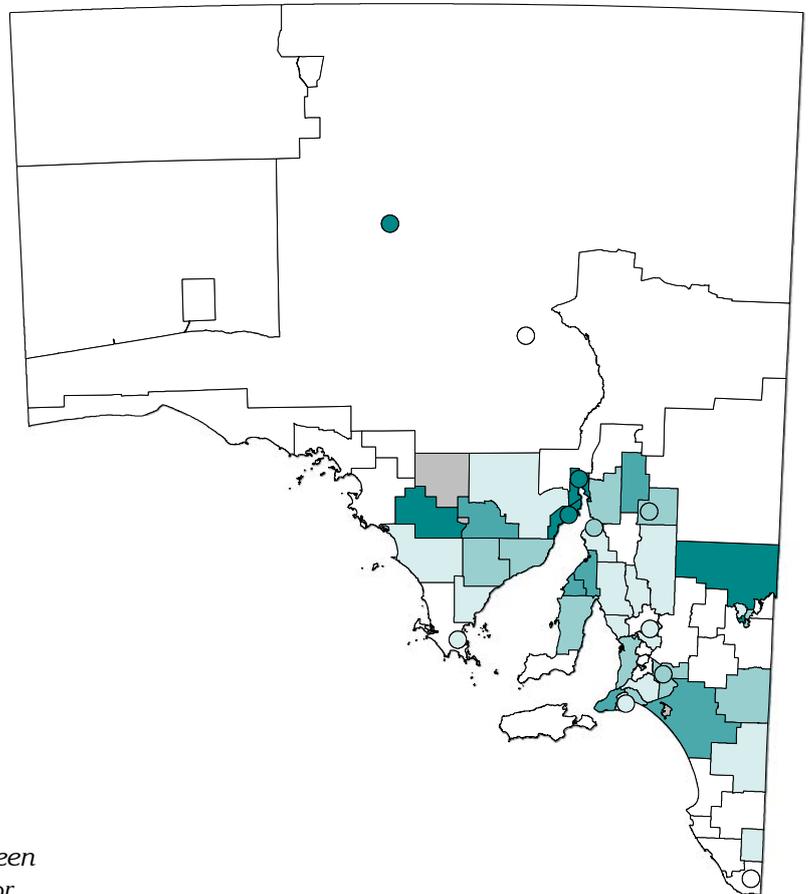
Map 4.14 and Map 4.15: General medical practitioner services, males, Metropolitan Adelaide and country SA, 2004/05



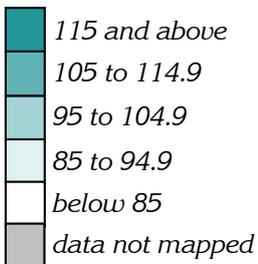
Standardised ratio (as an index)*, by SLA



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 admissions over the time period; or the SLA has a population of less than 100

45 Year Old Health Check

The 45 Year Old Health Check was introduced in November 2006, as part of the Australian Better Health Initiative (ABHI) announced by the Council of Australian Governments (COAG) in February 2006. ABHI aims to enhance the capacity of the health system to promote good health and reduce the burden of chronic disease.

The health check is available to men and women aged 45 to 49 years, and is undertaken by general medical practitioners and funded as an item under the Medical Benefits Schedule.

The aim of this once-only health check is to assist with the prevention of chronic disease and to enable early intervention strategies to be put in place where appropriate. A health check at this stage of life can assist patients to make the necessary behavioural changes to prevent or delay the onset of chronic disease.

Although there was a 23% higher uptake of this health check in the lowest SES areas in Metropolitan Adelaide, the rates varied markedly, with the lowest rate in the fourth SES group, and the highest rate in the middle group (Figure 4.24). Rates in all SES areas were lower in country SA than in Metropolitan Adelaide, and there was no clear association with socioeconomic status.

Uptake of the health check decreased sharply with remoteness (Figure 4.25), with the rate in the Very Remote areas 52% below that in the Major Cities areas. By far the lowest rate for this health check was for people in the Remote areas.

Note re lack of separate data for men:

Data were not available to examine differences in the geographic distribution of uptake of this service by sex, whether in SES groupings, by remoteness, or mapped by SLA.

The regional data that were available are therefore presented for persons. While the overall rate of health checks for men and women was similar, with 6.0% of men having a health check and 6.4% of women, the situation was not uniform when examined geographically. For example, there were marked differences between the health regions, with the greatest differences recorded in some country health regions (Table 4.16, overleaf).

45 Year Old Health Check, South Australia, November 2006 to June 2007

Figure 4.24: Health check by socioeconomic status of area

Rate ratio: Adelaide 1.23, Country SA 1.05

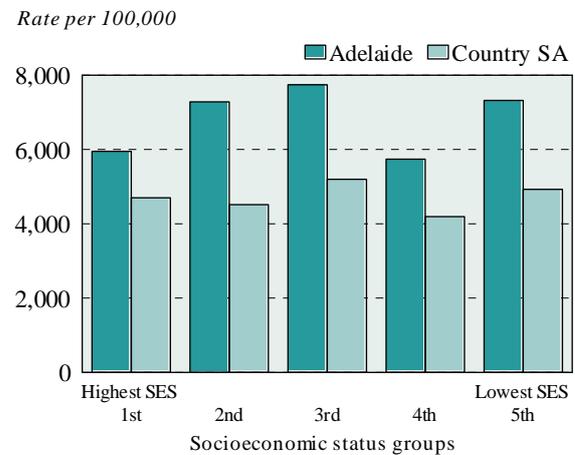
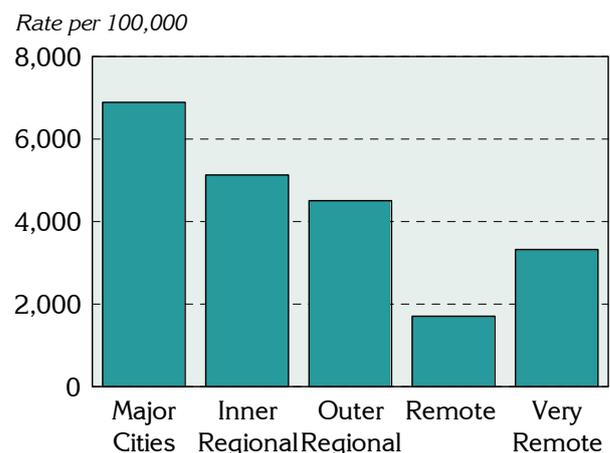


Figure 4.25: Health check by remoteness

Rate ratio: 0.48



45 Year Old Health Check, males, November 2006 to June 2007

In Metropolitan Adelaide, men living in the Southern Adelaide Health Region had the highest rate of uptake for the 45 Year Old Health Check (7.6% of the population aged 45 to 49 years), compared with 6.1% of men in Central Northern. The same pattern was evident for women, although the proportions were higher.

In country SA, the highest proportions of the male population having this health check were in Wakefield (6.6% of men aged 45 to 49 years), Northern & Far Western (5.4%) and Hills Mallee Southern (5.3%). The lowest rates were in Eyre and Riverland. For women, there was a different distribution, with the highest proportions in Northern & Far Western (8.1%) and Wakefield (7.3%). Also of note are the large variations in the rate of uptake by men and women, as illustrated by the rate ratios in the table. In South East Health Region, the health checks were provided to 57% more men than women, although the numbers were small. The differential in Hills Mallee Southern was 31%. In contrast, men in both Northern & Far Western and Eyre had around two thirds the rate of health checks compared with women.

Table 4.16: 45 Year Old Health Check, by region and sex, South Australia, 2006/07¹

Health Region	Males		Females		RR M:F ²
	No.	Rate ²	No.	Rate ²	
Central Northern	1,140	6.1	1,242	6.4	0.95
Southern Adelaide	620	7.6	730	8.3	0.92
Metropolitan Adelaide (excl. Gawler)	1,760	6.6	1,972	7.0	0.94
Hills Mallee Southern	166	5.3	123	4.0	1.31
Wakefield	183	6.6	200	7.3	0.90
Mid North	20	2.5	19	2.5	1.00
Riverland	15	1.7	20	2.5	0.68
South East	70	4.2	43	2.7	1.57
Eyre	15	1.7	16	1.9	0.89
Northern and Far Western	73	5.4	91	8.1	0.67
Country South Australia (incl. Gawler)	542	4.7	512	4.7	1.01
Total	2,302	6.0	2,484	6.4	0.95

¹ Data cover the period from 1 November 2006 (when this item was introduced) to 30 June 2007

² RR M:F is the ratio of the rate for males to that for females

³ Rate is the number of services per 100 male or female population aged 45 to 49 years

Metropolitan Adelaide

In reading the following text and viewing the maps, readers should bear in mind that geographic distribution of this health check at the regional level varied considerably for men and women.

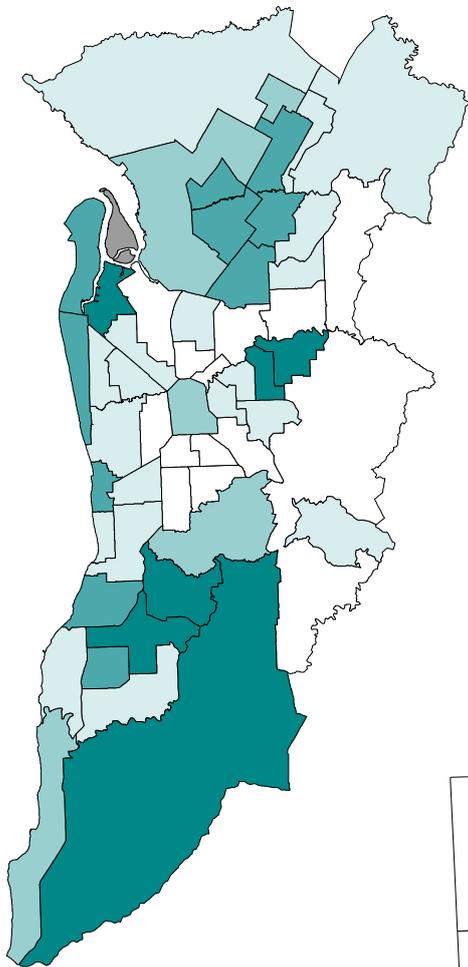
In Metropolitan Adelaide, SLAs with the highest uptake of this health check were located in three distinct areas. These were, in the north-west, Port Adelaide Enfield - Port (rate 170.7, 103 patients); in the north-east, in the Campbelltown SLAs of - East (163.2, 225) and - West (113.9, 96); and in the outer south, the Onkaparinga SLAs of - Reservoir (165.2, 257), - Woodcroft (143.0, 262) and - Hills (110.1, 74) (Map 4.16).

SLAs with at least 70% fewer men than expected having this health check included Tea Tree Gully - Hills, Port Adelaide Enfield - East, Mitcham - West and - North-East, Burnside - South-West and Unley - East.

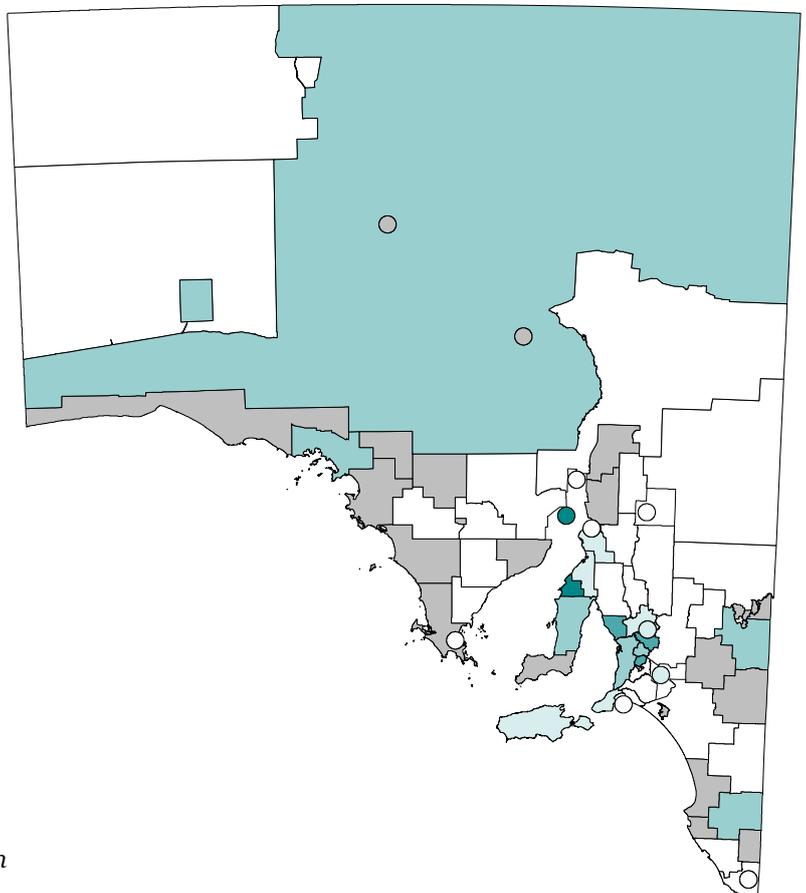
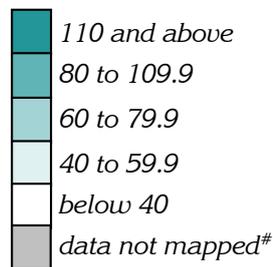
Country SA

Only in Copper Coast, Whyalla and Gawler were the number of 45 Year Old Health Checks above the level expected from the State rate (Map 4.17). All of the other SLAs had fewer of these services than expected, around half had at least 70% fewer, and a number had none.

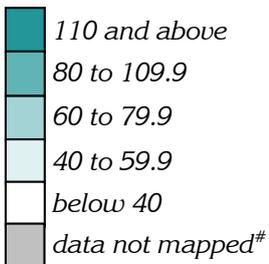
Map 4.16 and Map 4.17: 45 Year Old Health Check, persons, Metropolitan Adelaide and country SA, 2006/2007



Standardised ratio (as an index)*, by SLA



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 admissions over the time period; or the SLA has a population of less than 100

Accident and Emergency Department attendances

Accident and Emergency Departments are provided in major public acute hospitals in Metropolitan Adelaide. They are open 24 hours a day, seven days a week, to provide acute and emergency care to patients arriving either by ambulance or by other means. While some people require immediate attention for life-threatening conditions or trauma, most require less urgent care. Timely access to care is a high priority for patients, health care providers, and the public at large.

These data were not available for services in country South Australia on a basis consistent with that for Metropolitan Adelaide.

Rates of attendance at Accident and Emergency Departments were higher for males in all age groups, other than in the 15 to 24 and 25 to 34 year age groups, where female rates were higher (Figure 4.26). Attendances for both men and women decreased with age, before increasing in the 55 to 74 year age group, and even more sharply in the 75 years and over age group.

A clear socioeconomic gradient is apparent in rates of attendance at Accident and Emergency Departments, with attendances increasing for both men and women with increasing disadvantage (Figure 4.27). In the two highest socioeconomic status groups, male rates were slightly higher than for females, while in the lowest socioeconomic status groups, female rates were slightly above those for males.

Accident and Emergency Department attendances, Metropolitan Adelaide, 2005/06

Figure 4.26: Attendances by age and sex

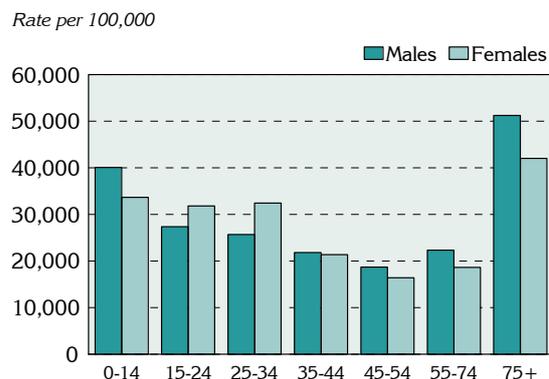
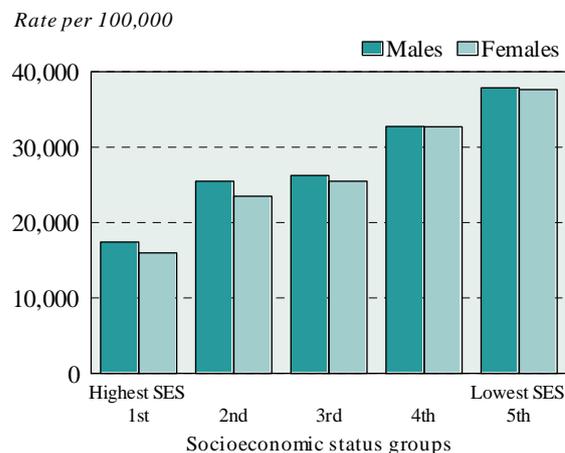


Figure 4.27: Attendances by socioeconomic status and sex

Rate ratio: Male 2.17; Female 2.36



Accident and Emergency Department attendances, males, 2005/06

Metropolitan Adelaide

Males in the Central Northern Adelaide Health Region had 6% fewer Accident & Emergency Department attendances than expected (a standardised ratio (SR) of 94**, 101,117 attendances). However, attendances of males living in the Southern Adelaide Health Region were 15% higher than expected (an SR of 115**, 2,386 attendances), with over one and a half times the expected number of attendances in the Outer Southern District (an SR of 177**, 28,505 attendances). Males in Central East sub-region had 39% fewer attendances at these services than were expected from the State rate.

Table 4.17: Accident and Emergency Department attendances of males, by Health Region, Metropolitan Adelaide, 2005/06

Health Region	Number	Rate ¹	SR ²
Central Northern Adelaide	101,117	26,196.7	94**
Northern sub-region	51,414	30,147.8	108**
Western sub-region	27,631	26,313.4	94**
Central East sub-region	22,071	19,984.6	71**
Southern Adelaide	52,386	32,328.7	115**
Urban Beaches District	16,077	23,875.6	85**
Hills District	7,804	20,951.4	75**
Outer Southern District	28,505	49,612.3	177**
Metropolitan Adelaide (excl. Gawler)	153,503	28,009.8	100

¹ Rate is the number of attendances per 100,000 population

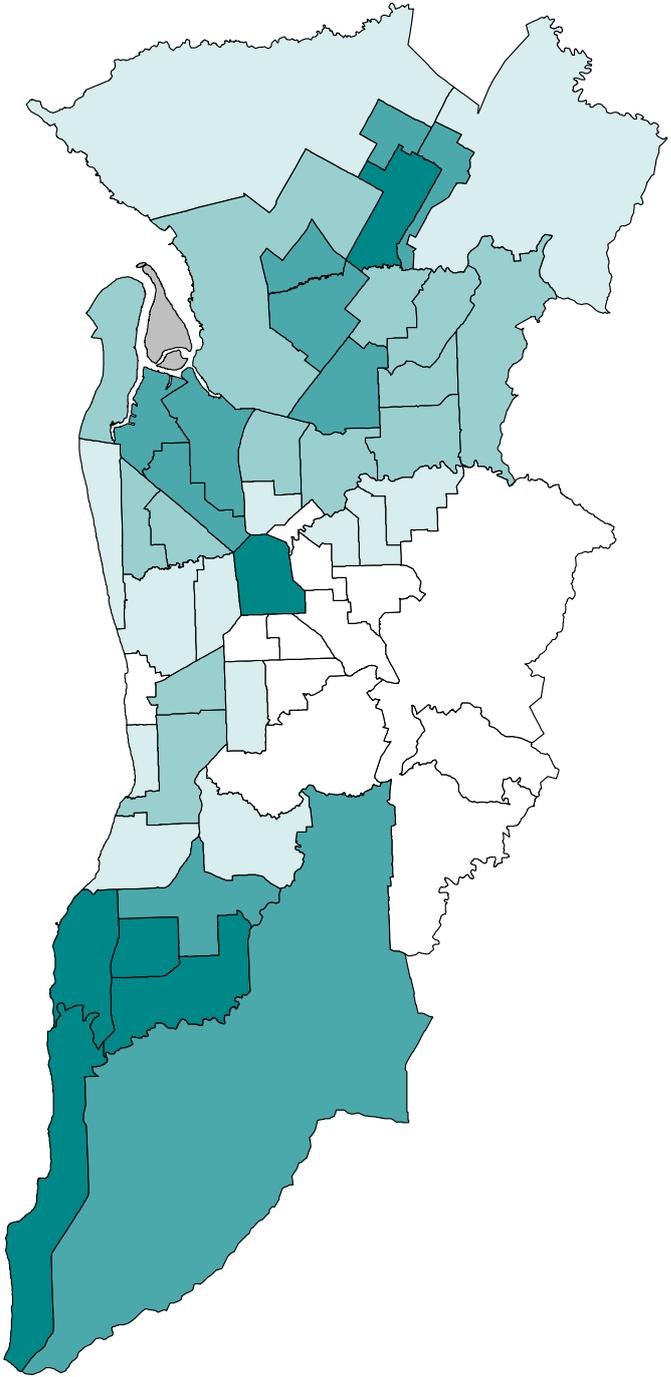
² SR = Standardised Ratio, percentage of variation in the region from the ratio of 100 in South Australia

Metropolitan Adelaide

Highly elevated attendance ratios were recorded in three areas: in the outer south in the Onkaparinga SLAs of - Hackham (242**, 4,683), - North Coast (239**, 5,929), - South Coast (175**, 6,204) and Morphett (167**, 5,486); in the outer north, in Playford - Elizabeth (145**, 5,252); and in the SLA of Adelaide (176**, 4,019) (Map 4.18). The high rate in the SLA of Adelaide is likely to reflect the greater use of these services by indigent men, in particular those living in boarding houses, hostels and other supported accommodation, as well as the homeless.

SLAs with lower than expected ratios included Adelaide Hills - Central and - Ranges; Burnside - South-West and North-East; Mitcham - North-East and - Hills; Unley - East and - West; Walkerville; Norwood Payneham St Peters - West; and Holdfast Bay - North.

Map 4.18: Accident and Emergency Department attendances of males, Metropolitan Adelaide, 2005/06



Standardised ratio (as an index)*, by SLA

- 130 and above
- 110 to 129
- 90 to 109
- 70 to 89
- data not mapped#

* Expected numbers were derived by indirect standardisation, based on SA totals
 # Data not mapped because there were between one to four admissions over the time period; or the SLA has a population of less than 100

Hospital admissions

Males had an overall admission rate that was 14% lower than that for females (a rate ratio of 0.86, Table 4.18). Of the selected causes shown in the table, the rate of admission for tonsillectomy was similarly lower in males (0.82): rates of admission for diseases of the musculoskeletal system and connective tissue and mental and behavioural disorders were in the same direction, although the differentials were smaller.

Of the conditions and causes reported in the table, males had markedly higher rates of admission for circulatory system diseases (a rate ratio of 1.27) and injury (1.22).

Note: These data exclude admissions of same day patients for renal dialysis, as these tend to be geographically concentrated in locations with ready access to the facilities providing these services.

Table 4.18: Hospital admissions by principal diagnosis/procedure, age and sex, South Australia, 2005/06

Admissions	Males		Females		RR M:F ¹
	No.	Rate ²	No.	Rate ²	
Total					
0 to 14 years	23,985	16,338.8	17,603	12,544.7	1.30
15 to 24 years	14,320	13,208.4	24,237	23,475.9	0.56
25 to 34 years	15,268	15,064.8	36,718	37,216.5	0.40
35 to 44 years	21,772	19,218.0	33,540	29,647.8	0.65
45 to 54 years	29,396	26,859.3	34,940	31,187.0	0.86
55 to 74 years	79,028	54,794.2	73,602	48,457.3	1.13
75+ years	51,888	110,269.8	60,060	85,183.0	1.29
All ages	235,657	30,581.8	280,700	35,541.4	0.86
Cancer					
0 to 14 years	502	342.0	496	337.9	1.01
15 to 24 years	338	311.8	594	547.9	0.57
25 to 34 years	419	413.4	992	978.8	0.42
35 to 44 years	964	850.9	1,922	1,696.5	0.50
45 to 54 years	2,371	2,166.4	3,374	3,082.8	0.70
55 to 74 years	10,837	7,513.8	7,935	5,501.7	1.37
75+ years	7,843	16,667.6	6,098	12,959.2	1.29
All ages	23,274	3,020.3	21,411	2,778.6	1.09
Mental & behavioural disorders					
0 to 14 years	103	70.2	148	100.8	0.70
15 to 24 years	1,308	1,206.5	1,255	1,157.6	1.04
25 to 34 years	1,740	1,716.8	1,490	1,470.2	1.17
35 to 44 years	1,795	1,584.4	1,768	1,560.6	1.02
45 to 54 years	1,273	1,163.1	1,449	1,324.0	0.88
55 to 74 years	1,275	884.0	1,672	1,159.3	0.76
75+ years	753	1,600.2	1,227	2,607.6	0.61
All ages	8,247	1,070.2	9,009	1,169.1	0.92
Circulatory system diseases					
0 to 14 years	125	85.2	99	67.4	1.26
15 to 24 years	221	203.8	210	193.7	1.05
25 to 34 years	453	447.0	386	380.9	1.17
35 to 44 years	1,239	1,093.7	892	787.4	1.39
45 to 54 years	2,609	2,383.9	1,491	1,362.3	1.75
55 to 74 years	8,955	6,209.0	5,474	3,795.4	1.64
75+ years	6,987	14,848.4	7,630	16,214.9	0.91
All ages	20,589	2,671.9	16,182	2,100.0	1.27

...cont'd

Table 4.18: Hospital admissions by principal diagnosis/procedure, age and sex, South Australia, 2005/06
...cont'd

Admissions	Males		Females		RR M:F ¹
	No.	Rate ²	No.	Rate ²	
Respiratory system diseases					
0 to 14 years	5,157	3,513.0	3,657	2,491.2	1.41
15 to 24 years	981	904.8	1,434	1,322.7	0.68
25 to 34 years	852	840.7	1,061	1,046.9	0.80
35 to 44 years	1,021	901.2	1,039	917.1	0.98
45 to 54 years	1,185	1,082.7	1,372	1,253.6	0.86
55 to 74 years	3,560	2,468.3	3,272	2,268.6	1.09
75+ years	3,749	7,967.2	3,714	7,892.8	1.01
All ages	16,505	2,141.9	15,549	2,017.8	1.06
Diseases of the musculoskeletal system and connective tissue					
0 to 14 years	313	213.2	261	177.8	1.20
15 to 24 years	1,198	1,105.0	801	738.8	1.50
25 to 34 years	1,867	1,842.1	1,088	1,073.5	1.72
35 to 44 years	2,630	2,321.5	2,019	1,782.2	1.30
45 to 54 years	3,369	3,078.3	3,295	3,010.7	1.02
55 to 74 years	6,324	4,384.8	7,549	5,234.1	0.84
75+ years	2,305	4,898.5	4,002	8,504.9	0.58
All ages	18,006	2,336.7	19,015	2,467.6	0.95
Injury, poisoning and certain other consequences of external causes					
0 to 14 years	2,649	1,804.5	1,534	1,045.0	1.73
15 to 24 years	3,762	3,470.0	1,701	1,569.0	2.21
25 to 34 years	2,862	2,823.9	1,413	1,394.2	2.03
35 to 44 years	2,485	2,193.5	1,589	1,402.6	1.56
45 to 54 years	2,082	1,902.3	1,686	1,540.5	1.23
55 to 74 years	3,165	2,194.5	3,122	2,164.6	1.01
75+ years	2,444	5,193.9	4,881	10,372.9	0.50
All ages	19,449	2,523.9	15,926	2,066.8	1.22
Tonsillectomy					
0 to 14 years	971	661.5	906	617.2	1.07
15 to 24 years	224	206.6	597	550.7	0.38
25 to 34 years	109	107.5	188	185.5	0.58
35 to 44 years	88	77.7	56	49.4	1.57
45 to 54 years	54	49.3	30	27.4	1.80
55 to 74 years	23	15.9	22	15.3	1.04
75+ years	0	0.0	2	4.3	0.00
All ages	1,469	190.6	1,801	233.7	0.82

¹ RR M:F is the ratio of the rate for males to that for females

² Rate is the number of admissions per 100,000 population

Hospital admissions – Total admissions

As noted above, overall admission rates for males were 14% lower than for females: male rates were also lower across the age groups from 15 to 54 years (Figure 4.28). At younger (0 to 14 years) and older (55 to 74, and 75 years and over) ages, however, the reverse was the case. The higher rates in the 75 year and over age group largely reflect admissions for cancer, circulatory system diseases and respiratory system diseases (see previous table).

There is a gradient in admission rates for both males and females when viewed by socioeconomic status, with the lowest rates in higher SES areas (although not the highest – first quintile – areas) and the highest rates in the lowest SES areas: the differential in rates was greater for females (15%, a rate ratio of 1.15) than for males (7%, 1.07) (Figure 4.29).

Admission rates for males were below those for females in all remoteness classes, and the differential in rates between the Very Remote and Major Cities areas was also lower (6% for males, and 13% for females) (Figure 4.30). The highest rates for males were in the Outer Regional remoteness class.

Hospital admissions, South Australia, 2005/06

Figure 4.28: Total admissions by age and sex

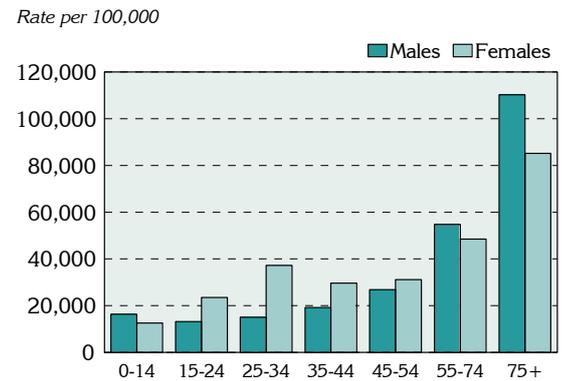


Figure 4.29: Total admissions: by socioeconomic status and sex

Rate ratio: Male 1.07; Female 1.15

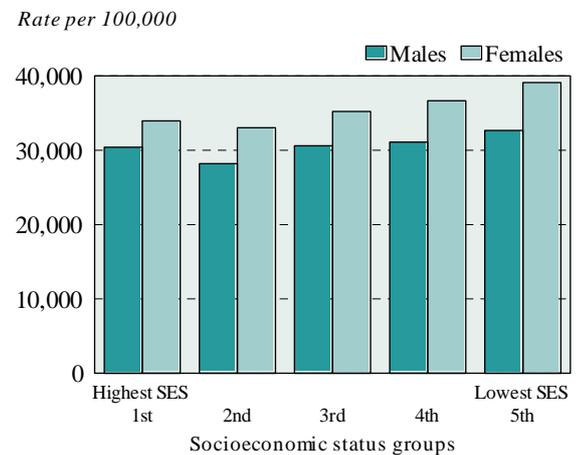
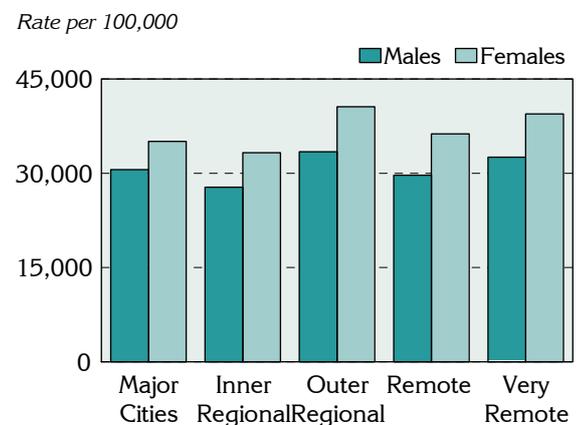


Figure 4.30: Total admissions: by remoteness and sex

Rate ratio: Male 1.06; Female 1.13



Hospital admissions – Total admissions of males, 2005/06

The number of admissions of males living in Central Northern Adelaide Health Region was 2% below the level expected from the State rate (a standardised ratio (SR) of 98**, 113,487 admissions). However, there were 6% more admissions than expected of males from Southern Adelaide Health Region (an SR of 106**, 52,846 admissions). In country SA, admissions of males from Hills Mallee Southern were below the level expected; the SR in Eyre was at the level expected (and close to it in South East, Wakefield and Riverland); and Mid North and Northern & Far Western had elevated ratios.

Table 4.19: Hospital admissions – Total male admissions by Health Region, South Australia, 2005/06

Health Region	Number	Rate ¹	SR ²
Central Northern Adelaide	113,487	29,832.5	98**
Northern sub-region	48,132	30,890.6	101*
Western sub-region	33,245	30,125.1	99**
Central East sub-region	32,110	28,106.8	92**
Southern Adelaide	52,846	32,505.0	106**
Urban Beaches District	23,908	33,559.7	110**
Hills District	11,672	30,930.9	101
Outer Southern District	17,266	32,211.4	105**
Metropolitan Adelaide (excl. Gawler)	166,333	30,632.7	100
Hills Mallee Southern	17,918	27,671.7	90
South East	9,477	30,095.5	98
Wakefield	16,593	30,188.3	99
Mid North	5,978	34,421.6	113**
Riverland	5,503	31,801.0	104**
Eyre	5,430	30,445.7	100
Northern & Far Western	8,425	35,288.6	115**
Country South Australia (incl. Gawler)	69,324	30,460.3	100

¹ Rate is the number of admissions per 100,000 population

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

Metropolitan Adelaide

The most highly elevated ratio of admissions of males was in Playford - Hills (an SR of 137**, 638 admissions), 37% above the number expected from the State rate (Map 4.19). Elevated ratios were also recorded in the SLAs of Adelaide Hills - Ranges (an SR of 129**, 1,992 admissions), Salisbury Balance (123**, 1,510), Marion - North (113**, 5,079), Holdfast Bay - South (121**, 3,029), Playford - Elizabeth (121**, 4,607) and Adelaide (118**, 2,874).

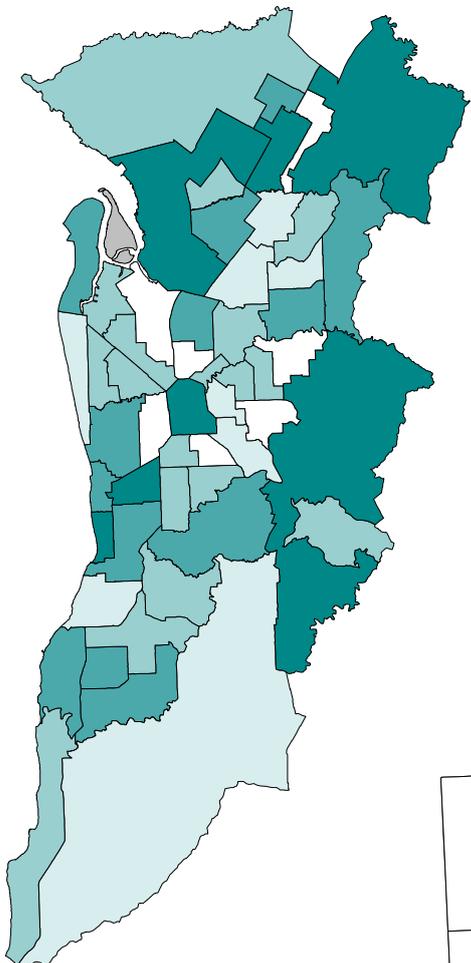
Ratios were lowest for men in Burnside - North-East, Playford - East Central, Prospect, Unley - East, Port Adelaide Enfield - Park, West Torrens - East and Campbelltown - East.

Country SA

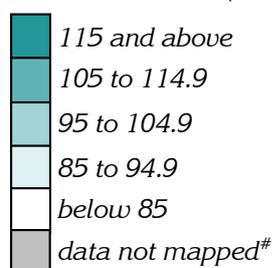
Unincorporated West Coast had more than two and half times the expected number of admissions of males (an SR of 280**, 184 admissions), and Unincorporated Riverland also had more than twice the expected number (203**, 40) (Map 4.20). Other SLAs with elevated ratios included Tatiara (an SR of 142**, 1,547 admissions), Southern Mallee (140**, 526), Port Augusta (139**, 2,877), Port Pirie Districts Balance (128**, 766), Peterborough (128**, 470), Orroroo/Carrieton (127**, 227), The Coorong (126**, 1,194), Unincorporated Far North (124**, 350), Ceduna (124**, 689) and Elliston (123**, 227).

SLAs with the lowest number of male admissions (when compared with the State rate) included Karoonda East Murray, Yankalilla, Franklin Harbour, Roxby Downs, Streaky Bay, Grant, Mount Barker Balance, Unincorporated Pirie and Anangu Pitjantjatjara.

Map 4.19 and Map 4.20: Hospital admissions – Total admissions of males, Metropolitan Adelaide and country SA, 2005/06

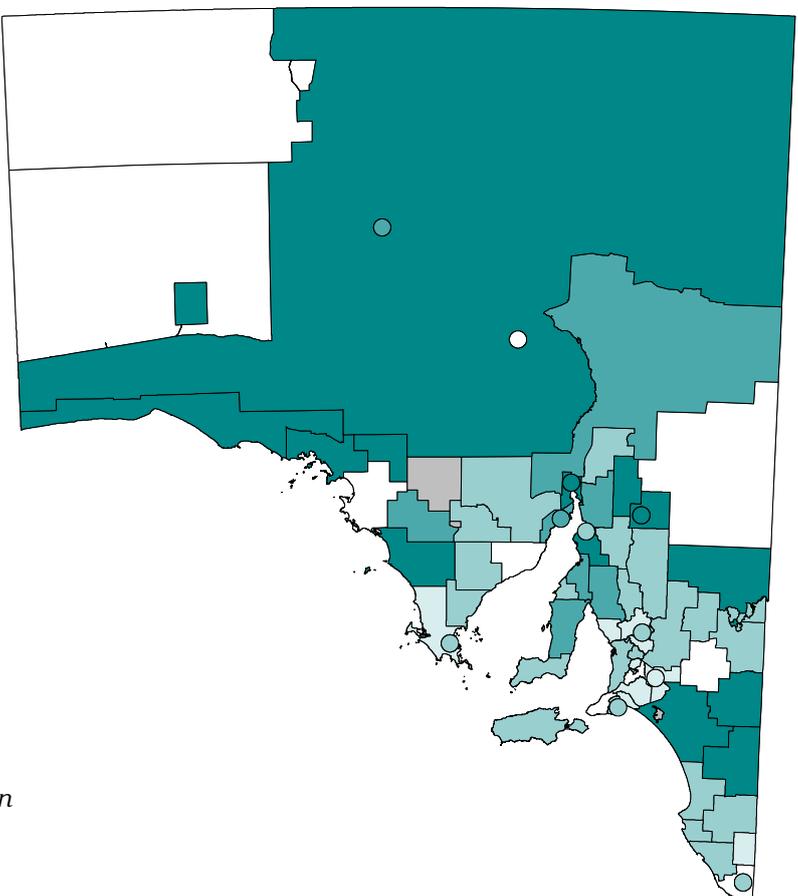


Standardised ratio (as an index)*, by SLA

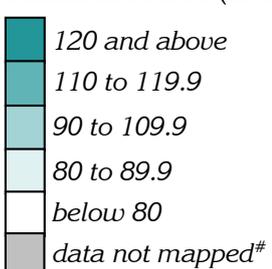


* Expected numbers were derived by indirect standardisation, based on totals for the metropolitan region

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

Hospital admissions – Admissions for cancer

Rates of admission to hospital for cancer are very low in the younger age groups, and gradually increase with age (Figure 4.31). In the 15 to 24 through to the 45 to 54 year age groups, male rates were lower than those for females. However, in the two oldest age groups shown, male rates were above those for females.

When analysed by socioeconomic status, admissions from cancer for both males and females generally decreased with increasing disadvantage: this was the opposite of the pattern seen for total admissions (Figure 4.32). Admission rates for males were 22% lower in the lowest SES group than in the highest SES group; similarly, rates for females were 21% lower. Male rates of admission were higher than those for females in each SES group.

Admission rates for cancer declined with remoteness, with rates in the Very Remotes areas being 32% below those in the Major City areas for males (Figure 4.33). For females, the gap was larger (49%). Male rates were higher than those for females in each remoteness class.

Hospital admissions for cancer, South Australia, 2005/06

Figure 4.31: Admissions by age and sex

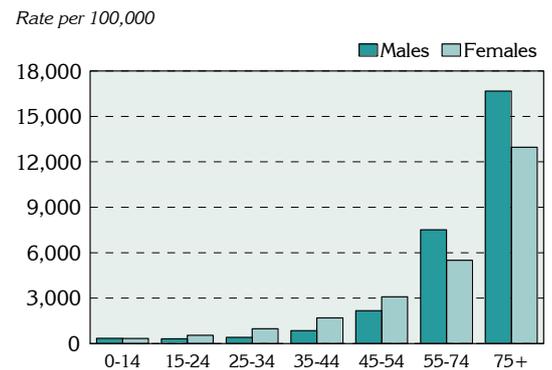


Figure 4.32: Admissions: by socioeconomic status and sex

Rate ratio: Male 0.78; Female 0.79

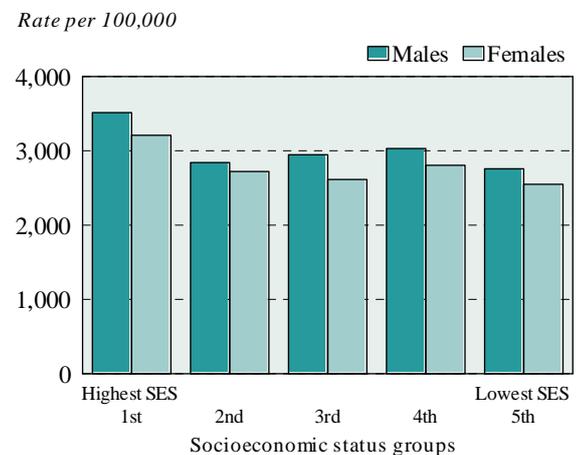
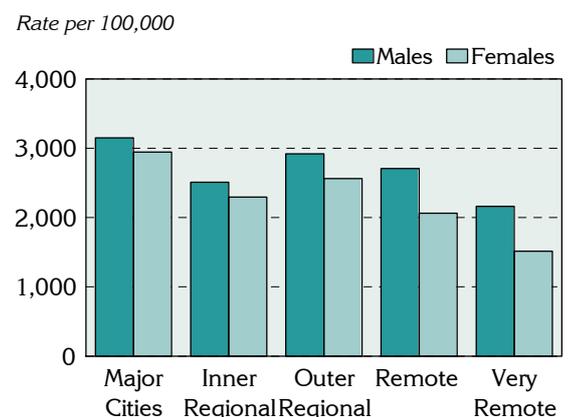


Figure 4.33: Admissions: by remoteness and sex

Rate ratio: Male 0.68; Female 0.51



Hospital admissions – Admissions of males for cancer, 2005/06

There were 19% more admissions of males from cancer in Southern Adelaide Health Region than expected from the State rate (a standardised ratio (SR) of 119**, 5,848 admissions): this compared with 1% fewer admissions in Central Northern Adelaide Health Region (an SR of 99, 11,235 admissions). Within Southern Adelaide, both Urban Beaches District and Hills District had highly elevated ratios.

Rates of admission of males in country SA health regions were all below the State average.

Table 4.20: Hospital admissions – Male admissions for cancer, by Health Region, South Australia, 2005/06

Health Region	Number	Rate ¹	SR ²
Central Northern Adelaide	11,235	2,991.3	99
Northern sub-region	4,140	2,858.4	95**
Western sub-region	3,556	3,091.6	102
Central East sub-region	3,539	3,057.9	101
Southern Adelaide	5,848	3,586.4	119**
Urban Beaches District	2,881	3,861.3	128**
Hills District	1,383	3,671.8	122**
Outer Southern District	1,584	3,119.3	103
Metropolitan Adelaide (excl. Gawler)	17,083	3,171.4	105**
Hills Mallee Southern	1,686	2,472.6	82**
South East	888	2,911.8	96
Wakefield	1,516	2,647.4	88**
Mid North	503	2,696.4	89*
Riverland	480	2,735.7	91*
Eyre	506	2,853.1	94
Northern & Far Western	612	2,776.3	92*
Country South Australia (incl. Gawler)	6,191	2,669.4	88**

¹ Rate is the number of admissions per 100,000 population

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

Metropolitan Adelaide

The most highly elevated standardised admission ratios for cancer of males living in Metropolitan Adelaide (Map 4.21) were found in Holdfast Bay - North (an SR of 158**, 560 admissions) and - South (134**, 372); Mitcham - Hills (145**, 572); Tea Tree Gully - Hills (140**, 242); Adelaide Hills - Ranges (134**, 196) and - Central (131**, 233); and Marion - North (130**, 567).

Onkaparinga - Reservoir (with an SR of 124**, 380 admissions), Burnside - South-West (124**, 451) Marion - Central (124**, 735) and Charles Sturt - Inner East (124**, 450) each had 24% more admissions than expected. Males in the SLAs of Adelaide (122**, 267), Unley - West (122**, 290), Port Adelaide Enfield - Coast (120**, 519), West Torrens - West (118**, 638) and Tea Tree Gully - South (116**, 600) had similarly elevated numbers of admissions.

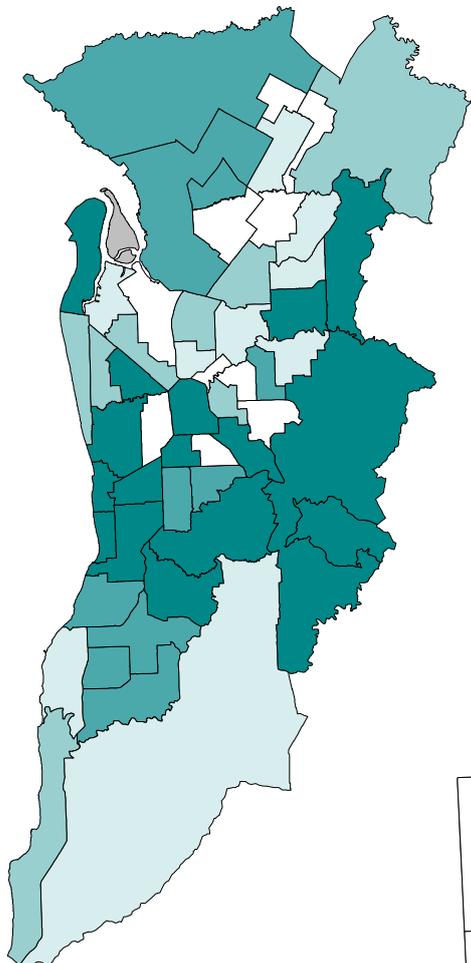
Fewer males were admitted than expected from the SLAs of Port Adelaide Enfield - Park; Salisbury - North-East; Playford - East Central and - West Central; West Torrens - East; Burnside - North-East; Unley - East; Norwood Payneham St Peters - East; Salisbury - Central; and Walkerville.

Country SA

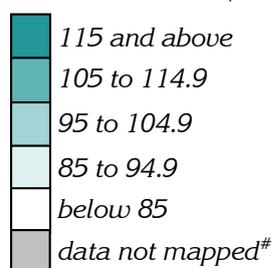
The most highly elevated ratio for males in country SA was recorded for Renmark Paringa - Paringa, with 66% more admissions than expected (an SR of 166**, 48 admissions) (Map 4.22). Other SLAs with elevated ratios included Unincorporated West Coast (151, 7) Kimba (146*, 30), Kingston (137*, 59), Tatiara (128**, 132), Robe (127, 34), Franklin Harbour (123, 30), Yorke Peninsula - North (123**, 215), Copper Coast (119**, 296), Port Augusta (118*, 224), Unincorporated Flinders Ranges (116, 16) and Southern Mallee (116, 44).

SLAs with the lowest male admission ratios for cancer were Coober Pedy, Flinders Ranges, Unincorporated Far North, Orroroo/Carrieton, Northern Areas, Adelaide Hills - North, Mount Barker Balance, Barossa - Barossa, Light, Mallala, Goyder, Clare and Gilbert Valleys, Berri & Barmera - Berri, Murray Bridge, Unincorporated Riverland, Grant, Cleve and Lower Eyre Peninsula.

Map 4.21 and Map 4.22: Hospital admissions – Admissions of males for cancer, Metropolitan Adelaide and country SA, 2005/06

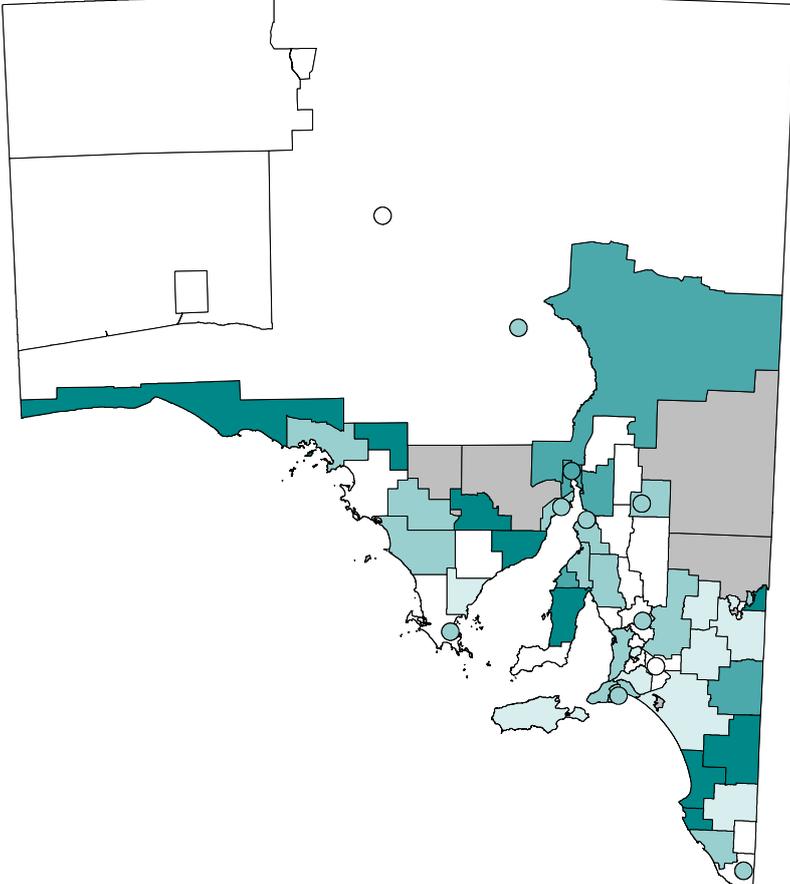


Standardised ratio (as an index)*, by SLA

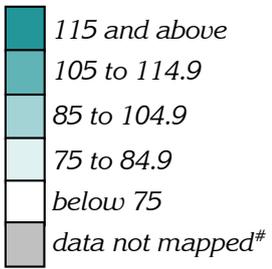


* Expected numbers were derived by indirect standardisation, based on totals for the metropolitan region

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

Hospital admissions – Admissions for mental and behavioural disorders

The rates of admission for mental and behavioural disorders increased markedly between the 15 to 24 and 25 to 34 year age groups (with a greater increase for males than for females), then declined over the next three age groups (Figure 4.34). Rates then increased substantially in the 75 years and over age group, with a larger increase evident for women.

For both males and females, rates of admission for mental and behavioural disorders increased with increasing socioeconomic disadvantage, although not continuously, as rates were lower in the second SES group (Figure 4.35). Overall, the rate of admission of males was 66% higher in the lowest SES areas, compared with the highest SES areas (a rate ratio of 1.66). Female rates were 41% higher in the lowest SES areas. Males had lower rates of admission, other than in the lowest SES areas.

Admissions for mental and behavioural disorders of males living in the Very Remote areas were almost twice the rates in the Major Cities areas (a rate ratio of 1.95) (Figure 4.36). Admissions of females were similarly higher in the Very Remote areas (1.77). With the exception of the Very Remote areas, where rates were consistent, males had lower rates of admission than females.

Hospital admissions for mental and behavioural disorders, South Australia, 2005/06

Figure 4.34: Admissions by age and sex

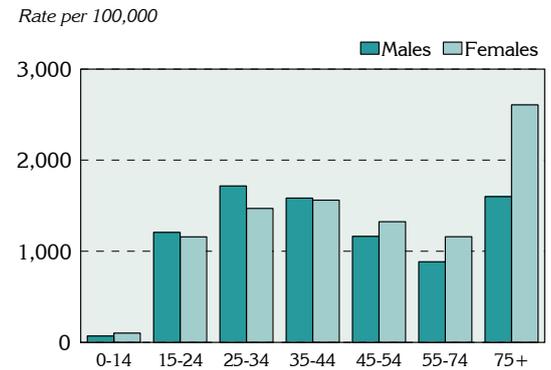


Figure 4.35: Admissions: by socioeconomic status and sex

Rate ratio: Male 1.66; Female 1.41

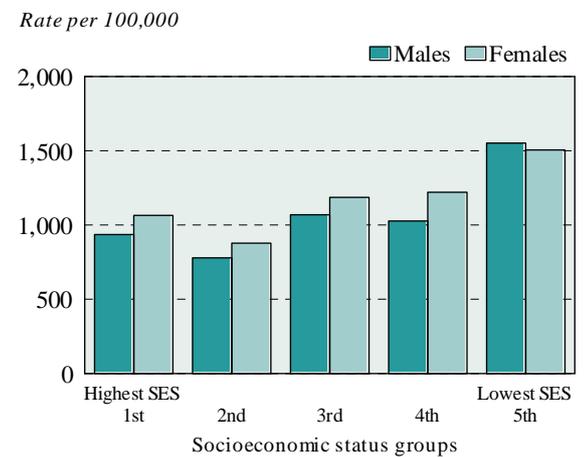
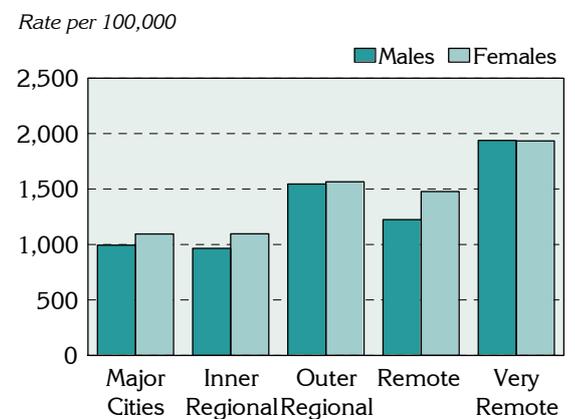


Figure 4.36: Admissions: by remoteness and sex

Rate ratio: Male 1.95; Female 1.77



Hospital admissions – Admissions of males for mental and behavioural disorders, 2005/06

Both Central Northern Adelaide and Southern Adelaide Health Regions (with standardised ratios (SRs) of 94** and 89**, respectively) had fewer admissions of males for mental and behavioural disorders than expected. At the sub-region/district level, the lowest ratios were recorded for males in Hills District (68**) and the Northern sub-region (87**).

In country SA, the Northern & Far Western and Mid North Health Regions had close to twice the expected number of admissions. Riverland and Eyre also had higher than expected ratios.

Table 4.21: Hospital admissions – Male admissions for mental and behavioural disorders, by Health Region, South Australia, 2005/06

Health Region	Number	Rate ¹	SR ²
Central Northern Adelaide	3,971	1,007.8	94**
Northern sub-region	1,570	934.7	87**
Western sub-region	1,226	1,127.9	105
Central East sub-region	1,175	1,001.2	94*
Southern Adelaide	1,551	954.7	89**
Urban Beaches District	677	977.6	91*
Hills District	271	728.9	68**
Outer Southern District	603	1,076.1	101
Metropolitan Adelaide (excl. Gawler)	5,522	992.3	93**
Hills Mallee Southern	582	996.9	93
South East	314	989.0	92
Wakefield	512	1,023.6	96
Mid North	294	1,964.3	184**
Riverland	276	1,693.1	158**
Eyre	220	1,279.0	120**
Northern & Far Western	527	2,068.5	193**
Country South Australia (incl. Gawler)	2,725	1,272.8	119**

¹ Rate is the number of admissions per 100,000 population

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

Metropolitan Adelaide

The most highly elevated number of admissions of males for mental and behavioural disorders was in the SLA of Adelaide (an SR of 275**, 332 admissions), where there were nearly three times the expected numbers of male admissions for mental and behavioural disorders (Map 4.23). Elevated ratios were also recorded in Onkaparinga - North Coast (an SR of 172**, 162 admissions); Playford - Elizabeth (172**, 220); Port Adelaide Enfield - Port (167**, 100) and - Coast (140**, 208); Charles Sturt - North-East (142**, 205); and Marion - North (141**, 195).

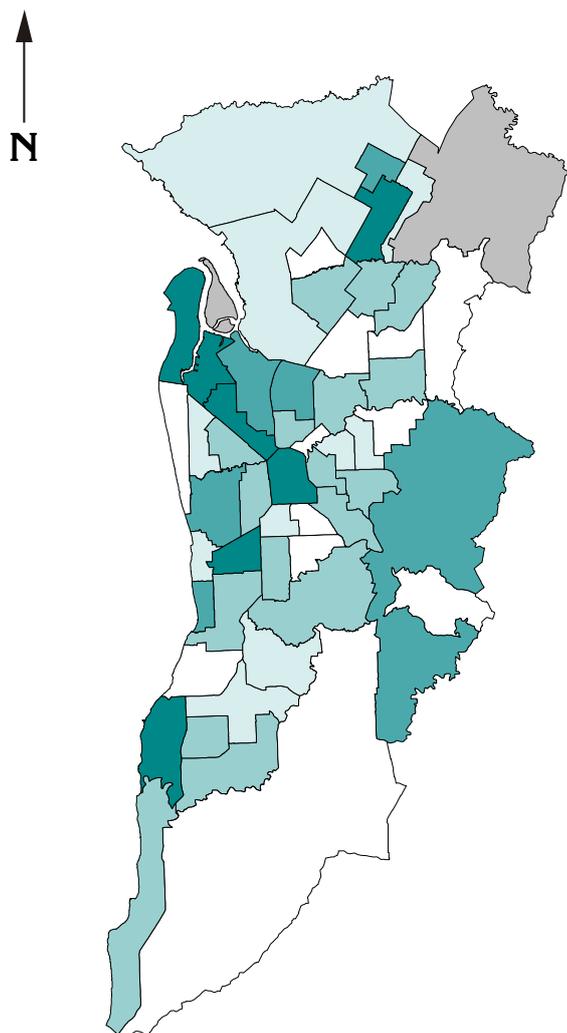
SLAs with low ratios were Walkerville; Tea Tree Gully - Central and - Hills; Salisbury - Inner North and - South-East; Marion - South; Campbelltown - East and - West; Onkaparinga - Hills; Charles Sturt - Coastal; Unley - East; Adelaide Hills - Central; and Mitcham - North East.

Country SA

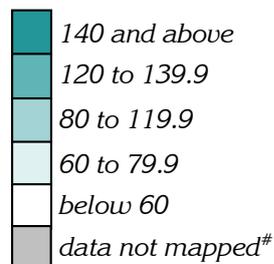
Towns in country SA with elevated admission ratios for males included Peterborough (an SR of 444**, 45 admissions), Coober Pedy (268**, 32), Port Pirie Districts - City (217**, 152), Port Augusta (214**, 163), Whyalla (206**, 241) and Port Lincoln (163**, 121) (Map 4.24). Other SLAs with significantly elevated ratios were Unincorporated Whyalla, Unincorporated Far North; Unincorporated West Coast; Goyder; Loxton Waikerie - West; Mount Remarkable; Unincorporated Flinders Ranges; Renmark Paringa - Renmark and - Paringa; Berri & Barmera - Berri and - Barmera; and Barossa - Tanunda.

SLAs with fewer admissions than expected included Mallala, Roxby Downs, Cleve, Robe, Le Hunte, Grant, Flinders Ranges and Mount Barker Balance.

Map 4.23 and Map 4.24: Hospital admissions of males for mental and behavioural disorders, Metropolitan Adelaide and country SA, 2005/06



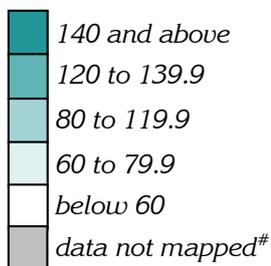
Standardised ratio (as an index)*, by SLA



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

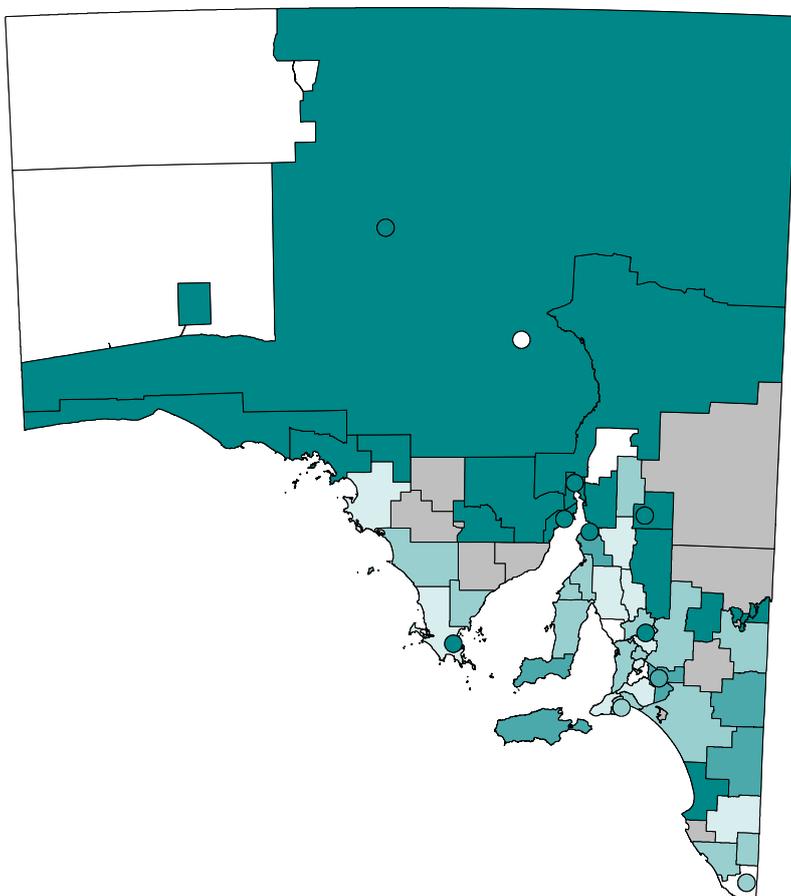
[#] Data not mapped because there were between one to four admissions over the time period; or the SLA has a population of less than 100

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 admissions over the time period; or the SLA has a population of less than 100



Hospital admissions – Admissions for circulatory system diseases

Circulatory system diseases include ischaemic or coronary heart disease, cerebrovascular accident or stroke, hypertension (high blood pressure), peripheral vascular disease and rheumatic heart disease. These diseases are mainly caused by a damaged blood supply to the heart, brain and/or limbs, and share a number of risk factors. In 1995, it was estimated that over 80% of the adult Australian population had at least one of the following risk factors: tobacco smoking, physical inactivity, high blood pressure, and overweight or obesity (49).

Admission to hospital for one of these conditions may be the result of the acute onset of a stroke for example, or to manage a chronic condition such as worsening heart failure more intensively.

Admission rates of males for circulatory system diseases more than doubled in each subsequent age group shown: the increases for females were even greater between the age groups (Figure 4.37). Rates for males were higher than for females, other than in the oldest age group.

When examined by socioeconomic status, rates of admission of males for circulatory system diseases were 39% higher for those living in the lowest SES areas than in the highest SES areas: for females, the differential was 36%. Male rates were much higher than those for females in each SES group (Figure 4.38).

Admission rates for males for circulatory system diseases also increased with increasing remoteness, with rates in the Very Remote areas 40% above the rate of those in the Major Cities areas: for females, rates decreased with increasing remoteness, with a differential of 21% (Figure 4.39).

Hospital admissions for circulatory system diseases, South Australia, 2005/06

Figure 4.37: Admissions by age and sex

Rate per 100,000

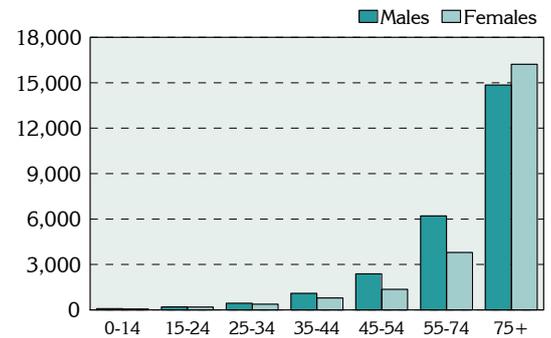


Figure 4.38: Admissions: by socioeconomic status and sex

Rate ratio: Male 1.39; Female 1.36

Rate per 100,000

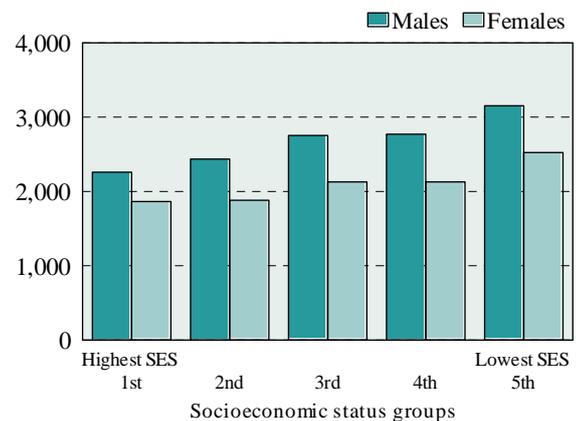
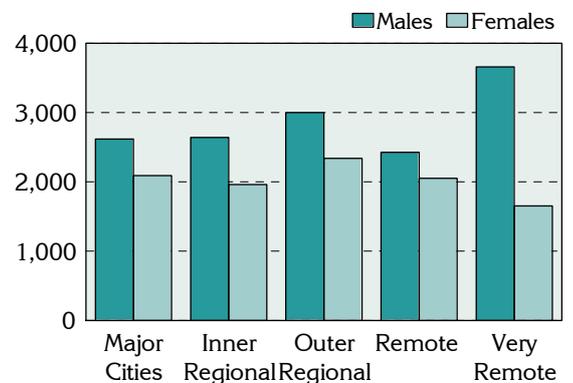


Figure 4.39: Admissions: by remoteness and sex

Rate ratio: Male 1.40; Female 0.79

Rate per 100,000



Hospital admissions – Admissions of males for circulatory system diseases, 2005/06

There were 4% fewer admissions of males for circulatory system diseases in Central Northern Adelaide Health Region than expected from the State rate (a standardised ratio (SR) of 96**, 9,662 admissions); and in Southern Adelaide Health Region, the ratio was just above the level expected (an SR of 101, 4,434 admissions). At the sub-region/district level, there were notably fewer male admissions from Central East sub-region (83**) and Hills District (86**); and more from Outer Southern District (112**).

Across country SA, all health regions had ratios above the expected level, with the exception of Hills Mallee Southern (96, 1,734) and Eyre (98, 462). The most highly elevated ratio was in Northern & Far Western, an SR of 126**.

Table 4.22: Hospital admissions – Male admissions for circulatory system diseases, by Health Region, South Australia, 2005/06

Health Region	Number	Rate ¹	SR ²
Central Northern Adelaide	9,662	2,568.1	96**
Northern sub-region	4,143	2,868.0	107**
Western sub-region	2,953	2,559.7	96*
Central East sub-region	2,566	2,204.3	83**
Southern Adelaide	4,434	2,711.1	101
Urban Beaches District	2,043	2,723.7	102
Hills District	865	2,292.2	86**
Outer Southern District	1,526	3,003.8	112**
Metropolitan Adelaide (excl. Gawler)	14,096	2,611.4	98*
Hills Mallee Southern	1,734	2,564.1	96
South East	920	3,012.2	113**
Wakefield	1,565	2,749.8	103
Mid North	563	3,040.6	114**
Riverland	507	2,896.0	108
Eyre	462	2,613.1	98
Northern & Far Western	742	3,370.6	126**
Country South Australia (incl. Gawler)	6,493	2,813.3	105**

¹ Rate is the number of admissions per 100,000 population

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

Metropolitan Adelaide

The most highly elevated ratios of male admissions for circulatory system diseases were in the northern SLAs of Salisbury Balance (an SR of 158**, 125 admissions), - Central (137**, 416) and - Inner North (123**, 250); and Playford - Elizabeth (148**, 492) and - West Central (144**, 182) (Map 4.25). Other SLAs with elevated ratios included Onkaparinga - Hackham (an SR of 138**, 192 admissions), Adelaide Hills - Ranges (128**, 167) and Marion - North (116**, 454).

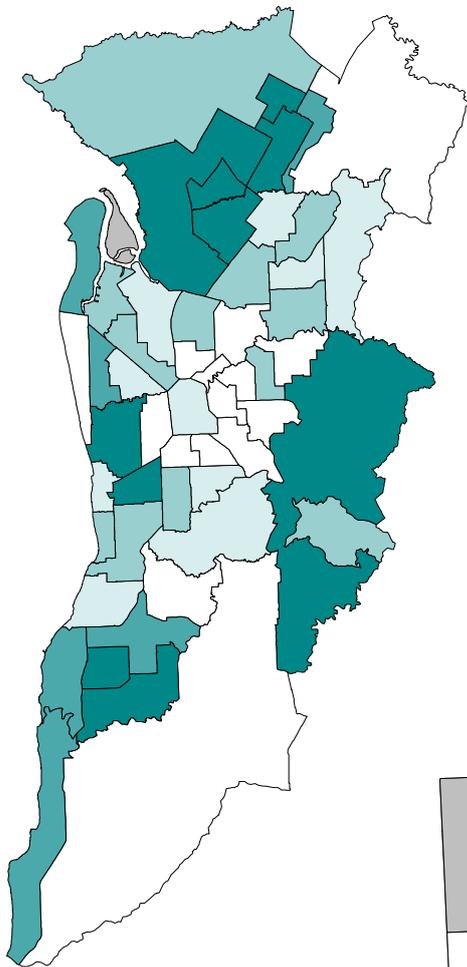
The lowest ratios of were found in SLAs across the inner and eastern suburbs, including Walkerville; Burnside - North-East and - South-West; Unley - East and - West; Norwood Payneham St Peters - East and - West; and Campbelltown - East. Onkaparinga - Hills and - Reservoir; Charles Sturt - Coastal; Playford - Hills; Prospect; West Torrens - East; and Port Adelaide Enfield - East also had lower than expected ratios.

Country SA

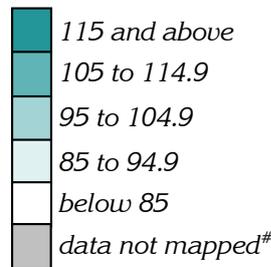
There were 6,493 male admissions in country South Australia for circulatory system diseases, with the most highly elevated ratio recorded for Unincorporated West Coast (an SR of 446**, 19 admissions) (Map 4.26). Other SLAs with elevated ratios included Ceduna (199**, 91), Orroroo/Carrieton (185**, 33), Port Augusta (174**, 292), Port Pirie Districts Balance (170**, 92), Southern Mallee (170**, 57), Robe (162**, 38) Coober Pedy (152**, 57) and Unincorporated Far North (149**, 34).

The lowest ratios were recorded for Kimba, Roxby Downs, Karoonda East Murray, Mount Barker Balance, Tumby Bay, Yankalilla, Renmark Paringa - Paringa, Streaky Bay and Franklin Harbour.

Map 4.25 and Map 4.26: Hospital admissions of males for circulatory system diseases, Metropolitan Adelaide and country SA, 2005/06

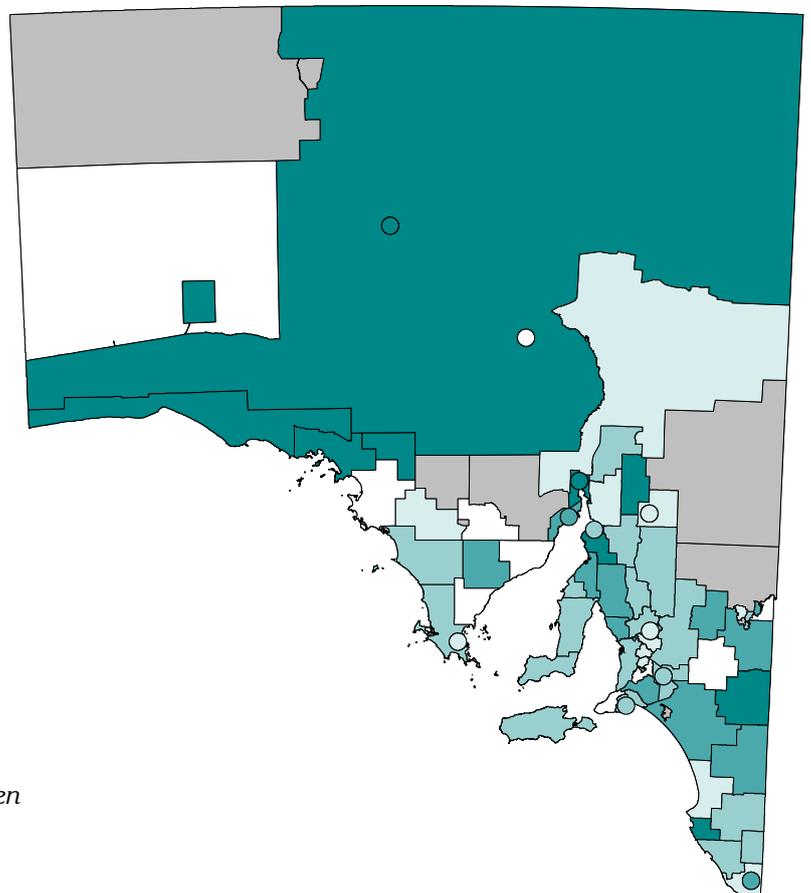


Standardised ratio (as an index)*, by SLA

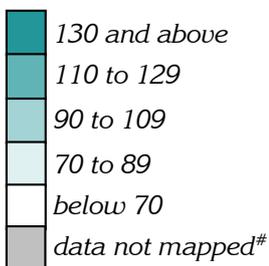


* Expected numbers were derived by indirect standardisation, based on totals for the metropolitan region

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

Hospital admissions – Admissions for respiratory system diseases

Respiratory system diseases include conditions such as influenza, pneumonia, asthma, chronic bronchitis and emphysema.

Respiratory system diseases represent a significant burden of ill-health and hospitalisation among Aboriginal people, particularly among very young and older people (50). The development of these diseases is dependent on a number of contributing factors, including poor environmental conditions, socioeconomic disadvantage, risky behaviour (particularly cigarette smoking), and existing medical conditions such as diabetes mellitus and chronic renal disease (51).

Admission rates for respiratory system diseases were highest in the youngest and oldest age groups for both males and females (Figure 4.40). Male rates were higher than those for females in the 0 to 14 and 55 to 74 year age groups; lower in 15 to 24, 25 to 34 and 45 to 54 age groups; and similar in the 35 to 44 and 75 year and over age groups.

Male admission rates were higher than those for females in all socioeconomic status groups (Figure 4.41). The rate of male admissions in the lowest SES group was 48% higher than the rate in the highest SES group: for females, the differential was 39%.

When analysed by remoteness, admission rates were higher for males than for females in the Major Cities and Very Remote areas (Figure 4.42). The Very Remote areas also had rates almost one and a half times those in Major Cities for both males and females.

Hospital admissions for respiratory system diseases, South Australia, 2005/06

Figure 4.40: Admissions by age and sex

Rate per 100,000

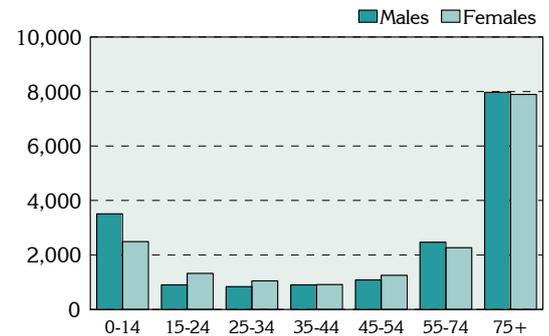


Figure 4.41: Admissions: by socioeconomic status and sex

Rate ratio: Male 1.48; Female 1.39

Rate per 100,000

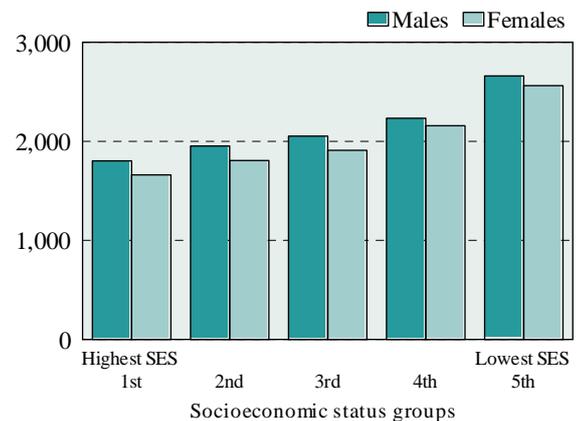
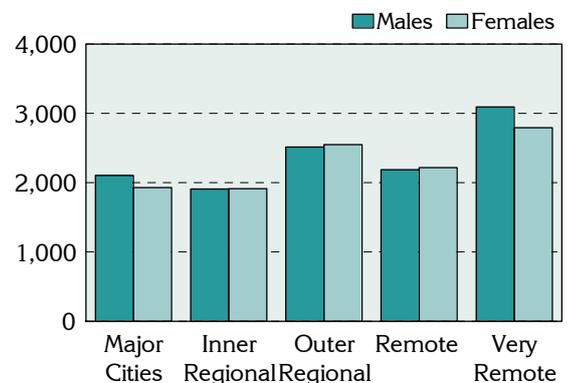


Figure 4.42: Admissions: by remoteness and sex

Rate ratio: Male 1.47; Female 1.45

Rate per 100,000



Hospital admissions – Admissions of males for respiratory system diseases, 2005/06

In both Central Northern Adelaide (a standardised ratio (SR) of 98, 8,019 admissions) and Southern Adelaide (98, 3,397) Health Regions, the number of admissions of males for respiratory system diseases was consistent with the level expected from the State rate. At the sub-region/district level, the lowest ratios were recorded for males in the Central East sub-region (an SR of 78**) and Hills District (81**).

In country South Australia, South East and Hills Mallee Southern had lower than expected ratios, while Mid North, Northern & Far Western and Eyre had ratios that were higher than expected.

Table 4.23: Hospital admissions – Male admissions for respiratory system diseases, by Health Region, South Australia, 2005/06

Health Region	Number	Rate ¹	SR ²
Central Northern Adelaide	8,019	2,104.0	98
Northern sub-region	4,003	2,480.0	116**
Western sub-region	2,152	1,982.6	93**
Central East sub-region	1,864	1,676.5	78**
Southern Adelaide	3,397	2,096.1	98
Urban Beaches District	1,500	2,138.3	100
Hills District	641	1,737.3	81**
Outer Southern District	1,256	2,282.8	107*
Metropolitan Adelaide (excl. Gawler)	11,416	2,101.6	98*
Hills Mallee Southern	1,257	1,988.1	93**
South East	610	1,891.8	88**
Wakefield	1,178	2,165.8	101
Mid North	533	3,100.5	145**
Riverland	377	2,151.1	100
Eyre	432	2,376.7	111*
Northern & Far Western	702	2,851.1	133**
Country South Australia (incl. Gawler)	5,089	2,238.1	104**

¹ Rate is the number of admissions per 100,000 population

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

Metropolitan Adelaide

The SLAs with the most highly elevated ratios of male admissions for respiratory system diseases were Salisbury Balance (an SR of 150**, 147 admissions) and - Inner North (133**, 310); Playford - Elizabeth (144**, 408) and - West Central (137**, 187); Tea Tree Gully - Hills (134**, 160) and - South (127**, 441); Marion - North (125**, 366); Onkaparinga - Hackham (123**, 164); and Port Adelaide Enfield - East (120**, 402) (Map 4.27).

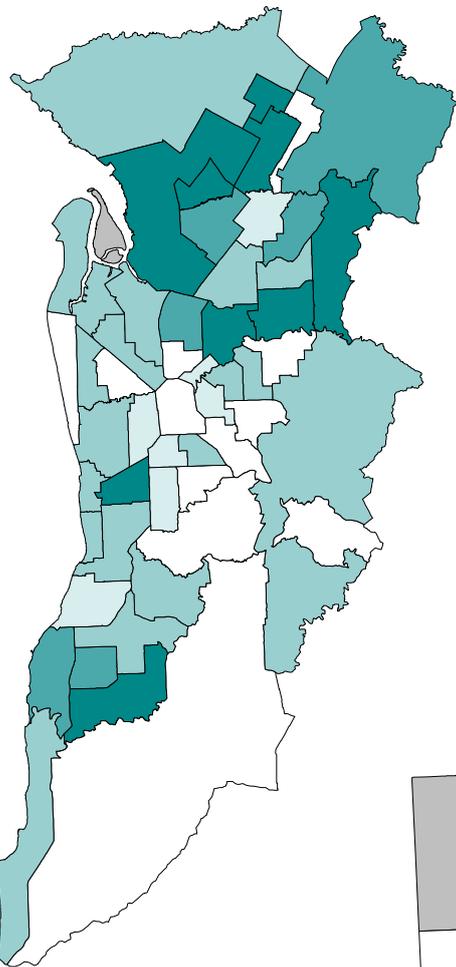
Lower than expected ratios were recorded for the SLAs of Burnside - South-West and - North-East; Campbelltown - East; Prospect; Adelaide Hills - Central; Playford - East Central; Mitcham - North-East and - Hills; Onkaparinga - Hills; Charles Sturt - Coastal and - Inner East; and Adelaide.

Country SA

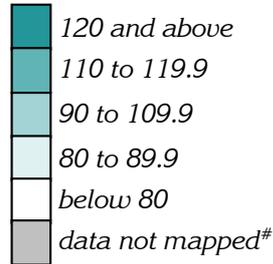
There were six times the numbers of male admissions for respiratory system diseases in Unincorporated West Coast than expected (an SR of 605**, 29 admissions) (Map 4.28). Highly elevated ratios were also recorded in Coober Pedy (an SR of 221**, 54 admissions), Mount Remarkable (213**, 76), Tatiara (193**, 150), Orroroo/Carrieton (181**, 22), Ceduna (180**, 75), The Coorong (180**, 117), Southern Mallee (178**, 47), Flinders Ranges (176**, 39), Port Augusta (168**, 250), Unincorporated Flinders Ranges (167**, 20), Port Pirie Districts - City (157**, 249) and Wakefield (137**, 105). Barunga West and Northern Areas also had slightly elevated rates.

The lowest ratios were in the south-east of the State, in the SLAs of Grant, Robe, Wattle Range - East and Kingston. Other areas with lower than expected ratios included Kimba, Mount Barker Balance, Yankalilla, Alexandrina - Strathalbyn and Unincorporated Far North.

Map 4.27 and Map 4.28: Hospital admissions of males for respiratory system diseases, Metropolitan Adelaide and country SA, 2005/06



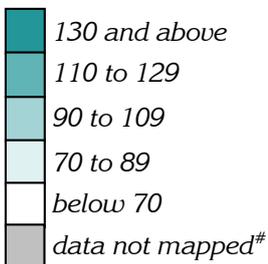
Standardised ratio (as an index)*, by SLA



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

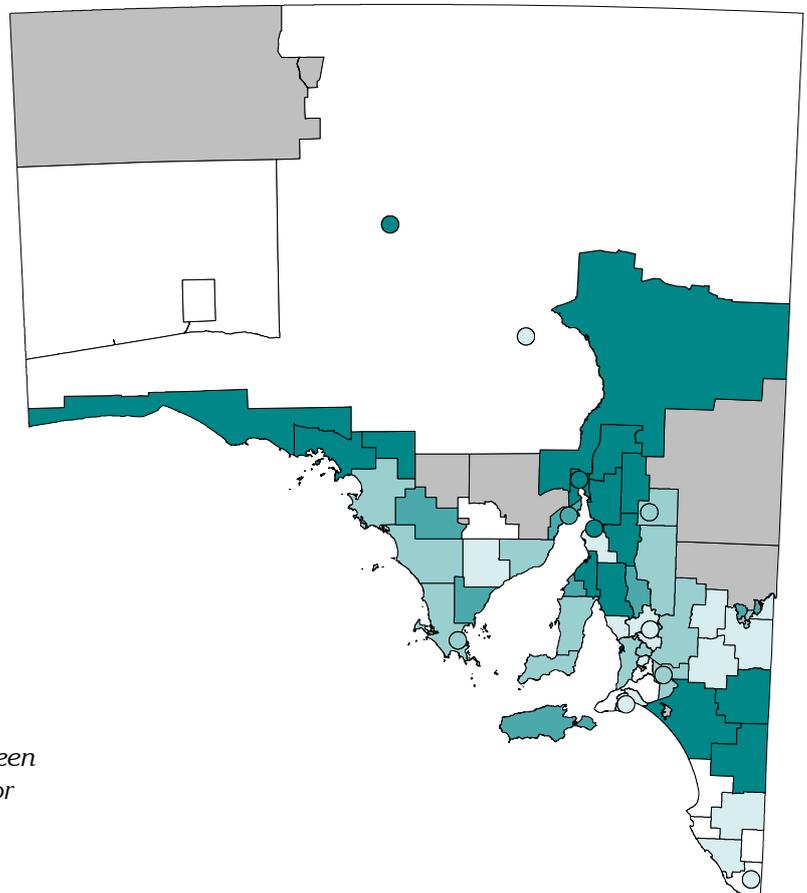
Data not mapped because there were between one to four admissions over the time period; or the SLA has a population of less than 100

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 admissions over the time period; or the SLA has a population of less than 100



Hospital admissions – Admissions for diseases of the musculoskeletal system and connective tissue

Diseases of the musculoskeletal system and connective tissue include conditions of the muscles and the skeleton such as bones, joints and tendons. Such diseases include osteoporosis and various types of arthritis. Physical inactivity has been identified as a behavioural risk factor for osteoarthritis, but not for rheumatoid arthritis. Lack of physical exercise has also been identified as a risk factor for osteoporosis, particularly during growth and adolescence. However, females who exercise excessively are also at risk due to oestrogen loss and mechanical stress on the skeleton (52).

Arthritis is a condition most prevalent in older Australians, affecting 49% of both Indigenous and non-Indigenous people aged 65 years and over in 2004–05 (53). Although similar rates of arthritis were reported for older Indigenous and non-Indigenous Australians in 2004–05, arthritis was more prevalent among Indigenous people in younger age groups (53).

Rates of admission for diseases of the musculoskeletal system and connective tissue increase with age for both men and women, although much more steeply for men in the younger age groups and for women at older ages (Figure 4.43). This greater rate of increase, in particular in the 75 year and over age group, is largely a result of osteoporosis and associated bone fragility. The gap in rates for men and women at younger ages (higher rates for men) almost disappears in the 45 to 54 year age group, and is reversed at older ages (higher rates for women).

There was little variation by socioeconomic status, with rates in the lowest SES group slightly lower than those in the highest SES group for both males and females (Figure 4.44). Across all groups, female rates were slightly higher than those for males.

The pattern of admissions by remoteness showed the lowest rates occurring in the Very Remote areas; however, rates in the other remoteness classes were all higher than expected in the Major Cities areas, with the highest occurring in the Outer Regional areas (Figure 4.45).

Hospital admissions for diseases of the musculoskeletal system and connective tissue, South Australia, 2005/06

Figure 4.43: Admissions by age and sex

Rate per 100,000

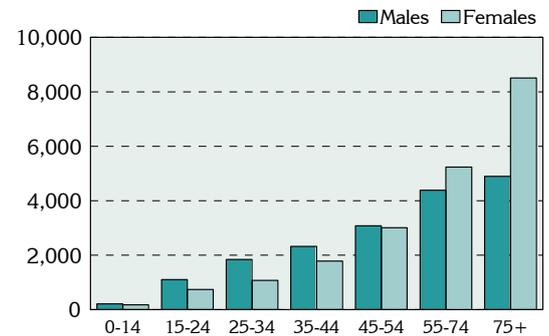


Figure 4.44: Admissions: by socioeconomic status and sex

Rate ratio: Male 0.97; Female 0.94

Rate per 100,000

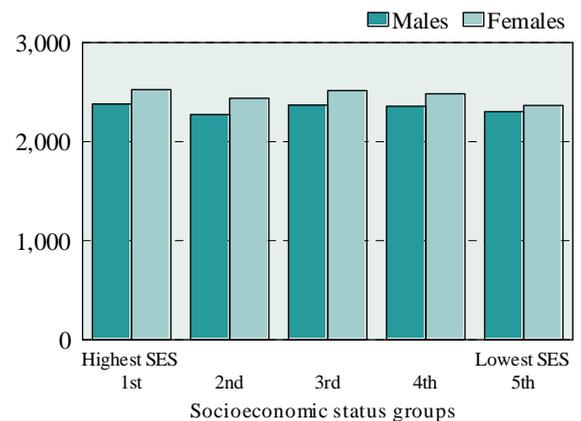
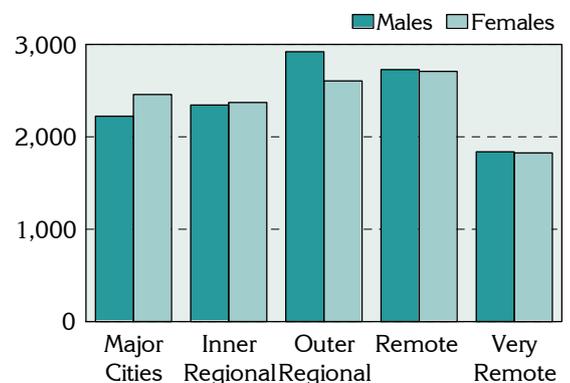


Figure 4.45: Admissions: by remoteness and sex

Rate ratio: Male 0.82; Female 0.74

Rate per 100,000



Hospital admissions – Admissions of males for diseases of the musculoskeletal system and connective tissue, 2005/06

There were 10% fewer admissions of males for diseases of the musculoskeletal system and connective tissue in Central Northern Adelaide Health Region (a standardised ratio (SR) of 90**, 8,070 admissions) than expected from the State rate. In Southern Adelaide, there were 7% more admissions than expected (an SR of 107**, 4,046 admissions).

All health regions in county SA had more admissions of males for these diseases than expected, with the exception of Hills Mallee Southern, with a number consistent with the State rate. The most highly elevated ratio was in Riverland, an SR of 132** and 529 admissions.

Table 4.24: Hospital admissions – Male admissions for diseases of the musculoskeletal system and connective tissue, by Health Region, South Australia, 2005/06

Health Region	Number	Rate ¹	SR ²
Central Northern Adelaide	8,070	2,112.8	90**
Northern sub-region	3,465	2,177.0	93**
Western sub-region	2,312	2,137.4	91**
Central East sub-region	2,293	2,000.4	86**
Southern Adelaide	4,046	2,493.7	107**
Urban Beaches District	1,678	2,417.0	103
Hills District	980	2,557.5	109**
Outer Southern District	1,388	2,546.5	109**
Metropolitan Adelaide (excl. Gawler)	12,116	2,226.3	95**
Hills Mallee Southern	1,478	2,307.8	99
South East	837	2,636.0	113**
Wakefield	1,481	2,732.5	117**
Mid North	431	2,566.9	110
Riverland	529	3,095.3	132**
Eyre	452	2,542.9	109
Northern & Far Western	682	2,759.4	118**
Country South Australia (incl. Gawler)	5,890	2,601.9	111**

¹ Rate is the number of admissions per 100,000 population

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

Metropolitan Adelaide

Playford - Hills had the most highly elevated admission ratio for males with diseases of the musculoskeletal system and connective tissue, with more than twice the number of admissions than expected (an SR of 228**, 88 admissions) (Map 4.29). Elevated ratios were also recorded in the SLAs of Adelaide Hills - Ranges (an SR of 140**, 176) and - Central (129**, 192); Holdfast Bay - South (126**, 230); Mitcham - North-East (121**, 223); and Playford - West (120*, 121).

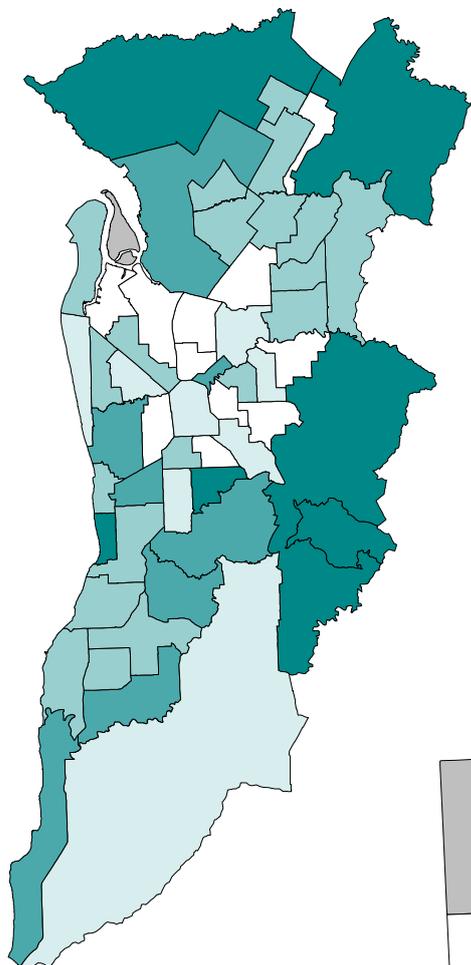
Lower than expected ratios were recorded for Port Adelaide Enfield - Park, - Inner and - Port; Playford - East Central; West Torrens - East; Unley - East; Prospect; Norwood Payneham St Peters - West; Burnside - North-East; Campbelltown - East; and Salisbury - South-East.

Country SA

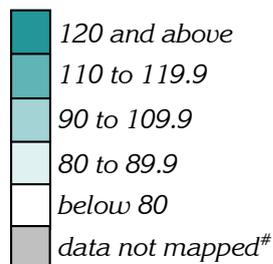
In country SA (Map 4.30), elevated ratios for admissions of males for these diseases covered a wide area, including Unincorporated West Coast (an SR of 271**, 16 admissions); Port Pirie Districts Balance (213**, 96); Lower Eyre Peninsula (199**, 113); Tatiara (175**, 148); Unincorporated Far North (172**, 41); Renmark Paringa - Paringa (161**, 38); Berri & Barmera - Barmera (157**, 83) and - Berri (148**, 117); The Coorong (155**, 113); Barossa - Tanunda (150**, 84); Southern Mallee (145*, 41); Loxton Waikerie - West (142**, 83); and Yorke Peninsula - North (142**, 154). Other areas with high ratios were Whyalla, Peterborough, Grant, Wakefield, and Yankalilla.

Lower than expected ratios were recorded in the SLAs of Ceduna (an SR of 60, 25 admissions), Coober Pedy (56, 18), Streaky Bay (54, 15) and Unincorporated Flinders Ranges (49, 7).

Map 4.29 and Map 4.30: Hospital admissions of males for diseases of the musculoskeletal system and connective tissue, Metropolitan Adelaide and country SA, 2005/06

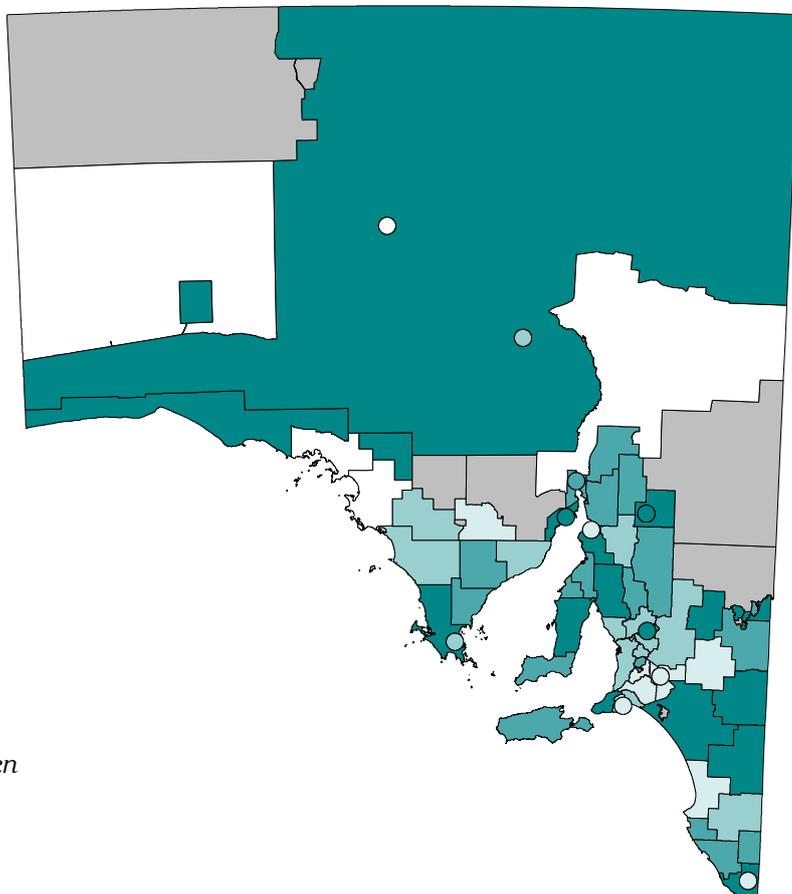


Standardised ratio (as an index)*, by SLA

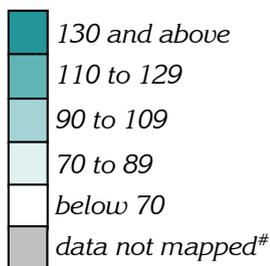


* Expected numbers were derived by indirect standardisation, based on totals for the metropolitan region

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

Hospital admissions – Admissions for injuries, poisoning and other consequences of external injury

This category of hospital admissions for injuries includes falls, transport accidents, exposure to mechanical forces, other external causes of injury, assault, self harm, and other causes of injury. Further details are provided in Table A1, in the Appendix.

Injuries are the principal cause of death in almost half of the people under 45 years of age in Australia, and account for a range of physical, cognitive and psychological disabilities that may seriously affect the quality of life of injured people and their families. Significant health costs are also attributable to injury, accounting for approximately 8% of the total direct costs of all diseases annually (4).

Males had a 22% higher rate of injury admissions (2,524 admissions per 100,000 population) than females (2,067 admissions per 100,000 population) (Table 4.18). This higher rate was evident at all but the oldest ages (Figure 4.46): below the 55 to 74 year age group, men had higher rates (and, in some cases, substantially higher), and above this age group, rates for women were substantially higher. The high incidence of falls is likely to be the cause of the substantial increase (almost five times) in the rate for women in the oldest group over that in the 55 to 74 year age group.

Males had a 30% higher rate of admission for injuries in the lowest SES areas than in the highest SES areas (a rate ratio of 1.30), while for females, the difference was 13% (Figure 4.47). The rates across all SES groups were higher for males than for females.

Admission rates increased strongly with remoteness, with the rate of injury admissions for males twice as high in the Very Remote areas as in the Major Cities areas (Figure 4.48): female rates were more than one and a half times higher. Across all remoteness areas, male rates of admission for injuries were notably higher compared with those for females.

Hospital admissions for injury, poisoning and other consequences of external causes, South Australia, 2005/06

Figure 4.46: Admissions by age and sex

Rate per 100,000

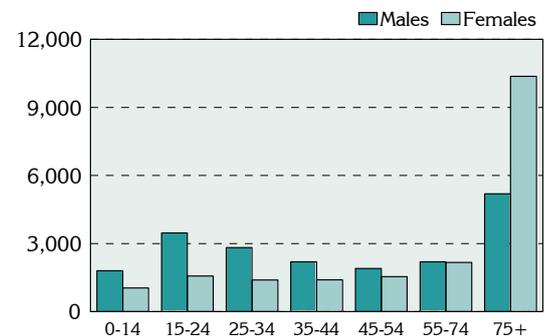


Figure 4.47: Admissions: by socioeconomic status and sex

Rate ratio: Male 1.30; Female 1.13

Rate per 100,000

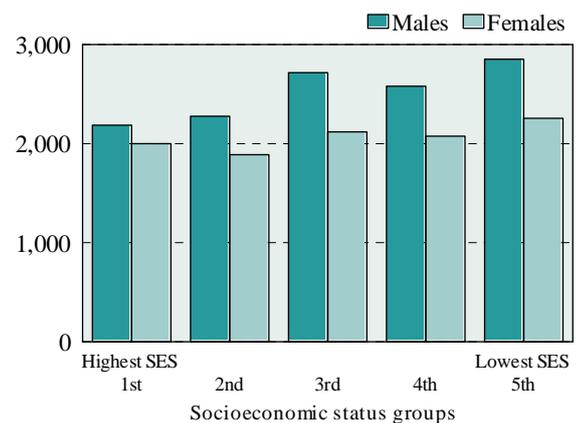
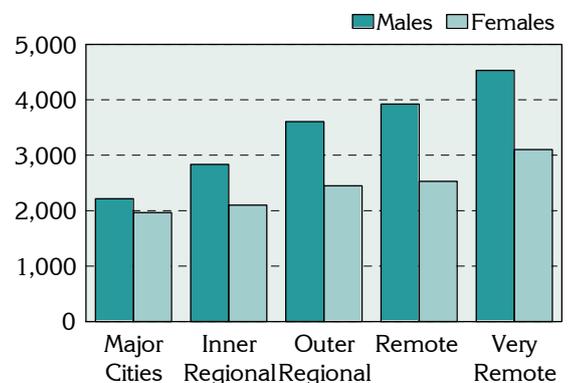


Figure 4.48: Admissions: by remoteness and sex

Rate ratio: Male 2.05; Female 1.58

Rate per 100,000



Hospital admissions – Admissions of males for injury, poisoning and other consequences of external causes

There were fewer admissions of males living in Metropolitan Adelaide for injury, poisoning and other consequences of external causes than were expected from the State rate, and fewer in both Central Northern Adelaide and Southern Adelaide Health Regions (SRs of 87 and 90, respectively).

In country South Australia, all health regions had elevated ratios, with the overall ratio in country SA being 31% higher than expected (an SR of 131**, 7,229 admissions). It is pertinent to note that the data refer to the location of the usual address of the person admitted, and not to the location of the event leading to the admission (which may be the same).

Table 4.25: Hospital admissions – Male admissions for injury, poisoning and other consequences of external causes, by Health Region, South Australia, 2005/06

Health Region	Number	Rate ¹	SR ²
Central Northern Adelaide	8,513	2,185.0	87**
Northern sub-region	3,909	2,339.1	93**
Western sub-region	2,239	2,091.1	83**
Central East sub-region	2,365	2,049.0	81**
Southern Adelaide	3,707	2,272.7	90**
Urban Beaches District	1,586	2,298.8	91**
Hills District	758	2,002.9	79**
Outer Southern District	1,363	2,422.0	96
Metropolitan Adelaide (excl. Gawler)	12,220	2,210.9	88**
Hills Mallee Southern	1,823	3,053.2	121**
South East	1,111	3,486.1	138**
Wakefield	1,575	3,066.6	122**
Mid North	527	3,380.5	134**
Riverland	544	3,266.9	129**
Eyre	723	4,131.8	164**
Northern & Far Western	926	3,677.3	146**
Country South Australia (incl. Gawler)	7,229	3,318.2	131**

¹ Rate is the number of admissions per 100,000 population

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

Metropolitan Adelaide

The most highly elevated ratio, indicating 67% more admissions of males for injuries than expected from the State rate, was in Walkerville (an SR of 167**, 152 admissions): in the adjacent SLA of Adelaide, there were 18% more admissions than expected (an SR of 118**, 298) (Map 4.31). Other areas with higher than expected ratios were largely in the outer north in Playford - Hills (an SR of 127, 54 men) - Elizabeth (124**, 388) and - West Central (114, 183); and in Salisbury Balance (119*, 155).

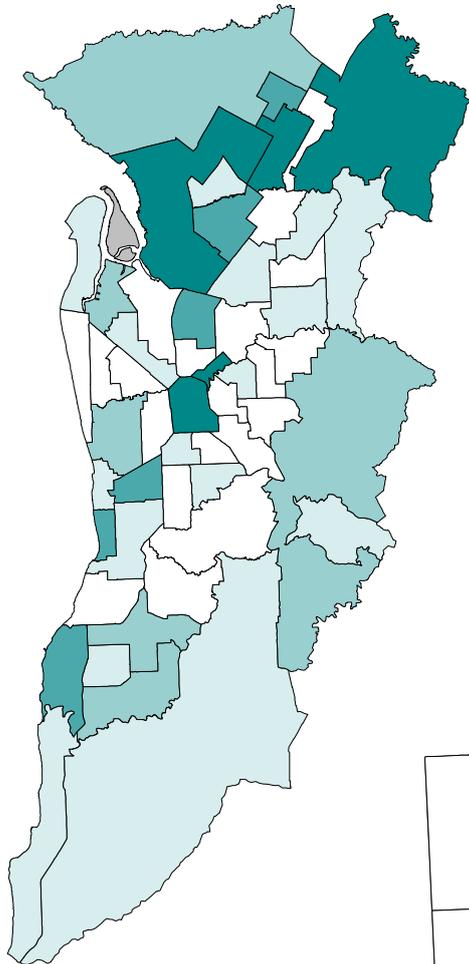
SLAs with ratios more than 30% lower than expected included Unley - East, West Torrens - East, Prospect, Burnside - North-East, Campbelltown - East and Tea Tree Gully - Central.

Country SA

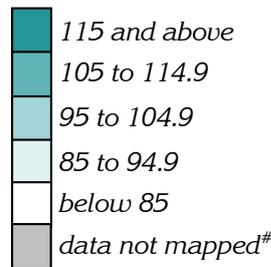
Injury admissions for males were high throughout a majority of country SLAs (Map 4.32), including Unincorporated West Coast (an SR of 391**, 26 admissions), Elliston (361**, 53), Unincorporated Riverland (275*, 5), Peterborough (260**, 65), Le Hunte (230**, 41), Tatiara (224**, 208), Coober Pedy (218**, 59), The Coorong (216**, 158), Ceduna (213**, 99), Southern Mallee (207**, 60), Orroroo/Carrieton (193**, 24), Port Augusta (193**, 344), Kangaroo Island (190**, 106), Port Pirie Districts Balance (180**, 82), Flinders Ranges (180**, 82), Unincorporated Flinders Ranges (176**, 27), Tumby Bay (173**, 59), Barunga West (167**, 58) and Wattle Range - West (164**, 183).

Lower than expected ratios were recorded in Anangu Pitjantjatjara.

Map 4.31 and Map 4.32: Hospital admissions of males for injury, poisoning and other consequences of external causes, Metropolitan Adelaide and country SA, 2005/06



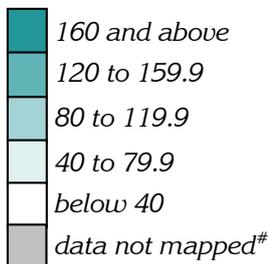
Standardised ratio (as an index)*, by SLA



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

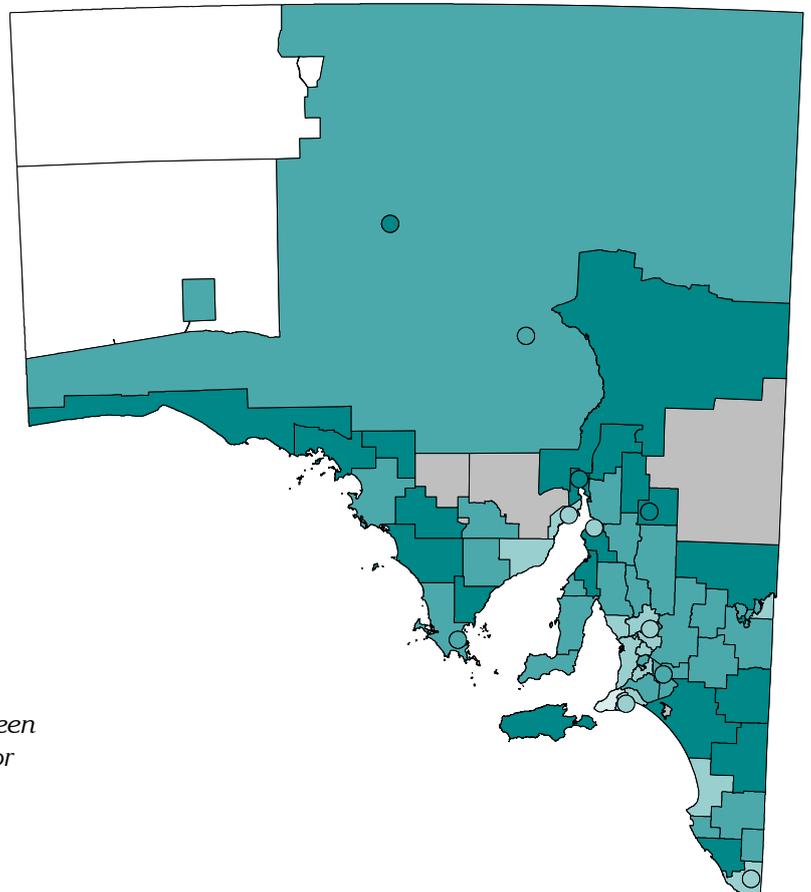
[#] Data not mapped because there were between one to four admissions over the time period; or the SLA has a population of less than 100

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 admissions over the time period; or the SLA has a population of less than 100



Hospital admissions – Admissions for tonsillectomy

Tonsillectomy involves the removal of a person's tonsils where, for example, there has been repeated infection of the tonsils over an extended period. There has been a trend of declining admission rates for tonsillectomies for some time.

The majority of admissions for tonsillectomy occur in children aged 0 to 14 years, with boys at these ages accounting for 66.1% all admissions of males for a tonsillectomy, and girls for 50.3% (Table 4.18). However, overall, males accounted for 44.9% of these admissions, compared with 55.1% for females. For males, admissions were generally at younger ages (66.1% at ages 0 to 14 years) than for females (50.3% at ages 0 to 14 years), with females more likely than males to be aged 15 to 24 years (18.3% of these admissions for females, and 6.9% for males) (Figure 4.49). At older ages, there was little difference in the rates of admission.

When examined by socioeconomic status, the rates in the lowest SES areas were only slightly higher than in the highest SES areas for both males and females (Figure 4.50). Male rates were lower when compared with females in all SES groups.

Rates also varied by remoteness, although the variations were different for males and females (Figure 4.51). For males, rates were 15% lower in the Very Remote areas than in the Major City areas (a rate ratio of 0.85), although the lowest rates were recorded in the Outer Regional areas. For females, there was only a marginal difference in rates between the Major Cities and Very Remote areas, with the highest rate in the Remote areas.

Hospital admissions for tonsillectomy, South Australia, 2005/06

Figure 4.49: Admissions by age and sex

Rate per 100,000

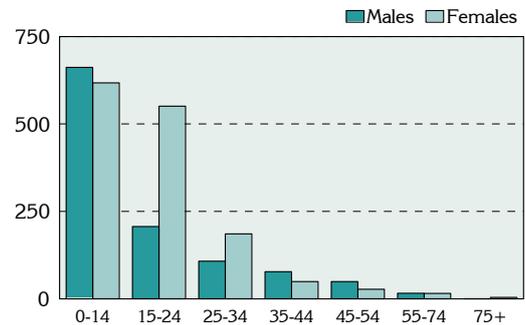


Figure 4.50: Admissions: by socioeconomic status and sex

Rate ratio: Male 1.07; Female 1.06

Rate per 100,000

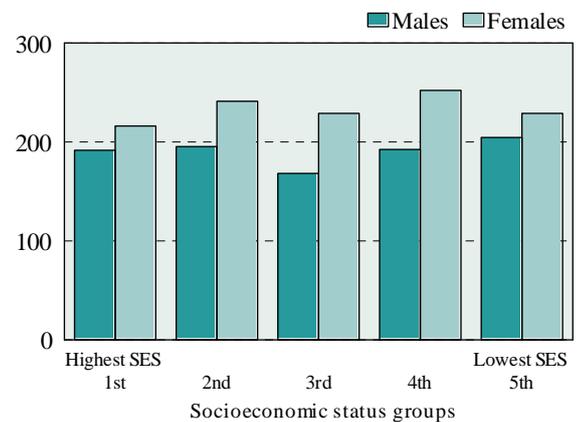
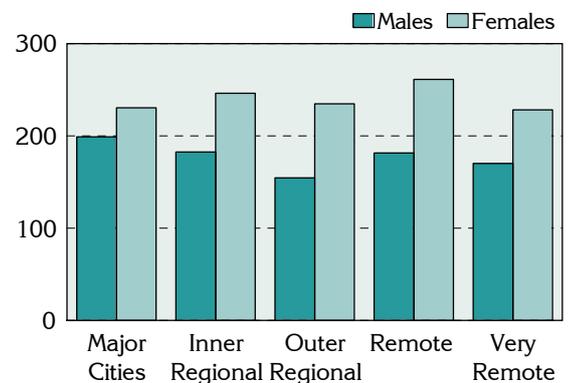


Figure 4.51: Admissions: by remoteness and sex

Rate ratio: Male 0.85; Female 0.99

Rate per 100,000



Hospital admissions – Admissions of males for tonsillectomy, 2005/06

Both Central Northern Adelaide (with a standardised ratio (SR) of 104, 759 admissions) and Southern Adelaide (an SR of 105, 319 admissions) Health Regions had more than the expected number of admissions from the State rate. In country SA, South East (an SR of 63, 42 admissions), Riverland (54, 18) and Northern & Far Western (84, 46) all had fewer admissions than expected.

Table 4.26: Hospital admissions – Male admissions for tonsillectomy, by Health Region, South Australia, 2005/06

Health Region	Number	Rate ¹	SR ²
Central Northern Adelaide	759	198.2	104
Northern sub-region	380	205.9	108
Western sub-region	184	192.6	101
Central East sub-region	195	189.5	99
Southern Adelaide	319	199.3	105
Urban Beaches District	114	187.1	98
Hills District	78	206.6	108
Outer Southern District	127	206.9	109
Metropolitan Adelaide (excl. Gawler)	1,078	198.5	104
Hills Mallee Southern	113	190.1	100
South East	42	120.8	63**
Wakefield	100	191.1	100
Mid North	32	202.8	106
Riverland	18	102.2	54**
Eyre	40	209.9	110
Northern & Far Western	46	160.9	84
Country South Australia (incl. Gawler)	391	171.8	90*

¹ Rate is the number of admissions per 100,000 population

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

Metropolitan Adelaide

The most highly elevated ratios were in the SLAs of Walkerville (an SR of 194*, although only 11 admissions); Norwood Payneham St Peters - East (172**, 23); Salisbury Balance (164*, 20); Playford - Hills (160, 6) and - West (135, 13); Tea Tree Gully - Hills (148, 17) and - Central (131, 36); Onkaparinga - Hackham (147, 22); Port Adelaide Enfield - Park (145, 21); Mitcham - North-East (136, 18) and Adelaide Hills - Ranges (128, 13) (Map 4.33).

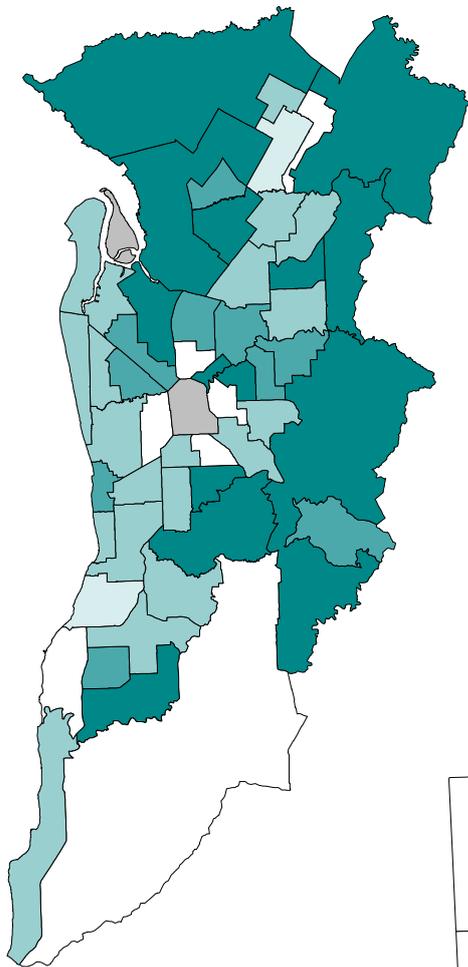
Lower than expected ratios were recorded in Playford - East Central; Onkaparinga - Hills and - North Coast; West Torrens - East; Unley - East; Norwood Payneham St Peters - West; and Prospect.

Country SA

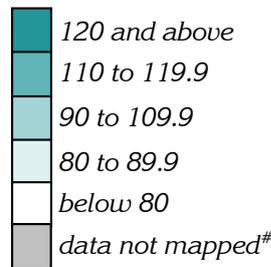
In country SA (Map 4.34), the highest ratios of admission for men for a tonsillectomy were in Victor Harbor (an SR of 163, 14 admissions), Ceduna (161, 7), Goyder (153, 6), Mid Murray (146, 10), Wakefield (141, 9), The Coorong (138, 8), Clare and Gilbert Valleys (137, 11) and Port Pirie Districts - City (136, 19).

The lowest ratios were in the SLAs of Wattle Range - West, Murray Bridge, Mount Barker - Balance, Naracoorte and Lucindale, Copper Coast, Adelaide Hills - North and Alexandrina - Coastal.

Map 4.33 and Map 4.34: Hospital admissions of males for tonsillectomy, Metropolitan Adelaide and country SA, 2005/06

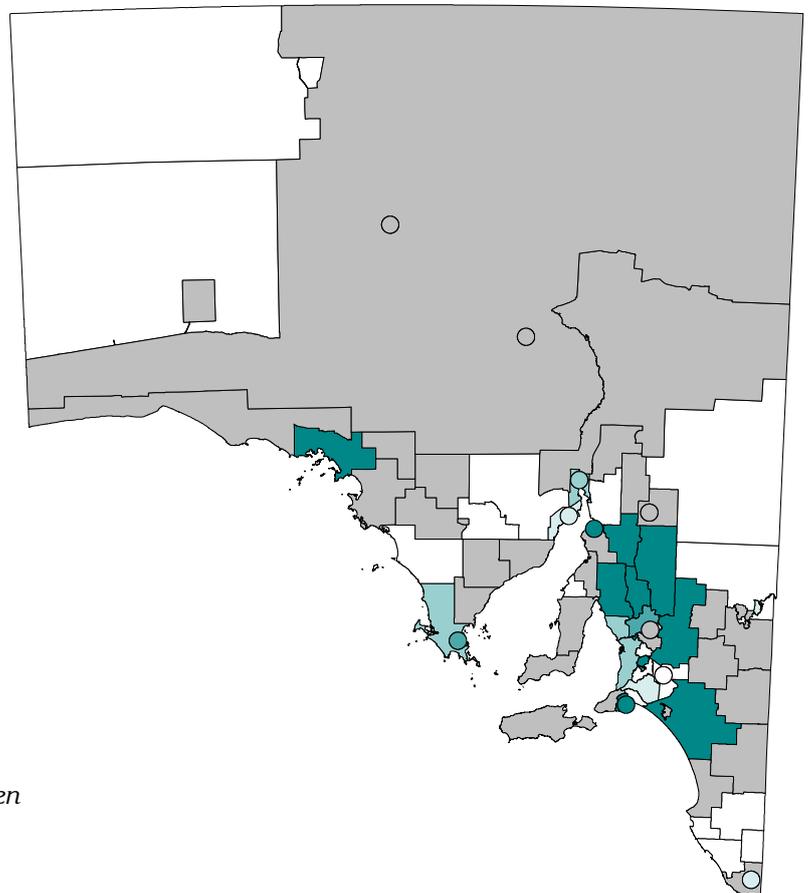


Standardised ratio (as an index)*, by SLA

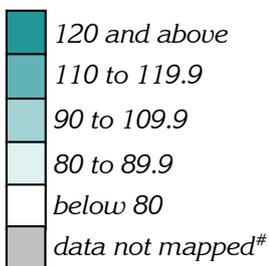


* Expected numbers were derived by indirect standardisation, based on totals for the metropolitan region

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

Hospital admissions – Aboriginal population

Aboriginal males continue to suffer mortality and morbidity at much higher rates than non-Indigenous males, and have a reduced quality of life and high rates of illness and premature death (16).

Aboriginal men are seldom involved with the planning and delivery of health services, which can result in a lack of focus on men's health in services and programs (2). Aboriginal men's health is also different to that for women, and is seen as a whole male community issue, rather than an individual issue (2).

Note: References to 'Aboriginal' in the text should be read as including Torres Strait Islander peoples.

In this section, information is provided of hospital admission rates for Aboriginal males. A comparison of admission rates by age and sex for Aboriginal and other Australians is shown below in Table 4.27 (showing numbers and rates) and Table 4.28 (showing rate ratios).

Overall, there is little difference in admission rates for males by Indigenous status, with rates for Indigenous males 4% higher (Table 4.28). However, when examined by age group, there are marked differences, with the greatest being in the 35 to 44 year age group, where the Indigenous rate is nearly three times that of non-Indigenous men (a rate ratio of 2.87). For females, the overall difference is 11%, with the greatest difference in the 35 to 44 (1.90) and 15 to 24 (1.87) year age groups.

For Aboriginal males, those at the youngest and oldest ages have higher rates of admission than Aboriginal females, with around half the number at ages 15 to 24 and 25 to 34 years (Table 4.28).

Table 4.27: Hospital admissions by Indigenous status, age and sex, South Australia, 2005/06-2006/07
Number and Rate

Age (years)	Males				Females			
	Indigenous		Non-Indigenous		Indigenous		Non-Indigenous	
	No.	Rate ¹	No.	Rate ¹	No.	Rate ¹	No.	Rate ¹
0 - 14	1,715	18,421.1	22,270	16,197.8	1,324	14,403.8	16,279	12,414.4
15 - 24	931	18,687.3	13,389	12,944.5	2,132	42,067.9	22,105	22,516.1
25 - 34	933	28,119.3	14,335	14,622.9	2,104	57,707.1	34,614	36,430.2
35 - 44	1,639	52,364.2	20,133	18,276.2	1,904	54,681.2	31,636	28,852.9
45 - 54	1,209	54,118.2	28,187	26,291.3	1,246	51,149.4	33,694	30,743.3
55-64	930	82,010.6	38,717	44,474.7	860	68,580.5	36,998	41,312.9
65+	510	74,561.4	90,759	88,622.7	750	69,962.7	95,054	72,829.4
Total	7,867	31,732.0	227,790	30,543.6	10,320	39,464.6	270,380	35,407.0

¹ Rate is the number of admissions per 100,000 population

Table 4.28: Hospital admissions by Indigenous status, age and sex, South Australia, 2005/06-2006/07
Rate ratio

Age (years)	RR Indigenous: non-Indigenous ¹		RR Males: Females ¹	
	Males	Females	Indigenous	Non-Indigenous
	0 - 14	1.14	1.16	1.28
15 - 24	1.44	1.87	0.44	0.57
25 - 34	1.92	1.58	0.49	0.40
35 - 44	2.87	1.90	0.96	0.63
45 - 54	2.06	1.66	1.06	0.86
55-64	1.84	1.66	1.20	1.08
65+	0.84	0.96	1.07	1.22
Total	1.04	1.11	0.80	0.86

¹ RR is the ratio of the rates for the stated variables

Indigenous admissions – total admissions

Admission rates for Aboriginal males were higher than those for Aboriginal females for all age groups other than the 15 to 24 and 25 to 34, which also had the largest differentials in the male and female rates, and the 35 to 44 year age groups (Figure 4.52).

Admissions of Aboriginal males living in the lowest SES areas were substantially higher than those in the highest SES areas (almost one and a half times, a rate ratio of 1.45) (Figure 4.53). For Aboriginal females, the differential was over two times (a rate ratio of 2.12). For both males and females, the gradient in rates was broken by lower rates in the middle SES areas.

The pattern of admission rates across the remoteness classes for Aboriginal males showed the highest rates were in the Outer Regional areas, where the rate was 80% higher than in the Major Cities areas (a rate ratio of 1.80), with the next highest rates in the Remote and Very Remote areas (Figure 4.54). The differential in rates between the extremes of this remoteness classification was a much lower 31% (a rate ratio of 1.31). Admission rates for females followed these same patterns, but were higher in each remoteness class.

Admissions of Aboriginal people, South Australia, 2005/06-2006/07

Figure 4.52: Admissions, by age and sex
Rate per 100,000

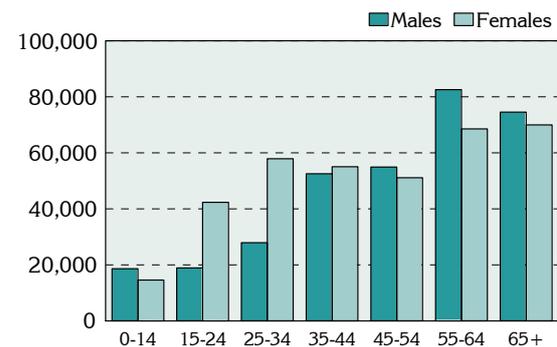


Figure 4.53: Admissions, by socioeconomic status

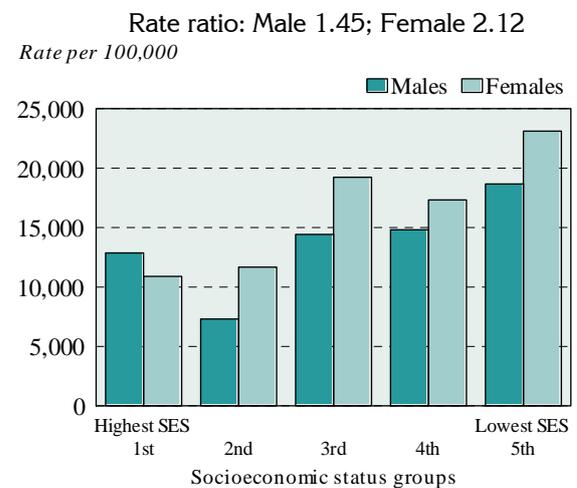
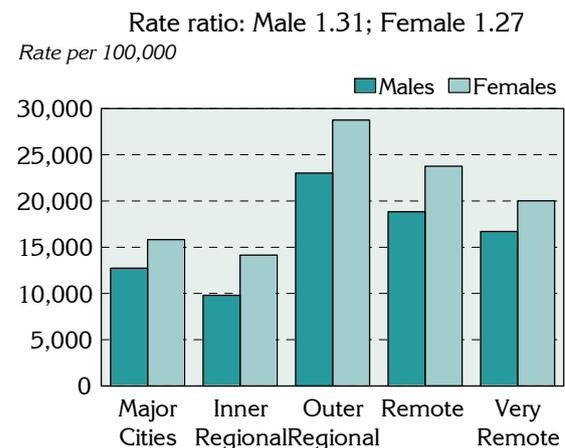


Figure 4.54: Admissions, by remoteness



Hospital admissions: Aboriginal males, all admissions, 2005/06-2006/07

In both Central Northern Adelaide and Southern Adelaide Health Regions, there were fewer admissions of Aboriginal males than expected from the State rate (standardised ratios (SRs) of 88** and 54**, respectively). In Southern Adelaide, Hills District had a very low admission ratio, almost 75% below the State average (an SR of 28**).

There were 16% more admissions of Aboriginal males than expected in country SA (an SR of 116**, 4,916 admissions). Eyre had the most highly elevated ratio, with 94% more admissions than expected (an SR of 194**, 1,077 admissions), and there were 23% more than expected in Northern & Far Western (123**, 2,340). South East had 47% fewer admissions than expected (an SR of 53**, 132 admissions).

Table 4.29: Hospital admissions – Aboriginal males, all admissions, by Health Region, South Australia, 2005/06-2006/07

Health Region	Number	Rate ¹	SR ²
Central Northern Adelaide	2,463	13,904.3	88**
Northern sub-region	1,295	13,120.1	83**
Western sub-region	807	14,782.8	93*
Central East sub-region	361	15,139.4	95
Southern Adelaide	432	8,508.3	54**
Urban Beaches District	180	9,470.1	60**
Hills District	25	4,482.8	28**
Outer Southern District	227	8,667.5	55**
Metropolitan Adelaide (excl. Gawler)	2,895	12,702.2	80**
Hills Mallee Southern	521	12,862.4	81**
South East	132	8,336.8	53**
Wakefield	399	14,419.3	91
Mid North	150	12,007.9	76**
Riverland	297	18,097.3	114*
Eyre	1,077	30,832.8	194**
Northern & Far Western	2,340	19,486.5	123**
Country South Australia (incl. Gawler)	4,916	18,348.3	116**

¹ Rate is the number of admissions per 100,000 population

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

Metropolitan Adelaide

Hospital admissions of Aboriginal males were highest in the metropolitan SLAs of Adelaide (an SR of 209**, 158 admissions), Adelaide Hills - Central (194**, 25), Salisbury Balance (171**, 43), and Port Adelaide Enfield - Park (155**, 161) and - Inner (149**, 171) (Map 4.35).

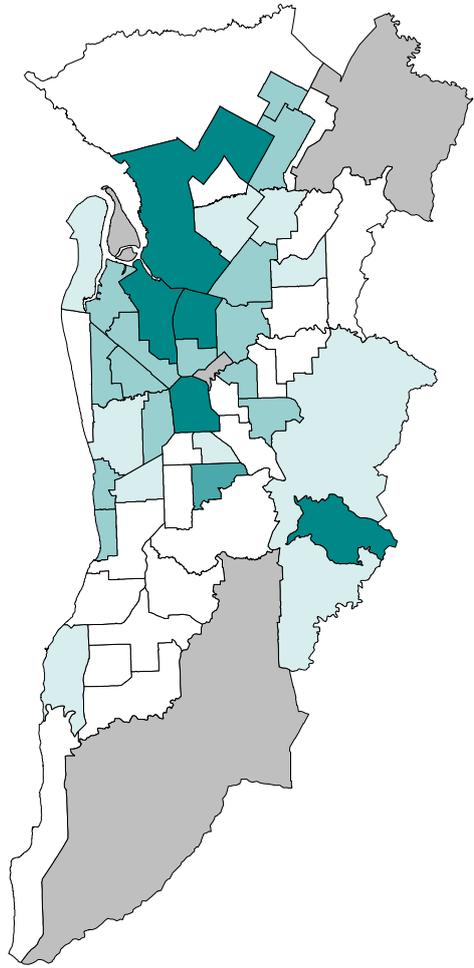
SLAs with admission ratios in the lowest range were Marion - South and - Central; Onkaparinga - Reservoir, - Woodcroft, - South Coast and - Hackham; Tea Tree Gully - Hills, - North and - South; Unley - West; Mitcham - Hills and - West; Playford - East Central and - West; Charles Sturt - Coastal; Norwood Payneham St Peters - West; Campbelltown - West; Salisbury - Inner North; and Burnside - South-West.

Country SA

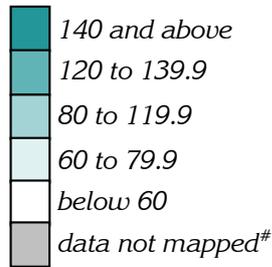
For country SA, SLAs with ratios elevated by 50% or more included Unincorporated West Coast (an SR of 523**, 273 admissions), Coober Pedy (309**, 291), Yorke Peninsula - North (268**, 237), The Coorong (189**, 184), Port Augusta (186**, 1,388), Ceduna (183**, 449), Unincorporated Far North (174**, 88), Whyalla (169**, 365), Renmark Paringa - Renmark (164**, 53), Port Lincoln (159**, 322) and Berri & Barmera - Berri (150**, 112) (Map 4.36).

The majority of the remaining SLAs (with five or more admissions) had ratios in the lowest range.

Map 4.35 and Map 4.36: Hospital admissions: Aboriginal males, total admissions, Metropolitan Adelaide and country SA, 2005/06-2006/07

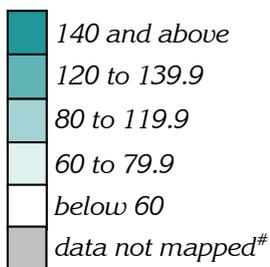


Standardised ratio (as an index)*, by SLA

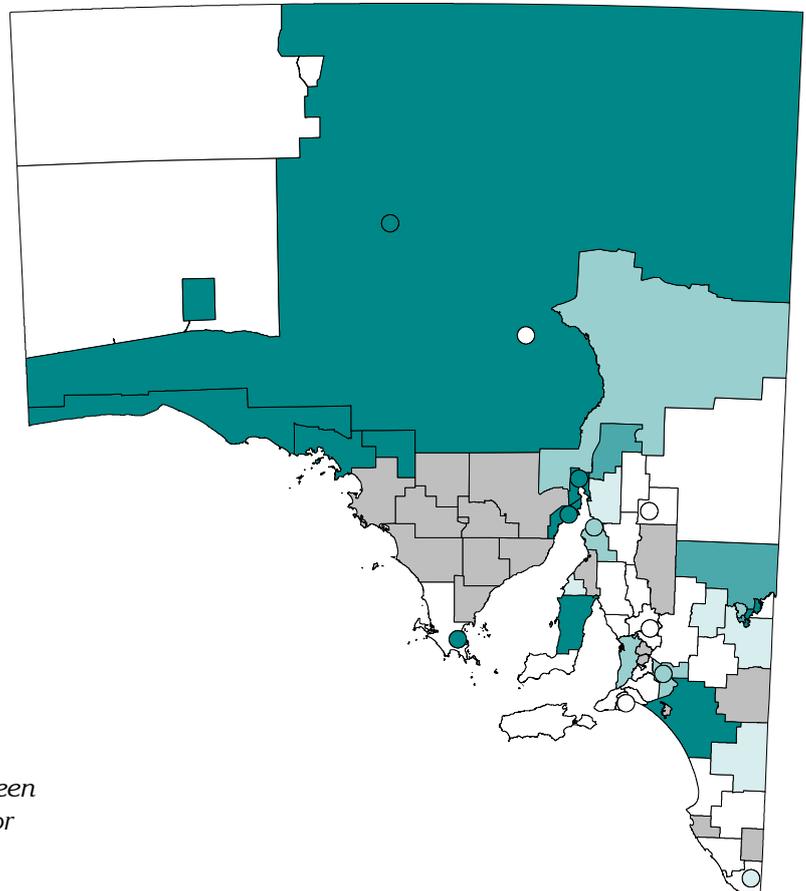


Data not mapped because there were between one to four cases over the time period; or the SLA has a population of less than 100

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 admissions over the time period; or the SLA has a population of less than 100



Indigenous admissions – diabetes mellitus

Diabetes mellitus (generally referred to as diabetes) is a disease that significantly affects the Indigenous population. It manifests in two main forms: Type 1 and Type 2. There are a number of risk factors associated with diabetes, including obesity, poor nutrition and physical inactivity. Its longer term consequences include renal failure, blindness and limb amputation. Hospital admissions for diabetes understate the true prevalence of this disease, but do provide some information on its impact on Aboriginal communities (5).

Aboriginal males were admitted for diabetes at a slightly lower rate than for females in all but the 45 to 55 and 55 to 64 year age groups (Figure 4.55). Admissions increased with age, with the highest rates for men occurring in the 55 to 64 year age groups. The rate of admissions was lower in the 65 year and over age group for men; however, female rates remained high.

Admission rates for Aboriginal males with diabetes increased with increasing socioeconomic disadvantage, with the rate of admissions in the lowest SES areas almost three times higher than for those living in the highest SES areas (a rate ratio of 2.83) (Figure 4.56). Female rates were almost six times higher in the lowest SES group (a rate ratio of 5.77).

Aboriginal males in the most remote areas had admission rates for diabetes of over one and a half times those in the Major Cities remoteness class (a rate ratio of 1.56) (Figure 4.57). Female rates were also higher in the Very Remote areas (a rate ratio of 1.91); however for both males and females, the highest admissions rates occurred in the Outer Regional areas. Across all areas, rates for males were lower than those for females.

Admissions of Aboriginal people for diabetes mellitus, South Australia, 2005/06-2006/07

Figure 4.55: Admissions, by age

Rate per 100,000

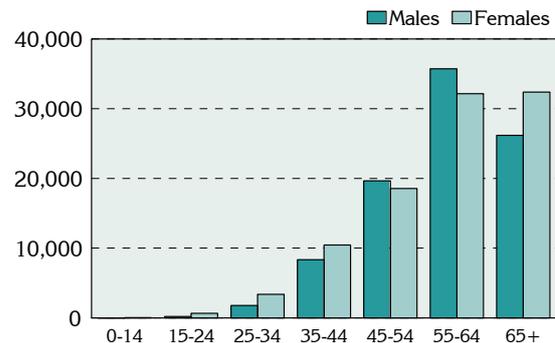


Figure 4.56: Admissions, by socioeconomic status and sex

Rate ratio: Male 2.83; Female 5.77

Rate per 100,000

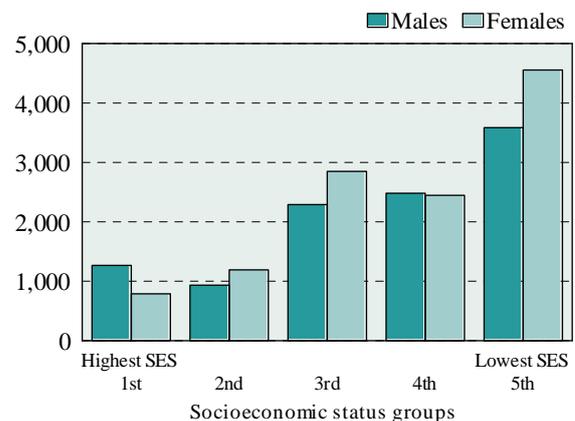
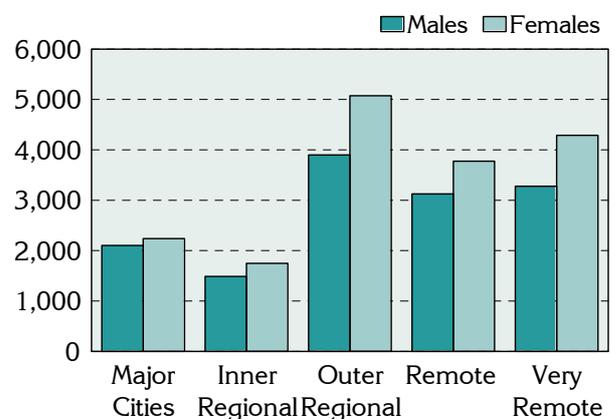


Figure 4.57: Admissions, by remoteness and sex

Rate ratio: Male 1.56; Female 1.91

Rate per 100,000



Hospital admissions: Aboriginal males, for diabetes, 2005/06-2006/07

In Southern Adelaide Health Region, there were 75% fewer admissions of Aboriginal males for diabetes than expected from the State rate (an SR of 25**, 33 admissions). Central Northern Adelaide Health Region also had fewer than the expected number of admissions (an SR of 92, 416 admissions). Overall, there were 23% fewer admissions for diabetes of Aboriginal males living in Metropolitan Adelaide than were expected from the State rate.

In country South Australia, admission rates in Eyre and Northern & Far Western Health Regions were highly elevated (SRs of 204** and 132** respectively). Health regions with fewer admissions than expected included Riverland, South East, Mid North and Wakefield.

Table 4.30: Hospital admissions – Aboriginal males, diabetes admissions, by Health Region, South Australia, 2005/06-2006/07

Health Region	Number	Rate ¹	SR ²
Central Northern Adelaide	416	2,509.9	92
Northern sub-region	220	2,631.3	96
Western sub-region	148	2,618.4	96**
Central East sub-region	48	1,874.1	69**
Southern Adelaide	33	692.2	25**
Urban Beaches District	19	968.6	35**
Hills District	2	360.0	13**
Outer Southern District	12	533.3	20**
Metropolitan Adelaide (excl. Gawler)	449	2,103.8	77
Hills Mallee Southern	99	2,334.4	86
South East	12	708.1	26**
Wakefield	79	2,158.5	79*
Mid North	24	1,677.0	61*
Riverland	62	3,610.4	13*
Eyre	186	5,567.5	204**
Northern & Far Western	438	3,602.7	132**
Country South Australia (incl. Gawler)	900	3,186.7	117**

¹ Rate is the number of admissions per 100,000 population

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

Metropolitan Adelaide

Although numbers were small at the SLA level, the data have been mapped to these areas to allow comparison with other indicators in this report (Map 4.37). SLAs with the largest number of admissions for Aboriginal males for diabetes were Port Adelaide Enfield - Inner (SR 266**, 53 admissions), - Park (200**, 40), and - Port (167**, 27); Adelaide (246**, 26); Charles Sturt - Inner East (165, 13); Playford - Elizabeth (164**, 45) and - West Central (148*, 37); and Norwood Payneham St Peters - East (160, 7).

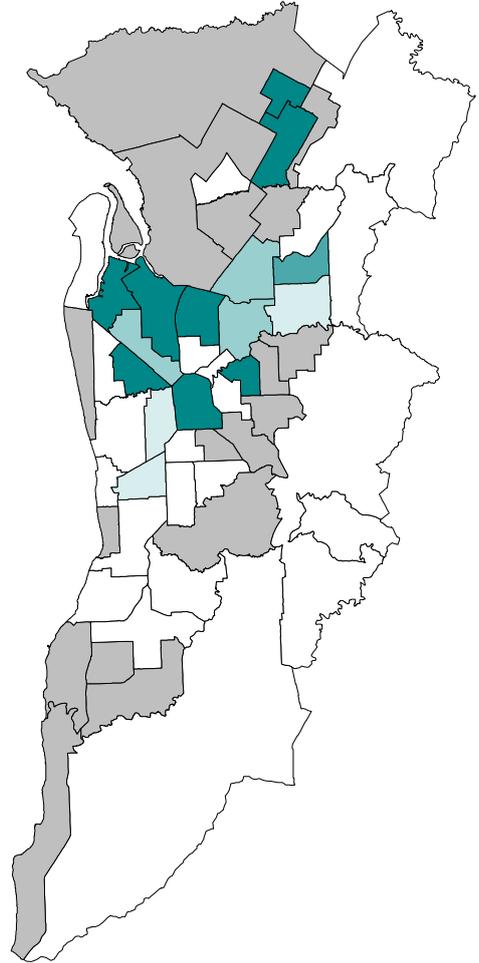
Lower than expected ratios were recorded for a majority of the remaining SLAs (with five or more admissions).

Country SA

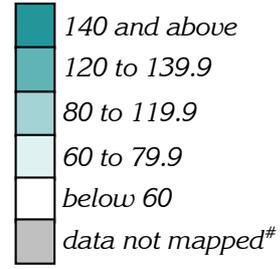
In country SA, elevated ratios for diabetes admissions were recorded for Aboriginal males living in Unincorporated West Coast (SR 586**, 54 admissions), Yorke Peninsula - North (375**, 60), Victor Harbor (363**, 5), Coober Pedy (299**, 55), Berri & Barmera - Berri (249**, 34), Unincorporated Riverland (239**, 15), Unincorporated Far North (222**, 23), Ceduna (199**, 77), Port Augusta (197**, 254), Unincorporated Flinders Ranges (172**, 30), Whyalla (171**, 55), The Coorong (169**, 36), Port Lincoln (157**, 53), Port Pirie Districts - City (141, 22), and Renmark Paringa - Renmark (140, 6).

Lower than expected ratios were recorded for a majority of the remaining SLAs (with five or more admissions).

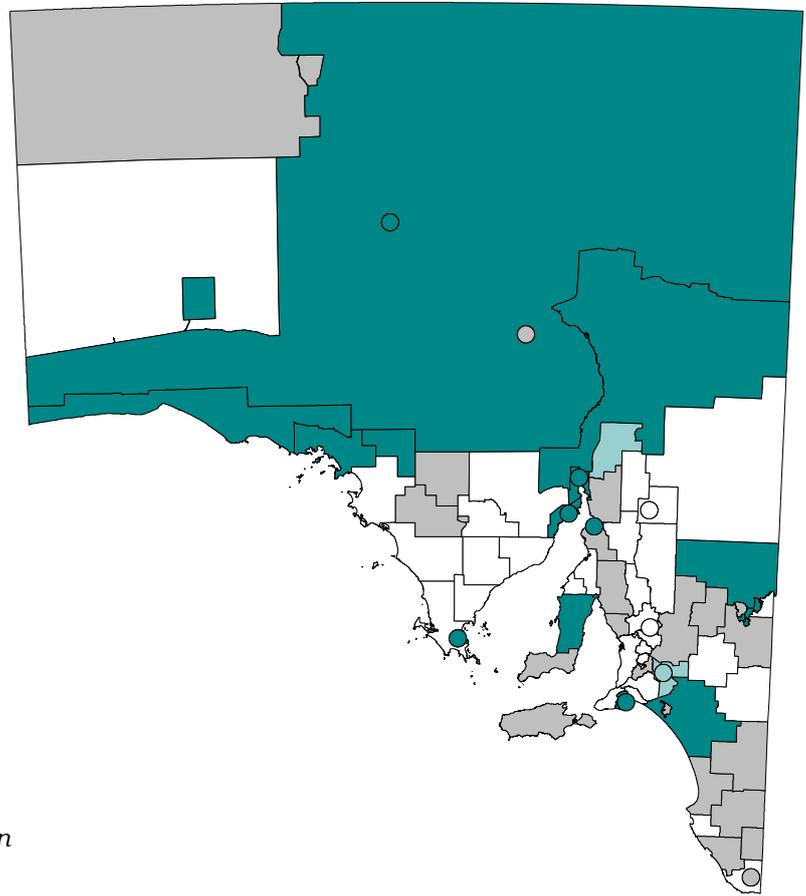
Map 4.37 and Map 4.38: Hospital admissions: Aboriginal males, diabetes, Metropolitan Adelaide and country SA, 2005/06-2006/07



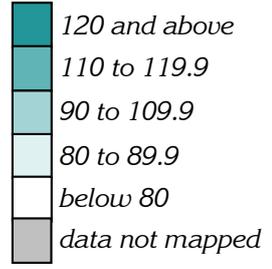
Standardised ratio (as an index)*, by SLA



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 admissions over the time period; or the SLA has a population of less than 100

Indigenous admissions – alcohol-related conditions

While Indigenous people in Australia are less likely to be current drinkers compared to the general population, those who do drink are more likely to do so at risky levels (17).

Alcohol-related conditions which require hospital admission may be acute or chronic. Those listed as chronic are generally those which result from long-term misuse of alcohol (e.g., liver cancer); and those listed as acute tend to result from bouts of intoxication (e.g., assault) (18).

These data were originally published by the SA Aboriginal Health Partnership and PHIDU undertook to update them.

The rates of admission for alcohol-related conditions were higher for Aboriginal males than for females in all age groups. The highest rate of male admissions occurred in the 35 to 44 year age group, with rates decreasing from the 45 to 54 year age group onwards. Similarly, female admission rates were highest in the 35 to 44 year age group before decreasing again from the 45 to 54 year age group. However, the rate in the 65 year and over age group was substantially below that for males (Figure 4.58).

Admissions of males showed a strong association with socioeconomic status, with admissions in the lowest SES areas occurring at more than one and a half times the rate of the highest SES areas (a rate ratio of 1.54) (Figure 4.59). For females, although rates were lower than those for males in each SES group, the differential was even greater with rates in the lowest SES group nearly three times those in the highest SES group (a rate ratio of 2.72).

Figure 4.60 shows admissions by remoteness and sex. The highest rates of admission for both males and females were in the Outer Regional areas: and rates for males were higher than for females across all remoteness classes. Overall, the rate of admissions for males was 29% higher in the Very Remote areas compared with the Major Cities; the differential for females was greater, at 71%.

Admissions of Aboriginal people for alcohol-related conditions, South Australia, 2005/06-2006/07

Figure 4.58: Admissions by age and sex
Rate per 100,000

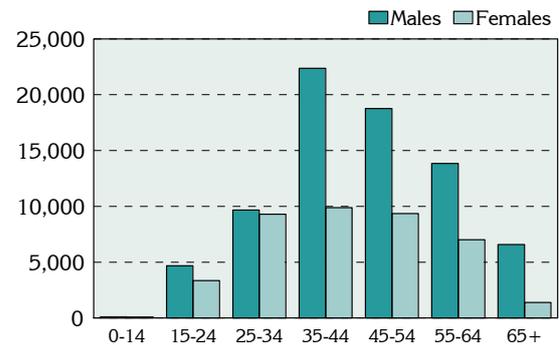


Figure 4.59: Admissions by socioeconomic status and sex

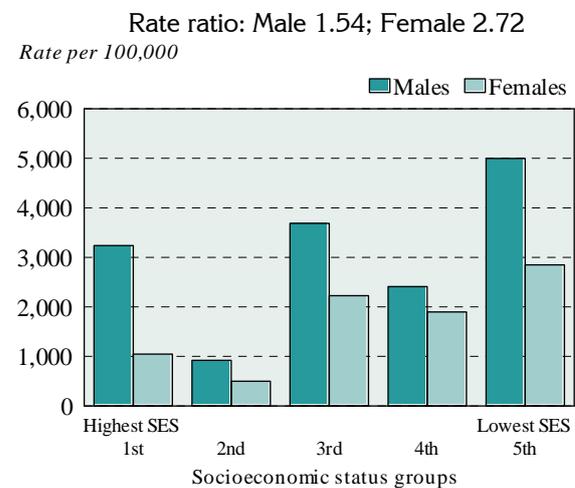
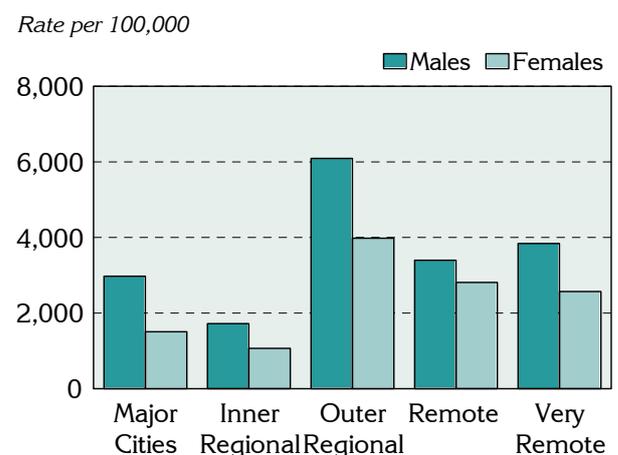


Figure 4.60: Admissions by remoteness and sex
Rate ratio: Male 1.29; Female 1.71



Hospital admissions: Aboriginal males, alcohol-related conditions, 2005/06-2006/07

In Metropolitan Adelaide, admissions of Aboriginal males for alcohol-related conditions were 22% below the State average (an SR of 78**, 666 admissions). Both Central Northern Adelaide (with a standardised ratio (SR) of 89**, 591 admissions) and Southern Adelaide (39**, 75) Health Regions also had fewer admissions than expected.

In country SA, highly elevated ratios were recorded for Aboriginal males living in Northern & Far Western (an SR of 143**, 673 admissions) and Eyre (160**, 217), while South East had an SR of 9**, 91% fewer admissions than expected.

Table 4.31: Hospital admissions – Aboriginal males, alcohol-related conditions, by Health Region, South Australia, 2005/06-2006/07

Health Region	Number	Rate ¹	SR ²
Central Northern Adelaide	591	3,375.9	89**
Northern sub-region	266	2,850.7	75**
Western sub-region	202	3,765.4	99
Central East sub-region	123	4,376.3	115
Southern Adelaide	75	1,483.2	39**
Urban Beaches District	33	1,666.9	44**
Hills District	0	0.0	0**
Outer Southern District	42	1,723.8	45**
Metropolitan Adelaide (excl. Gawler)	666	2,951.8	78**
Hills Mallee Southern	104	2,564.0	67**
South East	5	341.8	9**
Wakefield	114	4,168.1	110
Mid North	33	2,636.5	69*
Riverland	46	2,984.8	79
Eyre	217	6,082.3	160**
Northern & Far Western	673	5,424.6	143**
Country South Australia (incl. Gawler)	1,192	4,411.4	116**

¹ Rate is the number of admissions per 100,000 population

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

Metropolitan Adelaide

Substantially higher than expected numbers of admissions were recorded for Aboriginal males with alcohol-related conditions in the SLAs of Adelaide (an SR of 330**, 87 admissions); Port Adelaide Enfield - Park (227**, 50) and - Inner (185**, 49); and Playford - Elizabeth (157**, 66) (Map 4.39).

SLAs with lower than expected ratios included Salisbury - South-East, - Central, - North-East and - Inner North; Tea Tree Gully - South; Playford - East Central; Mitcham - West; Marion - Central; Campbelltown - West; Charles Sturt - Inner West; and Onkaparinga - North Coast.

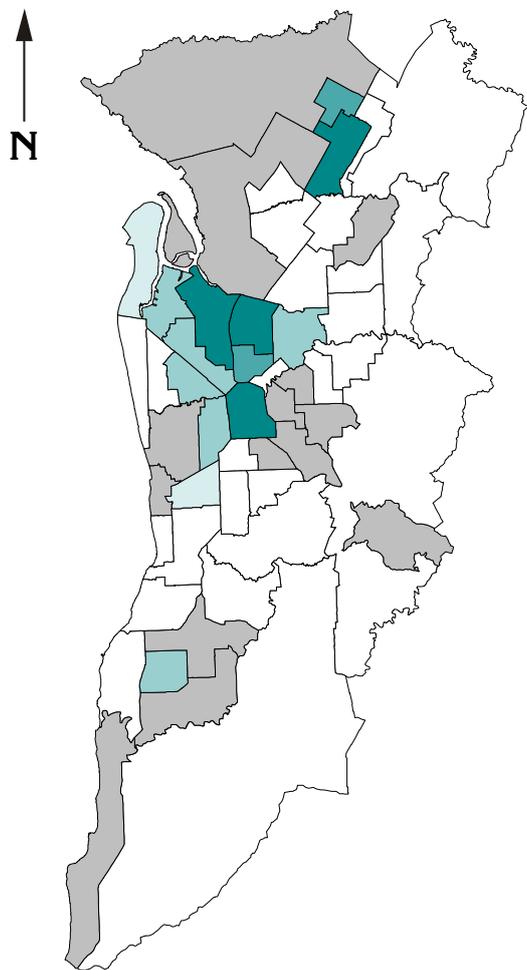
There were no admissions recorded in the following SLAs: Adelaide Hills - Ranges; Campbelltown - East; Charles Sturt - Coastal; Holdfast Bay - South; Marion - South; Mitcham - Hills and - North-East; Onkaparinga - Hills and - Reservoir; Playford - Hills; Tea Tree Gully - Central and - Hills; Unley - West; and Walkerville.

Country SA

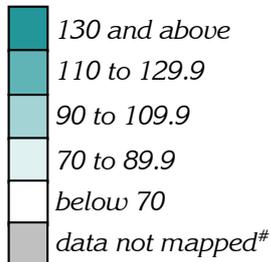
In country SA, highly elevated ratios were recorded for Aboriginal males in Yorke Peninsula - North (an SR of 436**, 95 admissions), Unincorporated West Coast (344**, 51), Coober Pedy (341**, 80), Port Augusta (224**, 423), Whyalla (204**, 109), Ceduna (176**, 101), Loxton Waikerie - East (175*, 13), Unincorporated Far North (168*, 23) and Renmark Paringa - Renmark (141, 10).

Lower than expected ratios were recorded for a majority of the remaining SLAs (with five or more admissions).

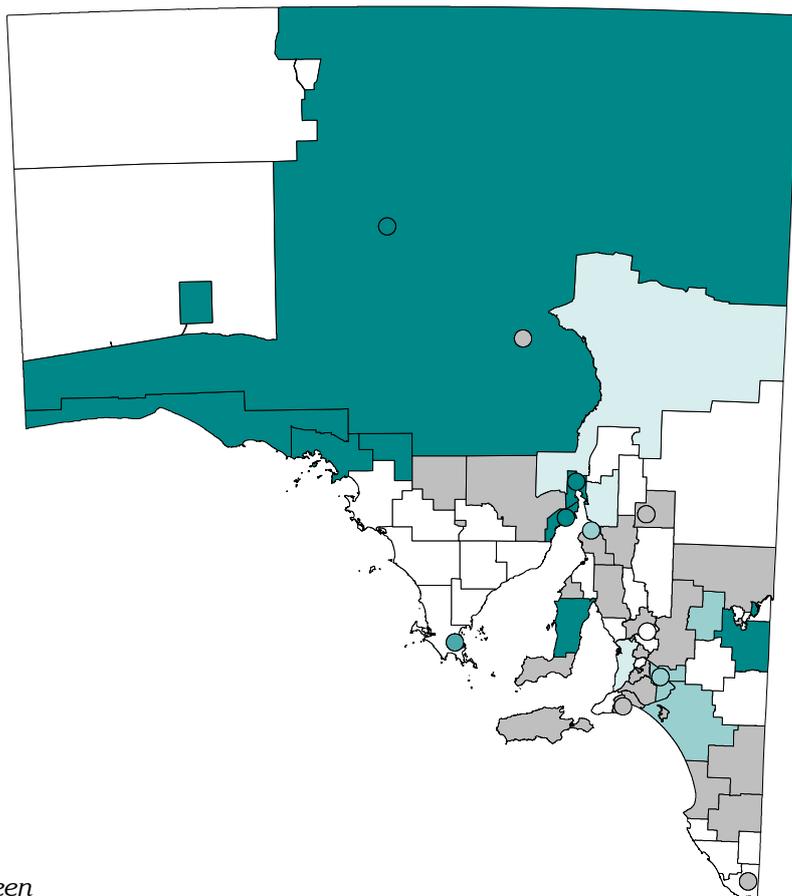
Map 4.39 and Map 4.40: Hospital admissions: Aboriginal males, alcohol-related conditions, Metropolitan Adelaide and country SA, 2005/06-2006/07



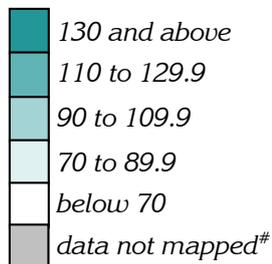
Standardised ratio (as an index)*, by SLA



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 admissions over the time period; or the SLA has a population of less than 100

Indigenous admissions – smoking-related conditions

Smoking causes the greatest burden of disease experienced by all Australians and significantly, Aboriginal and Torres Strait Islander peoples (5). Smoking tobacco is influenced by a combination of health and social determinants and individual risk and protective factors. The highly addictive nature of tobacco contributes significantly to ongoing use.

The knowledge of the health effects of tobacco use amongst Indigenous people is generally good, but there is a lack of knowledge about specific harmful effects: tobacco's link to diabetes, tobacco-causing cancers apart from lung cancer; and issues around the harmful effects of environmental tobacco smoke, especially during pregnancy (19, 20).

Admission rates for females were higher than those for males in the 15 to 24 and 25 to 34 year age groups, with rates for men higher in all other age groups, other than at 55 to 64 years, where rates were almost the same (Figure 4.61). For both men and women, rates were highest in the 55 to 64 year age group.

Admissions for smoking-related conditions varied strongly by socioeconomic status (Figure 4.62). For both males and females, there was a marked socioeconomic gradient, with rates for males in the lowest socioeconomic group more than two times higher than in the highest socioeconomic group (a rate ratio of 2.25); for females, the differential was higher, at 3.42.

When analysed by remoteness, admissions for smoking-related conditions (Figure 4.63) showed higher rates in the Very Remote areas: one and a half times the rate in the Major Cities areas for males, and almost two and a half times for females. However, the highest rates for males were found in the Outer Regional areas.

Admissions of Aboriginal people for smoking-related conditions, South Australia, 2005/06-2006/07

Figure 4.61: Admissions, by age and sex

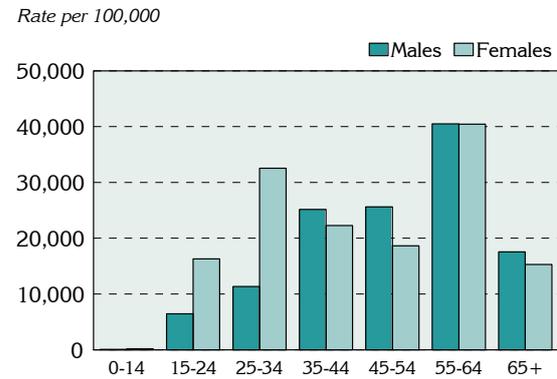


Figure 4.62: Admissions, by socioeconomic status

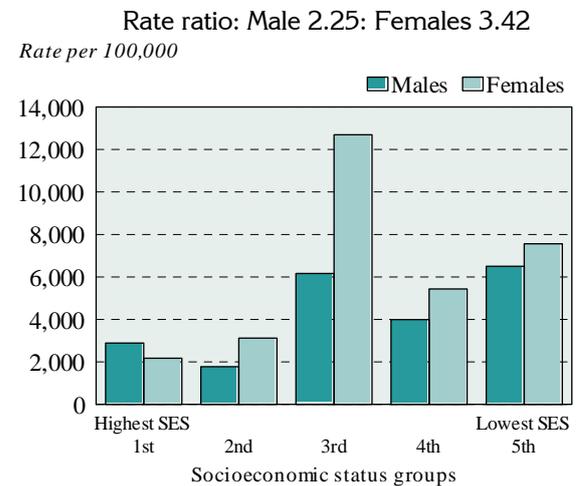
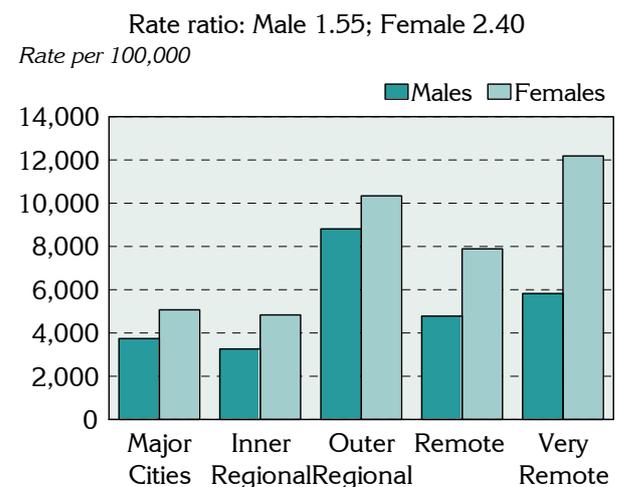


Figure 4.63: Admissions, by remoteness



Hospital admissions: Aboriginal males, smoking-related conditions, 2005/06-2006/07

In Metropolitan Adelaide, there were 30% fewer admissions of Aboriginal males for smoking-related conditions than expected from the State rate (an SR of 70**, 831 admissions). Central Northern Adelaide and Southern Adelaide Health Regions also had ratios below the State average (with SRs of 78** and 44**, respectively).

Overall, there were 23% more admissions in country SA than expected (an SR of 123**, 1,794 admissions). Eyre had more than twice the expected number of admissions (an SR of 231**, 440 admissions), while ratios in Northern & Far Western and Wakefield were also elevated.

Table 4.32: Hospital admissions – Aboriginal males, smoking-related conditions, by Health Region, South Australia, 2005/06-2006/07

Health Region	Number	Rate ¹	SR ²
Central Northern Adelaide	716	4,149.3	78**
Northern sub-region	380	4,107.6	77**
Western sub-region	239	4,403.0	83**
Central East sub-region	97	3,764.7	71**
Southern Adelaide	115	2,324.1	44**
Urban Beaches District	44	2,256.1	42**
Hills District	2	320.7	6**
Outer Southern District	69	2,906.2	54**
Metropolitan Adelaide (excl. Gawler)	831	3,742.6	70**
Hills Mallee Southern	151	3,680.6	69**
South East	50	3,382.7	63**
Wakefield	191	6,307.7	118*
Mid North	55	4,375.6	82
Riverland	70	4,457.5	84
Eyre	440	12,331.8	231**
Northern & Far Western	837	6,763.1	127**
Country South Australia (incl. Gawler)	1,794	6,552.2	123**

¹ Rate is the number of admissions per 100,000 population

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

Metropolitan Adelaide

SLAs with the most highly elevated numbers of admissions included Port Adelaide Enfield - Park (an SR of 171**, 56 admissions), Adelaide (171**, 54) and Playford - Elizabeth (149**, 91) (Map 4.41).

Fewer admissions than expected were recorded in Playford - East Central; Marion - Central and - North; Tea Tree Gully - South; Onkaparinga - Hackham, - South Coast and - Morphett; Salisbury - North-East, - Central, - Inner North and - South-East; Charles Sturt - Inner West and - Inner East; West Torrens - West and - East; Prospect; and Mitcham - West.

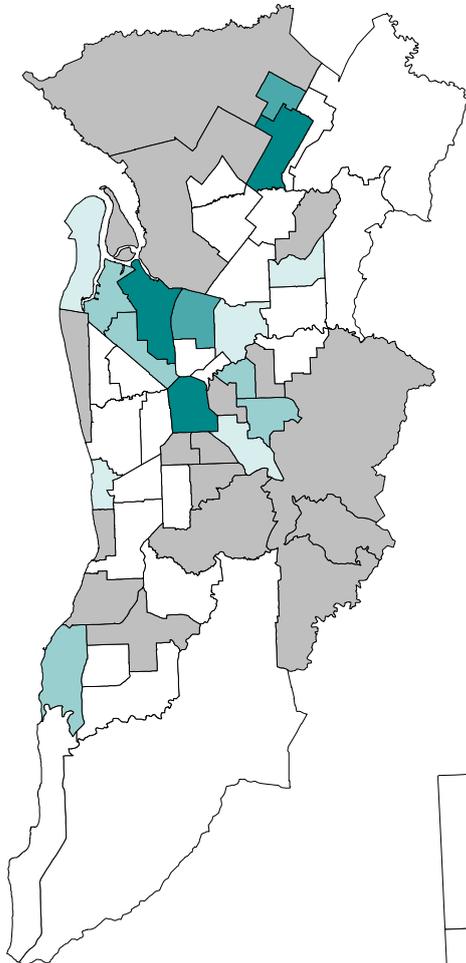
Areas with no admissions were Campbelltown - East; Onkaparinga - Hills and - Reservoir; Playford - Hills; Tea Tree Gully - Hills; and Walkerville.

Country SA

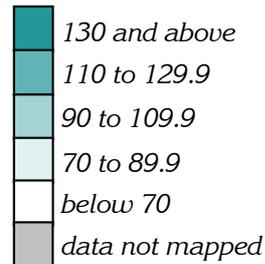
In country SA, highly elevated ratios for admissions of Aboriginal males for smoking-related conditions were recorded for Yorke Peninsula - North (an SR of 505**, 155 admissions), Unincorporated West Coast (445**, 97), Ceduna (313**, 248), Whyalla (243**, 174) and Port Augusta (212**, 559).

Ratios were lower than the expected in the SLAS of Anangu Pitjantjatjara, Mount Barker - Central, Mid Murray, Naracoorte and Lucindale, Lower Eyre Peninsula, Mallala, Copper Coast, Gawler and Wattle Range - West.

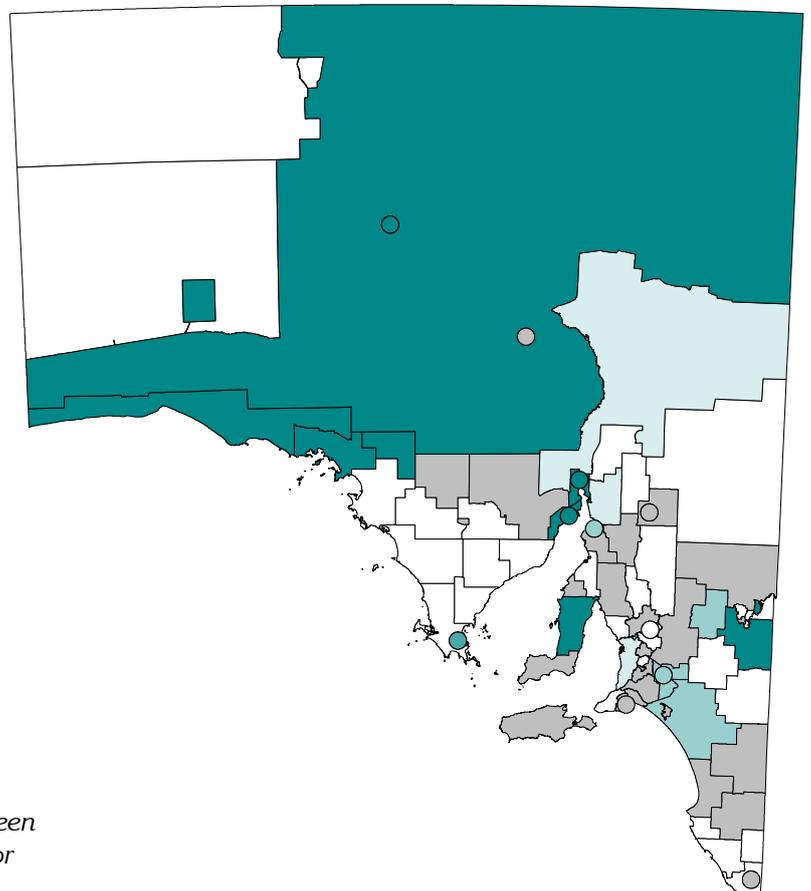
Map 4.41 and Map 4.42: Hospital admissions for smoking-related conditions: Aboriginal males, Metropolitan Adelaide and country SA, 2005/06-2006/07



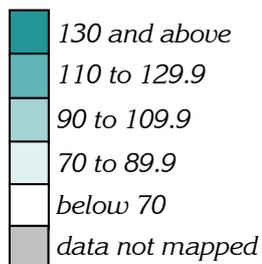
Standardised ratio (as an index)*, by SLA



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 admissions over the time period; or the SLA has a population of less than 100

Potentially avoidable hospitalisations

An indicator that is currently of interest to decision-makers in assessing the overall adequacy, efficiency and quality of primary health care within the broader health system is 'Potentially avoidable hospitalisations'. The term has been used to represent a range of conditions for which hospitalisation should be able to be avoided, because the disease or condition has been prevented from occurring, or because individuals have had access to timely and effective primary care, thus avoiding a hospital admission.

This report addresses the level and extent of regional variation in South Australia in a sub-set of potentially avoidable hospitalisations, namely those arising from Ambulatory Care-Sensitive (ACS) conditions. ACS conditions are those for which hospitalisation is considered potentially avoidable through preventive health care and early disease management, usually delivered in a primary care setting, for example by a general medical practitioner, or by staff at a community health centre.

Potentially avoidable hospitalisations accounted for a notably higher proportion of all admissions for males (11.0% of all admissions of males) than was the case for females (9.5%): however, the rate of avoidable admissions per 100,000 population was almost exactly the same for males and females, as shown by the rate ratio of 1.00 (Table 4.33).

The largest differentials in rates for males and females, and with large numbers of admissions, were for diabetes complications (32% higher admission rate for males), angina (27%), convulsions and epilepsy (25%) and cellulitis (26%). The admission rate for dehydration and gastroenteritis was markedly (31%) lower for males than for females.

In this section, data are shown for total potentially avoidable hospitalisations from ACS conditions, and for those for diabetes complications.

Table 4.33: Potentially avoidable hospitalisations¹ by sub-category, condition and sex, South Australia, 2005/06 and 2006/07

Sub-category and condition	Males		Females		RR M:F ⁴
	Number ²	Rate ³	Number ²	Rate ³	
Vaccine-preventable	573	74.0	432	54.4	1.36
Influenza and pneumonia	436	56.3	357	44.9	1.25
Other vaccine preventable diseases	140	18.1	75	9.4	1.91
Chronic	15,574	2,012.0	14,394	1,813.2	1.11
Iron deficiency anaemia	703	90.8	1,373	172.9	0.53
Diabetes complications	7,333	947.4	5,683	715.8	1.32
Nutritional deficiencies	4	0.5	2	0.3	2.05
Rheumatic heart disease	70	9.0	132	16.6	0.54
Hypertension	177	22.8	358	45.1	0.51
Congestive cardiac failure	1,976	255.2	1,861	234.4	1.09
Angina	1,670	215.7	1,344	169.3	1.27
Chronic obstructive pulmonary disease	2,871	370.8	2,682	337.9	1.10
Asthma	1,949	251.8	1,916	241.4	1.04
Acute	10,496	1,356.0	12,563	1,582.5	0.86
Dehydration and gastroenteritis	1,875	242.2	2,791	351.5	0.69
Convulsions and epilepsy	1,370	177.0	1,127	142.0	1.25
Ear, nose and throat infections	1,829	236.2	1,763	222.0	1.06
Dental conditions	2,286	295.3	2,417	304.5	0.97
Perforated/bleeding ulcer	262	33.8	205	25.8	1.31
Appendicitis (with generalised peritonitis)	139	17.9	115	14.5	1.24
Cellulitis	1,417	183.0	1,154	145.4	1.26
Pyelonephritis (includes urinary tract infections)	1,077	139.1	2,450	308.6	0.45
Pelvic inflammatory disease	382	48.1	..
Gangrene	252	32.5	166	20.8	1.56
Total avoidable hospitalisations	26,494	3,422.7	27,260	3,434.0	1.00

¹ Admissions resulting from ACS conditions

² Number is the average number of admissions over the two years 2005/06 and 2006/07

³ Rate per 100,000 population

⁴ RR M:F is the ratio of the rate for males to that for females

Potentially avoidable hospitalisations – all ACS conditions

Potentially avoidable hospitalisations for ACS conditions can be used as an indicator to assess the overall adequacy, efficiency and quality of primary health care within the broader health system.

Analyses at the area level may assist as a tool to monitor need; as a performance indicator of variations in access to, or the quality of, primary care; or in allocating limited resources among communities. The use of this concept in this way should be predicated by the recognition that many different factors contribute to hospitalisation rates. These include the age, ethnicity and sex of patients; patient-related socioeconomic factors (ethnicity, income and level of education); disease incidence, prevalence and severity; patient compliance with indicated treatment; perceived health need and care-seeking behaviour; access to care; availability of care including supply of primary care practitioners, hospital bed availability; physician practice style; and whether care at home is feasible for reasons unrelated to health status or provision.

Rates of potentially avoidable hospitalisations for ACS conditions were higher for males than for females at the youngest and oldest ages, with by far the highest rates in the two oldest age groups shown (Figure 4.64).

There were strong socioeconomic gradients evident for both males and females in rates of potentially avoidable hospitalisations, with rates just over 50% higher in the lowest SES areas compared with the highest SES areas (Figure 4.65).

Rates also varied substantially with remoteness, being 65% higher in the Very Remote areas compared with the Major Cities areas for males, and 93% higher for females (Figure 4.66).

Potentially avoidable hospitalisations – all conditions, 2005/06 and 2006/07

Figure 4.64: By age and sex

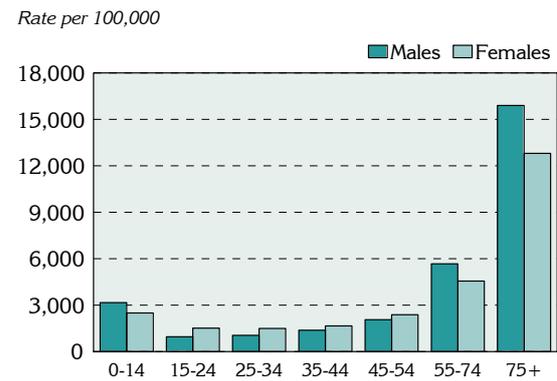


Figure 4.65: By socioeconomic status and sex

Rate ratio: Male 1.52; Female 1.56

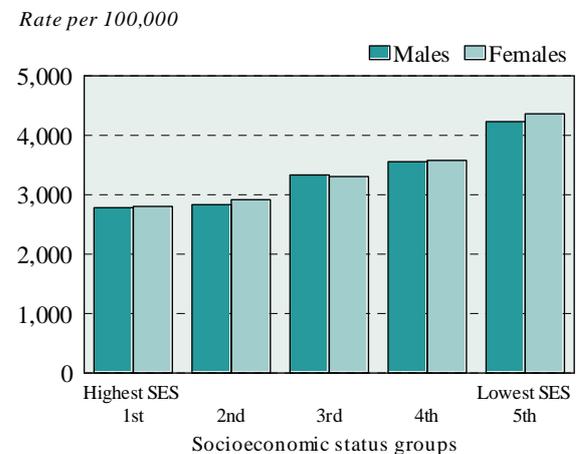
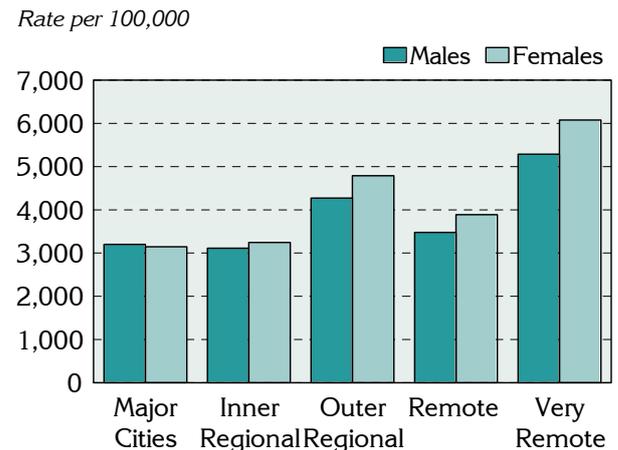


Figure 4.66: By remoteness and sex

Rate ratio: Male 1.65; Female 1.93



Potentially avoidable hospitalisations of males – all ACS conditions, 2005/06 and 2006/07

There were fewer male admissions for potentially avoidable hospitalisations from ACS conditions than were expected from the State rate in both Central Northern Adelaide and Southern Adelaide Health Regions (SRs of 92** and 95**, respectively). Overall, an estimated 17,352 admissions of males living in Metropolitan Adelaide were potentially avoidable.

There were 23% more admissions in country SA than expected (an SR of 123**, 1,794 admissions). Eyre had more than twice the expected number (an SR of 231**, 440 admissions).

Table 4.34: Potentially avoidable hospitalisations¹ of males – all conditions, by Health Region, South Australia, 2005/06 and 2006/07

Health Region	Number ²	Rate ³	SR ⁴
Central Northern Adelaide	12,057	3,166.0	92**
Northern sub-region	5,620	3,610.5	105**
Western sub-region	3,337	2,985.1	87**
Central East sub-region	3,100	2,734.1	80
Southern Adelaide	5,296	3,243.2	95**
Urban Beaches District	2,363	3,266.4	95
Hills District	1,022	2,745.5	80
Outer Southern District	1,911	3,556.7	104
Metropolitan Adelaide (excl. Gawler)	17,352	3,189.1	93
Hills Mallee Southern	2,011	3,047.2	89
South East	1,087	3,444.5	101
Wakefield	1,963	3,518.3	103
Mid North	884	4,962.6	145**
Riverland	703	4,007.7	117**
Eyre	695	3,869.2	113**
Northern & Far Western	1,198	5,138.5	150**
Country South Australia (incl. Gawler)	8,540	3,713.7	109**

¹ Admissions resulting from ACS conditions

² Average number of admissions over the two years 2005/06 and 2006/07

³ Rate is the age standardised rate per 100,000 population

Metropolitan Adelaide

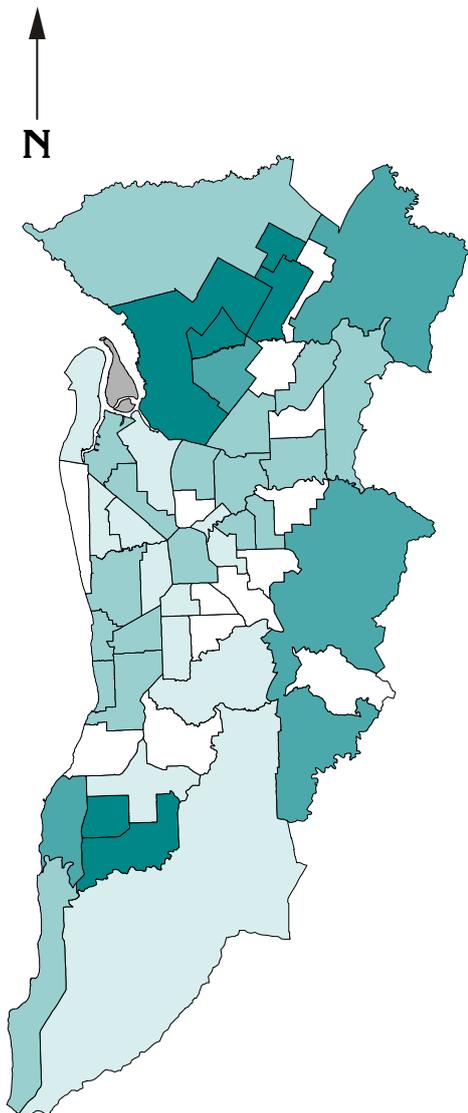
The distribution of potentially avoidable admissions (Map 5.43) reflects aspects of the pattern of socioeconomic disadvantage as shown by the IRSD (Map 4.43). Highly elevated ratios were in the outer north and south SLAs of Playford - Elizabeth (an SR of 148**, 655 admissions), - West Central (146**, 282) and - Hills (111, 55); Salisbury Balance (134**, 188), - Inner North (124**, 395) and - Central (110*, 465); Onkaparinga - Hackham (125**, 261), - Morphett (122**, 446) and - North Coast (113*, 359); and Adelaide Hills - Ranges (111).

The lowest ratios were in the more advantaged SLAs of Burnside - North-East (an SR of 57**, 223 admissions) and - South-West (62**, 246); Charles Sturt - Coastal (63**, 372); Prospect (63**, 199); Marion - South (71**, 205); Adelaide Hills - Central (73**, 149); Playford - East Central (75**, 212); Campbelltown - East (75**, 351); Unley - East (75**, 244); Mitcham - North-East (75**, 211); Tea Tree Gully - Central (76**, 288); and Onkaparinga - Reservoir (79**, 295).

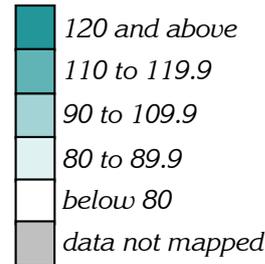
Country SA

The highest ratios were located in the north of the State (including all towns other than Roxby Downs) and in the Mallee/Upper South East. SLAs included Unincorporated West Coast, with nearly eight times the number of these admissions than expected (an SR of 755**, 44 admissions); Port Augusta (195**, 442); Ceduna (186**, 116); Coober Pedy (178**, 74); Unincorporated Far North (171**, 51); Orroroo/Carrieton (164**, 37); The Coorong (161**, 174); Peterborough (160**, 68); Mount Remarkable (157**, 97); Unincorporated Flinders Ranges (155*, 26); Port Pirie Districts - City (152**, 389) and Balance (140**, 96); Berri & Barmera - Berri (147**, 172); and Tatiara (141**, 171). SLAs with the lowest ratios were Anangu Pitjantjatjara (an SR of 22**, 7 admissions); Kimba (53*, 12); Grant (54**, 73); Wattle Range - East (56**, 31); Mount Barker Balance (56**, 74); Karoonda East Murray (59*, 14); Robe (60*, 17); and Yankalilla (62**, 57).

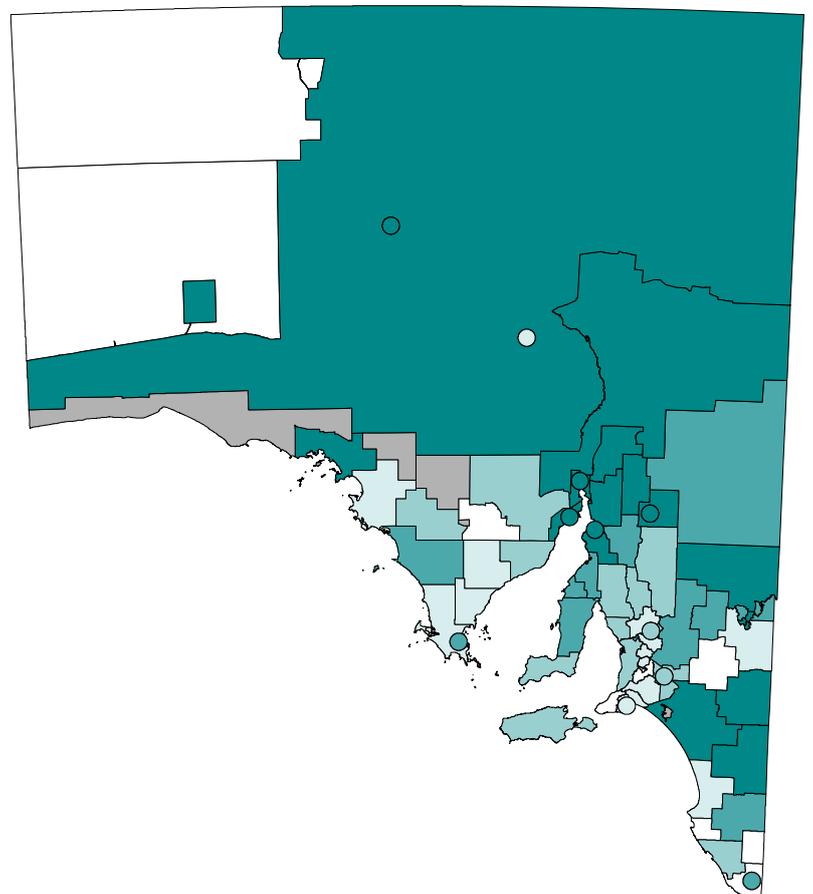
Map 4.43 and Map 4.44: Potentially avoidable hospitalisations, males, all conditions, Metropolitan Adelaide and country SA, 2005/06 and 2006/07



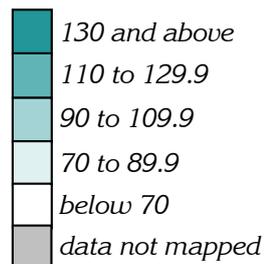
Standardised ratio (as an index)*, by SLA



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 admissions over the time period; or the SLA has a population of less than 100

Potentially avoidable hospitalisations – diabetes’ complications

Complications of diabetes mellitus can arise from poor blood glucose control, and may be broadly classified as resulting from small (microvascular) or large blood vessel (macrovascular) disease. Microvascular complications include neuropathy (nerve damage), nephropathy (kidney disease) and vision disorders (e.g., retinal damage, glaucoma, cataract and corneal disease). Macrovascular complications include heart disease, stroke and peripheral vascular disease (which can lead to ulcers, gangrene and amputation). Other complications of diabetes include infections, metabolic difficulties, and impotence in men.

Rates of potentially avoidable hospitalisations for diabetes’ complications were higher for males than for females across all ages except for the 15 to 24 year age group, with the highest rates for both men and women in the two oldest age groups shown (Figure 4.67).

There were strong socioeconomic gradients evident for both males and females, in rates of potentially avoidable hospitalisations for diabetes’ complications, with rates in the lowest SES areas more than twice those in the highest SES areas (Figure 4.68).

Rates varied with remoteness, although the gradient was not consistent, with rates 20% higher in the Very Remote areas compared with the Major Cities areas for males, and 14% higher for females (Figure 4.69).

Potentially avoidable hospitalisations – diabetes’ complications, 2005/06 and 2006/07

Figure 4.67: By age and sex

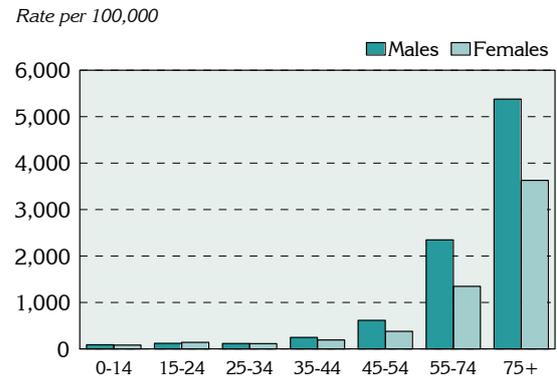


Figure 4.68: By socioeconomic status and sex

Rate ratio: Male 2.04; Female 2.28

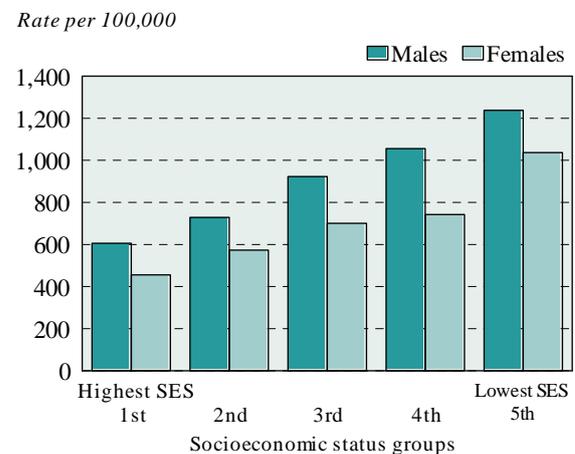
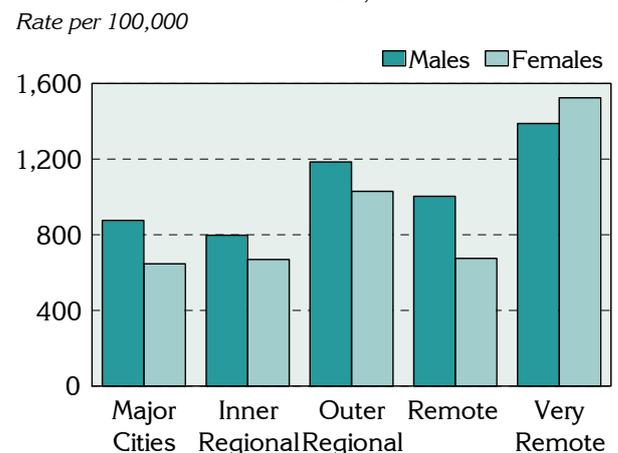


Figure 4.69: By remoteness and sex

Rate ratio: Male 1.20; Female 1.14



Potentially avoidable hospitalisations of males – diabetes’ complications, 2005/06 and 2006/07

There were fewer male admissions for potentially avoidable hospitalisations from diabetes’ complications than were expected from the State rate, in both the Central Northern Adelaide and Southern Adelaide Health Regions (with standardised ratios (SRs) of 92 and 90, respectively). Overall, an estimated 4,689 admissions of males with diabetes’ complications living in Metropolitan Adelaide were considered to be potentially avoidable.

In country SA, there were 6% more male admissions than expected from the State rate (an SR of 106**, 2,348 admissions). Males in Northern & Far Western Health Region had one and a third times the expected number of admissions (an SR of 167**, 345 admissions), while the ratio in the Mid North was elevated by 49%.

Table 4.35: Potentially avoidable hospitalisations¹ – diabetes complications, by Health Region, South Australia, 2005/06 and 2006/07

Health Region	Number ²	Rate ³	SR ⁴
Central Northern Adelaide	3,289	871.6	92
Northern sub-region	1,458	994.2	105
Western sub-region	1,045	905.6	96
Central East sub-region	786	681.7	72
Southern Adelaide	1,400	856.4	90
Urban Beaches District	638	855.4	90
Hills District	228	607.3	64
Outer Southern District	535	1,039.5	110*
Metropolitan Adelaide (excl. Gawler)	4,689	867.0	92
Hills Mallee Southern	524	755.8	80
South East	290	947.6	100
Wakefield	546	946.0	100
Mid North	264	1,407.6	149**
Riverland	187	1,062.4	112
Eyre	194	1,096.4	116*
Northern & Far Western	345	1,582.0	167**
Country South Australia (incl. Gawler)	2,348	1,006.2	106**

¹ Admissions resulting from ACS conditions

² Average number of admissions over the two years 2005/06 and 2006/07

³ Rate is the age standardised rate per 100,000 population

Metropolitan Adelaide

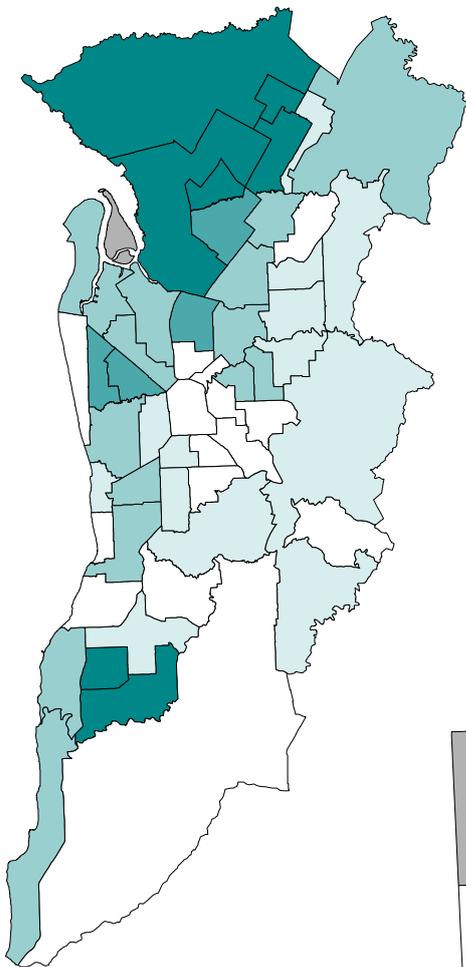
The distribution of potentially avoidable admissions for diabetes’ complications (Map 4.45) was highly consistent with the distribution of the socioeconomically disadvantaged population, as shown by the IRSD (Map 3.9), with highly elevated ratios in the outer north and outer south, and very low ratios in higher SES areas. The highest were in Playford - West Central (an SR of 180**, 82 admissions), - Elizabeth (153**, 183), and - West (134*, 51); Salisbury - Inner North (153**, 106) and Balance (138*, 40); and Onkaparinga - Morphett (145**, 141) and - Hackham (142**, 75). Rates were lower than expected in the SLA of Adelaide and in a number of SLAs immediately to the north, south, south-east, and in a number of middle and outer suburbs.

Country SA

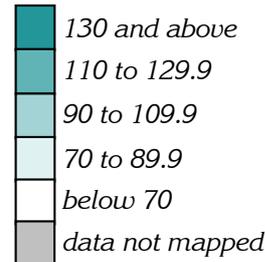
The highest ratios for males were predominantly found in northern and western SLAs. The highest rate was in Unincorporated West Coast, although the actual number of admissions was low (an SR of 873, 10 admissions) (Map 4.46). Other areas with higher than expected admissions were Peterborough (an SR of 224**, 29 admissions), Port Augusta (222**, 131), Orroroo/Carrieton (198*, 14), Ceduna (190**, 31), Unincorporated Far North (181*, 15), Unincorporated Flinders Ranges (176, 7), Whyalla (163**, 157), Port Pirie Districts Balance (163**, 32), Barunga West (161**, 29), Berri & Barmera - Berri (158**, 49), The Coorong (146*, 45), Elliston (144, 8), Le Hunte (141, 10), Roxby Downs (140, 10), Loxton Waikerie - West (139*, 36), Port Pirie Districts - City (137**, 100), Mount Gambier (136**, 143), Port Lincoln (134**, 84) and Gawler (132** 124).

Much lower than expected ratios were recorded for Mount Barker - Balance; Streaky Bay; Yankalilla; Adelaide Hills Balance and - North; Light; Wattle Range - East; Naracoorte and Lucindale; Grant; Barossa - Tanunda and - Angaston; Cleve; Loxton Waikerie - East; Alexandrina - Coastal; and Mid Murray.

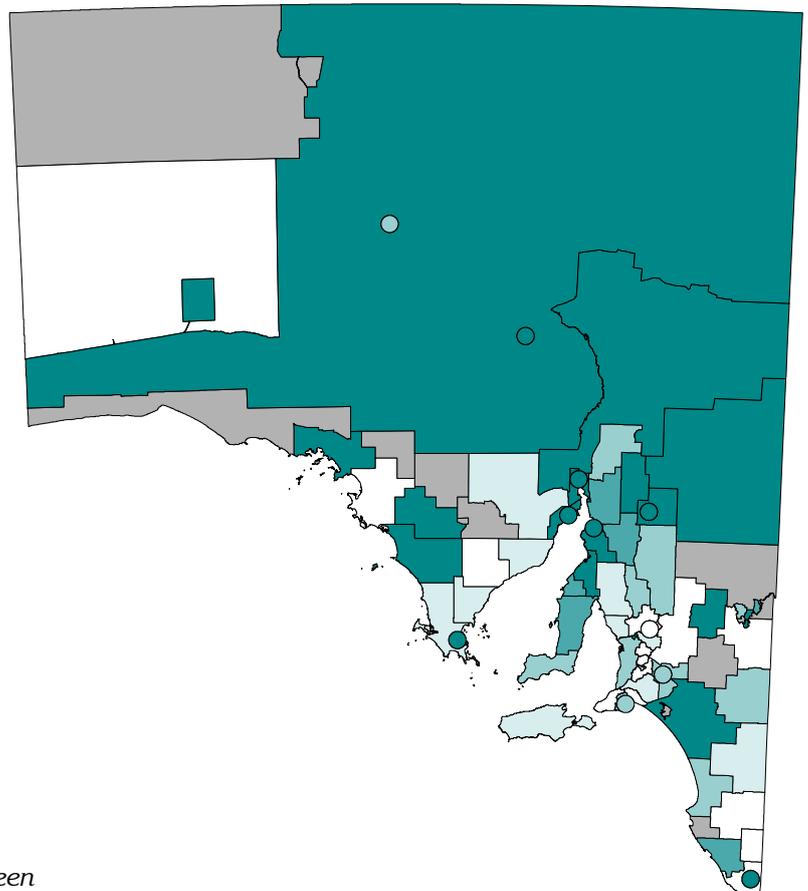
Map 4.45 and Map 4.46: Potentially avoidable hospitalisations of males, diabetes' complications, Metropolitan Adelaide and country SA, 2005/06 and 2006/07



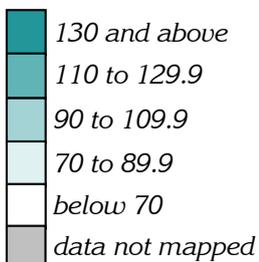
Standardised ratio (as an index)*, by SLA



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

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