

## 5. Prevalence of selected chronic diseases

Estimates (synthetic predictions) of the prevalence in the population of selected chronic diseases and associated risk factors (next section) have been produced for a majority<sup>1</sup> of Statistical Local Areas (SLAs) in South Australia, using data collected in the 2004-05 Australian Bureau of Statistics (ABS) National Health Survey (NHS). A description of the process used is in the box, opposite.

Remote areas were not included in the NHS, so estimates have not been made for the following remote SLA: Anangu Pitjantjatjara, Ceduna, Coober Pedy, Le Hunte, Maralinga Tjarutja, Streaky Bay, Unincorporated Yorke, Unincorporated Mallee, Unincorporated Lincoln, Unincorporated West Coast and Unincorporated Far North.

### Synthetic predictions

A synthetic prediction can be interpreted as the likely value for a 'typical' area with those characteristics: the SLA is the area level of interest for this project. This work was undertaken by the ABS, as they hold the NHS unit record files: the small area data were compiled by PHIDU.

The approach used was to undertake an analysis of the survey data for Australia to identify relationships in the NHS data between the variables that we wished to predict at the area level (e.g. prevalence of chronic conditions and risk factors – these are the outcome variables) and the data we have at the area level (e.g. socioeconomic status, use of health services – these are the predictors). The relationships between the predictors and the outcome variables in the NHS form a model. For example, such associations might be between the number of people reporting specified chronic conditions in the NHS and:

- the number of hospital admissions (in total, to public and to private hospitals, by age, sex and diagnosis),
- the number of visits to a general medical practitioner, and
- socioeconomic status (as indicated by Census data, or for recipients of government pensions and benefits).

The results of the modelling exercise are then applied to the SLA counts of the predictors. The prediction is, effectively, the likely value for a typical area with those characteristics. The raw numbers were then age standardised, to control for the effects of differences in the age profiles of areas from those for Australia as a whole.

<sup>1</sup> The NHS sample includes the majority of people living in private households, but excludes the most remote areas of Australia. Thus it has not been possible to produce estimates for SLAs with relatively high proportions of their population in these remote areas.

## Mental and behavioural problems

A diverse range of social, environmental, biological and psychological factors can impact on an individual's mental health, and lead to problems such as anxiety, depression, or psychoses.

Factors that can contribute to depression in men include use of drugs and alcohol; physical health problems; employment problems; social isolation; or a significant change in living arrangements (e.g., separation or divorce). Studies show that men are at greater risk of their depression going unrecognised and untreated compared to women (21). This may be because men may defer getting help for health problems because social roles may make it hard for them to acknowledge they have a health problem, especially a mental health problem. Men may also try to manage their symptoms by using alcohol and other drugs, which make the symptoms worse (21).

The estimates were based upon information reported to interviewers by respondents to the 2004-05 ABS National Health Survey.

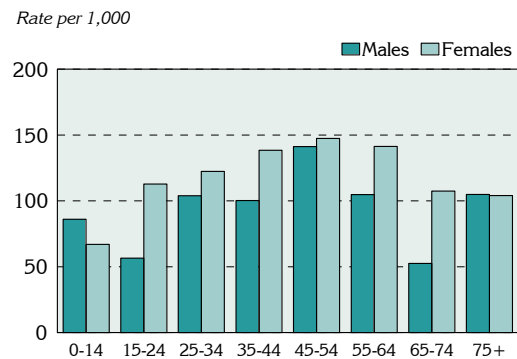
Males reported lower rates than females of mental and behavioural problems in all but the youngest (with a markedly higher rate) and oldest (with a similar rate) age groups shown (Figure 5.1). For both males and females, the prevalence estimates increased until the 45 to 54 year age group, before decreasing in the 55 to 64 and 65 to 74 age groups, in particular for males. Male rates increased again, substantially, in the 75 year and older age group.

The pattern, shown in Figure 5.2, of increasing mental and behavioural problems with increasing disadvantage is evident for both males and females, with rates in the lowest SES group 46% higher for males, and 40% higher for females, than in the highest SES group. Male rates were below those for females across all SES groups.

The pattern across the remoteness classes, although not consistent, showed an overall difference in rates of mental and behavioural disorders of 20% for males and 14% for females (Figure 5.3).

## Prevalence of mental and behavioural problems, South Australia, 2004-05

**Figure 5.1: By age and sex**



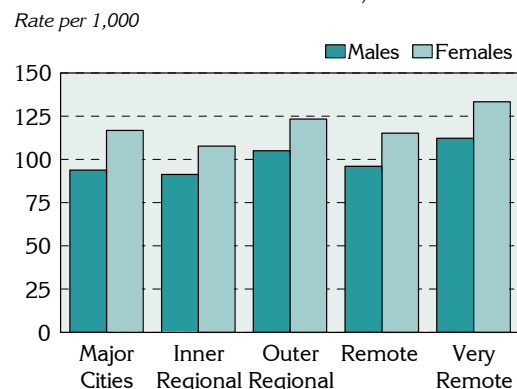
**Figure 5.2: By socioeconomic status and sex**

Rate ratio: Male 1.46; Female 1.40



**Figure 5.3: By remoteness and sex**

Rate ratio: Male 1.20; Female 1.14



## Estimated number of males, mental and behavioural problems, 2004/05

Both Central Northern Adelaide (with a standardised ratio (SR) of 99, 35,897 males) and Southern Adelaide (an SR of 97, 14,869 males) Health Regions had near-average levels of males reporting mental and behavioural problems. The greatest variation in Metropolitan Adelaide was between the Outer Southern and Hills Districts.

In country SA, Mid North and Northern & Far Western Health Regions had markedly more males reporting these conditions, with SRs of 120\*\* and 117\*\*, respectively.

**Table 5.1: Estimates of males with mental and behavioural problems by Health Region, South Australia, 2004/05**

Health Region	Number	Rate <sup>1</sup>	SR <sup>2</sup>
<b>Central Northern Adelaide</b>	<b>35,897</b>	<b>94.4</b>	<b>99</b>
Northern sub-region	16,593	99.6	105**
Western sub-region	10,383	100.6	106**
Central East sub-region	8,921	80.7	85**
<b>Southern Adelaide</b>	<b>14,869</b>	<b>92.0</b>	<b>97**</b>
Urban Beaches District	6,077	91.5	96**
Hills District	2,905	75.8	80**
Outer Southern District	5,887	103.4	109**
<b>Metropolitan Adelaide (excl. Gawler)</b>	<b>50,766</b>	<b>93.6</b>	<b>99**</b>
<b>Hills Mallee Southern</b>	<b>5,749</b>	<b>95.5</b>	<b>101</b>
<b>South East</b>	<b>2,867</b>	<b>87.7</b>	<b>92</b>
<b>Wakefield</b>	<b>5,042</b>	<b>97.1</b>	<b>102</b>
<b>Mid North</b>	<b>1,819</b>	<b>114.2</b>	<b>120**</b>
<b>Riverland</b>	<b>1,730</b>	<b>100.9</b>	<b>106*</b>
<b>Eyre</b>	<b>1,352</b>	<b>98.3</b>	<b>103</b>
<b>Northern &amp; Far Western</b>	<b>2,491</b>	<b>111.1</b>	<b>117**</b>
<b>Country South Australia (incl. Gawler)</b>	<b>21,050</b>	<b>98.3</b>	<b>104**</b>

<sup>1</sup> Rate is the number of males with mental and behavioural problems per 1,000 population

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

### Metropolitan Adelaide

The most highly elevated ratios for males at the SLA level in Metropolitan Adelaide (Map 5.1) were in Playford - Elizabeth (an SR of 149\*\*, 1,691 males) and - West Central (147\*\*, 872); Onkaparinga - North Coast (130\*\*, 1,079) and - Hackham (125\*\*, 819); and Port Adelaide Enfield - Park (126\*\*, 887), - Port (123\*\*, 637) and - Inner (122\*\*, 1,095). The SLAs of Salisbury - Inner North (121\*\*, 1414) and Adelaide (120\*\*, 947) also had higher than expected ratios.

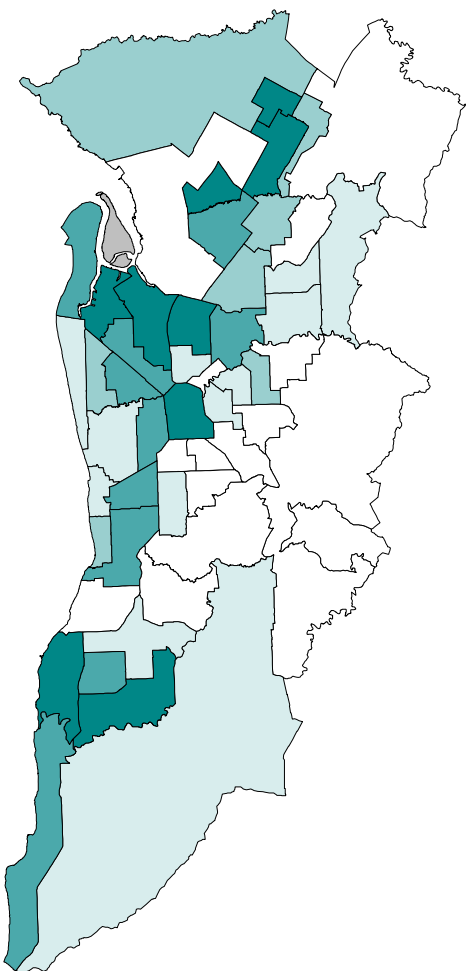
SLAs with lower than expected ratios included Burnside - North-East and South-West; Salisbury Balance; Mitcham - North-East and - Hills; Walkerville; Playford - Hills; Tea Tree Gully - North; Marion - South; Onkaparinga - Reservoir; Adelaide Hills - Central and - Ranges; Unley - East and - West; and Campbelltown - East.

### Country SA

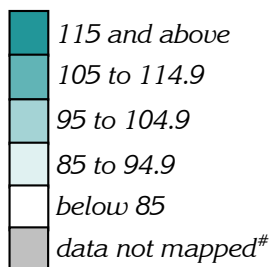
Several SLAs in country SA (Map 5.2) were estimated to have more males with mental and behavioural disorders than expected from the State rate: those with elevated ratios included Unincorporated Riverland (an SR of 198\*\*, but just 14 males), Unincorporated Whyalla (183\*\*, 22) and Peterborough (150\*\*, 146). Other highly elevated ratios were in Port Augusta (128\*\*, 879); Port Pirie Districts - City (127\*\*, 832) and Balance (118\*, 211); Mid Murray (127\*\*, 543); Unincorporated Flinders Ranges (126\*, 84); Copper Coast (125\*\*, 664); Flinders Ranges (124\*\*, 109); Barunga - West (121\*, 161); Goyder (121\*\*, 257); Yorke Peninsula - North (119\*\*, 440) and - South (117\*, 236); Whyalla (119\*\*, 1,256); and Murray Bridge (118\*\*, 1,003).

The lowest ratios recorded were in Roxby Downs; Barossa - Tanunda and - Barossa; and Adelaide Hills - North and Balance.

# Map 5.1 and Map 5.2: Estimated number of males with mental and behavioural problems, Metropolitan Adelaide and country SA, 2004/05



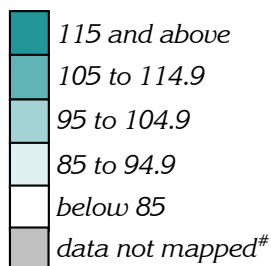
Standardised ratio (as an index)\*, by SLA



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

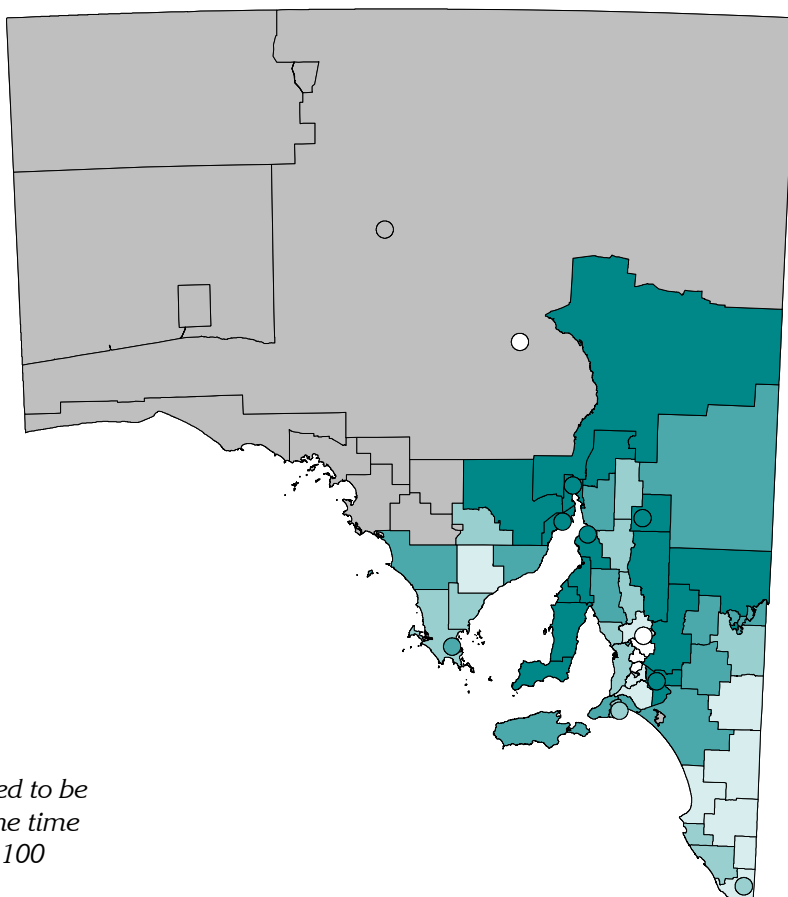
# Data not mapped because there were between one to four admissions over the time period; or the SLA has a population of less than 100

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



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

# Data not mapped because there were estimated to be between one to four men in this category over the time period; or the SLA has a population of less than 100



## Mood (affective) problems

A mood (affective) disorder is a condition characterised by distorted, excessive or inappropriate moods or emotions. They represent a group of mental health problems that include depression, mania, hypomania and bipolar affective disorder.

In the 2004-05 ABS National Health Survey, half (50%) of all persons reporting mental and behavioural problems had mood (affective) problems, and women were more likely than men to experience them.

The estimates were based upon information reported to interviewers by respondents to the 2004-05 ABS National Health Survey.

Figure 5.4 shows estimates of mood (affective) problems by age and sex. With the exception of the 45 to 54 year age group, male rates were lower than those for females. Rates increased by age group until 35 to 44 years for females and 45 to 54 years for males, before decreasing. There were no data recorded for males in the 65 to 74 age group. Data were not recorded for people aged 14 years and under.

For both males and females, there was a clear pattern of increased rates of mood (affective) problems with increasing socioeconomic disadvantage (Figure 5.5). For males, rates in the lowest SES group were 65% higher than the highest SES group, while for females, they were 33% higher. Across all SES groups female rates were higher than those for males.

There was minimal variation in the estimates across the remoteness classes, with male rates lower than those for females (Figure 5.6).

## Prevalence of mood (affective) problems, South Australia, 2004-05

Figure 5.4: By age and sex

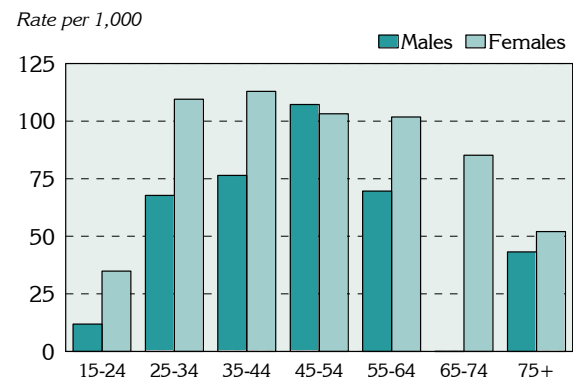


Figure 5.5: By socioeconomic status and sex

Rate ratio: Male 1.65; Female 1.33

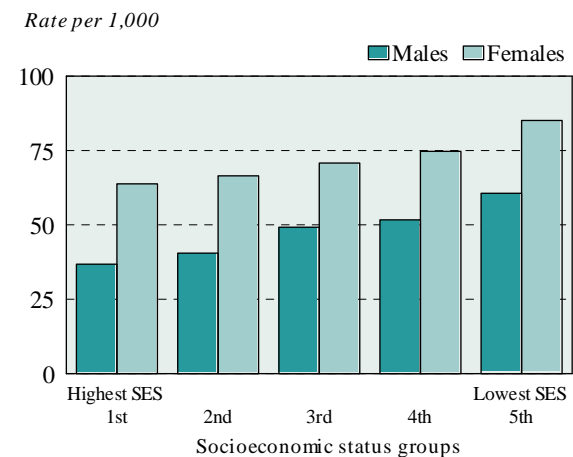
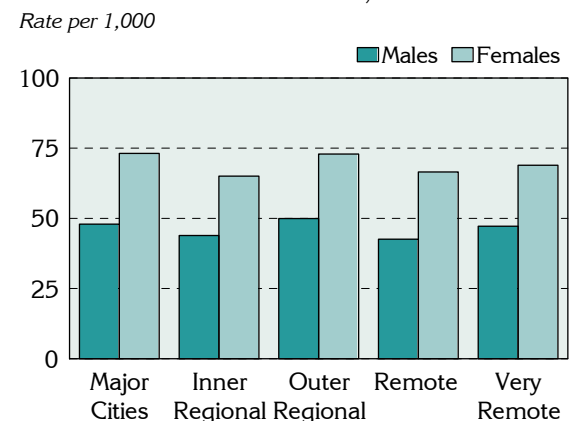


Figure 5.6: By remoteness and sex

Rate ratio: Male 0.99; Female 0.94



## Estimated number of males with mood (affective) problems, 2004/05

Central Northern Adelaide Health Region (with a standardised ratio (SR) of 103\*\*, 18,642 men) had slightly more than the expected number of males reporting mood (affective) problems. In Southern Adelaide Health Region (96, 7,416), there were slightly fewer than expected. In country SA, only Mid North and Northern & Far Western had elevated ratios.

**Table 5.2: Estimates of males with mood (affective) problems by Health Region, South Australia, 2004/05**

Health Region	Number	Rate <sup>1</sup>	SR <sup>2</sup>
<b>Central Northern Adelaide</b>	<b>18,642</b>	<b>48.7</b>	<b>103**</b>
Northern sub-region	8,299	50.7	107**
Western sub-region	5,618	53.6	113**
Central East sub-region	4,725	41.6	87**
<b>Southern Adelaide</b>	<b>7,416</b>	<b>45.5</b>	<b>96**</b>
Urban Beaches District	3,167	46.8	98
Hills District	1,264	32.8	69**
Outer Southern District	2,985	52.7	111**
<b>Metropolitan Adelaide (excl. Gawler)</b>	<b>26,058</b>	<b>47.8</b>	<b>101</b>
<b>Hills Mallee Southern</b>	<b>2,774</b>	<b>46.7</b>	<b>98</b>
<b>South East</b>	<b>1,228</b>	<b>37.8</b>	<b>80**</b>
<b>Wakefield</b>	<b>2,409</b>	<b>47.2</b>	<b>99</b>
<b>Mid North</b>	<b>870</b>	<b>56.1</b>	<b>118**</b>
<b>Riverland</b>	<b>806</b>	<b>47.6</b>	<b>100</b>
<b>Eyre</b>	<b>598</b>	<b>44.4</b>	<b>93</b>
<b>Northern &amp; Far Western</b>	<b>1,198</b>	<b>54.4</b>	<b>114**</b>
<b>Country South Australia (incl. Gawler)</b>	<b>9,883</b>	<b>46.9</b>	<b>99</b>

<sup>1</sup> Rate is the number of males with mood (affective) problems per 1,000 population

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

### Metropolitan Adelaide

There were estimated to be higher than expected numbers of males with mood (affective) disorders in Playford - Elizabeth (an SR of 166\*\*, 874 men) and - West Central (162\*\*, 431); Onkaparinga - North Coast (140\*\*, 577) and - Hackham (126\*\*, 407); Port Adelaide Enfield - Park (137\*\*, 474), - Inner (132\*\*, 586) and - Port (127\*\*, 341); and Salisbury - Inner North (122\*\*, 681) (Map 5.3).

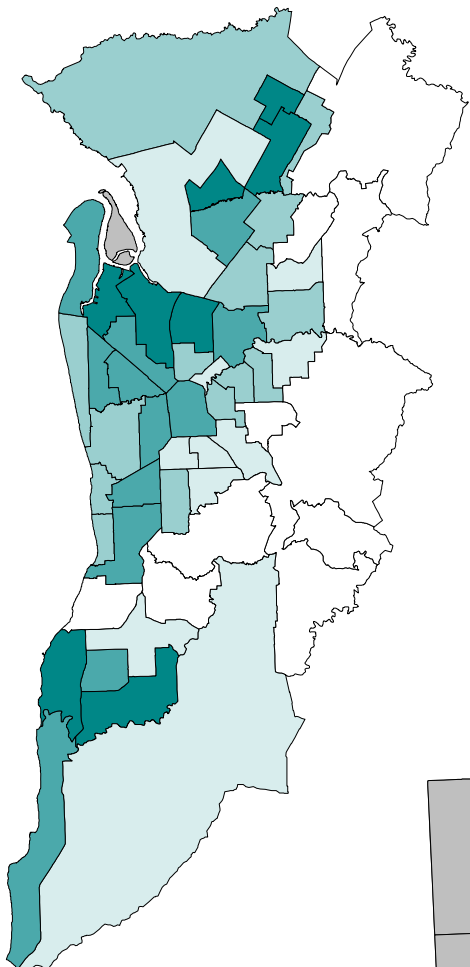
SLAs with the lowest ratios were Playford - Hills; Tea Tree Gully - North and - Hills; Burnside - North-East; Onkaparinga - Reservoir; Marion - South; Adelaide Hills - Central and - Ranges; and Mitcham - Hills.

### Country SA

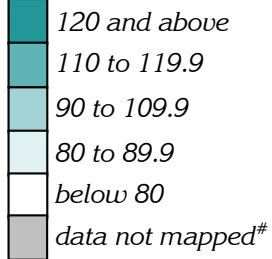
For country SA (Map 6.4), the highest ratios were recorded for Unincorporated Riverland (an SR of 173, 7 men), Unincorporated Whyalla (167, 11), Peterborough (152\*\*, 73), Copper Coast (132\*\*, 340), Port Pirie Districts - City (130\*\*, 406), Port Augusta (126\*\*, 429), Mid Murray (124\*\*, 273), Whyalla (123\*\*, 630), Murray Bridge (120\*\*, 493), Yorke Peninsula - South (120\*, 119), Flinders Ranges (120, 50) and Alexandrina - Coastal (120\*\*, 301).

Lower than expected ratios were recorded in Roxby Downs; Adelaide Hills - North and Balance; Tatiara; Barossa - Barossa and - Tanunda; Naracoorte and Lucindale; Kimba; Mount Barker Balance; Robe; Grant; Unincorporated Pirie; and Lower Eyre Peninsula.

# Map 5.3 and Map 5.4: Estimated number of males with mood (affective) problems, Metropolitan Adelaide and country SA, 2004/05



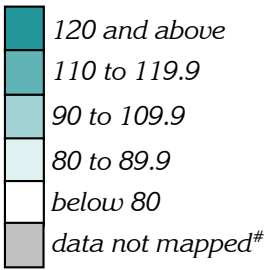
Standardised ratio (as an index)\*, by SLA



\* 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



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