

## Section 4

### Indicators of health and wellbeing

**In this section ...**

- Introduction
- The value of indicators
- List of indicators
- Indicators – in detail

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## Introduction

Information is presented in the following section to describe the social determinants of the health and wellbeing of the South Australian population. In particular, the aim is to identify inequalities that exist between different population groups and areas of Adelaide and the rest of the State.

The information, presented as a series of indicators of inequality, highlights these inequalities and draws attention to the influence of social, economic and environmental factors on health and wellbeing. The ensuing picture is one of significant differences across the population.

## The value of indicators

One way to gauge the impact of social, economic and environmental factors on health and wellbeing is to track selected indicators over time. The tracking of indicators of inequality and the dissemination of information about them can support progress towards a shared goal of reducing inequalities.

The indicators are therefore important for:

- informing people about health and social issues;
- monitoring the health and level of wellbeing of the population, to describe its current state and to identify change, both between groups in the population, and over time;
- assessing progress toward goals or achievement of policy objectives.

These purposes suggest that indicators need to:

- reflect the values and goals of those who will use and apply them;
- be accessible and reliably measured in all of the populations of interest;
- be easily understood, particularly by those people who are expected to act in response to the information;

- be measures over which we have some control, individually or collectively, and are able to change; and
- move people and communities to action.

## Quality and availability of indicators

The indicators presented in this document are those for which reliable data are available, in particular data which can be mapped to show variations by area, across Adelaide and South Australia.

In some cases, data are not available to show trends over time, or variations between population groups, for some aspects of the social, economic and environmental factors that we wish to show. In others, the data are not what we would choose to present, but are the best available.

For example, the second indicator is low income families. Ideally, the income would be adjusted (equivalised) for family size and composition because, on the whole, an older couple with no dependent children will have lower living costs than a young couple or single parent with dependent children. We would also like to have an indicator of wealth, as income is only one, albeit an important, measure of economic wellbeing. However, neither wealth nor equivalised income data are available in a form suitable for showing variations between population groups (for which we need small area data).

Despite these limitations, the income data that are available provide a useful and reliable guide to variations between groups in the population. This is the case for many data items that have limitations when used as measures for individuals, but can prove to be reliable indicators when aggregated for groups in the population.

We would have liked similar information on a range of factors that impact on health and wellbeing, some examples of which are given in **Table 1**. At this stage, there are no small area datasets that reliably describe these factors.

**Table 1: Examples of potential indicators, for which suitable data were not available**

Topic	Potential indicators and their relevance
Physical environment	Air quality; levels of noise, dust (including from industry)
Refugees	Language competency; emotional and health issues
Social support, social networks	Ability to borrow money in a crisis; levels of trust among individuals or within specific neighbourhoods
Interpersonal violence	Levels of domestic and other forms of violence; impact on quality of life
Levels of adult literacy	Reading/writing levels: ability to read instructions, labels
Disability	Levels of different forms of disability; impact on quality of life
Financial stress	Levels of personal and household debt
Smoking, alcohol, other drugs	Levels of use indicating health risk; impact on personal finances
Housing quality	Availability of electricity, running water; insulation in houses
Work environment	Sickness absence from work; sense of control over work; extent of effort-reward balance or imbalance; job security

## Presentation of the indicators

In the remainder of this section, for each indicator, there is an introductory statement of the relevance of the indicator to health and wellbeing. This is followed by a discussion under the following headings, as the data allows:

- Key points
- Trend
- Geographic variations
- Socioeconomic status
- Indigenous profile

Variations in the data by sex, age, Indigenous status and socioeconomic status are included as appropriate and where data are available. Comparisons are also made with data for Australia as a whole.

**Note:** For ease of reading, the area of the State outside of Adelaide is referred to as ‘country South Australia’, or ‘the country’. The authors acknowledge that this general term includes a wide range of areas, from towns as large as Mount Gambier and Whyalla, with more than 20,000 people, and as small as the settlements of Iron Knob and Spalding, with just over 200 people; as well as the rural, remote and very remote parts of the State.

Readers should also note that the map for South Australia has been reduced in size. Part of the northern and western area has been cut off – truncated – to allow the remainder of the State, where there are more separate areas to map, to be shown more clearly. See the notes pages in the Appendix for details of the area truncated.

## Explanatory information and data sources

The indicators presented here are supported by explanatory information in the Appendix. This additional information is generally too extensive to include under each topic. However, it is relevant to an understanding of the limitations of the data. The Appendix also includes details of the source(s) of the data presented.

### How best to read the data and maps

#### How can I best find out about the population in the area where I live/ work?

Some readers will want to identify a particular area, e.g., where they live or work, to see how it compares with other areas across the indicators.

The key map at the end of the report allows one to find a geographic area of interest. Although the maps are small, the areas are large enough to follow from page to page, noting the location and size of the variations.

#### What are the predominant patterns in the data across Adelaide or country areas?

Other readers will want to get an overview of the distribution of the population across all indicators, or across a particular range of indicators.

The distribution of the population in Adelaide is such that this is easy, with many of the maps showing a distinctive pattern. For country areas, it may be helpful to identify the names of the towns mapped as circles to assist in understanding the overall patterns. Again, the key maps at the end of the report will be useful.

## List of indicators

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# Disadvantage: Summary measure of socioeconomic disadvantage

The ABS Index of Relative Socio-Economic Disadvantage is a useful summary indicator of disadvantage for population groups across the State. This summary measure provides an overview of many of the indicators of social inequality, which appear on subsequent pages.

## Key points

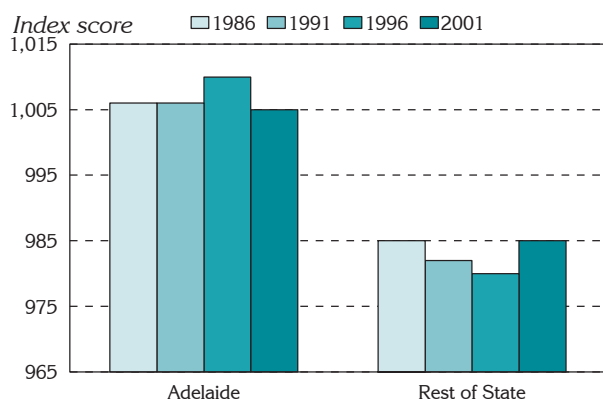
- The map of the Index of Relative Socio-Economic Disadvantage scores clearly shows the marked difference between areas in Adelaide with the highest, and those with the lowest, socioeconomic status.
- The index values also show the relatively greater levels of disadvantage in country areas compared with Adelaide.

The 2001 Index of Relative Socio-Economic Disadvantage (IRSD) includes all variables collected in the 2001 Population Census that either reflect or measure disadvantage. These include low income, low educational attainment, high unemployment, jobs in relatively unskilled occupations and variables that reflect disadvantage, rather than measure specific aspects of disadvantage (e.g., Indigenous status and separated/divorced).

## Trend

Index scores in Adelaide are considerably higher than those in country South Australia. Scores in Adelaide were the same over the first two Censuses (1986, 1991), with a small increase in 1996 before returning to its previous level (Figure 2). For country South Australia, the IRSD score declined marginally between 1986 and 1996, before returning to the 1986 level of 985.

**Figure 2: Index of Relative Socio-Economic Disadvantage, 1986 to 2001**



The index score for South Australia revealed a marginally higher level of socioeconomic disadvantage relative to the Australian average.

## Geographic variation

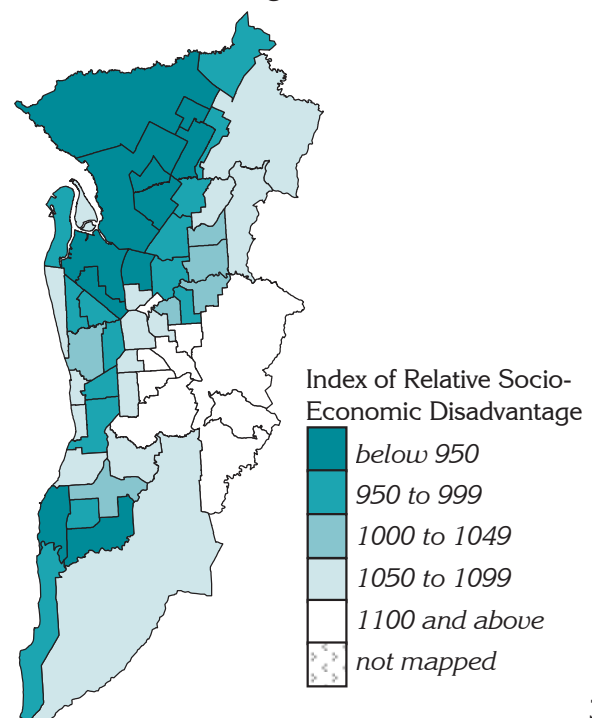
### Adelaide

The overall pattern of distribution of index scores within Adelaide shows the least disadvantaged areas in 2001 were situated to the east and south of the city, while the most disadvantaged areas were to the north-west, north and in the outer south (Map 1). This is a pattern seen throughout this report.

The highest index scores (indicating the least disadvantaged areas) are in Burnside - South-West (1122), Adelaide Hills - Ranges (1120), Adelaide Hills - Central (1118), Burnside - North-East (1117) and Mitcham - North-East (1116).

Relatively low scores, indicating the most disadvantaged areas, are in Playford - West Central (762), Port Adelaide Enfield - Port (799), Playford - Elizabeth (807), Port Adelaide Enfield - Inner (886), Salisbury - Inner North (891) and Salisbury - Central (897).

**Map 1: Index of Relative Socio-Economic Disadvantage, Adelaide, 2001**

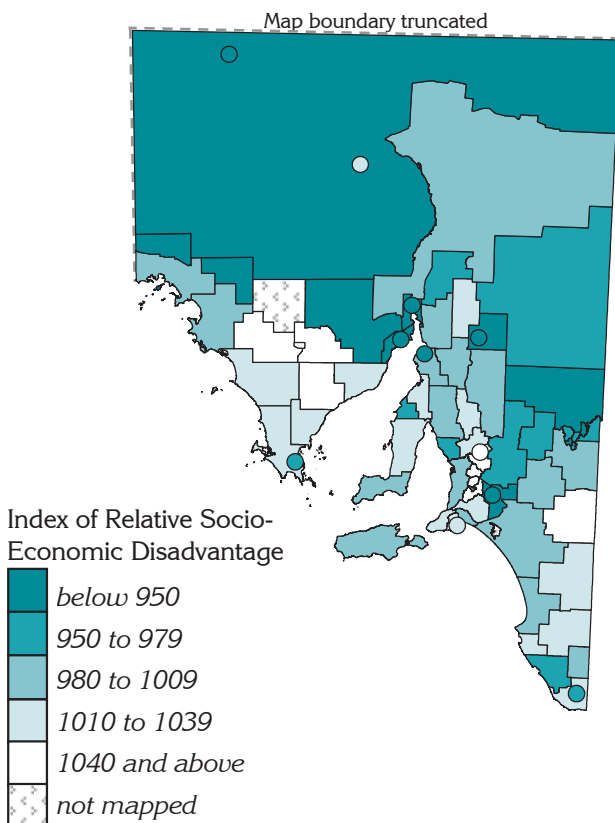


## Country South Australia

Outside of Adelaide, the most disadvantaged areas are located in the north of the State (**Map 2**), with scores of below 900 recorded in Unincorporated Riverland (680), Unincorporated Whyalla (809), Unincorporated Far North (816), Unincorporated West Coast (881) and Peterborough (895).

The least disadvantaged areas (highest index scores) are located on the urban fringe in Adelaide Hills - North (1079), Mount Barker Balance (1057) and Adelaide Hills Balance (1052) and Barossa - Barossa (1046); and in Kimba (1049).

**Map 2: Index of Relative Socio-Economic Disadvantage, South Australia, 2001**

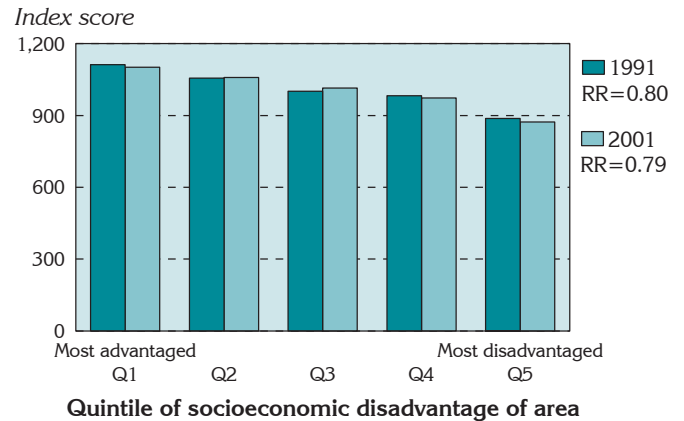


## Socioeconomic status

### Adelaide

The average score in 2001 for the most advantage areas (Quintile 1) was 1102, decreasing for each quintile to a score of 873 in the most disadvantaged areas, a drop of 21% (**Figure 3**). Since 1991, the index scores have changed marginally across the quintiles, resulting in a minor drop in the ratio of scores between the most disadvantaged and most well off areas, from 0.80 to 0.79.

**Figure 3: Index of Relative Socio-Economic Disadvantage, Adelaide, 1991 and 2001**

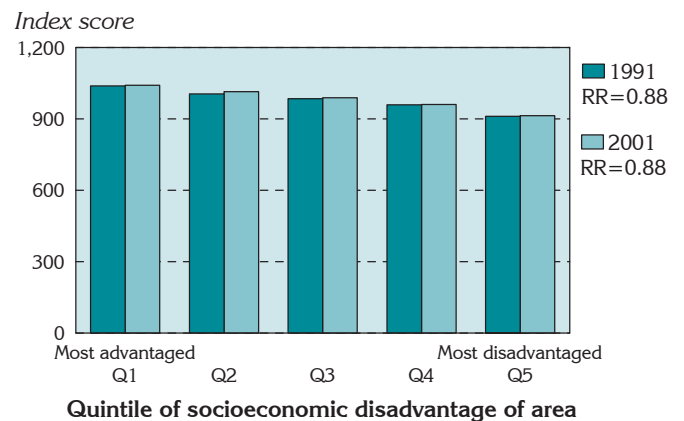


Note: RR (rate ratio) is the ratio of the rate in Quintile 5 to the rate in Quintile 1.

## Country South Australia

The Index of Relative Socio-Economic Disadvantage show less variation in country South Australia, from a score of 1041 in the most advantaged areas to 914 in the most disadvantaged areas, a drop of 12% (**Figure 4**). Since 1991, the index scores have increased marginally, although the ratio of rates between the most disadvantaged and most well off areas, remains unchanged.

**Figure 4: Index of Relative Socio-Economic Disadvantage, country South Australia, 1991 and 2001**



Note: RR (rate ratio) is the ratio of the rate in Quintile 5 to the rate in Quintile 1.



## Income: Low income families

*Income is among the most important individual-level determinants of wellbeing. People with a higher income generally enjoy better health and longer lives than people with a lower income.*

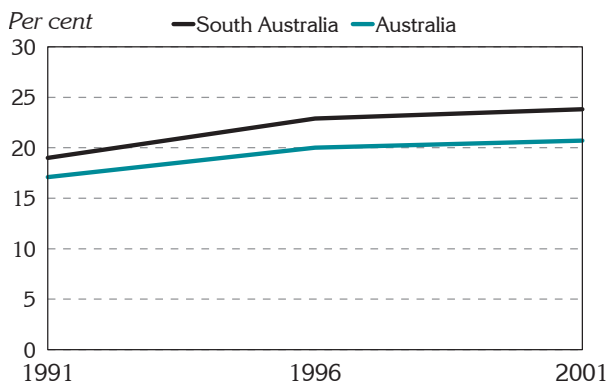
### Key points

- Almost one quarter of families at the 2001 ABS Census had incomes of below \$26,000 per year (\$500 per week). This is an increase from under one fifth in 1991.
- There are more low income families in the country than in Adelaide.
- The distribution of low income families varies strikingly within Adelaide and across the State.
- The proportion of low income families in South Australia is above the Australian average.

### Trend

Over the last ten years, the proportion of low income families in South Australia has increased steadily, from 19.0% of all families in 1991, through 22.9% in 1996, to 23.8% in 2001 (**Figure 5**)<sup>1</sup>. The proportion of low income families in Australia is lower, but has also increased, from 17.1% in 1991 to 20.7% in 2001.

**Figure 5: Low income families, South Australia**



### Geographic variation

#### Adelaide

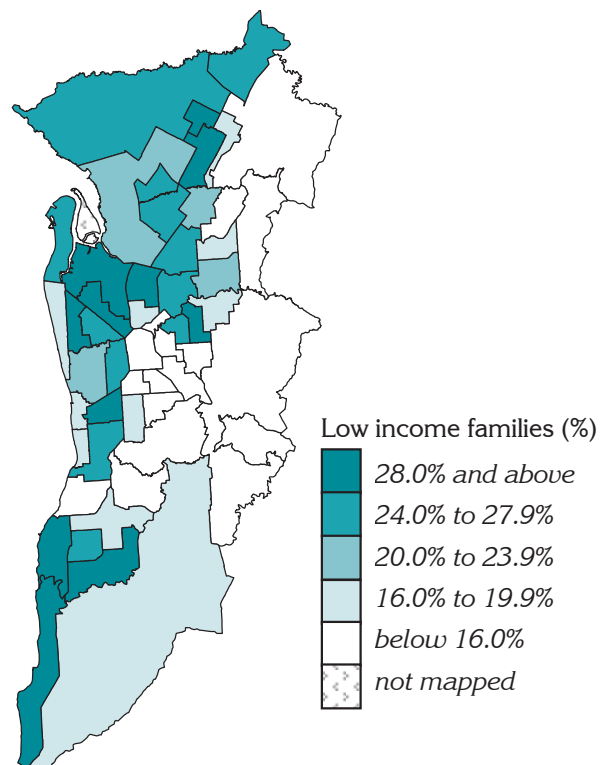
In 2001, high proportions of low income families were largely found in the city's inner northern and north-western suburbs, as well as in the outer north and south (**Map 3**): this distinctive pattern of distribution is seen in many of the following maps.

More than 30% of families living in Playford - Elizabeth, Playford - Central West, Port Adelaide Enfield - Port, Port Adelaide Enfield - Inner and Onkaparinga - North Coast were receiving an income of below \$26,000 per year. Some of these areas are at some distance from centrally-located

specialist services (in health, education, etc.), with transport costs placing an additional burden on already low incomes.

Areas with relatively low proportions of low income families are predominantly in the inner, eastern, south-eastern and north-eastern parts of Adelaide, with Burnside - South-West, Adelaide Hills - Central, Adelaide Hills - Ranges and Onkaparinga - Reservoir all with proportions of below 13.0%.

**Map 3: Low income families, Adelaide, 2001**



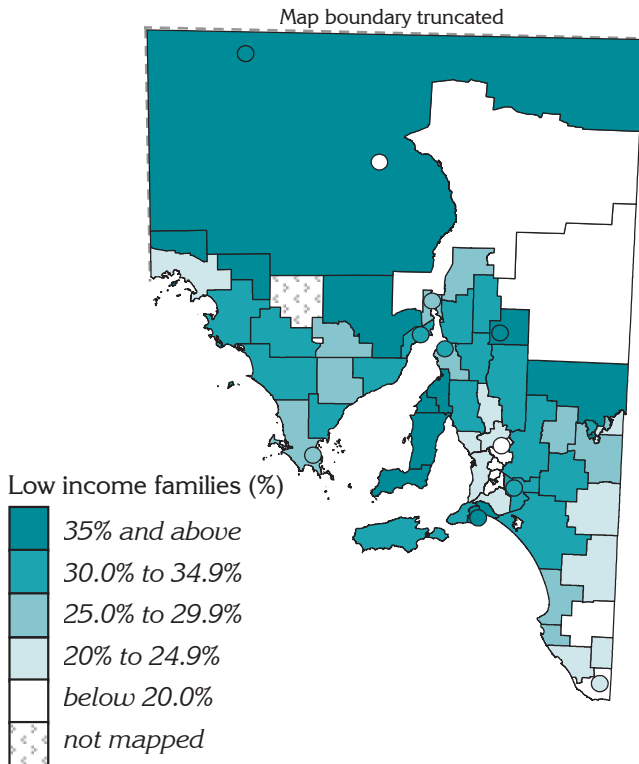
#### Country South Australia

Relatively high proportions of low income families are found on Yorke Peninsula, and in the State's far north and mid north regions (**Map 4**). The highest proportions were recorded in the Unincorporated Whyalla (with 50.0%), Peterborough (45.2%), Yorke Peninsula - South (44.3%) and Unincorporated Riverland (40.6%).

<sup>1</sup> The income level used varies over time: see the Appendix for details.

Low proportions of low income families were recorded in areas surrounding Adelaide, in the north-east of the State and in the south-east. The lowest proportion, of 3.2%, was recorded for families in the mining centre of Roxby Downs.

**Map 4: Low income families, South Australia, 2001**



## Socioeconomic status

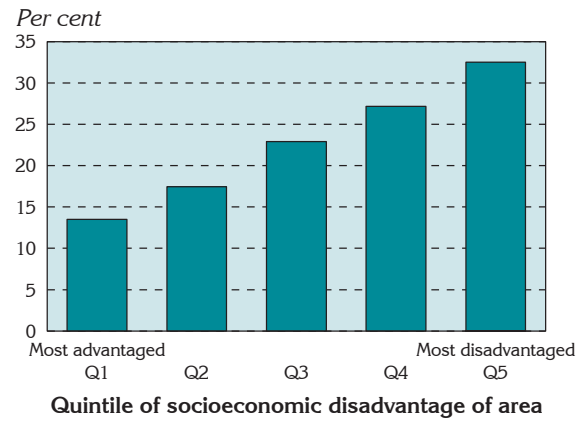
### Adelaide

The proportion of low income families in Adelaide increases by socioeconomic status of area<sup>2</sup>. The lowest proportions are in the most advantaged areas (Quintile 1, with 13.1% of families receiving a low income) and highest in the most disadvantaged areas (Quintile 5, with 32.5%) (Figure 6).

For example, there were two and a half times more low income families in the most disadvantaged areas in Adelaide when compared with the most well off areas.

<sup>2</sup> Areas in Adelaide have been ranked by socio-economic status and allocated to one of five groups (quintiles). A similar grouping has been produced for country South Australia. See the Appendix for more details.

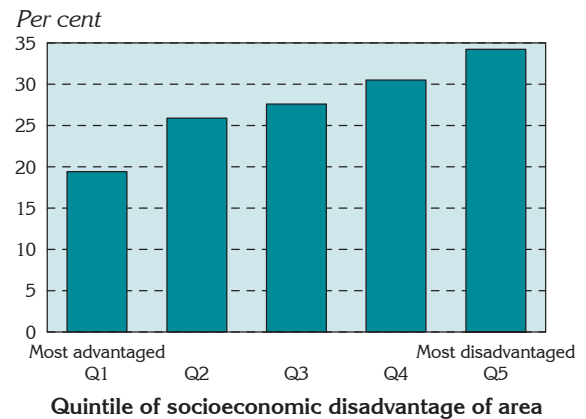
**Figure 6: Low income families, Adelaide, 2001**



### Country South Australia

A strong socioeconomic gradient (see footnote 2, above) is also evident across the State, from the lowest rate of 19.4% in the most advantaged areas to a high of 34.2% in the most disadvantaged areas (Figure 7). This is 1.8 times higher than in the most disadvantaged areas.

**Figure 7: Low income families, country South Australia, 2001**



Low income families living in the country can be particularly disadvantaged by the costs of transport and accommodation when accessing specialist services only available in Adelaide.

### Indigenous people

At the 2001 Census, the median weekly personal income of Indigenous people in South Australia was \$214. This is substantially (38.9%) less than the median weekly income of non-Indigenous South Australians (\$350). It is also falling further behind, having increased by 25.1% since 1991, compared with an increase of 41.7% for non-Indigenous people.

Indigenous households (as distinct from individuals) in South Australia recorded a median weekly income of \$555 compared with a median of \$676 for all other households. These lower levels of income are indicative of the limited resources available to many Indigenous people.

## Income: Children living in low income families

*Children living in families either solely or largely dependent on government for their income have the least access to income and other resources, and are more likely to face lower achievements in education and to have poorer health outcomes.*

### Key points

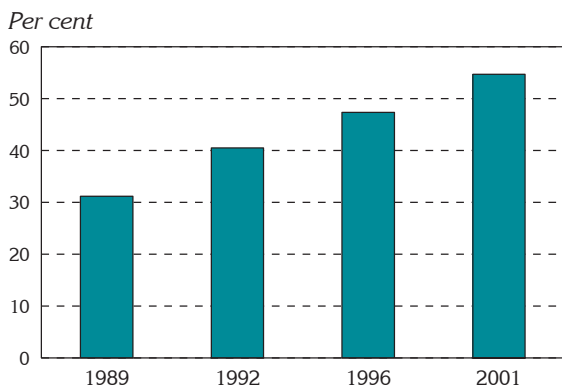
- In 2001, more than half of the children in South Australia aged under 16 years were living in families receiving government income support, with a higher proportion in country areas than in Adelaide.
- This is almost one third (29.1%) higher than in 1992.
- The distribution of children in these low income families across Adelaide and country South Australia is consistent with that for other indicators of disadvantage.

### Trend

Both the number and proportion of children aged under 16 years in South Australia living in families receiving an income support benefit or payment<sup>3</sup> have increased substantially since 1989 (Figure 8).

While the proportion rose from 31.2% in 1989 to 51.9% in 2001, the numbers have also increased, from 99,076 children to 167,674 children.

**Figure 8: Children living in low income families, South Australia**

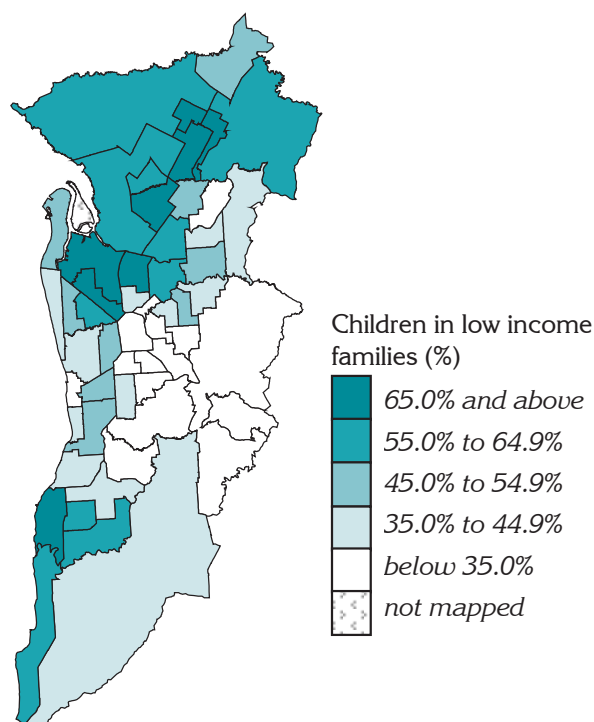


### Geographic variation

#### Adelaide

The highest concentrations of children under 16 years of age living in low income families are in areas located in the outer north and outer south of Adelaide, as well as in the north-western suburbs (Map 5). The highest proportions are in the northern areas of Playford - Elizabeth (with 77.2%) and Playford - West Central (73.6%); in the southern areas of Onkaparinga - North Coast (74.3%); and in the north-west in Port Adelaide Enfield - Port (73.4%) and Port Adelaide Enfield - Inner (70.2%).

**Map 5: Children living in low income families, Adelaide, 2001**



#### Country South Australia

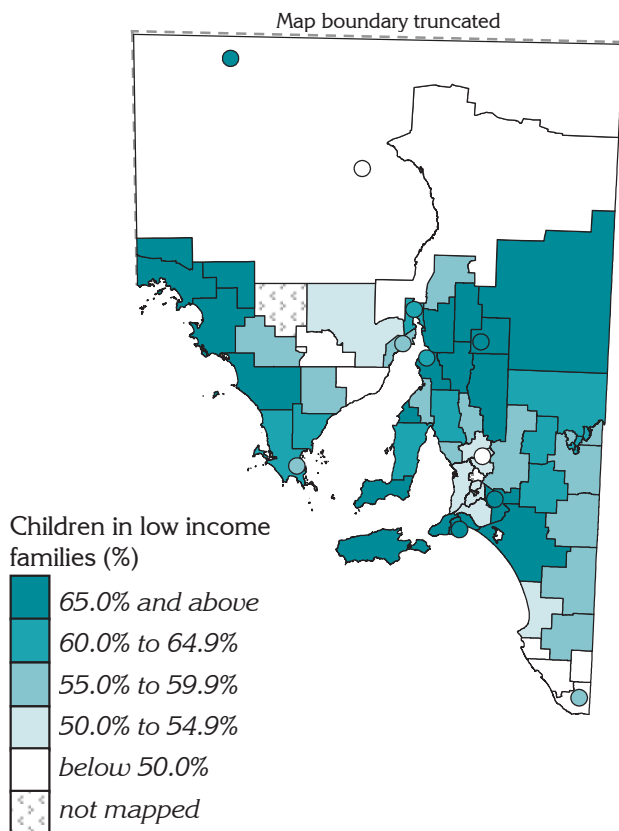
Outside of Adelaide, the highest proportions of children in families receiving an income support payment are in Orroroo/ Carrieton (85.9%), Peterborough (M) (80.1%), Coober Pedy (79.1%), Ceduna (78.7%), Unincorporated West Coast (78.6%), Yorke Peninsula - South (75.6%) and The Coorong (75.2%). These are exceptionally high proportions and, as for Adelaide, indicate particularly high levels of disadvantage in these communities.

The lowest proportions of children under 16 years of age living in families receiving an income support payment in 2001 were generally located in the south-east or far northern and western areas of the State (Map 6). Areas in the far north and west include Roxby Downs (9.2%), Kimba (42.6%), Unincorporated Far North (47.2%) and Franklin Harbor (48.6%).

<sup>3</sup> The income support payments are the Sole Parent or Disability Support Pension; unemployment, sickness or special benefits; or the Family Tax Benefit B.

Note that the details of the number of children in families receiving benefits under the Community Development Employment Project scheme (the employment scheme for Indigenous people) are not available. Their exclusion substantially reduces the rates in the most remote areas of the State.

**Map 6: Children living in low income families, South Australia, 2001**

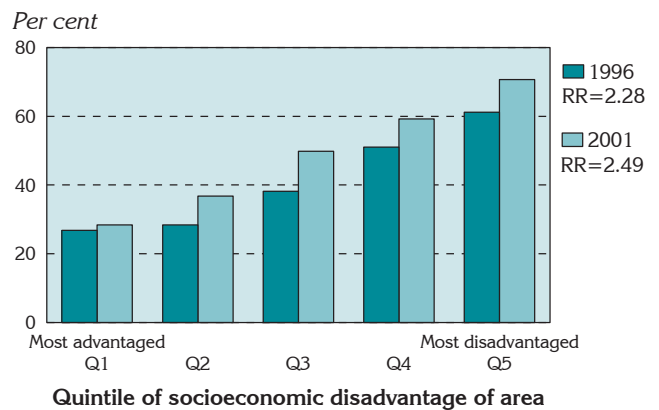


## Socioeconomic status

### Adelaide

In 2001, almost three quarters of children aged under 16 years in the most disadvantaged areas (Quintile 5, comprising one fifth of Adelaide's children at these ages) of Adelaide were living in families receiving income support (70.7%), compared with just over a quarter in the most advantaged areas (Quintile 1, 28.4%). That is, there were almost two and a half times more children in low income families in the most disadvantaged areas (Figure 9). This is a larger gap than in 1996.

**Figure 9: Children living in low income families, Adelaide, 1996 and 2001**

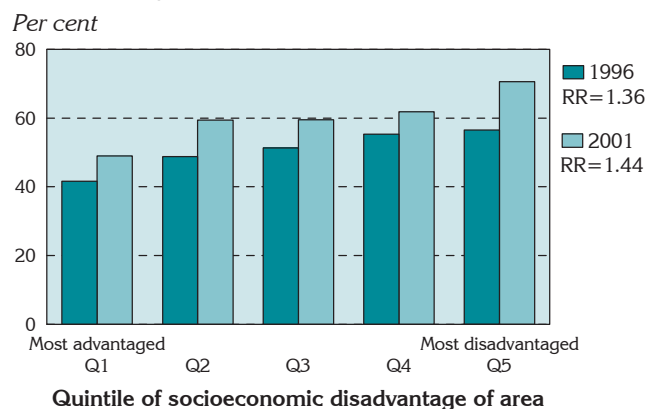


Note: RR (rate ratio) is the ratio of the rate in Quintile 5 to the rate in Quintile 1.

### Country South Australia

There is a smaller difference in the proportions of children in the most disadvantaged and advantaged areas in the country than in Adelaide (Figure 10). As is the case in Adelaide, the gap between the most advantaged and disadvantaged areas has widened, to 44%, up from 36% in 1996.

**Figure 10: Children living in low income families, country South Australia, 1996 and 2001**



Note: RR (rate ratio) is the ratio of the rate in Quintile 5 to the rate in Quintile 1.

## Education: School retention and participation

*Education increases opportunities for choice of occupation and for income and job security, and also equips people with the skills and ability to control many aspects of their lives – key factors that influence wellbeing throughout the life course. Participation in schooling is also a major protective factor across a range of risk factors including substance misuse and homelessness.*

### Key points

- Participation in full-time secondary school education drops markedly from age 15, with a more substantial decline among students living in the most disadvantaged areas; students living in these areas also have lower participation rates at age 16.
- Fewer than three quarters of students in Year 10 stay on to Year 12.
- Young people completing Year 12 are more likely to make a successful initial transition to further education, training and work than early school leavers.

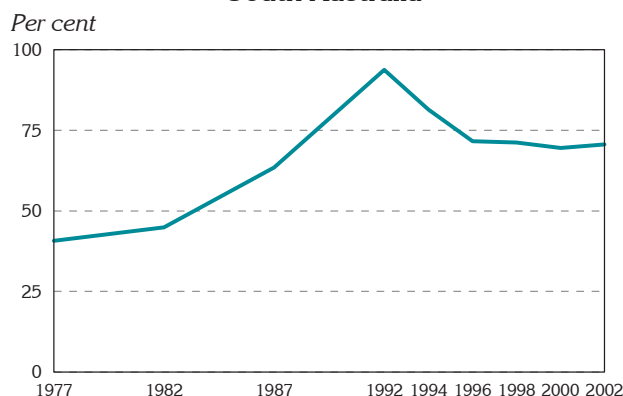
### Trend

#### School retention rates

The estimated proportion of full-time Year 10 students who stay on to Year 12 (the apparent retention rate: see 'Notes on the indicators' in the Appendix) increased from 40.7% in 1977 to 93.8% in 1992, before dropping to 81.5% in 1994 and to 71.6% in 1996. Since 1996, the rate has remained near the 2002 figure of 70.6% (the comparable Australian rate is 77.0%) (Figure 11).

The two major reasons influencing low retention rates are: firstly, that young people leave in response to a fear of failing at school. Secondly, they leave school early when there is the possibility of gaining any form of employment, particularly in marginal regional economies and at times when the job market is less certain. Longitudinal research suggests that those who leave school early to enter full-time work that is satisfying and offers a career pathway have better labour market outcomes than those early school leavers who do not find full-time employment quickly or become unemployed.

**Figure 11: Apparent school retention rates, Year 10 to Year 12 full-time students, South Australia**



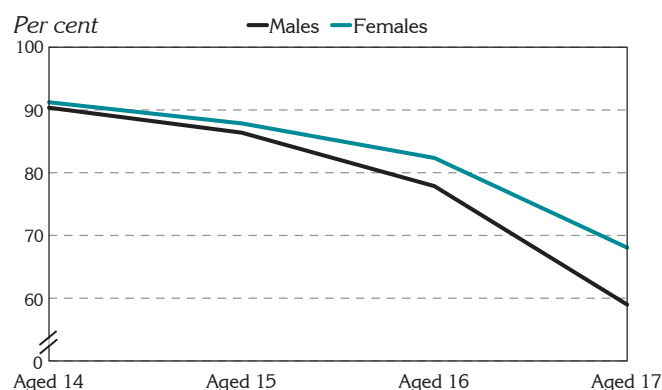
Young people completing Year 12 are more likely to make a successful initial transition to further education, training and work than early school leavers.

#### School participation rates

The participation of males and females in full-time secondary education decreases with age (Figure 12).

At age 14, both male and female rates are similar (90.3% and 91.2%, respectively). However, the rates decline (more steeply for males than for females) to 77.9% for males and 82.3% for females at age 16: by age 17 the rates are 59.0% and 68.1%, respectively.

**Figure 12: Full-time participation in secondary school education, by age and sex, South Australia, 2001**



However, the higher participation of girls in secondary school education does not result in better labour market outcomes for all females. Males are more likely than females to be in training schemes leading to full-time work (e.g., apprenticeships), or in full-time work, and are less likely than females to be permanently in part-time employment or to be out of the labour force altogether. They are also more likely to be registered in the official unemployed category.



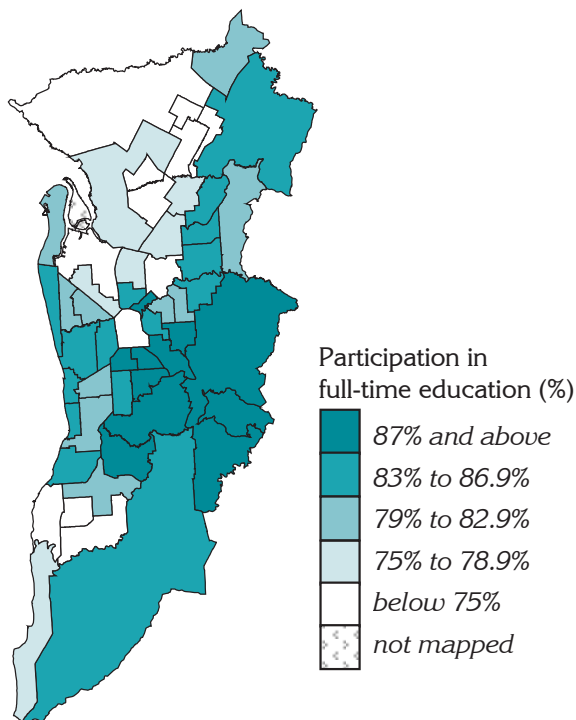
## Geographic variation: school participation rates

### Adelaide

The areas with the lowest full-time secondary school participation rates at age 16 are those commonly seen as among the most disadvantaged in Adelaide (**Map 7**). They include Playford - Elizabeth (60.6%), Playford - West Central (62.1%), City of Adelaide (65.5%), Salisbury - Inner North (71.6%) and Salisbury - Central (72.6%).

Areas with the highest levels of full-time participation at age 16 are Unley - West (91.9%), Burnside - South-West (91.1%), Mitcham - North East (91.1%), Burnside - North-East (90.8%) and Adelaide Hills - Ranges (90.2%).

**Map 7: Full-time participation in secondary school education at age 16, Adelaide, 2001**



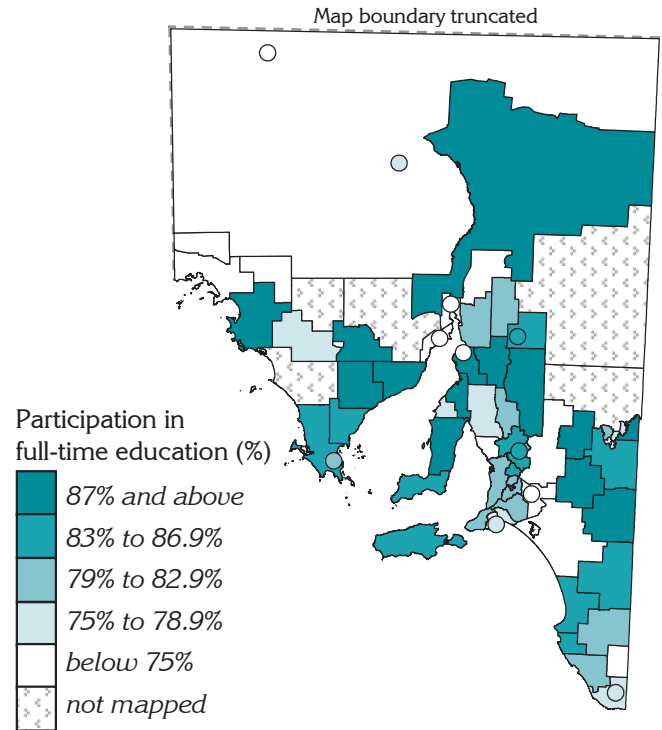
Many of the areas with the lowest full-time participation rates are also areas of high unemployment, and low access to further education and training, and to tertiary education. This also applies to those areas with the lowest participation rates in country.

### Country South Australia

Areas outside of Adelaide (with more than 20 students aged 16) with the lowest full-time secondary school participation rates at age 16 are Unincorporated Far North (27.5%), Coober Pedy (53.1%), Ceduna (58.5%), Wattle Range - East (68.6%), The Coorong (69.6%) and Port Augusta (70.3%) (**Map 8**).

In areas with more than 20 students aged 16, the highest full-time participation rates were in Barunga West (93.8%), Port Pirie Balance (91.9%), Northern Areas (89.9%), Loxton Waikerie - West (89.3%) and Goyder (89.1%).

**Map 8: Full-time participation in secondary school education at age 16, South Australia, 2001**

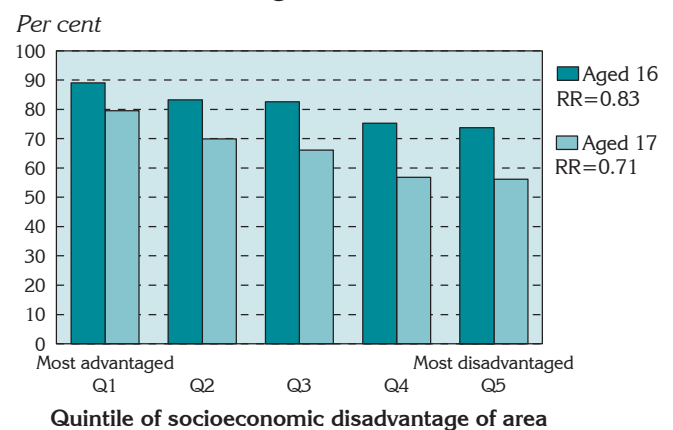


## Socioeconomic status

### Adelaide

The highest rates of full-time participation in education at ages 16 and 17 were recorded in the most advantaged areas of Adelaide (89.1% and 79.5%, respectively) and the lowest in the most disadvantaged areas (73.7% and 56.2%, respectively) (**Figure 13**).

**Figure 13: Full-time participation in secondary school education at ages 16 and 17, Adelaide, 2001**



Note: RR (rate ratio) is the ratio of the rate in Quintile 5 to the rate in Quintile 1.

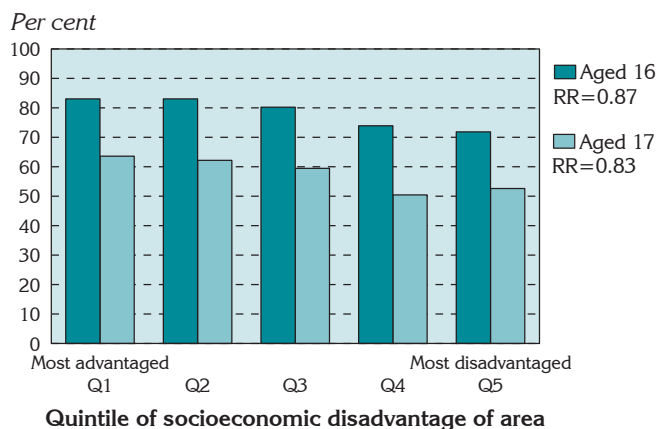
The effect of these differences is that there are 17% fewer 16 year old children in full-time schooling in the most disadvantaged areas and 29% fewer 17 year olds.

Students living in the most advantaged areas of Adelaide are also more likely to be registered for the South Australian Certificate of Education (corresponding to Year 11 and Year 12), with 32.2% more of the 15 to 19 year old population registered than in the most disadvantaged areas (Quintile 5).

### Country South Australia

Outside of Adelaide, the highest rates of full-time participation in education at age 16 were recorded in the most advantaged areas (Quintiles 1 and 2, both with a rate of 83.1%), with the lowest rate recorded in the most disadvantaged areas (71.9%). At age 17, the highest rate was recorded in the most advantaged areas (63.6%), with the lowest rate (50.5%) recorded in Quintile 4 areas and the second lowest rate (52.6%) in the most disadvantaged areas (Quintile 5) (Figure 14).

**Figure 14: Full-time participation in secondary school education at ages 16 and 17, country South Australia, 2001**



Note: RR (rate ratio) is the ratio of the rate in Quintile 5 to the rate in Quintile 1.

The effect of these differences is that there are 13% fewer 16 year old children in full-time schooling in the most disadvantaged areas and 17% fewer 17 year olds.

### Indigenous students

While apparent retention rates for Indigenous students have improved since the 1980s, in 2001 Indigenous students were still less likely than all students to stay at school beyond the compulsory years.

In 2001, the proportion of Indigenous secondary students continuing to Year 10 in South Australia was 77.1% compared with 92.6% of non-Indigenous students. For Indigenous secondary students continuing their studies to Year 12, the apparent

retention rate was less than half that of non-Indigenous students (31.7% compared with 70.2%).

While the numbers of Indigenous students in higher education have long been influenced by low Year 12 completion rates, Indigenous participation in Vocational Education and Training (where completion of Year 12 is not necessarily a prerequisite) has increased markedly in recent years. Results from the Census of Population and Housing indicate there was a 118% increase in the number of Indigenous VET students from 1991 to 2001. In comparison, participation levels for the non-Indigenous population increased by 2.6% between 1991 and 2001.

However, low pass rates and high withdrawal rates have resulted in Indigenous students achieving significantly less successful VET outcomes than non-Indigenous students. A major issue around participation of Aboriginal people in vocational education and training is the poor level of employment outcomes arising from that participation. This is, in part, because of the type and level of courses undertaken (which tend to be lower level certificate level VET, with poor take up in traineeships). It is also a reflection of the particular disadvantages faced by Aboriginal people in rural/remote areas where there are not many employment opportunities and where choice of training is limited.

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# Labour force: Participation

*In modern societies, the economic wellbeing of an individual and their family is largely determined by their employment. Those who have access to secure and satisfying work are more likely to have an adequate income and to face increased life opportunities and better health and wellbeing than those who are less secure (e.g., in casual work), or are under-employed or unemployed.*

## Key points

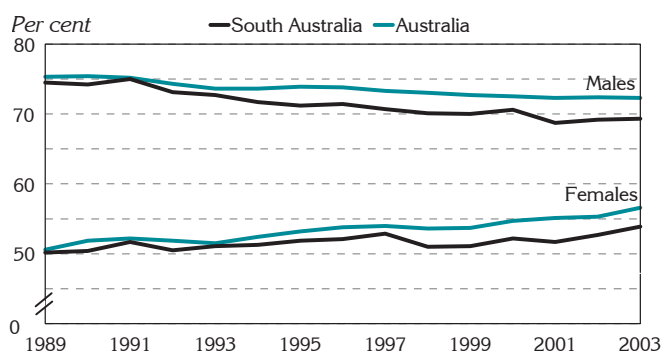
- Male labour force participation rates have declined over the years from 1989 to 2003; although participation rates for females have increased, they remain well below the rates for males.
- Females are more likely to be in part-time employment than are males, with 47.1% of females in the labour force in part-time jobs compared with 13.0% of males.
- People in high socioeconomic status areas are more likely to be in the labour force than are those in the most disadvantaged areas.

Labour force participation is calculated as the proportion of the civilian population aged 15 years and over who were either employed or unemployed.

### Trend

From 1989 to 2003, labour force participation rates were higher in Australia than in South Australia and male rates were higher than those for females (Figure 15). The trends in South Australia are for a more marked decline in male labour force participation and a less marked increase for females than in Australia as a whole. In 2003, the South Australian labour force participation rate for males was 69.3% compared to 53.9% for females.

**Figure 15: Labour force participation by sex, South Australia and Australia**



### Geographic variation

#### Adelaide

The labour force participation rate in Adelaide in March 2003 was 75.7%.

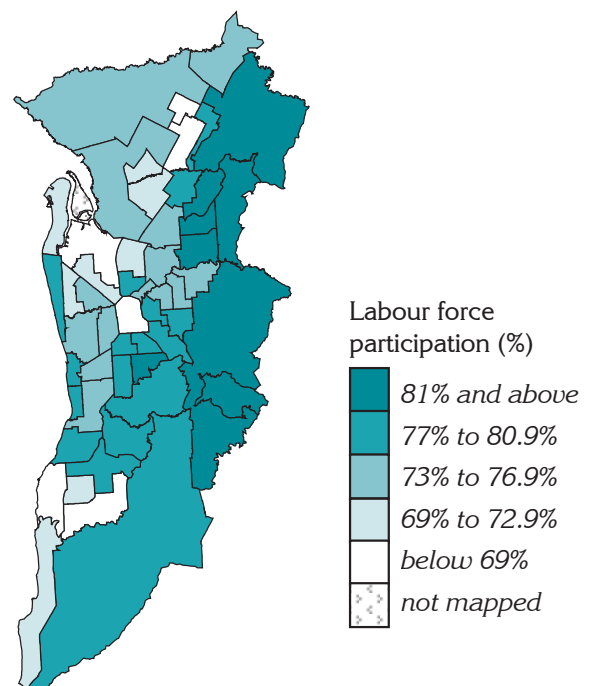
Labour force participation rates form a distinctive pattern across Adelaide (Map 9), with a marked separation between areas with moderate to high rates and those with lower rates. The pattern is the reverse of that shown for both low income families and children in low income families, above.

The highest participation rates are in the areas of Tea Tree Gully - Central (84.0%), Tea Tree Gully - Hills (83.5%), Tea Tree Gully - North (83.3%) and Adelaide Hills - Central (81.8%).

The lowest rates are in Playford - West Central (60%), Playford - Elizabeth (60.4%), Port Adelaide Enfield - Port (61.6%) and Onkaparinga - North Coast (64.6%).

Low labour force participation rates in these areas, together with high rates of unemployment (see next indicator), are indicative of the lack of financial resources in these communities, with the potential for poorer outcomes for health and wellbeing.

**Map 9: Labour force participation, Adelaide, March 2003**



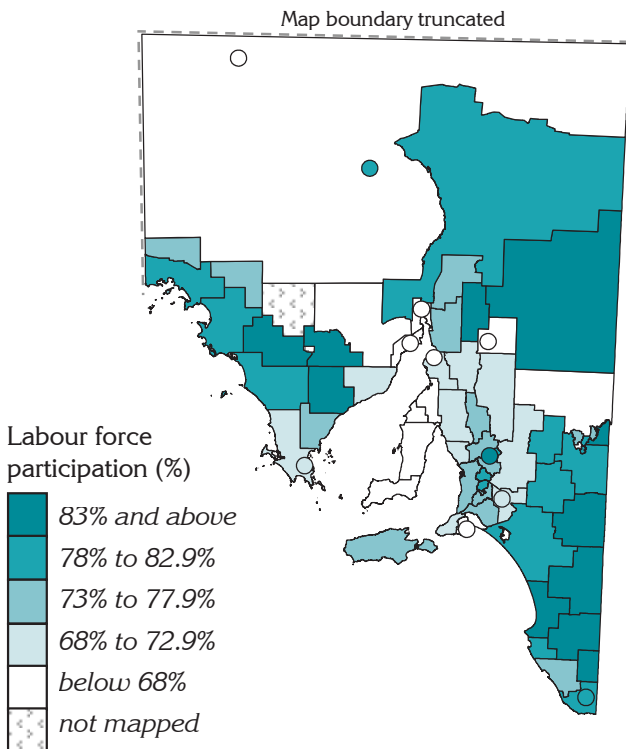
## Country South Australia

The labour force participation rate in country South Australia in March 2003 was 73.7%. Labour force participation rates vary considerably across the State (**Map 10**). The towns and areas with the lowest participation rates are Unincorporated Riverland (49.0%), Unincorporated Far North (49.8%), Peterborough (57.1%), Coober Pedy (59.0%), Copper Coast (60.9%), Unincorporated Whyalla (62.2%) and Yorke Peninsula - South (62.9%).

The highest labour force participation rates are in Unincorporated Pirie (90.7%), Kimba (90.6%), Orroroo/Carrieton (88.6%), Southern Mallee (88.2%), Tatiara (87.1%) and Wattle Range - East (86.6%). Of the towns mapped, Barossa - Tanunda and Roxby Downs had the highest rates, of 85.0% and 80.7%, respectively.

Note: Details of the number of people employed under the Community Development Employment Project scheme (the employment scheme for Indigenous people) are not included in labour force estimates.

**Map 10: Labour force participation, South Australia, March 2003**

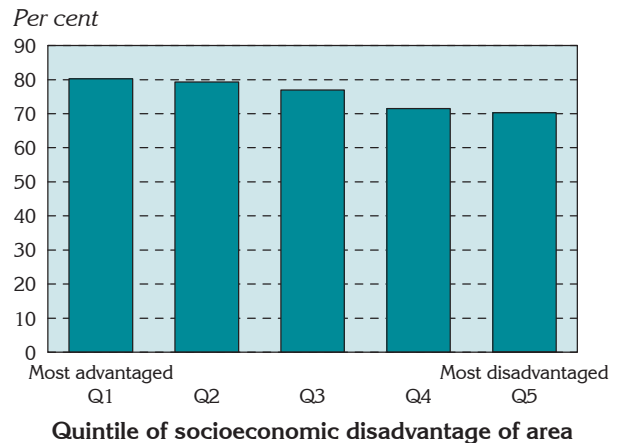


## Socioeconomic status

### Adelaide

The highest labour force participation rates were recorded in the most advantaged areas of Adelaide (80.2%) and the lowest in the most disadvantaged areas (70.3%) (**Figure 16**).

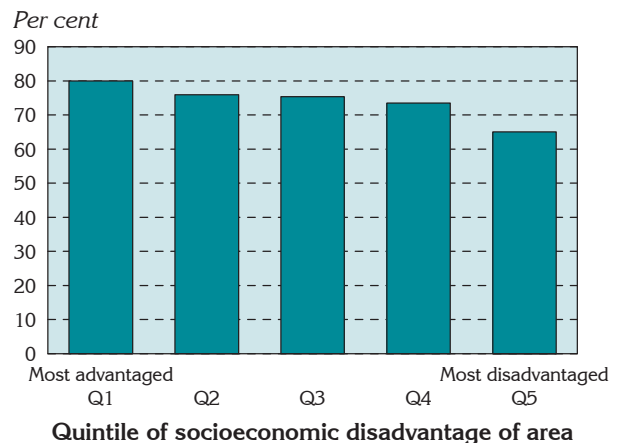
**Figure 16: Labour force participation, Adelaide, March 2003**



## Country South Australia

Labour force participation rates in the country range from 80% for the one fifth of the population living in the most advantaged areas, to 65% for the one fifth of the population living in the most disadvantaged areas (**Figure 17**).

**Figure 17: Labour force participation, country South Australia, March 2003**



## Indigenous people

When compared with the non-Indigenous population, Indigenous people have substantially lower levels of labour force participation. Data from the 2001 Census show the labour force participation rate at that time was 47.9%, compared with 60.3% for non-Indigenous people. The participation rate of Indigenous people has declined since the 1991 Census, when it was 54.4%.

In 2001, Indigenous males recorded higher participation rates than females; 54.4% compared with 41.8%. These rates were much lower than the corresponding levels for non-Indigenous South Australians, at 68.3% and 52.8% respectively.

# Labour force: Unemployment

*Unemployment affects a person's income, health and sense of wellbeing.*

## Key points

- South Australia has the highest unemployment rate after Tasmania.
- When adjusted for hidden unemployment and under-employment, the unemployment rate is considerably (around three times) higher, and has not shown the improvement evident in the official estimates.
- The distribution of unemployment rates across Adelaide and country South Australia is consistent with that for other indicators of disadvantage.

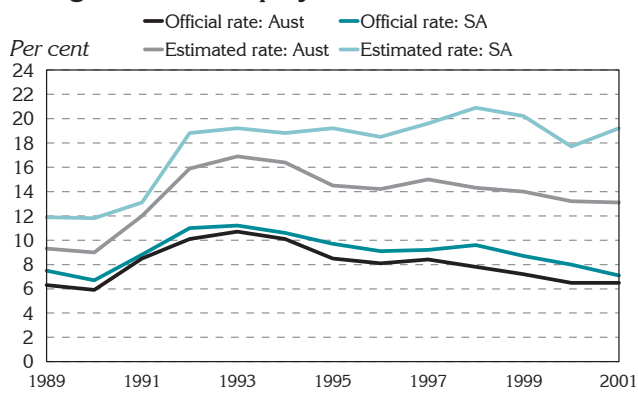
## Trend

In June 2003 the unemployment rate<sup>4</sup> in South Australia was 6.5%; unemployment at ages 15 to 19 years was over three times higher, at 23.8%. The equivalent rates for Australia were lower, at 5.9% and 19.2%.

The official unemployment data (**Figure 18**) show that the South Australian labour force has recovered from the recession of the early 1990s, when unemployment was above 10%. However, this official measure of unemployment does not take account of hidden unemployment (caused by changes in the labour force participation rate) or under-employment (resulting from the loss of full-time jobs and the creation of part-time jobs).

The alternative labour force indicator (shown in the graph as 'estimated' unemployment) addresses these deficiencies. This measure suggests the real level of unemployment in recent years has not shown such improvement, and has increased to some three times the official rate. For Australia, the estimated rate is around two times the official rate, with both the official and estimated Australian rates lower than the equivalent South Australian rates. See the Appendix for more details.

**Figure 18: Unemployment, South Australia**



\*See Notes on the Indicators in Section 6 for a description of the rates graphed

<sup>4</sup> The unemployment rate is the proportion of the civilian labour force unemployed and looking for full-time work.

Readers should note that in 2001 more South Australians were receiving a Disability Support Pension than an unemployment allowance. See page 86 for additional information about the movement between these two types of benefit.

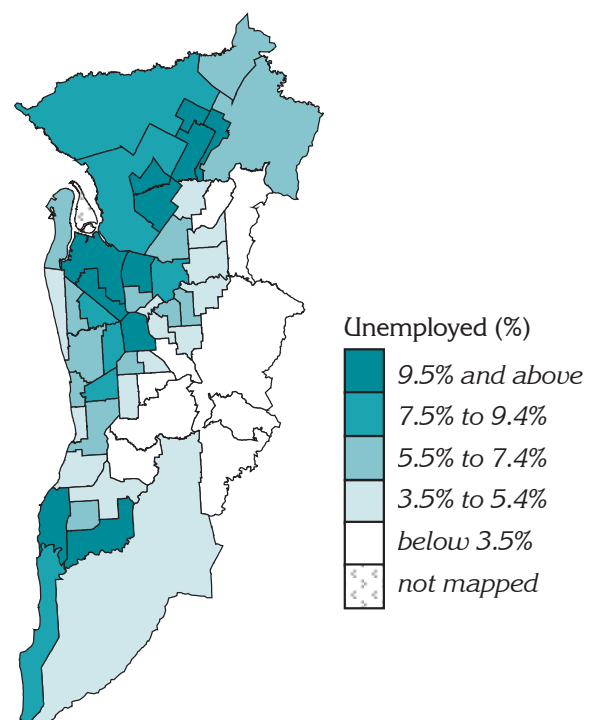
## Geographic variation

### Adelaide

The following analysis is based on the official unemployment data, as the estimates in the graph above have not been made at a small area level.

The distribution of unemployed people across Adelaide (**Map 11**) is the opposite of that for labour force participation. The highest unemployment rates are in areas of low labour force participation, in Playford - Elizabeth (21.1%), Playford - West Central (17.3), Port Adelaide Enfield - Port (14.3%) and Onkaparinga - North Coast (13.9%). In contrast, the lowest unemployment rates are generally found in the eastern, south-eastern and north-eastern suburbs.

**Map 11: Unemployment, Adelaide, March 2003**



The levels of unemployment and under-employment evident here are likely to contribute to reduced life opportunities and poorer health and wellbeing.

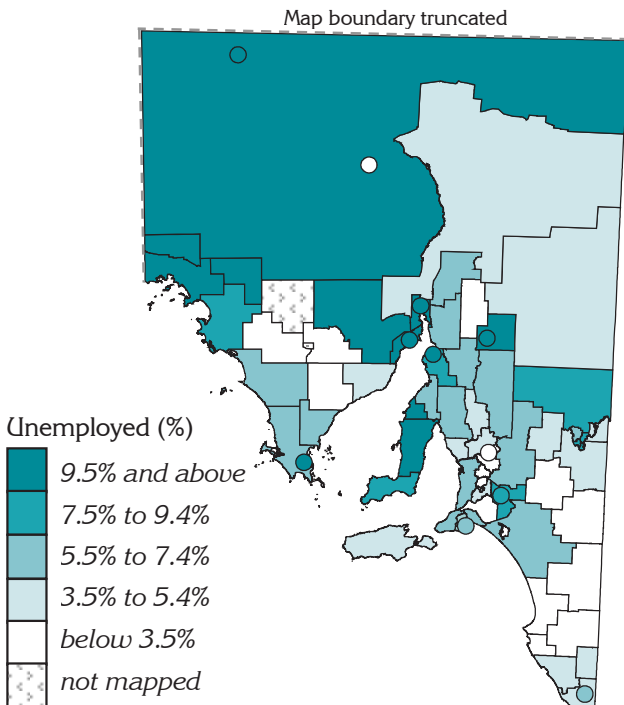
The lowest unemployment rates are in the high socioeconomic status areas of Mitcham - North-East and Tea Tree Gully - North (both 2.8%), Tea Tree Gully - Hills (2.9%), Adelaide Hills - Central (3.0%), Burnside - South-West (3.1%) and Mitcham - Hills (3.2%).

## Country South Australia

Unemployment rates vary considerably across the State (Map 12). Below average unemployment rates are found in a number of areas scattered throughout the north and north-west, with the largest concentration in a broad area from the east of Adelaide through to the south-east of the State. The lowest were recorded in Kimba (0.8%), Roxby Downs (1.0%), Tatiara (1.5%) and Cleve (2.0%).

Areas in the far and mid north are generally characterised by above average levels of unemployment, with the highest rates in Unincorporated Far North (50.3%), Unincorporated West Coast (38.9%), Ceduna (31.2%), Port Augusta (18.7%) and Peterborough (17.4%). These rates have been adjusted to include people receiving unemployment benefits through the CDEP program.

**Map 12: Unemployment, South Australia, March 2003**



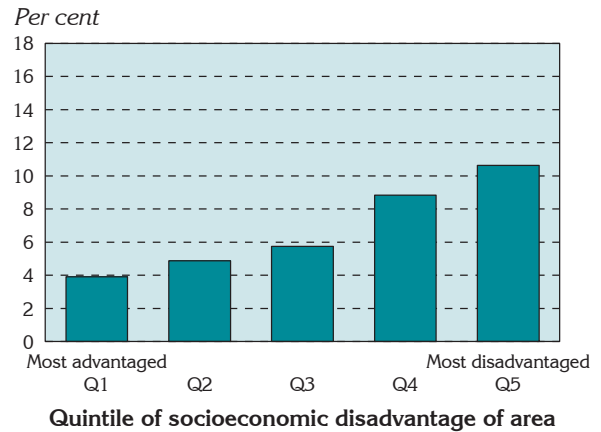
## Socioeconomic status

### Adelaide

In March 2003, the unemployment rate in the most disadvantaged areas of Adelaide was 10.6%, almost

three times (2.7 times higher) that in the most advantaged areas (3.9%) (Figure 19).

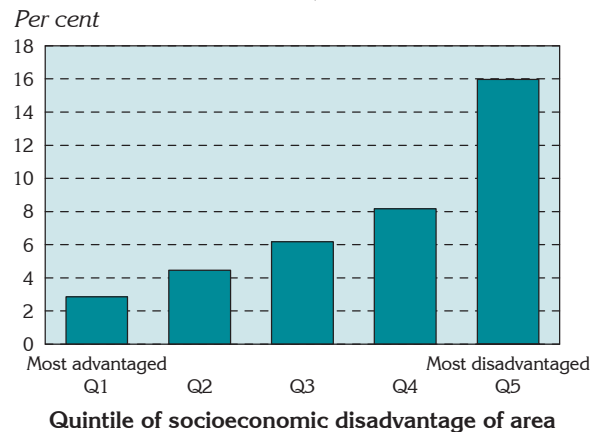
**Figure 19: Unemployment, Adelaide, March 2003**



## Country South Australia

Unemployment rates in the country range from 2.9% in the most advantaged areas (Quintile 1) to five times higher, at 16.0%, in the most disadvantaged areas (Figure 20).

**Figure 20: Unemployment, country South Australia, March 2003**



## Indigenous people

At the 2001 Census, the unemployment rate for Indigenous South Australians (20.3%) was almost three times that of non-Indigenous people (7.5%). Whilst the unemployment rate for both groups has declined since 1991, participation rates have also dropped (with a drop also recorded in the percentage of Indigenous people in employment since 1991).

Some Aboriginal people receiving unemployment benefits do so under the Community Development Employment Project scheme, the Indigenous employment program. The number of people receiving benefits under each project was provided by the Aboriginal and Torres Strait Islander Service, and has been included in the estimates presented here.

## Transport: Dwellings without a motor vehicle

People living in households without cars face many disadvantages in gaining access to jobs, services and recreation, especially if they are in low-density outer suburbia, or outside of Adelaide in rural and remote areas, or in a country town.

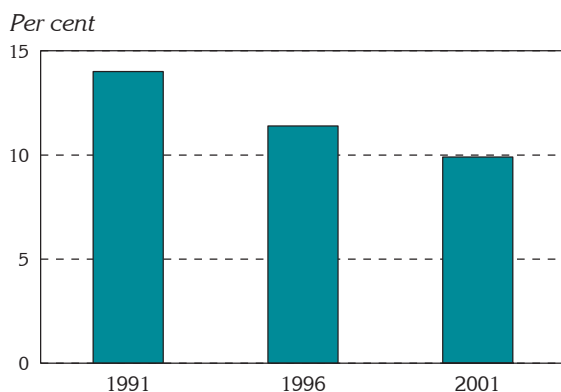
### Key points

- In 2001, ten per cent of occupied dwellings in South Australia had no motor vehicle parked or garaged overnight.
- There is high car ownership in country South Australia relative to Adelaide.
- Variations across Adelaide in the location of dwellings without a car are similar to the patterns evident in the earlier indicators of disadvantage: however in the country, dwellings without a car are confined to the more remote areas of the State (areas with relatively high proportions of Indigenous population), and to the towns of Peterborough, Port Augusta, Whyalla and Port Pirie.

### Trend

The proportion of dwellings without a motor vehicle has declined notably over the past ten years, dropping from 14.0% in 1991 and 11.4% in 1996 to the current level of 9.9% (Figure 21).

**Figure 21: Dwellings without a motor vehicle, South Australia**



### Geographic variation

#### Adelaide

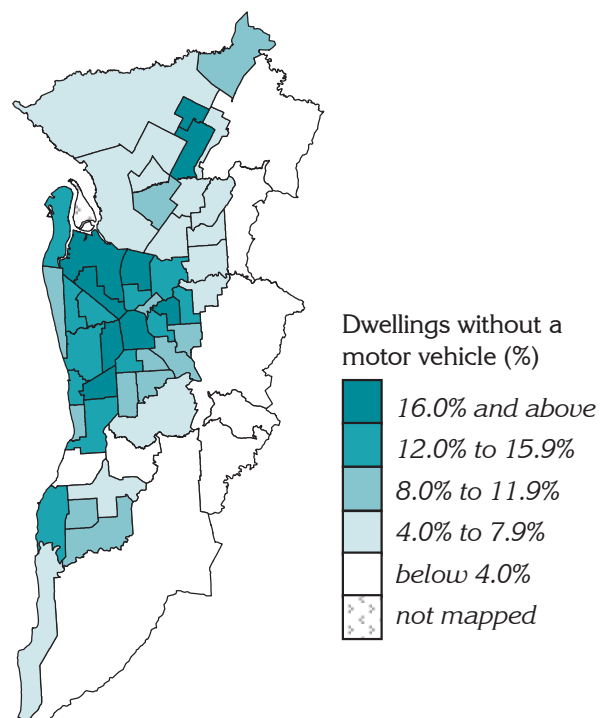
With increasing distance from the city centre, vehicle ownership becomes more important. Consequently, in the suburbs and urban fringe areas of the metropolitan area, the proportion of dwellings without motor vehicles is generally low (Map 13). The lowest proportions were recorded in Playford - Hills (1.1%), Adelaide Hills - Ranges (1.4%), Marion - South (2.0%) and Onkaparinga - Reservoir (2.5%).

The highest proportions of dwellings without vehicles were in the inner city and western areas, including the City of Adelaide (21.9%), Port Adelaide Enfield - Port (20.6%) and Port Adelaide Enfield - Inner (18.5%).

However the outer northern areas of Playford - Elizabeth and Playford - West Central also had very high proportions of dwellings without access to a vehicle (19.8% and 16.3%, respectively).

People without private motor vehicles are generally heavily reliant on public transport: when they live in the outer suburbs, public transport becomes even more important for access to local services and to those located in the city centre. Relatively high proportions of people living in areas such as Gawler, in the north, and Onkaparinga - North Coast, in the south, also face these difficulties.

**Map 13: Dwellings without a motor vehicle, Adelaide, 2001**



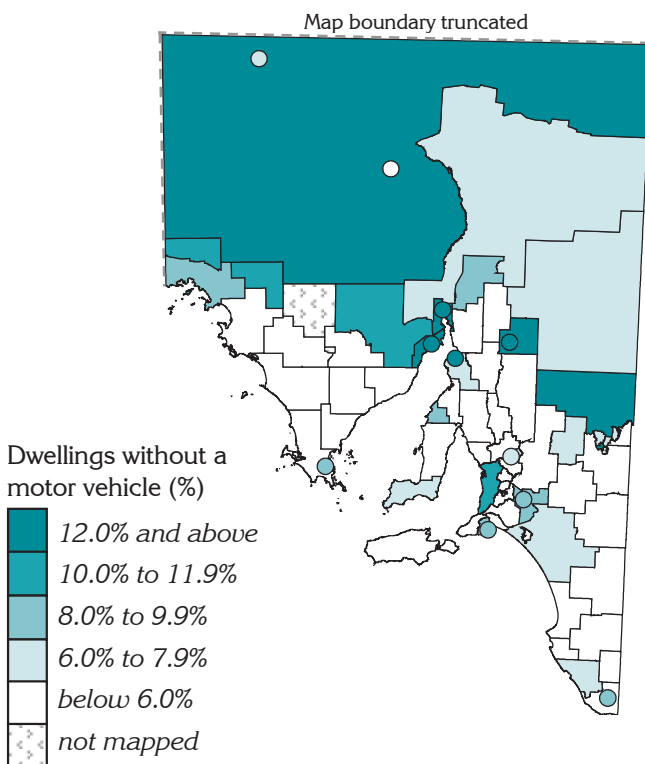


## Country South Australia

High levels of car ownership are to be expected outside of Adelaide, given the long distances many people must travel for social interaction, to gain access to services and facilities, and in connection with employment.

Throughout most of country South Australia, fewer than 6% of households were without cars (**Map 14**). Proportions above 12% were generally recorded in the towns (Whyalla, with 15.3%; Peterborough and Port Pirie, both 13.2%; and Port Augusta, 12.8%) and remote areas with significant Indigenous populations (Unincorporated Far North, with 22.9%; and Unincorporated Riverland, 17.2%).

**Map 14: Dwellings without a motor vehicle, South Australia, 2001**

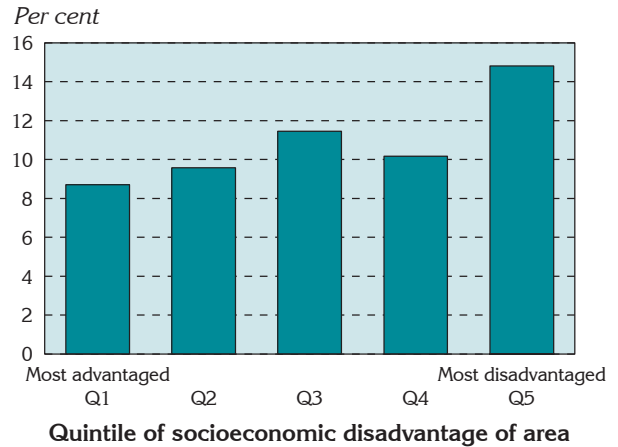


## Socioeconomic status

### Adelaide

The proportion of dwellings without a motor vehicle in Adelaide varies from a low of 8.7% in the most advantaged areas (Quintile 1) to 14.8% in the most disadvantaged areas (Quintile 5) (**Figure 22**).

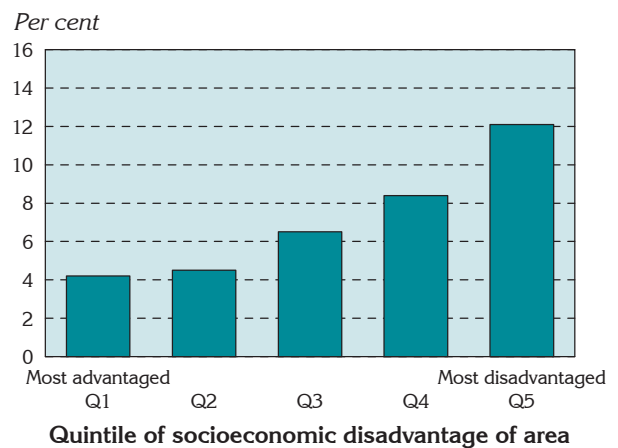
**Figure 22: Dwellings without a motor vehicle, Adelaide, 2001**



### Country South Australia

There is also a clear gradient across country South Australia, with 4.2% of dwellings without a motor vehicle in the most advantaged areas and 12.1% in the most disadvantaged areas (**Figure 23**).

**Figure 23: Dwellings without a motor vehicle, country South Australia, 2001**



## Housing costs: Rent assistance

*Affordable, secure and safe housing is fundamental to one's health and wellbeing, employment, education and other life opportunities. Housing affordability has worsened in the last 12 months. The Australian Council of Social Service (ACOSS) has estimated that more than one in three households cannot afford to buy a house in Sydney, Melbourne or Adelaide; the poorest 40 per cent of households cannot afford housing in those cities; and over 200,000 people are recorded on waiting lists for public housing across Australia.*

### Key points

- Affordable public housing stock has declined in 2003; at the same time, the stock of community and Aboriginal housing has increased.
- Net reductions in the social housing stock have meant that more low income households are reliant on the private rental market.
- Households can face problems in acquiring or accessing suitable private rental accommodation because of cost, discrimination, availability or adequacy.

### Trend

The total social housing stock (public, community and Aboriginal housing) has declined from 64,491 dwellings in 1992 to 54,103 dwellings at 30 June 2003. This overall decline in social housing stock is due to a reduction in South Australian Housing Trust (SAHT) dwellings (down from 60,068 dwellings in 1992 to 48,271 dwellings in 2001). However, at the same time, the number of Aboriginal Housing Association dwellings has increased from 1,485 to 1,810 dwellings and the number of South Australian Community Housing Association dwellings has increased from 1,469 to 4,022 dwellings.

Public housing investment in this State has helped protect people from poverty. However, significant reductions in grant funding under the Commonwealth State Housing Agreement have reduced the capacity of the SAHT to replace housing stock that is sold or transferred to other social housing agencies.

The net loss of public housing dwellings means that more low income people are reliant on the private rental market, where they may face problems in acquiring or accessing suitable private rental accommodation because of cost, discrimination, availability or adequacy. Further, stock may not be available in the private rental market for households with special accommodation needs.

At the 2001 Census, 68.4 % of dwellings in South Australia were owned or being purchased (66.2% for Australia), 17.0 % were rented in the private sector (21.8%), 7.7 % were public rental accommodation (4.5%), with 6.9 % being other tenure types (2.8%).

Despite this decline, State Government intervention in the housing market is still significant. However, support for large numbers of low income households is increasingly limited to rent assistance

provided to private renters as income support by the Australian Government. The data mapped are of people receiving rent assistance, referred to as renters.

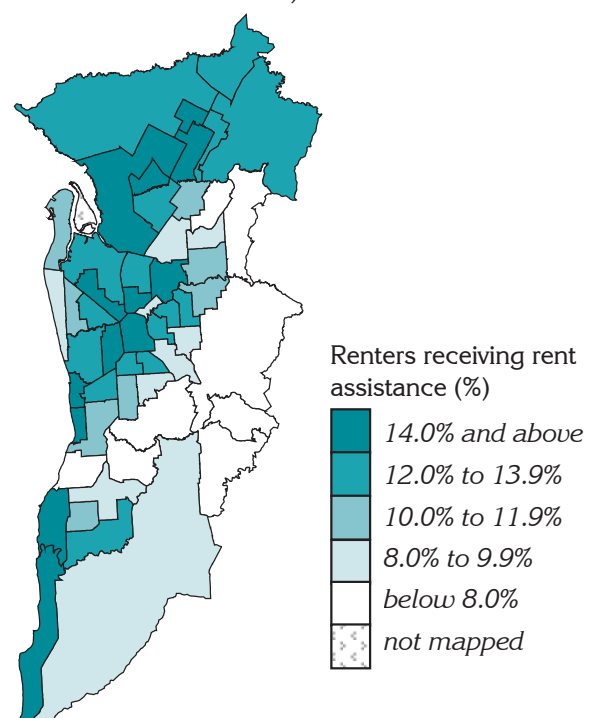
### Geographic variation

#### Adelaide

Over the four years 1999-2002, an average 50,226 renters (12.0 per cent of households) in Adelaide received rent assistance from the Department of Family and Community Services, through Centrelink.

The lowest proportions of households receiving rent assistance are located in the more affluent eastern, north-eastern and inner southern areas of Adelaide, and the highest in and around the city centre, and in the outer north and south (**Map 15**).

**Map 15: Renters receiving rent assistance, Adelaide, 1999-2002**



More than 15% of households in the City of Adelaide (with 22.8%), West Torrens - East (17.3%), Port Adelaide Enfield - East (16.3%), Salisbury - Inner North (15.3%) and Charles Sturt - North-East, Playford - West Central and Playford - Elizabeth (all 15.1%) received rent assistance.

At the other end of the scale, the lowest proportions of households receiving rent assistance are in Tea Tree Gully - North (5.4%), Adelaide Hills - Central (6.2%) and Tea Tree Gully - Hills (6.4%).

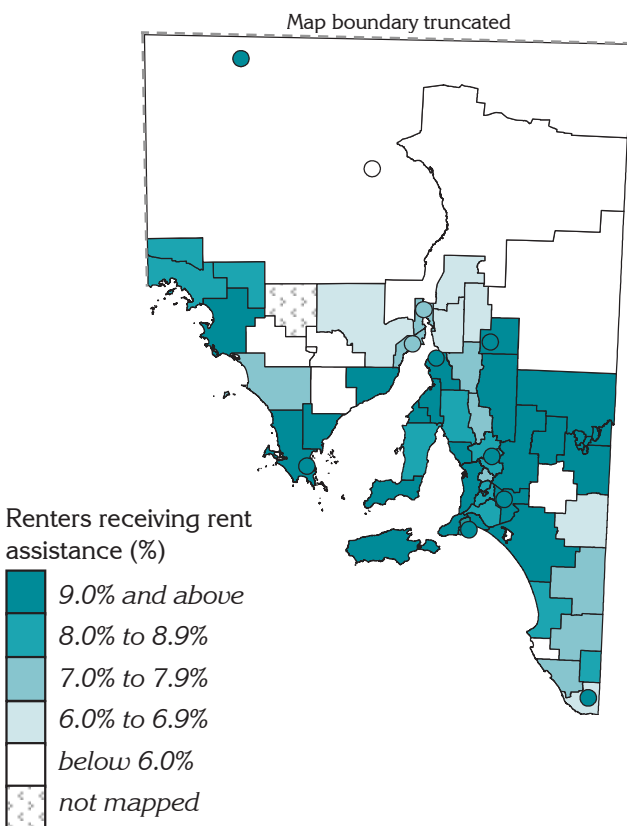
### Country South Australia

The proportion of households receiving rent assistance in country South Australia was lower than that recorded in Adelaide, at 9.8% of households over the years 1995 to 2002 (14,337 renters).

The highest proportions of these households are in Victor Harbor (with 16.7%), Alexandrina - Coastal (15.7%), Renmark Paringa - Renmark (13.9%) and Coober Pedy (13.7%) (Map 16).

Fewer than 5.5% of households in Roxby Downs (3.4%), Unincorporated Flinders Ranges (3.7%), Unincorporated Far North (5.2%) and Cleve (5.3%) received rent assistance.

**Map 16: Renters receiving rent assistance, South Australia, 1999-2002**

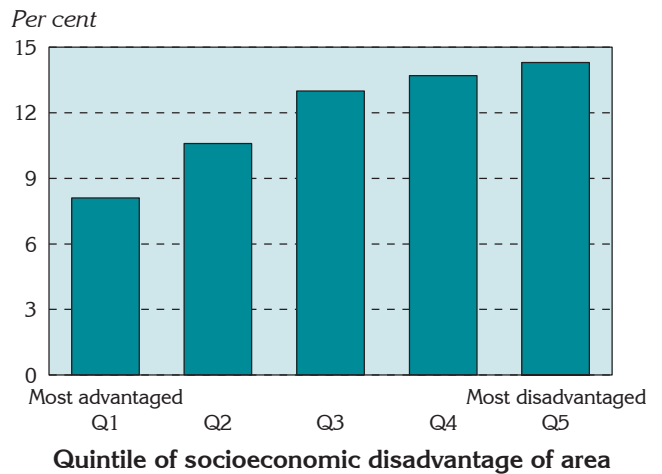


## Socioeconomic status

### Adelaide

There is a clear gradient in the proportion of households receiving rent assistance in Adelaide, from a low 8.1% in the most advantaged areas (Quintile 1) to 14.3% in the most disadvantaged areas (Quintile 5) (Figure 24).

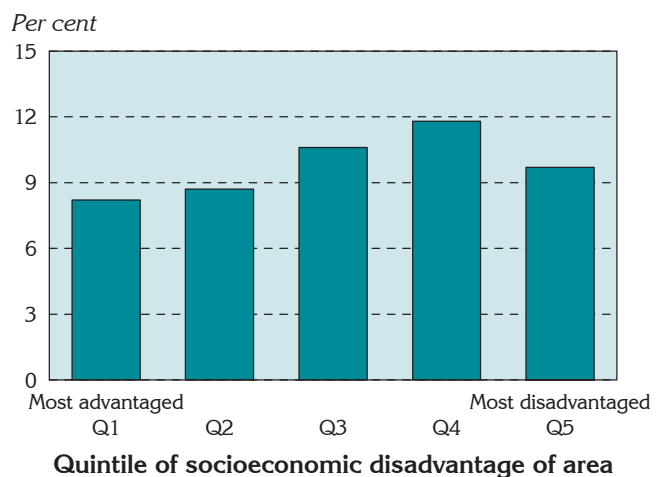
**Figure 24: Renters receiving rent assistance, Adelaide, 1999-2002**



### Country South Australia

The proportion of households receiving rent assistance in country South Australia increases from 8.2% in the most advantaged areas (Quintile 1) to 11.8% in Quintile 4, before declining to 9.4% in the most disadvantaged areas (Quintile 5) (Figure 25).

**Figure 25: Renters receiving rent assistance, country South Australia, 1999-2002**



## Indigenous housing

A tradition and culture of sharing resources throughout the extended family results in Indigenous people being more likely than non-Indigenous people to live in multiple family households. This is particularly so in Aboriginal communities, where the properties are owned or managed by the community and where family and kinship groups hold cultural ties to the land.



Indigenous people are also more likely to rent their accommodation, while non-indigenous people are more likely to own or be purchasing their home. Factors contributing to this include lack of credit history, lower income compared to the non-Indigenous people, higher living expenses, and inability to meet loan requirements.

The level of weekly rent paid by Indigenous people is generally less than that paid by non-Indigenous renters. Often, some Indigenous renters are only able to access low demand areas and accommodation of a lesser standard.

A significant proportion of Indigenous people rely on the South Australian Housing Trust, the Aboriginal Housing Authority and Indigenous Community Housing Organisations for accommodation.

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## Crime: Offences involving apprehension

*Offending behaviour is a product of interactions between individual, contextual, situational and neighbourhood factors. Some of these include factors such as addiction; parental criminality; serious family conflict; gang membership; poverty; and community or cultural disorganisation. The distribution of offence rates (where the offender is apprehended) across Adelaide and country South Australia follows a similar pattern to that of low educational participation, socioeconomic disadvantage, unemployment and poorer health.*

### Key points

- In 2002/03, there were 116,955 offences (where the offender was apprehended) in South Australia, a rate of 87.8 offences per 1,000 population aged 10 years and over.
- The highest rates are found in lower socioeconomic status areas.

The data shown are the number of offences recorded on apprehension reports during 2002/03. An apprehension report is completed when an alleged offender is apprehended. It should be noted that there can be multiple offences on an apprehension report. In addition, some people will have been apprehended on more than one occasion, increasing the number of apprehension reports. The data include minor traffic offences and non-offence matters such as restraint order applications, but exclude offences dealt with by way of infringement or expiation notices, or other means.

It should be noted that an apprehension does not prove the guilt of a suspect; and that many apprehensions do not proceed to arrest or a court hearing. Those included are people aged 10 years and over (in South Australia, the minimum age of criminal responsibility is 10 years).

### Trend

In 2002/03, there were 116,955 offences involving apprehension and 48,548 arrests. Over this same period 290,752 total offences<sup>5</sup> were reported, which includes offences which may or may not have resulted in apprehension or arrest.

For the remainder of the discussion and analysis on this indicator, the term offences refers to offences where the offender was apprehended.

### Geographic variation

#### Adelaide

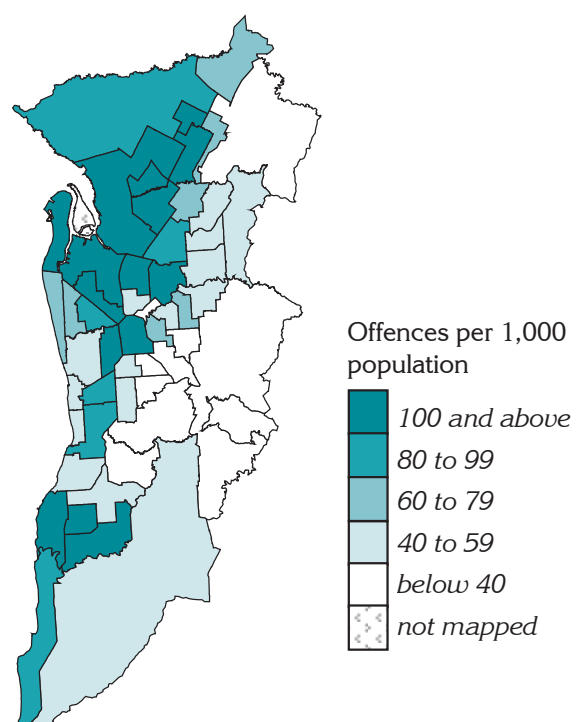
Offences involving apprehension are mapped by the area of usual address of the alleged offender. This will usually be where they live, but could include a prison address, or other place where they were detained. The highest rates are concentrated in the city and in areas to the north-west, north and

outer north of Adelaide, and in the outer south (Map 17). These areas have the highest rates of disadvantaged populations.

Playford - West Central, with 262.1 offences involving apprehension per 1,000 population aged 10 years and over, had the highest rate. Relatively high rates were also recorded in Port Adelaide Enfield - Port (with a rate of 235.5 offences per 1,000 population), Playford - Elizabeth (213.4 per 1,000) and the city of Adelaide (202.1 per 1,000).

Areas with the lowest rate of offences involving apprehension lie to the east and south-east of the city. The areas of Mitcham - North-East (22.9 offences per 1,000), Playford - Hills (30.6 per 1,000), Burnside - South-West (30.8 per 1,000), Burnside - North-East (31.8 per 1,000) and Mitcham - Hills (31.9 per 1,000) had the lowest rates.

**Map 17: Offences involving apprehension by usual address of alleged offender, Adelaide, 2002/03**



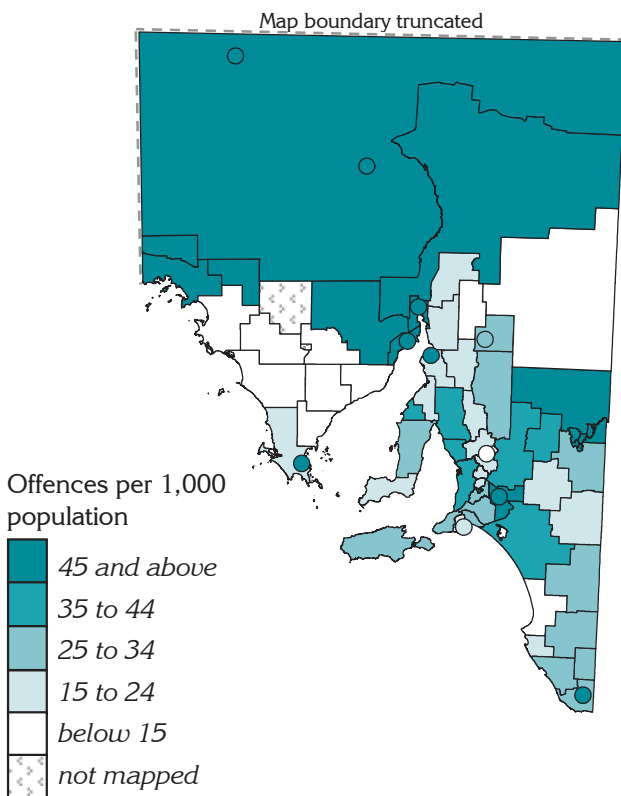
<sup>5</sup> See notes on page 87 for a definition of offences and a description of their distribution across Adelaide.

## Country South Australia

The highest rates of offences involving apprehension of country South Australians were recorded for people living in the far north, Riverland and in a number of the towns for which data were available (**Map 18**). These areas included Unincorporated West Coast (with 925.0 offences per 1,000 population), Unincorporated Far North (460.3 per 1,000), Coober Pedy (383.5 per 1,000) and Port Augusta (210.4 per 1,000).

The lowest rates (in areas where there were more than five offences involving apprehension) were recorded in Kimba (14.3 offences per 1,000 population), Orroroo/Carrieton (16.8 per 1,000 population) and Cleve (24.3 per 1,000).

**Map 18: Offences involving apprehension by usual address of alleged offender, South Australia, 2002/03**

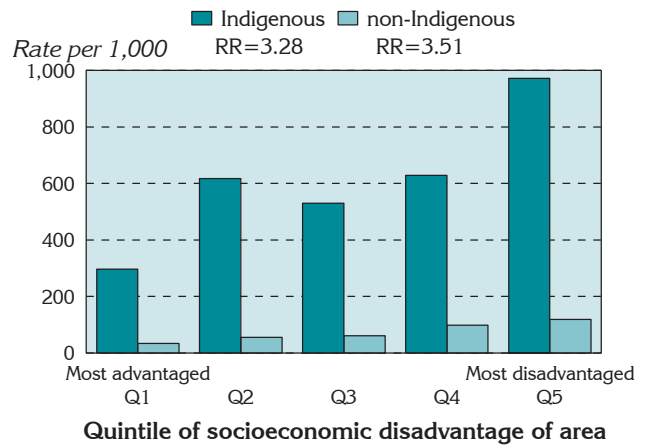


## Socioeconomic status

### Adelaide

The rate of offences involving apprehension among Indigenous people is substantially higher across all quintiles than those recorded for the non-Indigenous population. However the difference between the most advantaged (Quintile 1) and most disadvantaged areas of Adelaide (Quintile 5) is similar, with rates just over three times higher in the Indigenous population and three and a half times higher in the non-Indigenous population (**Figure 26**).

**Figure 26: Offences involving apprehension, Adelaide, 2002/03**

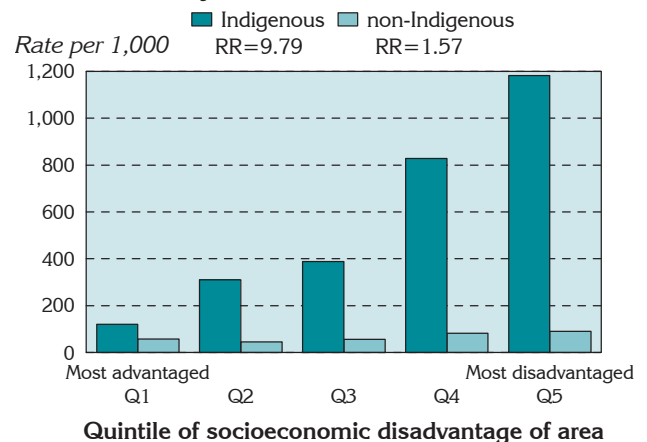


Note: RR (rate ratio) is the ratio of the rate in Quintile 5 to the rate in Quintile 1.

## Country South Australia

There is a clear gradient in rates of offences involving apprehension in the country areas of South Australia among Indigenous people, with rates increasing to be almost ten times higher in the most disadvantaged areas (**Figure 27**). For the non-Indigenous population the difference is still notable, at over one and a half times.

**Figure 27: Offences involving apprehension, country South Australia, 2002/03**



Note: RR (rate ratio) is the ratio of the rate in Quintile 5 to the rate in Quintile 1.

## Indigenous people

Detailed analysis of offence rates involving apprehension is a complex issue, however, it is clear from the available data that Indigenous South Australians are far more likely to be apprehended than non-Indigenous South Australians.

Males are more highly represented than females in all aspects of the criminal justice system. This applies to non-Indigenous people and, to a lesser extent, to Indigenous people. In 2001, 82% of all non-Indigenous charges related to males, whereas in the Indigenous population, males represented a lower 70% of all charges.

# Gambling: Expenditure and losses

*For sociological and psychological reasons, certain groups within the population may be at greater risk of developing gambling problems. A further proportion may experience impaired control over their behaviour, leading to severe personal and family distress including depression, suicide, unemployment and family and relationship breakdown.*

## Key points

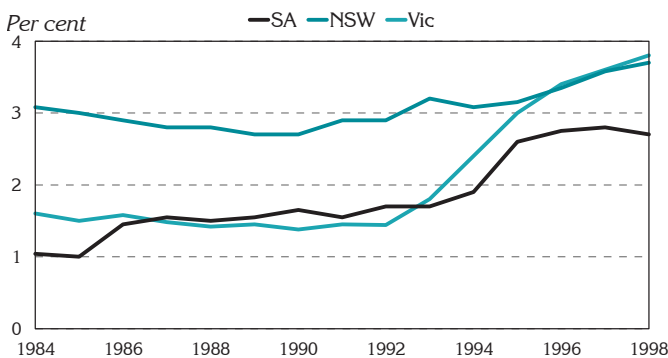
- The average gambling loss on electronic gaming machines per head of population in Adelaide was \$584.
- The distribution of gambling losses across Adelaide closely follows the pattern of socioeconomic disadvantage described in the earlier indicators. That is, the poorest sections of Adelaide's population are among those losing the most money in this way.

### Trend

In recent years South Australians have seen legislative changes, resulting in the expansion of new and existing forms of gambling. The impact of these changes, in particular the widespread availability of electronic gaming machines, is evident in **Figure 28**.

For example, the proportion of household expenditure in South Australia going towards gambling has increased, from 1% of household expenditure to 2.8%. This figure is below the levels in New South Wales and Victoria, which also have increased.

**Figure 28: Household expenditure on electronic gaming machines, 1984 to 1998**



### Geographic variation

In the following text, gambling losses are expressed per adult (aged 18 years and over) for 2002 and relate only to losses from electronic gaming machines. The data mapped are of losses where the machines are located. Variation in the number of electronic gaming machines in an area is frequently cited as the most significant factor affecting gambling losses from these machines.

Losses have not been shown in these data for the City of Adelaide because of the very large expenditure associated with the presence of the Adelaide/Sky City Casino. This reduces the total expenditure in Adelaide by \$52 per head.

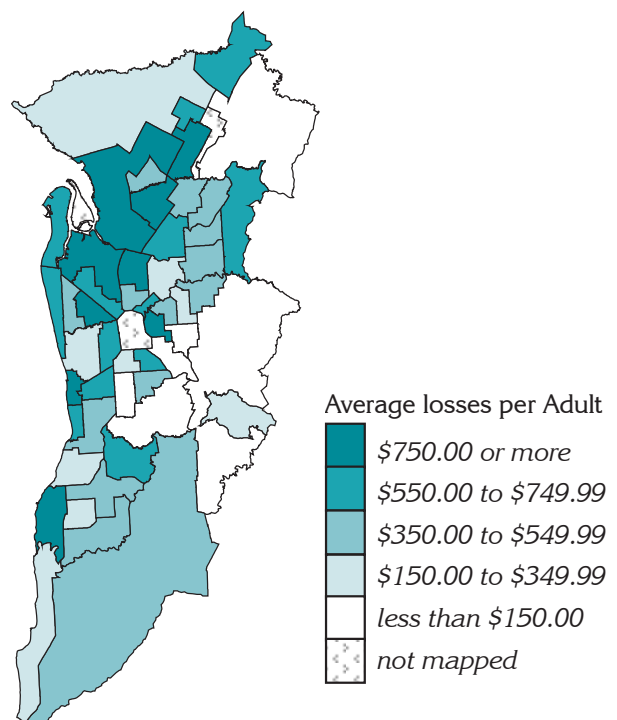
### Adelaide (excluding Adelaide city centre)

The average gambling loss on electronic gaming machines per head of population in Adelaide was \$532. The highest gambling losses were recorded for adults in Salisbury Balance (\$1,786), Norwood Payneham St Peters - West (\$1,338), Onkaparinga - North Coast (\$1,203), Holdfast Bay - North (\$1,033) and Port Adelaide Enfield - Inner (\$967) (**Map 19**).

These average losses are substantial. Although, the losses are greatest in areas with the highest rates of electronic gaming machines, there is also an association between areas with high average losses and socioeconomic disadvantage.

The lowest losses per adult were recorded in Burnside - South West (\$14), Adelaide Hills - Ranges (\$21), Playford - Hills (\$54), Mitcham - West (\$82) and Burnside - North-East (\$113) and Mitcham - Hills (\$139).

**Map 19: Gambling losses per adult from electronic gaming machines, Adelaide, 2002**

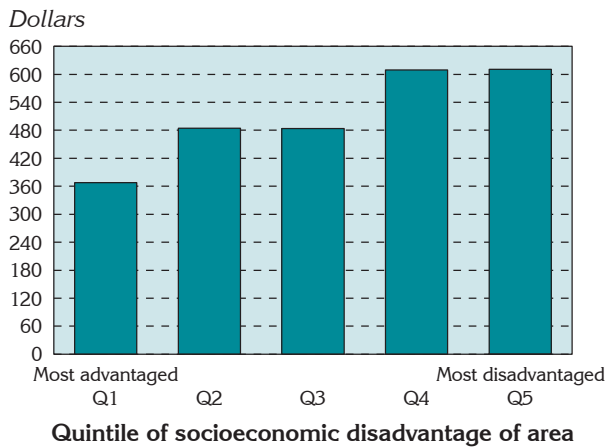


## Socioeconomic status

### Adelaide (excluding Adelaide city centre)

The pattern of gambling losses by socioeconomic status of area shows the lowest losses per adult in the most advantaged areas (Quintile 1, with \$368.12) and the highest losses in the most disadvantaged areas (\$610.94 per head) (Figure 29). The proportion in the most disadvantaged areas is 1.65 times higher than in the most advantaged areas, indicating that there were over one and a half times more gambling losses in the most disadvantaged areas.

**Figure 29: Gambling losses per adult from electronic gaming machines, Adelaide, 2002**



These data are not available for areas outside of Adelaide.

## Health and wellbeing: Self reported health status

How people rate their health is strongly related to their experience of illness and disability. This measure is therefore an important indicator of key aspects of quality of life. Self-reported health status is highly correlated with socioeconomic disadvantage, which also influences many of the following indicators.

### Key points

- The majority of South Australians aged 15 years and over considered themselves to be in good health, with 80% reporting their health status as good, very good or excellent (rather than fair or poor).
- The remaining 20% of the South Australian population reported their health as fair or poor.
- Self reported health status was, however, strongly related to age, with the proportion reporting their health as fair or poor increasing with age.
- The geographic distribution of people reporting their health as fair or poor is highly consistent with that for the indicators of disadvantage: i.e., the highest rates are largely in lower socioeconomic status areas.

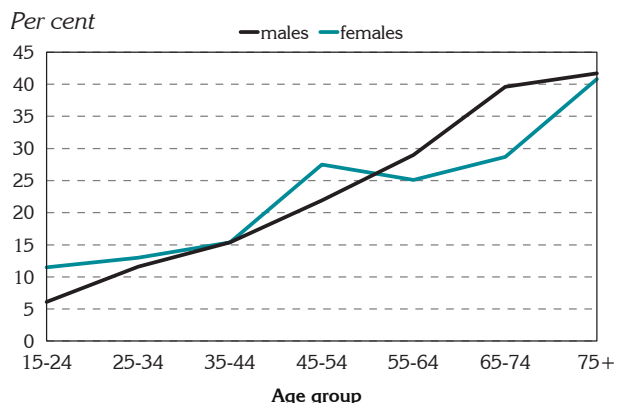
### Trend

#### By age

Overall, in 2001, one fifth (20%) of South Australians reported their health to be 'fair' or 'poor', compared with 80% who reported it as 'excellent', 'very good' or 'good'. This represents an increase from the level of 18.5% in 1995.

In 1995, females and males reported similar levels of fair or poor health, at 20.7% and 19.3%, respectively. The proportion of males reporting their health as fair or poor increased steadily with age, rising from 6.1% in the 15 to 24 year age group to 41.7% for people aged 75 years and over. The proportion of females reporting their health as fair or poor also increased with age, although the increase was less consistent than that shown for males (Figure 30).

**Figure 30: People reporting their health as fair or poor, by age, South Australia, 1995**

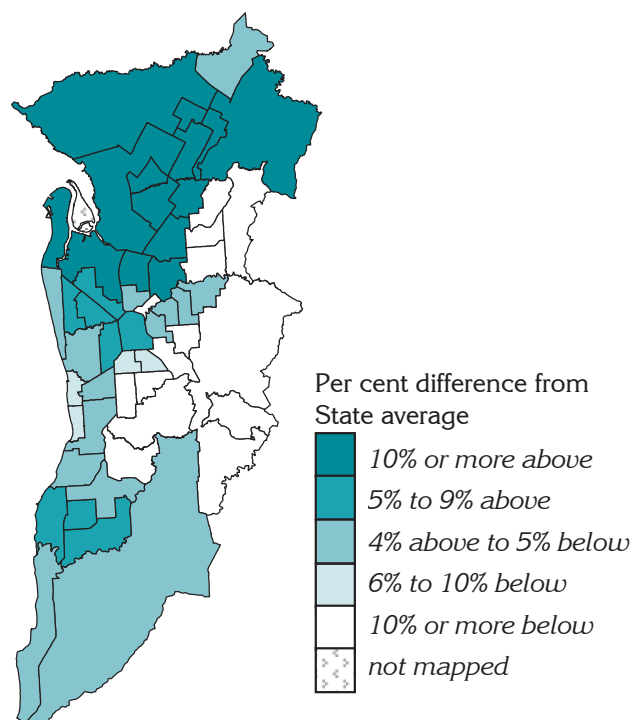


### Geographic variation

#### Adelaide

Areas with above average levels of people reporting their health as fair or poor reflect the pattern of socioeconomic disadvantage shown in the earlier indicators (Map 20). Overall, people in Adelaide reported having fair, or poor health at the same level as in the State as a whole. There are, however, substantial variations from this average across Adelaide.

**Map 20: Health status reported as fair or poor, Adelaide, 1995<sup>6</sup>**



<sup>6</sup> See Appendix for additional information on the production of estimates for these areas.



Playford - Elizabeth had 32% more people reporting their health as fair or poor than the State average. High proportions were also recorded for people in Port Adelaide Enfield - Port (27% above average), and Playford - East Central, Playford - West, Playford - West Central and Playford - Hills (all 22% above).

The lowest proportions of the population reporting their health as fair or poor were recorded in a number of areas, with Adelaide Hills - Central (24% below average), Onkaparinga - Reservoir, Burnside - South West and Burnside - North East (all 21% below), and Adelaide Hills - Ranges (20% below) recording the lowest.

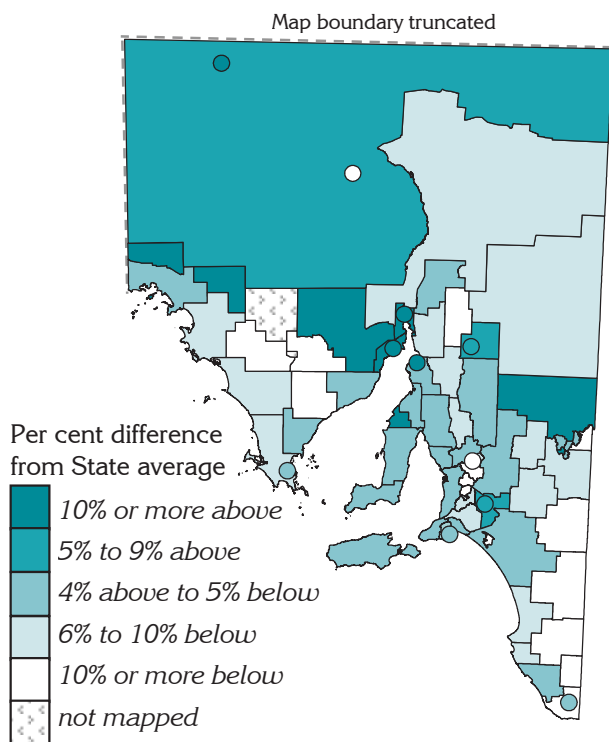
### Country South Australia

Overall, people living in the country reported having fair, or poor health at almost the same level as in the State as a whole (1% below the State average).

Outside of Adelaide, people most likely to report their health as fair or poor were living in Unincorporated Riverland (with 48% more than the State average), Unincorporated West Coast (41% above), Port Augusta (15% above), Unincorporated Whyalla and Whyalla (both 13% above), Port Pirie - City (12% above), Copper Coast (11% above) and Peterborough (10% above) (Map 21).

The lowest proportions were in Grant (25% below the State average), Roxby Downs (23% below), Adelaide Hills - North (20% below) and Southern Mallee and Barossa - Tanunda (both 15% below).

**Map 21: Health status reported as fair or poor, South Australia, 1995<sup>7</sup>**



<sup>7</sup> See Appendix for additional information on the production of estimates for these areas.

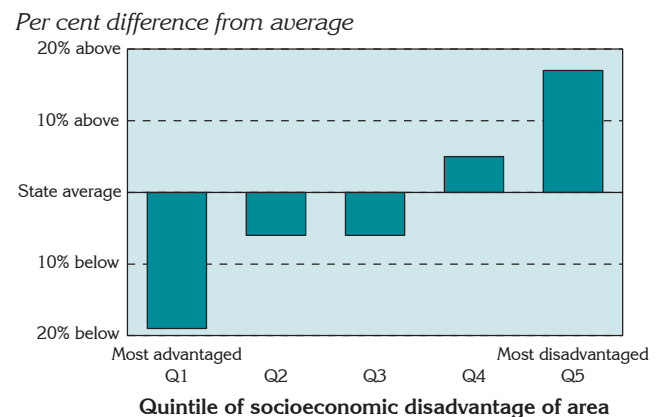
## Socioeconomic status

### Adelaide

Figure 31 shows the distribution of people reporting their health status as fair or poor by socioeconomic disadvantage of area for Adelaide. There are higher than expected rates in the most disadvantaged areas, with 17% above the State average.

This suggests that those who are socioeconomically disadvantaged are more likely to rate their health as fair or poor, thus also indicating their likely poorer quality of life.

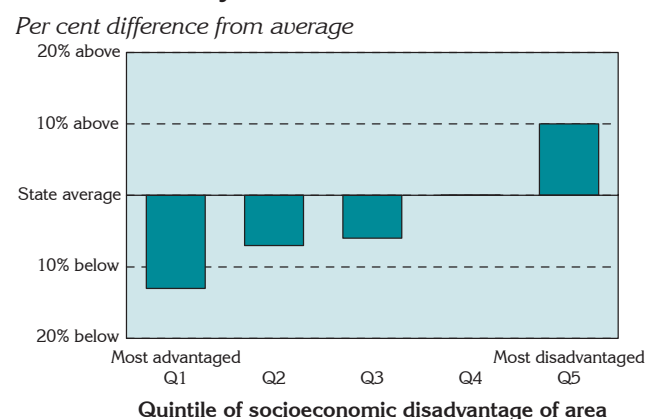
**Figure 31: Health status reported as fair or poor, Adelaide, 1995**



### Country South Australia

As for Adelaide, there are higher than expected rates of people reporting their health as fair or poor in the most disadvantaged areas in the country, at 10% above the State average (Figure 32).

**Figure 32: Health status reported as fair or poor, country South Australia, 1995**





# Health and wellbeing: Life expectancy

*Life expectancy at birth is an important measure of the health of a population and of quality of life. It is an indicator of mortality, and therefore of health conditions, and also reflects many social, economic and environmental influences.*

### Key points

- In South Australia, a baby boy born in 1998-2000 could be expected to live 76.6 years, while a baby girl could be expected to live 82.3 years.
- Indigenous life expectancy at birth was estimated to be 55.3 years for males (21.3 years less than for the total male population), and 61.2 years for females (16.2 years less than for the total female population).
- The distribution of life expectancy across the State is highly consistent with that for the indicators of disadvantage: i.e., the lowest life expectancies are in lower socioeconomic status areas.

Life expectancy at birth is an estimate of the average number of years that a newborn could expect to live, given the current age-specific mortality risks. Many social, economic and environmental factors also influence life expectancy.

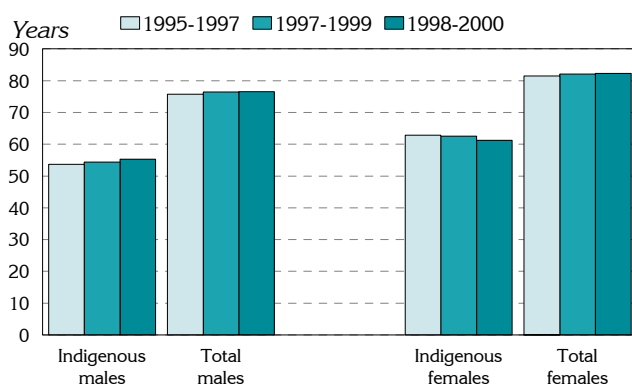
## Trend

### By sex and Indigenous status

From 1992 to 2001, the average life expectancy at birth of South Australians is estimated to have increased by 2.0 years for males (from 75.0 to 77.0 years) and by 1.6 years for females (from 80.9 to 82.5 years).

However, life expectancy for Indigenous males and females is estimated to be some twenty years lower than for the total population. While life expectancy for Indigenous males has increased, life expectancy for Indigenous females is estimated to have decreased, albeit marginally, from 62.8 years in 1995-97 to 61.2 years in 1998-2000 (Figure 33).

**Figure 33: Life expectancy at birth by Indigenous status, South Australia**



Estimates show that the gap in life expectancy is still substantial at age 65 years, when it is estimated to be 15.5 years for non-Indigenous males and 10.0 years for Indigenous males; and 18.9 years for non-Indigenous females and 11.8 years for Indigenous females.

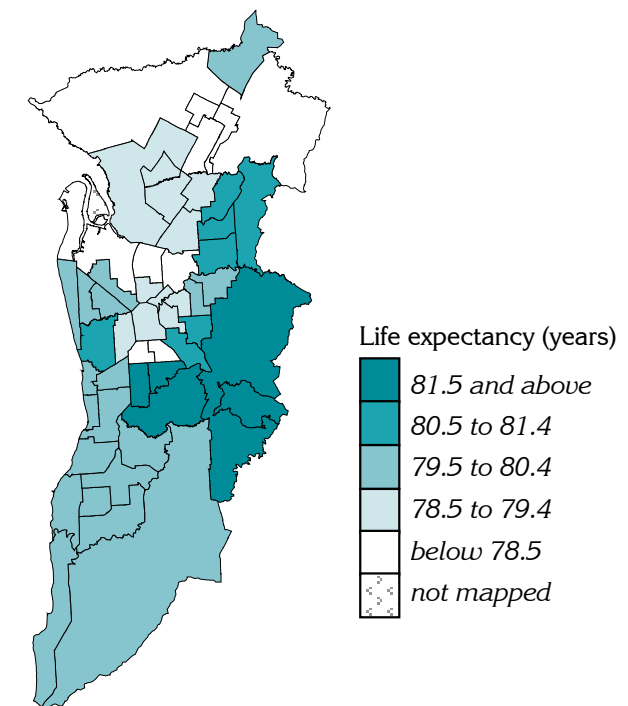
The low overall levels of life expectancy in South Australia for both Indigenous males and females, and the lack of improvement for Indigenous females, are cause for very grave concern.

## Geographic variation

### Adelaide

People around the city centre, as well as in the north-western and outer northern suburbs, are estimated to have the lowest life expectancy: these include the combined areas of Port Adelaide Enfield - Coast and Port Adelaide Enfield - Port (with a life expectancy of 77.0 years) and the City of Playford (77.7 years) (Map 22). See Note overleaf as to limitations of these estimates.

**Map 22: Life expectancy at birth, Adelaide, 1997-2000<sup>8</sup>**



<sup>8</sup> See Appendix for additional information on the production of estimates for these areas.

People living in the higher socioeconomic status areas to the east, north-east and south of the city are generally expected to live longer. For example, people in the City of Mitcham have an estimated life expectancy of 82.1 years, some five years higher than in Port Adelaide. This is a notable difference in life expectancy for people living in the same city and highlights the inequities that exist in Adelaide.

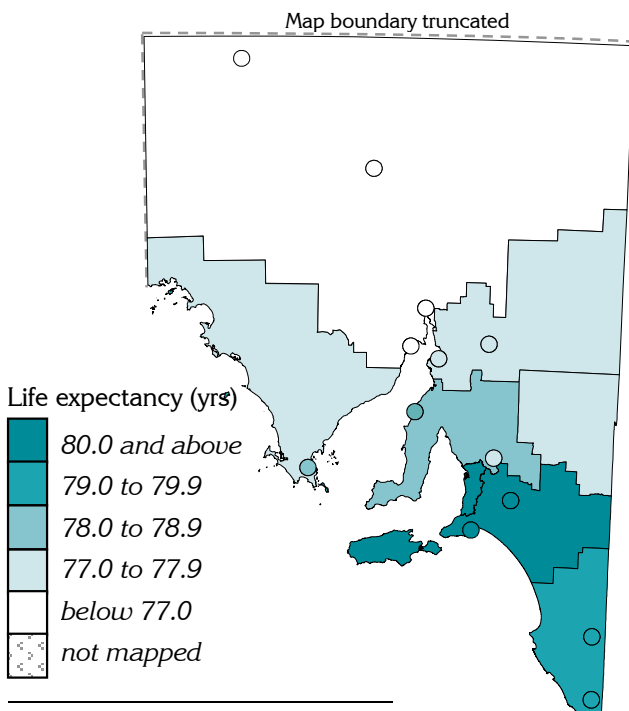
These estimates are likely to understate the size of the gap in life expectancy between areas, because of the concentration in some areas of residential aged care facilities. This is most evident in relation to Unley, where the very low estimate of life expectancy is likely to reflect the location of the Julia Farr Centre, other nursing homes and a number of hostels (catering for people with intellectual disability). These groups are likely to have shorter life expectancy than the general Unley population.

### Country South Australia

Areas in the far north of the State generally had the lowest estimated life expectancy at birth, with people from the Whyalla, Flinders and Far North Health Service Regions expected to live 76.5 years (Map 23). These areas have above average proportions of Aboriginal people; their low life expectancy is offset by higher life expectancy in other parts of the region, including in Roxby Downs.

People expected to live longest were those in the Hills, Mallee and Southern Region (80.0 years) and in the South East Region (79.2 years).

**Map 23: Life expectancy at birth, South Australia, 1997-2000<sup>9</sup>**



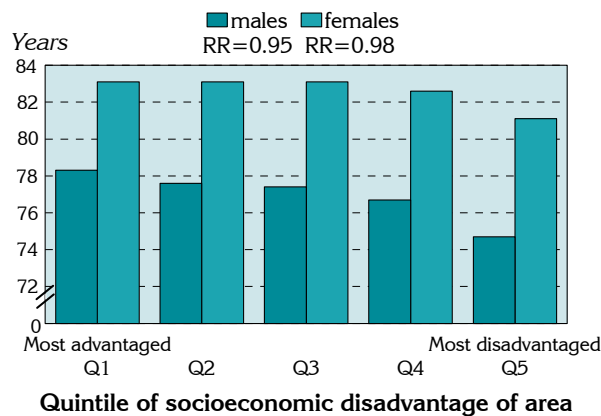
<sup>9</sup> See Appendix for additional information on the production of estimates for these areas.

## Socioeconomic status

### By sex

There is a gradient in life expectancy at birth for both males and females, with people from the most advantaged areas expected to live longer than those from the most disadvantaged areas. For males, the difference in life expectancy is 3.6 years between the most advantaged and disadvantaged areas, while for females it is somewhat smaller, at 1.9 years (Figure 34).

**Figure 34: Life expectancy at birth, by sex, South Australia, 1997-2000**

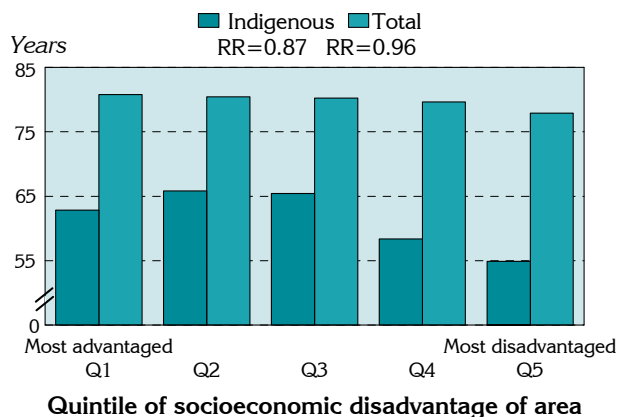


Note: RR (rate ratio) is the ratio of the rate in Quintile 5 to the rate in Quintile 1.

### By Indigenous status

Life expectancy is substantially lower in the Indigenous population than in the total population in each of the socioeconomic status groupings (Figure 35). This is particularly noticeable in the most disadvantaged areas of the State, where Indigenous people are estimated to have a life expectancy of 54.9 years, 23.0 years lower than for the total population. Indigenous people in the most advantaged areas are estimated to have a life expectancy 7.9 years longer than Indigenous people in the most disadvantaged areas of the State.

**Figure 35: Life expectancy at birth by Indigenous status, South Australia, 1997-2000**



Note: RR (rate ratio) is the ratio of the rate in Quintile 5 to the rate in Quintile 1.

## Health and wellbeing: Smoking during pregnancy

*Smoking by mothers while pregnant causes problems for their babies, including premature births, low birthweight and being smaller at birth than they should be. These problems may affect the children through to adulthood, including higher risk of disability and developmental delay, lower intellectual outcomes and generally poorer health. Babies who are smaller at birth than they should be seem to have a higher risk of obesity, high blood pressure and coronary heart disease later in life.*

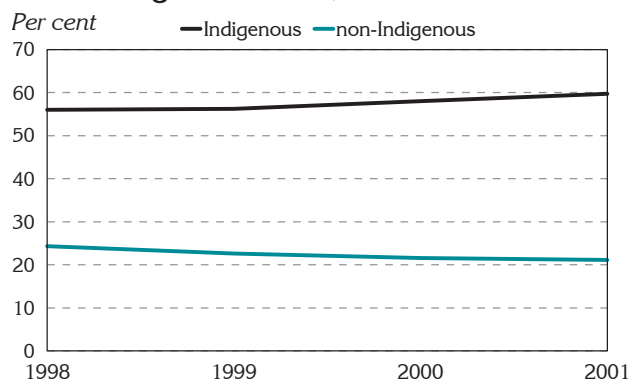
### Key points

- Almost one quarter of pregnant women in South Australia report smoking during pregnancy; however, the rate of smoking during pregnancy has decreased over the three years to 2001, from 25% to 21.9%.
- The rate for Indigenous women is almost three times higher than for non-Indigenous women, with over half reporting smoking during pregnancy.
- Rates are higher in the most disadvantaged areas than in the most well off areas, and higher among women in the country than in Adelaide.

### Trend

The proportion of women who reported smoking during pregnancy (smoking at first antenatal visit: see note, page 89) has declined, from 25% in 1998 to 21.9% in 2001, in line with trends in the general population. Within this overall decrease, the rate of smoking among non-Indigenous women also decreased, from 24.3% to 21.1% (**Figure 36**). However, of concern is that the rate for Indigenous women has increased, from 56.0% to 59.7%.

**Figure 36: Smoking during pregnancy by Indigenous status, South Australia**



### Geographic variation

#### Adelaide

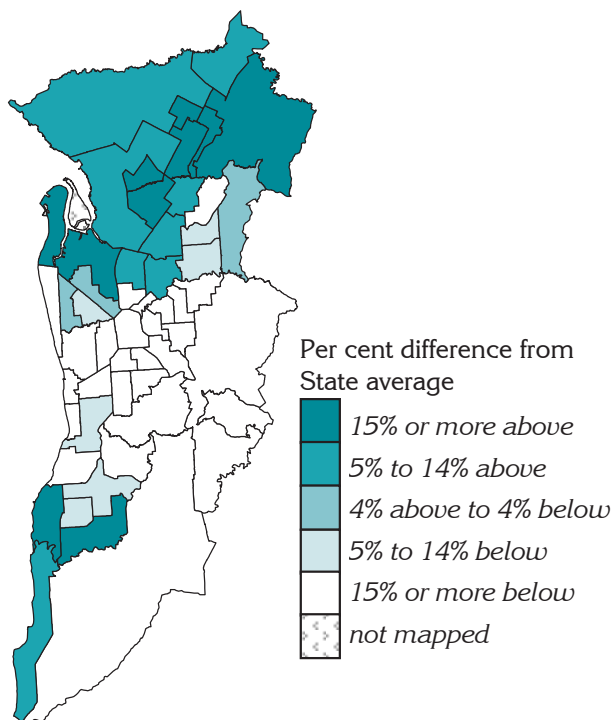
The distribution of women smoking during pregnancy maps a distinctive pattern across Adelaide, with the highest rates recorded in the outer northern and southern suburbs, as well as in some northern and north-western suburbs (**Map 24**).

Areas with smoking rates for pregnant women more than 40% above the State average include Playford - Elizabeth (60% above the State average) and Playford - West Central (45% above). Other areas with well above average smoking rates include Onkaparinga - North Coast (35% above), Playford -

East Central (33% above), Salisbury - Inner North (27% above) and Onkaparinga - Hackham (25% above). As noted elsewhere, these are areas with substantially disadvantaged populations.

The lowest rates are in Mitcham - North East (65% below average), Unley - East (63% below), Burnside - South West and Mitcham - Hills (both 62% below), Norwood Payneham St Peters - West (56% below) and Walkerville (52% below).

**Map 24: Smoking during pregnancy, Adelaide, 1998-2001**

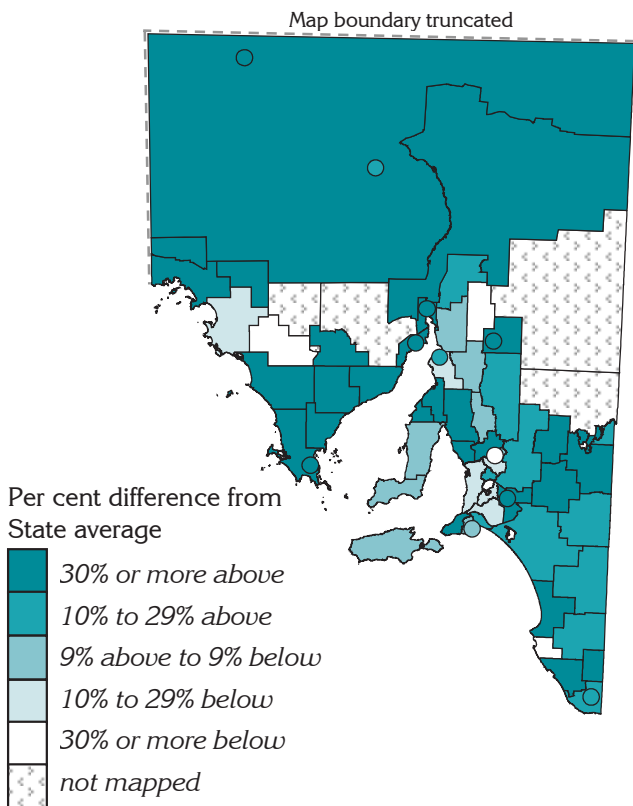


#### Country South Australia

Outside of Adelaide, rates of smoking during pregnancy were at least 50% above the State average for women in Lacedpede, Barunga West, Coober Pedy, Berri & Barmera - Berri and Berri & Barmera - Barmera and Peterborough, (**Map 25**).

The lowest proportions of women smoking during pregnancy were in Le Hunte (39% below average), Adelaide Hills Balance (36% below) and Robe (23% below).

**Map 25: Smoking during pregnancy, South Australia, 1998-2001**

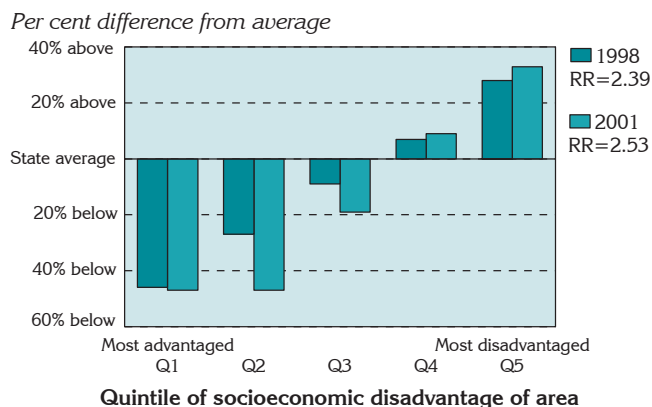


## Socioeconomic status

### Adelaide

The proportion of women smoking during pregnancy increased with increasing socioeconomic disadvantage in Adelaide in both 1998 and 2001, from the lowest rates in the most advantaged areas (Quintile 1) to the highest rates in the most disadvantaged areas (Quintile 5) (Figure 37).

**Figure 37: Smoking during pregnancy, Adelaide, 1998 and 2001**



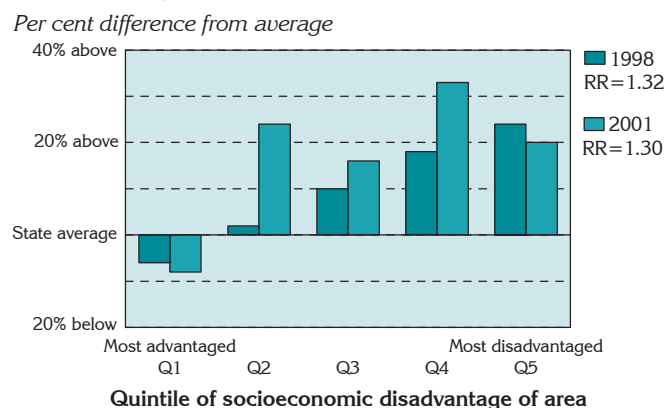
Note: RR (rate ratio) is the ratio of the rate in Quintile 5 to the rate in Quintile 1.

The difference between the most disadvantaged and most well-off areas also increased, from 2.39 times higher in 1998 to 2.53 times higher in 2001.

## Country South Australia

Rates of smoking by pregnant women living in the country also increased with increasing socioeconomic disadvantage in both periods studied (Figure 38). However, the difference in rates between the most disadvantaged and advantaged areas decreased slightly, from 32% higher in 1998 to 30% higher in 2001.

**Figure 38: Smoking during pregnancy, country South Australia, 1998 and 2001**

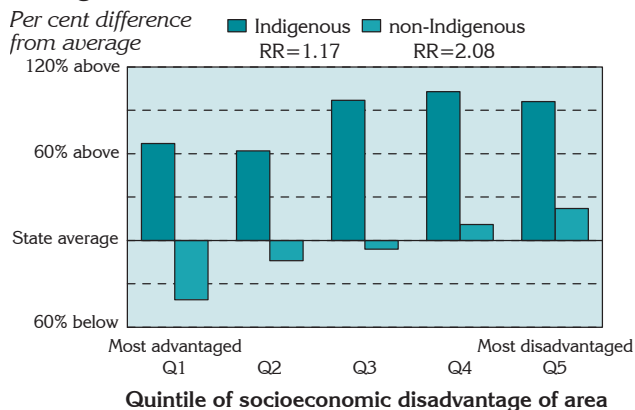


Note: RR (rate ratio) is the ratio of the rate in Quintile 5 to the rate in Quintile 1.

## Indigenous women

The proportion of Indigenous women smoking during pregnancy (59.7%) is substantially higher than for non-Indigenous women (21.1%) across all areas (Figure 39). However, the difference between rates in the most disadvantaged and most well-off areas is smaller, at 1.17 times higher for pregnant Indigenous women (compared with just over two times higher for pregnant non-Indigenous women).

**Figure 39: Smoking during pregnancy, by Indigenous status, South Australia, 1998-2001**



Note: RR (rate ratio) is the ratio of the rate in Quintile 5 to the rate in Quintile 1.

## Health and wellbeing: Low birthweight babies

*Low birthweight is a widely used indicator of mortality and of morbidity among newborn babies. The significance of the relationship between low birthweight and mortality (of low birthweight babies) is striking. Research has shown that 14.6% of South Australian babies with low birthweight in 1994 were perinatal deaths, compared with a perinatal death rate of 0.99% in those with normal birthweight.*

### Key points

- In recent years, the proportion of low birthweight babies has increased in both Adelaide and the country.
- The proportion of babies with a low birthweight is greater in the most disadvantaged areas and the gap between the birth outcomes in these areas and the most well off areas is increasing.

### Trend

An infant may be small when it is born for two reasons. It may be born early (preterm), or it may be small for its gestational age (intra-uterine growth retardation (IUGR)). The factors contributing to low birthweight include socioeconomic status, size of parents and age of mother, number of babies previously born, mother's nutritional status, smoking, Aboriginality and illness during pregnancy.

Over the period from 1981-86 to 1995-97, the proportion of low birthweight babies rose in both Adelaide (from 6.1% to 6.9%, an increase of 12.2%) and the country (from 5.7% to 6.9%, an increase of 21.3%). The reasons for this are unclear, but may, in part, reflect changes in rates of multiple births and age at child bearing (at both older and younger ages).

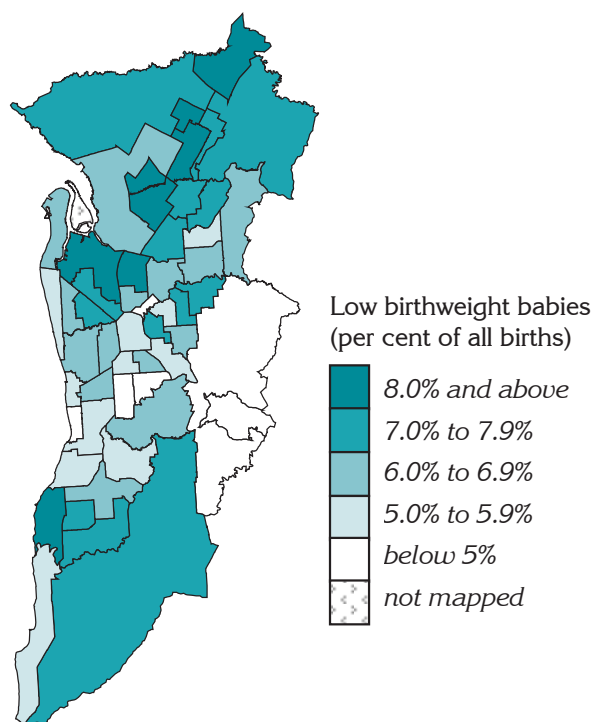
### Geographic variation

#### Adelaide

Areas with the highest proportions of babies born with a low birthweight are located in the inner north and north-western suburbs, as well as the outer north and some southern areas (**Map 26**). These included Onkaparinga - North Coast (9.1%), Playford - West Central (9.1%), Salisbury - Inner North (8.9%), Playford - Elizabeth (8.8%), Port Adelaide Enfield - Inner (8.3%), Gawler (8.3%), Port Adelaide Enfield - Port and Salisbury - Central (both 8.2%).

In contrast, relatively low proportions were recorded in areas scattered throughout the metropolitan area, including in Walkerville (2.6%), Adelaide Hills - Central (3.8%), Mitcham - West (4.2%), Holdfast Bay - South (4.6%), Mitcham - North-East (4.8%) and Adelaide Hills - Ranges (4.9%).

**Map 26: Low birthweight babies, Adelaide, 1995-1997**



#### Country South Australia

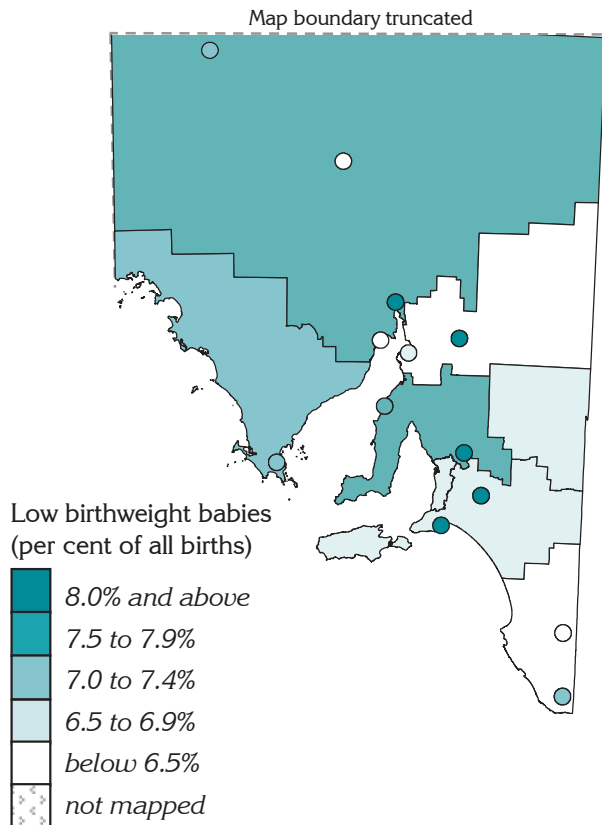
As the numbers of low birthweight babies are relatively small at an area level, they have been mapped by Health Region (see the Appendix for details). Yorke, Lower North and Barossa Health Region and Whyalla, Flinders and Far North Health Region had the highest proportions of low birthweight babies (both with 7.6%, **Map 27**). Eyre Peninsula Health Region also had an above average proportion, with 7.2%.

The lowest proportion of low birthweight babies, 6.2%, was recorded in the Mid North Health Region, with similar proportions in South East (with 6.3%), Hills, Mallee and Southern (6.7%) and Riverland (6.8%) Health Regions.



Walleroo had the highest proportion of low birthweight babies in the towns for which separate data were available, with 17.7% of babies in this category. Relatively high proportions were also recorded in the towns of Peterborough (with 9.3%), Murray Bridge (9.2%), Port Augusta (8.9%), Tanunda (8.8%) and Victor Harbor (8.3%). In contrast, Roxby Downs (3.1%), Naracoorte (5.2%), Whyalla (6.4%) and Port Pirie (6.7%) all had below average proportions of low birthweight babies.

**Map 27: Low birthweight babies, South Australia, 1995-1997**

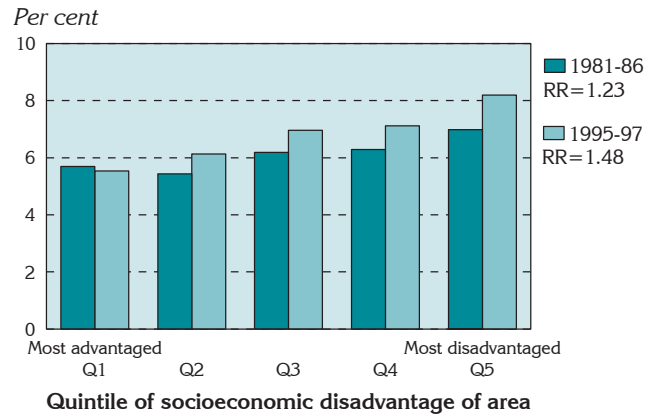


## Socioeconomic status

### Adelaide

In Adelaide, the extent of inequality in low birthweight between the most disadvantaged areas and the most well off areas increased from 23% higher in 1981-86 to 48% higher in 1995-97. This increase is due to the substantial increase in low birthweight babies in the most disadvantaged areas (up by 17.4%, compared with a small decline in the proportion in areas in Quintile 1) (**Figure 40**).

**Figure 40: Low birthweight babies, Adelaide, 1981-86 and 1995-97**

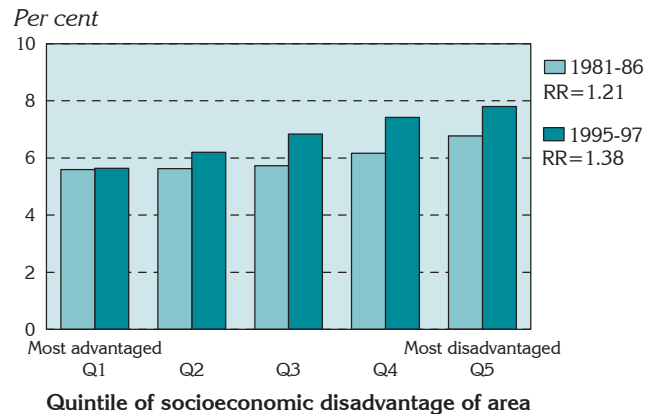


Note: RR (rate ratio) is the ratio of the rate in Quintile 5 to the rate in Quintile 1.

### South Australia

In South Australia<sup>10</sup>, the difference in low birthweight between the most disadvantaged areas and the most well off areas increased, from 21% higher in 1981-86 to 38% higher in 1995-97 (**Figure 41**).

**Figure 41: Low birthweight babies, South Australia, 1981-86 and 1995-97**



Note: RR (rate ratio) is the ratio of the rate in Quintile 5 to the rate in Quintile 1.

### Indigenous infants

In 1999, infants born to Indigenous women in Australia were twice as likely to be of low birthweight (13.0%) than were those born to non-Indigenous women (6.5%). In South Australia, the gap was wider because the low-birthweight proportion was higher for infants of Indigenous women (16.8%) and slightly lower for non-Indigenous women (6.3%). Evidence suggests that the high prevalence of low birthweight in Indigenous communities is likely to be due to an excess of babies small for their gestational age, rather than an excess of preterm delivery.

<sup>10</sup> This chart is shown for the whole State, as there were too few low birthweight births to undertake the analysis for country areas alone.

## Health and wellbeing: Child abuse and neglect

*Child abuse and neglect are associated with serious physical, psychological and emotional health problems, both in the short and longer terms. They affect a significant number of children and young people in South Australia.*

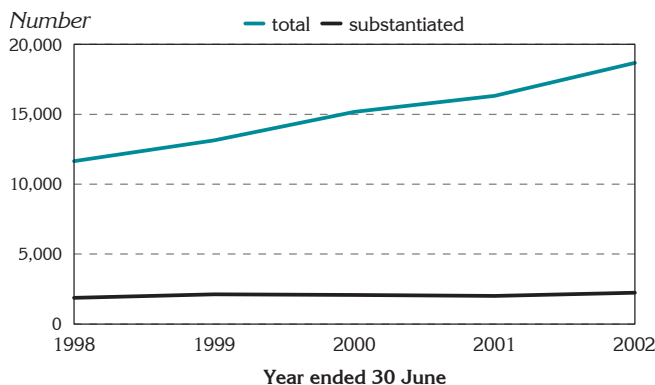
### Key points

- The number of notified cases of child abuse and neglect more than doubled from 1992 to 1999.
- While the number of these cases subsequently substantiated has remained relatively stable, rates of re-notification have increased, indicating that many children and young people are being 'recycled' through the child protection system.
- Higher rates of substantiated cases of child abuse and neglect are recorded for the country than for Adelaide, in the most disadvantaged areas, and among Indigenous children.

### Trend

From 1998 to 2002, the number of notified cases of child abuse and neglect almost doubled; however, substantiated cases remained relatively stable, rising slightly to 2,230 cases in 2002 (Figure 42). The increase in notifications of child abuse and neglect has been substantial in both Adelaide and country South Australia, up by 53.1% and 54.3%, respectively. Substantiated cases of child abuse and neglect for children and young people living in Adelaide increased by a much lower 19.8% and by 15.1% for those living in the country.

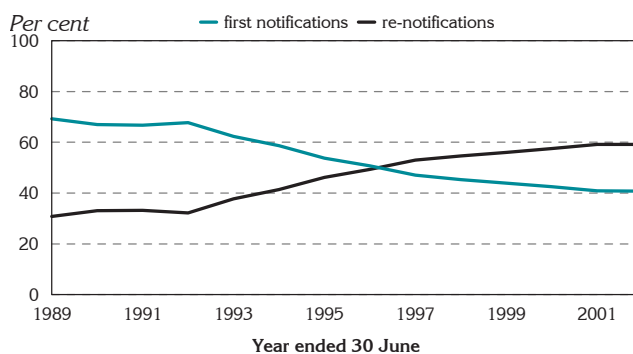
**Figure 42: Notified and substantiated cases of child abuse and neglect, South Australia**



The growing gap between the number of cases notified and those substantiated is concerning. The reduction in substantiated cases may reflect policy changes, but the rising trend in notified cases (both new and re-notified cases) is likely to indicate growing awareness and concern in the community. The increase in rates of re-notification (Figure 43) highlights the ineffectiveness of investigating allegations without available follow-up services that support families to provide for their children's needs; better resourcing of the tertiary welfare system; and more sustained and comprehensive solutions that address longstanding family issues earlier (such as

substance misuse, family violence, mental health problems, abusive parenting practices, chronic neglect and lack of material resources).

**Figure 43: First notifications and re-notifications as a proportion of all notifications of child abuse and neglect, South Australia**



### Geographic variation

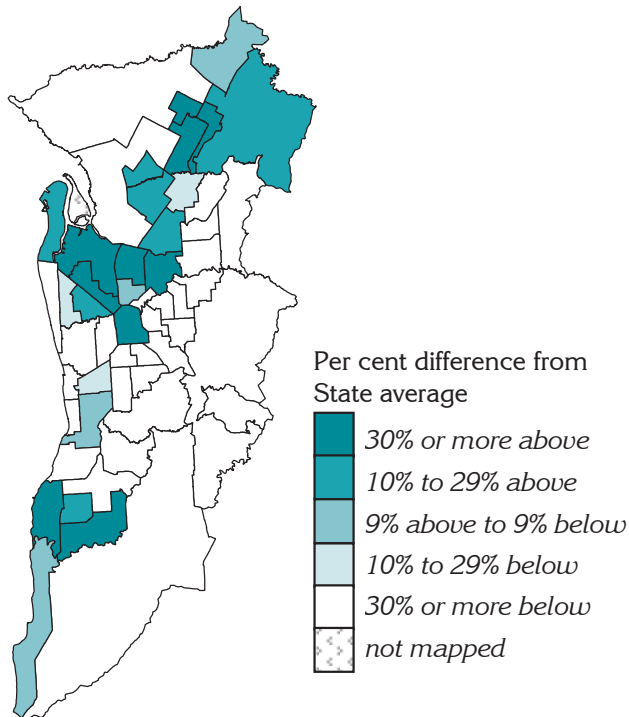
#### Adelaide

There were 5,786 substantiated cases of child abuse and neglect in Adelaide over the period from 1999 to 2002. The distribution of substantiated cases of child abuse and neglect across Adelaide closely follows the pattern of socioeconomic disadvantage shown in the earlier maps, with the highest rates in a number of north-western, inner and outer northern and outer southern suburbs (Map 28). Overall in Adelaide, substantiated cases were two per cent below the State average and a majority of areas had below average rates.

Areas with more than twice the State average number of cases were Port Adelaide Enfield - Inner, Onkaparinga - Hackham, Playford - Elizabeth and Port Adelaide Enfield - Port.

In areas with 20 or more substantiated cases of child abuse and neglect, the lowest proportions were recorded in Mitcham - Hills (82% below average), Unley - East (74% below) and Marion - South (67% below).

**Map 28: Substantiated cases of child abuse and neglect, children aged 0 to 19 years, Adelaide, 1999-2002**



### Country South Australia

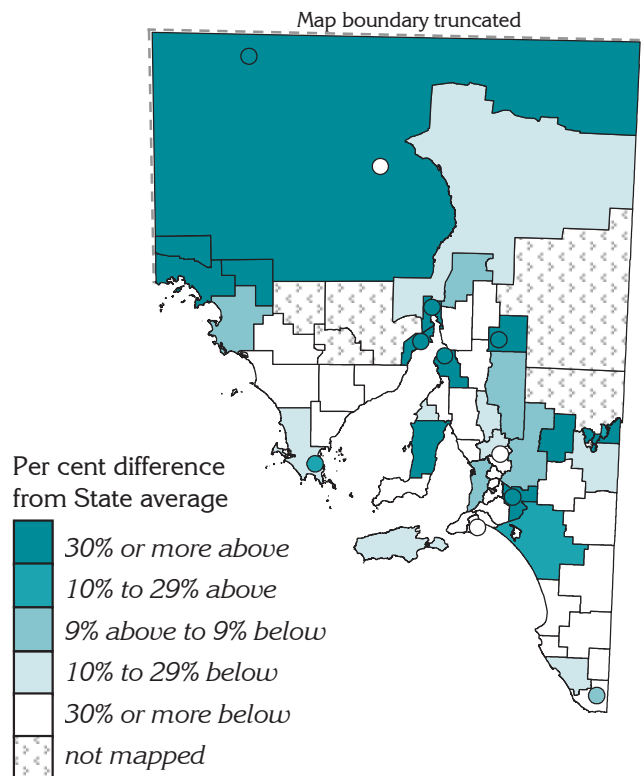
There were 2,760 substantiated cases of child abuse and neglect in country South Australia over the four years 1999 to 2002, a rate some ten per cent above the State average.

The towns and areas in the State's far north and west had the highest proportions of substantiated cases of child abuse and neglect (**Map 29**). It is likely that the greater proportions of Indigenous people living in these areas contribute significantly to the above average rate of substantiated cases.

Excluding the large number of areas with fewer than 20 substantiated cases, those with more than twice the State average number of cases were Coober Pedy, Unincorporated Far North, Port Augusta, Ceduna, Berri & Barmera - Berri, Port Pirie - City, Murray Bridge and Peterborough.

The lowest proportions were recorded in Adelaide Hills Balance (55% below average), Grant (53% below), Barossa - Angaston (49% below), Barossa - Barossa (42% below), Mount Barker - Central (37% below), Victor Harbor (34% below) and Wakefield (35% below).

**Map 29: Substantiated cases of child abuse and neglect, children aged 0 to 19 years, South Australia, 1999-2002**

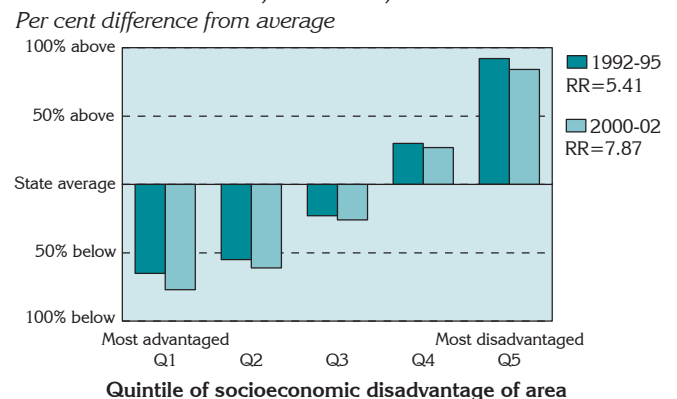


### Socioeconomic status

#### Adelaide

Between 1992-95 and 2000-02, the rate of substantiated cases of child abuse and neglect in Adelaide decreased substantially in the most advantaged areas (down by 34.0% in Quintile 1) and decreased slightly in the most disadvantaged areas (down by 3.9% in Quintile 5) (**Figure 44**). This resulted in the difference between the Quintile 5 and Quintile 1 areas increasing, from 5.4 times higher in the most disadvantaged areas in 1992-95 to a substantial 7.9 times higher in 2000-02 (an increase of 45.5%).

**Figure 44: Child abuse & neglect (0 to 19 years), Adelaide, 1992-95, 2000-02**



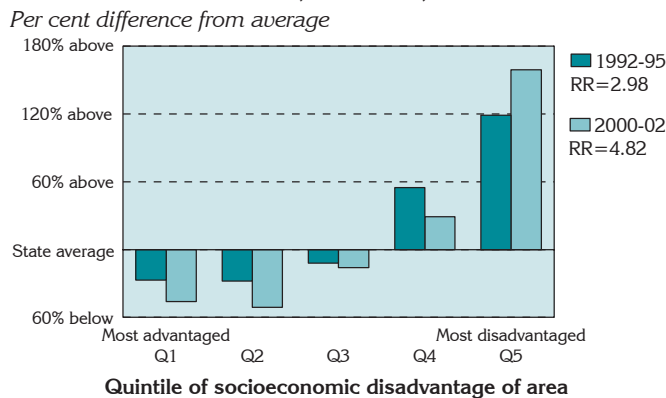
Note: RR (rate ratio) is the ratio of the rate in Quintile 5 to the rate in Quintile 1.



## South Australia

The pattern for South Australia<sup>11</sup> is similar to that for Adelaide, with the rate of substantiated cases of child abuse and neglect decreasing from 1992-95 to 2000-02 in the most advantaged areas (down by 26.9% in Quintile 1), however an increase was recorded in the most disadvantaged areas (up by 18.2% in Quintile 5) (Figure 45). Similarly, the difference between the Quintile 5 and Quintile 1 areas increased, from 3.0 times higher in the most disadvantaged areas in 1992-95 to 4.8 times higher in 2000-02.

**Figure 45: Child abuse & neglect (0 to 19 years), South Australia, 1992-95, 2000-02**



Note: RR (rate ratio) is the ratio of the rate in Quintile 5 to the rate in Quintile 1.

## Indigenous children

Aboriginal and Torres Strait Islander children are over-represented in the child protection system. The rate of Indigenous children who were the subjects of substantiations, for example, was more than seven times the rate for other children in South Australia in 2000/01. This is confirmed by the South Australian data presented here, which show that areas with the highest rates of substantiated cases of child abuse and neglect are also the areas where there are higher proportions of Indigenous residents.

The reasons for the over-representation of Aboriginal and Torres Strait Islander children in child protection substantiations are complex. The HREOC report, *Bringing Them Home*, examined the effects of child welfare policies on Indigenous people. It noted that some of the underlying causes of the over-representation of Aboriginal and Torres Strait Islander children in the child welfare system included the intergenerational effects of previous separations from family and culture, and the poorer socioeconomic status of Indigenous families.

<sup>11</sup> This chart is shown for the whole State, as there were too few child abuse and neglect cases to undertake the analysis for country areas alone.

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# Health and wellbeing: Overweight and obesity in childhood

*Overweight and obesity in childhood and adolescence can cause a wide range of serious physical and emotional health problems, and increase the risk of premature illness and death in adulthood.*

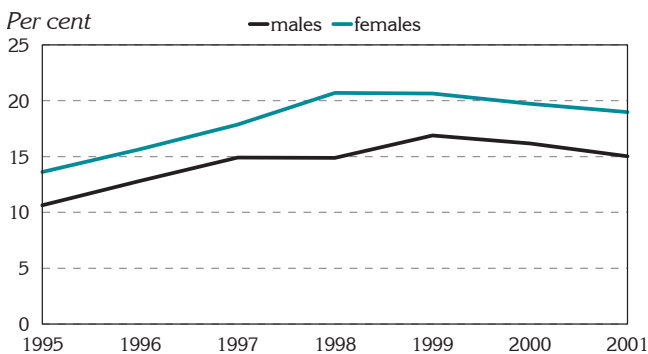
## Key points

- With almost one in five four year old children in South Australia being overweight or obese, Australian prevalence rates are high by international standards and represent a serious public health concern.
- Current rates represent a dramatic increase since 1995 of around 70% for both boys and girls at this age.
- Variations are evident across the State, with higher proportions of overweight or obese four year old children in the country than in Adelaide; and with the highest proportions found in the most disadvantaged areas.

## Trend

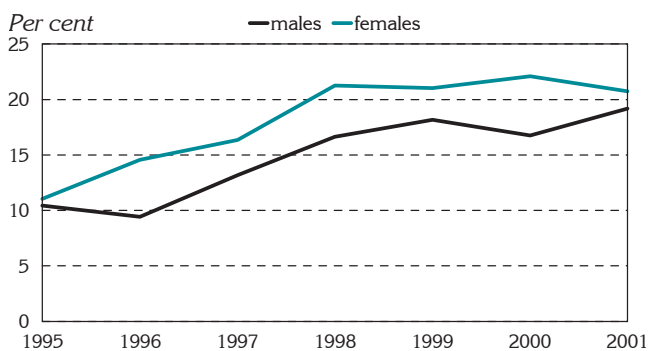
In 2000-01, 18.0% of four year old children were assessed as being overweight or obese: 17.2% in Adelaide and 19.7% in the rest of the State. The proportion of overweight and obese four year old children has increased markedly over the period from 1995 to 2001<sup>12</sup>. For Adelaide, the increase is from 13.6% to 19.0% for females and from 10.7% to 15.0% for males (Figure 46).

**Figure 46: Overweight and obese four year old children by sex, Adelaide**



Outside of Adelaide, the increase is from 11.0% to 20.7% for females and from 10.4% to 19.2% for males (Figure 47).

**Figure 47: Overweight and obese four year old children by sex, country South Australia**



## Geographic variation

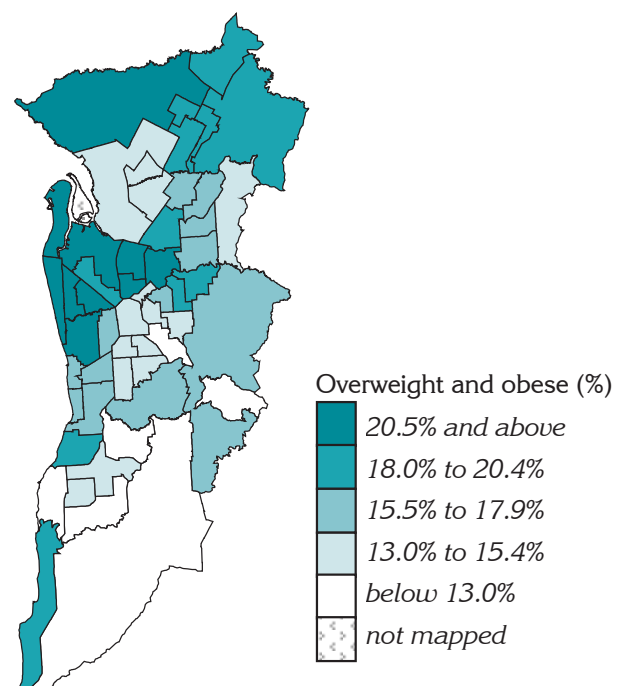
### Adelaide

The distribution of overweight and obese four year old children shows the highest proportions are largely in areas to the west, north and north-west of the city centre (Map 30). The areas include Charles Sturt - Inner West (23.1%), Port Adelaide Enfield - Coast (22.8%), Charles Sturt - Coastal (22.7%), Port Adelaide Enfield - East (22.3%) and Prospect (21.8%).

Areas with proportions of 13% or below were Adelaide Hills - Central (9.6%), Burnside - South-West (10.6%), Onkaparinga - Hackham (11.2%), Onkaparinga - Hills (11.6%), and Onkaparinga - North Coast (11.8%).

The distribution for females and males differs somewhat, with more overweight and obese four year old females than males in the most disadvantaged areas.

**Map 30: Overweight and obese four year old children, Adelaide, 2000-01**



<sup>12</sup> Obesity and overweight are defined in the Appendix.

## Country South Australia

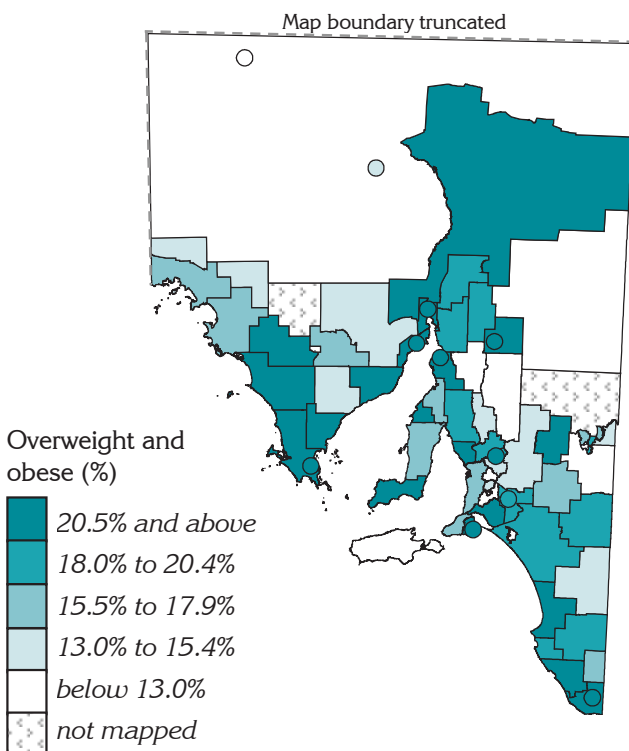
There is no clear pattern in the distribution of overweight and obese children in country South Australia (**Map 31**). The areas with the highest proportions of overweight and obese children are Lacepede (42.4%), Unincorporated Flinders Ranges (41.8%), Tumby Bay (31.2%), Copper Coast (30.7%), Lower Eyre Peninsula (30.5%) and Wattle Range - West (30.1%).

The lowest proportions of overweight and obese children were in Coober Pedy (3.9%), Kangaroo Island (9.3%), Mount Barker - Central (10.7%), Loxton Waikerie - East (11.1%), Goyder (11.6%), Alexandrina - Coastal (11.7%), Adelaide Hills - North (11.8%) and Unincorporated Far North (12.4%).

The low proportions in some areas may reflect the high prevalence of underweight in Indigenous children living in these remote areas, as reported in numerous studies over recent decades. However, as the coverage in this collection of Indigenous children in some remote communities has been limited in the past, this may also reflect a lack of data.

The pattern of distribution is similar for females and males, although with a higher overall proportion of overweight and obese children than in Adelaide.

**Map 31: Overweight and obese four year old children, South Australia, 2000-01**



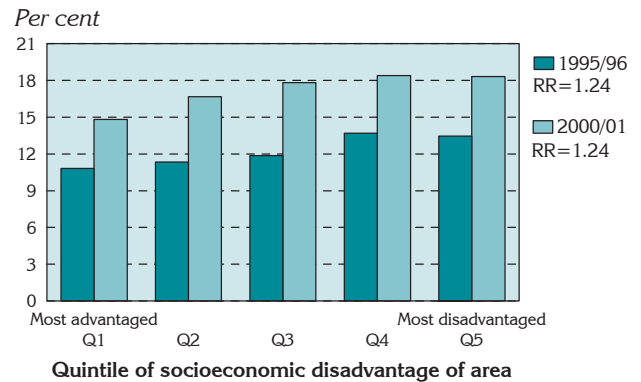
## Socioeconomic status

### Adelaide

For Adelaide, there is a marked gradient in both periods in the proportion of overweight and obese

four year old children, from the lowest proportions in the most well off areas, to the highest in the disadvantaged areas, with 18.4% in Quintile 4 and 18.3% in Quintile 5 in 2001/01. Over the five years from 1995-96, there has been a marked increase in the proportions of overweight and obese four year old children in each quintile (**Figure 48**).

**Figure 48: Overweight and obese four year old children, Adelaide, 1995-96 and 2000-01**

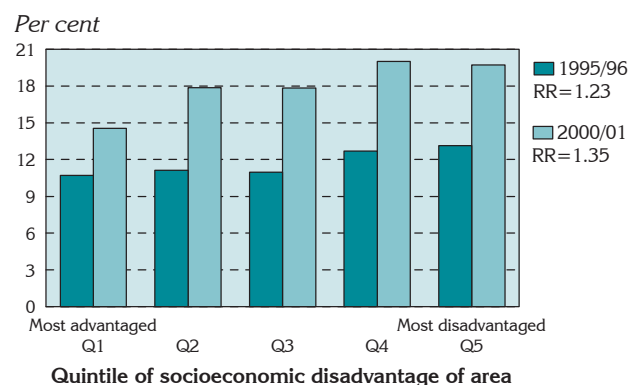


Note: RR (rate ratio) is the ratio of the rate in Quintile 5 to the rate in Quintile 1.

## South Australia

For South Australia as a whole, there is also a gradient in both periods, with increases in the proportions of overweight and obese four year old children in each quintile from 1995/96 to 2000/01. Over the two periods, the difference between the Quintile 5 and Quintile 1 areas increased, from 23% higher in the most disadvantaged areas in 1995-96 to 35% higher in 2000/01 (**Figure 49**).

**Figure 49: Overweight and obese 4 year old children, South Australia, 1995-96 and 2000-01**



Note: RR (rate ratio) is the ratio of the rate in Quintile 5 to the rate in Quintile 1.

## Indigenous children

The 1994 National Aboriginal and Torres Strait Islander Survey found that rural Indigenous children were shorter and lighter than their counterparts in the capital cities. A more recent study showed that Aboriginal children living in urban areas included an excess of both overweight and underweight children.

## Access to services: Outside school hours care

*Outside school hours care services provide care for primary school children before and after school, and during school vacations, enabling parents to participate in the labour force. These services offer a range of social and recreational activities, and provide flexible care on a regular or casual basis.*

### Key points

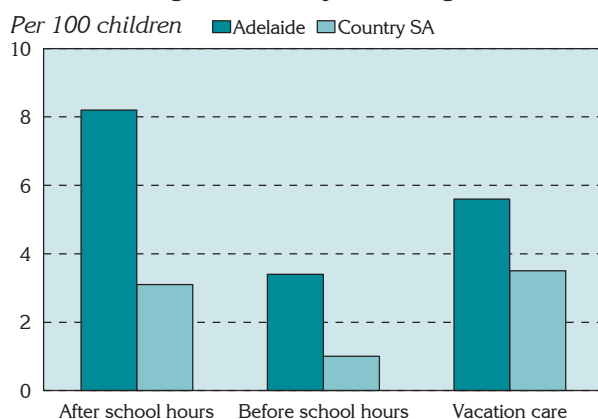
- A number of areas have very few or no after school hours care places, limiting opportunities for parents to participate in the work force, or to continue their education and training.

Outside school hours care services provide supervised care and activities for children aged 5 to 12 years before and after school, on pupil free days, and during school vacations. After school hours care services (the services shown in the map) provide care for primary school children after school has finished for the day, enabling parents to participate in the work force or to continue their education and training.

For South Australia as a whole, there were 6.7% after school hours places per 100 children aged from 5 to 12 years (8.2 per 100 in Adelaide; 3.1 per 100 in country SA); 3.1 before school places per 100 children (3.4 per 100 in Adelaide; 1.0 per 100 in country SA) and 5.8 vacation care places per 100 children (5.6 places per 100 in Adelaide; 3.5 per 100 in country SA). The total number of available outside school hours care places in South Australia in August 2003 was 10,603 for after school; 4,843 for before school; and 9,251 for vacation care. Note that children can be counted in more than one category.

**Figure 50** shows outside school hours care places in Adelaide and country South Australia per 100 children aged 5 to 12 years in these areas.

**Figure 50: Outside school hours care places for children aged 5 to 12 years, August 2003**



### Geographic variation

The data mapped are limited to after school hours places, as these provide for the largest numbers of children. After school hours care places are shown

per 100 children aged from 5 to 12 years in the areas in which the places are located. The distribution of places is influenced by the location of schools. Some areas have more schools than others because of their location and for historical reasons.

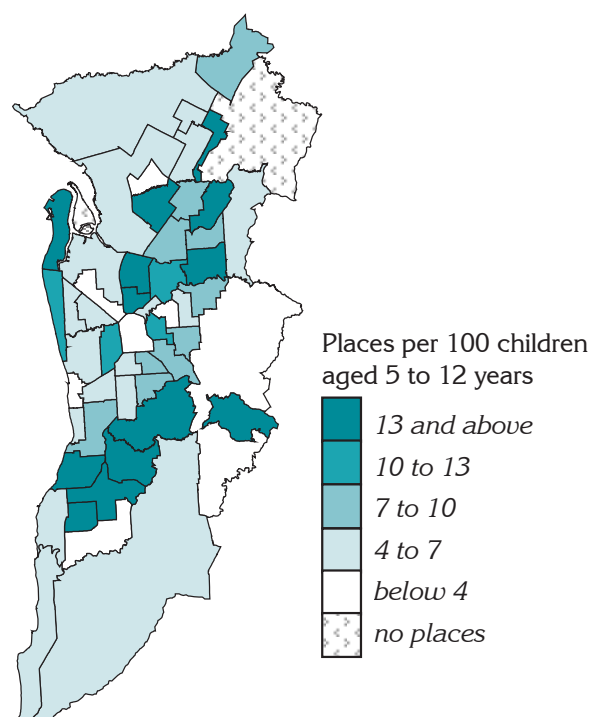
After school care places are not just for use by people in the area in which the school is located, as students cross the boundaries of the areas mapped to attend school: this is particularly so for students attending private schools.

### Adelaide

The distribution of after school hours care places differs from that in many of the other variables, not necessarily following any socioeconomic pattern. Perhaps the strongest association can be seen with the maps for labour force participation and participation in full-time education.

While after school hours care places are located in most areas, some areas have very high, and some have very low, numbers of places per head of population. (**Map 32**).

**Map 32: After school hours care places, Adelaide, August 2003**



The highest rates are in areas concentrated in two main locations: one running from Stirling in the south-east to Marion - South in the south-west, and the other to the north of the city.

In August 2003, the highest rates of after school hours places per 100 children aged from 5 to 12 years were in Mitcham - Hills (40.0), Tea Tree Gully - North (38.2), Prospect (33.3), Tea Tree Gully - South (27.0), Onkaparinga - Reservoir (21.4) and Onkaparinga - Woodcroft (20.8).

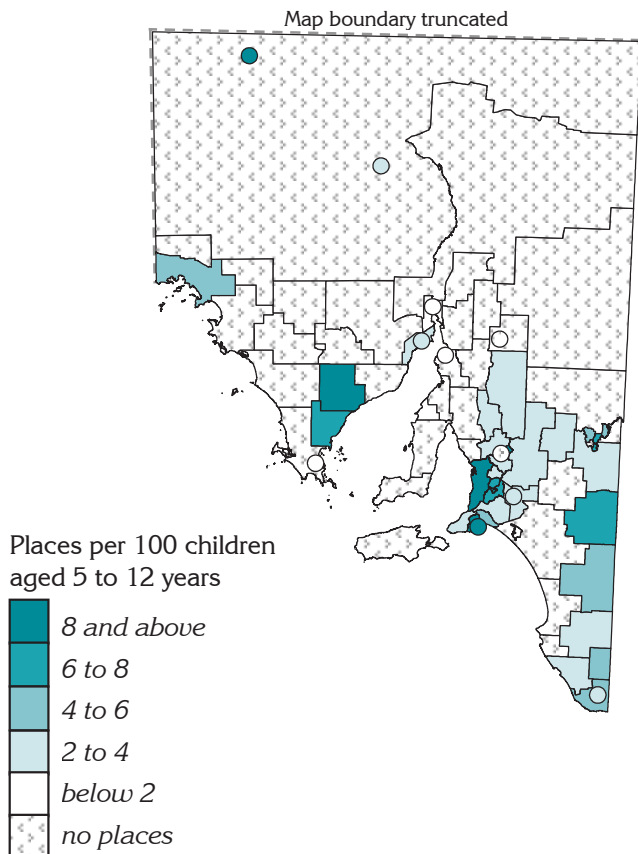
The lowest rates were in the areas of Holdfast Bay - North (2.2), Salisbury - Inner North and Norwood Payneham, St Peters - East (both 2.5), Onkaparinga - Hackham (2.6), and Adelaide Hills - Ranges and Charles Sturt - North-East (both 3.8).

### Country South Australia

The highest rates of after school hours places outside of Adelaide are in the areas of Barossa - Angaston (10.5 places per 100 children aged 5 to 12 years), Coober Pedy (8.9), Cleve (8.5), Victor Harbor (8.0), and Mount Barker Balance, Adelaide Hills Balance and Tumby Bay (all 7.2) (Map 33).

Many country areas did not offer any after school care places. Of those with after school hours places, the lowest rates are in Copper Coast (1.0 place per 100 children aged 5 to 12 years, Port Pirie - City (1.2), Port Lincoln and Port Augusta (both 1.8), Adelaide Hills - North (2.2) and Mid Murray (2.3).

**Map 33: After school hours care places, South Australia, August 2003**

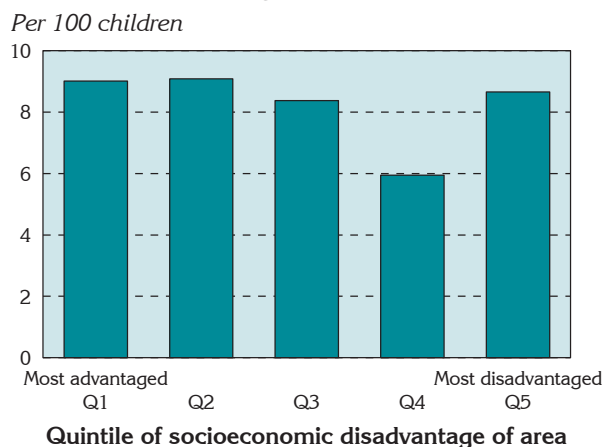


## Socioeconomic status

### Adelaide

There is no apparent pattern in the distribution of after school care places per 100 children aged from 5 to 12 years when analysed by socioeconomic status (Figure 51). The highest rates were in the two most advantaged areas (9.0 and 9.1), with a slightly lower proportion (of 8.7) in the most disadvantaged areas. The lowest proportion (of 6.0) was in the second most disadvantaged areas.

**Figure 51: After school hours care places for children aged 5 to 12 years, Adelaide, August 2003**



### South Australia

There were insufficient areas with after school hours care places for the analysis by socioeconomic status in country South Australia.



## Access to services: Booking lists for non-urgent surgery

*It is widely acknowledged that access to a public hospital for non-urgent (elective) surgery can involve waiting until resources are available. If access to these services is not the same across the population, then the publicly funded hospital system is failing to deliver equitably in terms of access to necessary, non-urgent surgery.*

### Key points

- The number of Adelaide residents who waited for six months or more for an elective surgical procedure at a public hospital has decreased, from 2,739 in 1992 to 2,194 in 2002.
- People in low socioeconomic status areas are twice as likely to be on booking lists than those in the most well off areas.
- People with private health insurance (with hospital cover) have another avenue to access elective surgery, other than through waiting on a public hospital booking list.

The major metropolitan public acute hospitals each maintain a list of people who have been assessed as needing non-urgent (i.e., elective) surgery – these lists are referred to as booking lists. People requiring urgent treatment for life-threatening conditions are not placed on a booking list but are admitted for treatment. Where the condition of a person on a booking list deteriorates to the extent that their condition become life threatening, they are admitted for treatment, regardless of their position (relative to others) on the booking list.

The booking lists do not cover private hospitals: people with private health insurance (which includes hospital cover) therefore have access to elective surgery at a private hospital.

### Trend

At 30 June 1992, 2,739 Adelaide residents had been on a booking list for six months or more. By 2002, this figure had dropped to 2,194, a decrease of 19.9%.

### Geographic variation

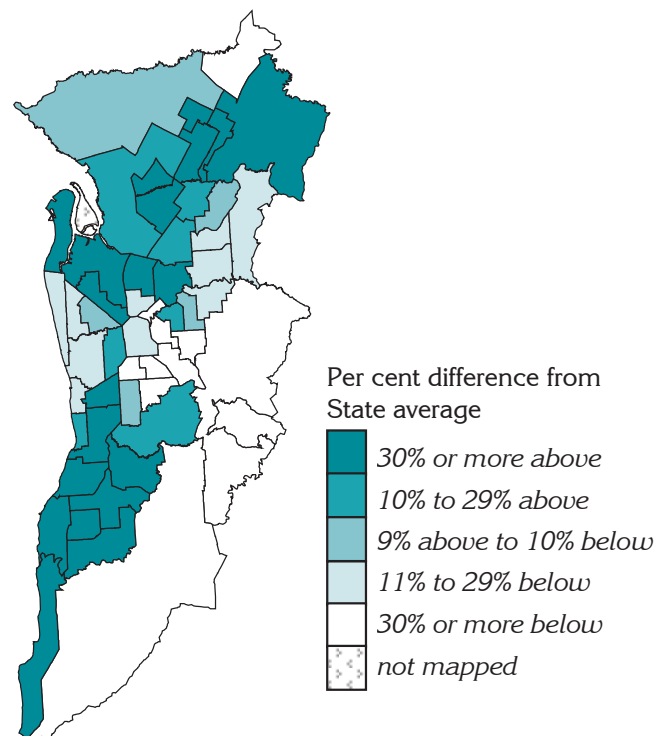
#### Adelaide

In 2002, the distribution of Adelaide residents who waited six months or more for a surgical procedure is similar to the pattern seen in many of the previous maps. The highest ratios were recorded in the outer northern and southern suburbs, as well as in the inner northern and western areas (**Map 34**).

The highest proportions were recorded in Playford - West Central (116% above the average), Playford - Elizabeth (110% above), Onkaparinga - Morphett (102% above) and Marion - Central (100% above).

The areas of Burnside - South-West (71% below the average), Adelaide Hills - Central (68% below), Burnside - North-East (63% below), Gawler (56% below) and Mitcham - North-East (55% below), recorded the lowest proportions for this variable.

**Map 34: Booking lists for elective surgery, public acute hospitals, Adelaide, 2002**



### Country South Australia

There were 310 country residents on a booking list at one of the major metropolitan public acute hospitals which maintain these lists, representing 12.4% of the total on the lists. As hospitals in the country do not maintain these lists, it is unclear whether or not country residents are waiting for elective procedures at these hospitals; and, if they are, what the length of wait and the socioeconomic status of those waiting might be.



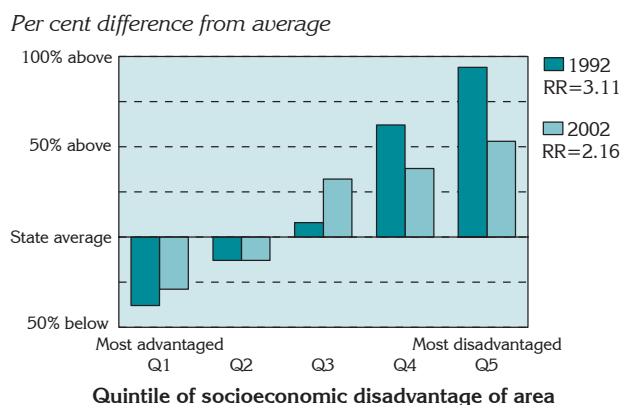
## Socioeconomic status

### Adelaide

People in Adelaide's most disadvantaged areas are over-represented on the booking lists, reflecting their poorer access to these services.

In 1992, people living in the most disadvantaged areas of Adelaide were on a booking list more than three times (3.1) those in the most well off areas. In 2002, the difference had decreased but, at just over twice the level in the most well off areas (2.1), it is still substantial (Figure 52).

**Figure 52: Hospital booking lists, Adelaide, 1992 and 2002**



Note: RR (rate ratio) is the ratio of the rate in Quintile 5 to the rate in Quintile 1.

The differentials in total admissions and admissions for a surgical procedure in 2002 between the most disadvantaged areas and the most well off areas were similar (both 2.3 times) to the differential in admissions from the booking list (2.1 times). That is, it would appear that the most disadvantaged groups were no more disadvantaged in their access to elective surgery than is shown by their use of public hospitals in general. However, this ignores the reality that people with private health insurance (which includes hospital cover), or the resources to pay for the procedure, have access to elective surgery at a private hospital in respect of a wide range of procedures, reducing their reliance on the public hospital system, and the necessity to wait.

## Other indicators: Those for which there are no small area data

### Homelessness

*Homelessness is strongly linked to disadvantage, with poverty and unstable housing resulting in a much higher risk of a lack of education and unemployment. Homelessness is linked to poor health and wellbeing through poor nutrition and inadequate hygiene, exposure to the elements, increased risk of communicable diseases, and fatigue. People without stable housing are at significantly higher risk of physical or sexual abuse, violence and emotional trauma. There are barriers to accessing health care for homeless people, including difficulties in the prevention and treatment of illness.*

#### Key points

- Homelessness is a significant problem for adults and for young people in South Australia.
- Homelessness is strongly linked to disadvantage, with poverty and unstable housing resulting in a much higher risk of poor health, a lack of education, unemployment and difficulty in accessing services.

At the 1996 Census, there were an estimated 6,837 homeless people in South Australia, a rate of 48.1 homeless people per 10,000 population: by 2001 this had increased to 7,586 homeless people, a rate of 51.6 per 10,000 population. For comparison, the rates for the other States/ Territories are shown in **Table 2**.

**Table 2: Homelessness by State/ Territory, 1996 and 2001**

*Rate per 10,000 population*

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT
1996	49.4	41.0	77.3	48.1	71.5	43.9	523.1	40.3
2001	42.4	43.6	69.8	51.6	64.0	52.4	288.3	39.6

Of the total number of homeless in South Australia, 2,394 were estimated to be aged 12 to 18, a rate of 17 per 1,000 young people. Queensland, Western Australia and Tasmania had slightly higher rates, with rates in New South Wales, Victoria and the Australian Capital Territory lower. As is the case for the overall homeless population, the Northern Territory had the highest homeless youth rate (69 per 1,000 young people). These estimates of youth homelessness were derived from a national census of homeless school students (using the ABS' definition of homelessness: see Appendix), with the addition of students who had been homeless within the last three months.

### Consumption of fruit and vegetables

*Evidence shows that people whose usual diets are high in fruit, vegetables, and other plant foods have lower risks of chronic disease (including coronary heart disease, stroke, diabetes mellitus (type 2) and certain cancers). Adults are recommended to eat two to four serves of fruit, and four to eight serves of vegetables each day.<sup>13</sup>*

#### Key points

- The consumption of fruit and vegetables in South Australia falls well below recommended levels.
- Overall, people from the most disadvantaged areas consumed the least fruit and vegetables.

The 2002-03 South Australian Monitoring and Surveillance System (SAMSS) survey found that over half (56.3%) of people contacted had consumed less than the recommended two serves of fruit per day (**Table 3**). Of some concern is that one fifth of the respondents consumed either no fruit (5.3%) or less than one serve (15.9%) per day. Less than one fifth (17.0%) of respondents met the recommended level for consumption of vegetables (four to eight serves per day). One third (33.9%) reported eating two serves of vegetables and almost one quarter (24.4%) reported eating one serve per day.

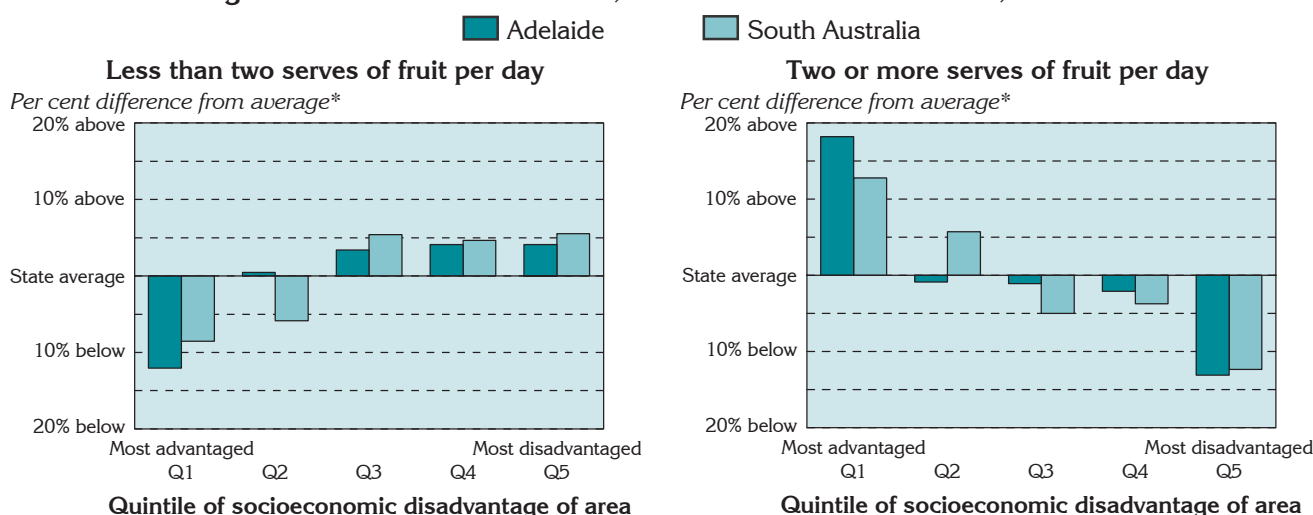
<sup>13</sup> A serve of fruit equals one medium piece or two small pieces of fruit or one cup of diced pieces. A serve of vegetables is one half cup of cooked vegetables or one cup of salad.

**Table 3: Estimated fruit and vegetable intake, South Australia, 2002-03**

Per cent		
Total serves per day	Fruit	Vegetables
None	5.3	0.7
<1 serve	15.9	5.3
1 serve	35.1	24.4
2 serves	26.4	33.9
3 serves	12.0	18.5
4 serves	3.2	11.1
≥ 5 serves	2.1	5.9
Don't know	-	0.1
<b>Total</b>	<b>100.0</b>	<b>100.0</b>

In both Adelaide and South Australia, there is a socioeconomic pattern evident in the consumption of fruit, with people in the most disadvantaged areas being more likely (than those in the most advantaged areas) to consume less than two serves of fruit (4.1% above the State average in Adelaide; and 5.5% above in South Australia) and less likely to consume two or more serves (13.1% below the State average in Adelaide; and 12.4% below in South Australia) (Figure 53).

**Figure 53: Estimated fruit intake, Adelaide and South Australia, 2002-03**



The consumption of vegetables shows a less significant socioeconomic pattern than that of fruit, although people in the most disadvantaged areas were more likely (than those in the most advantaged areas) to consume less than two serves of vegetables (6.0% above the State average in Adelaide; and 8.0% above in South Australia) and less likely to consume two or more serves (3.2% below the State average in Adelaide; and 3.9% below in South Australia) (Figure 54). It should be noted that consuming more than two serves of vegetables is still well below the recommended four to eight serves per day, however there were insufficient numbers to present the consumption of four or more serves.

**Figure 54: Estimated vegetable intake, Adelaide and South Australia, 2002-03**

