

A Social Health Atlas of Compensable Injury in South Australia

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November 2006



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National Library of Australia Cataloguing-in-Publication entry

Glover, John, 1945- .
A social health atlas of compensable injury in South Australia.

ISBN 0 7308 9585 8 (pbk).

1. Personal injuries - South Australia - Atlases. 2. Liability insurance claims - South Australia - Statistics. 3. Liability insurance claims - South Australia - Atlases. 4. Crash injuries - South Australia - Atlases. 5. Crash injuries - South Australia - Statistics. 6. Workers compensation - South Australia - Statistics. 7. Workers compensation - South Australia - Atlases. 8. Accident insurance claims - South Australia - Atlases. I. Public Health Information Development Unit (S. Australia). II. Trauma Recovery and Accident Centre of SA. III. Title.

363.1099423

This report was produced by the Public Health Information Development Unit (PHIDU), The University of Adelaide, for TRACsa: trauma and injury recovery with funding from the Motor Accident Commission (MAC) and the WorkCover Corporation of SA (WorkCover). The views expressed in this report are solely those of the authors and should not be attributed to TRACsa or the Treasurer, or WorkCover or the Minister for Industrial Relations.

Suggested citation:

Glover J, Tennant S, Leahy K and Fisher E. *A Social Health Atlas of Compensable Injury in South Australia*. Adelaide: PHIDU, The University of Adelaide, 2006.

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Published by the Public Health Information Development Unit, The University of Adelaide

Printed by Openbook Australia

Foreword

Social health atlases are widely used as a planning and educational resource in the South Australian and national health sectors. They assist people from different fields of interest to share a better understanding of the relative size and distribution of health outcomes, the factors that contribute to these outcomes and service use.

A Social Health Atlas of Compensable Injury in South Australia has been produced by the Public Health Information Development Unit at the University of Adelaide. It was commissioned by TRACsa with funding from the Motor Accident Commission (MAC) and WorkCover. It is the first health atlas to bring population data on compulsory third party (CTP) and workers' compensation claims together with information on social, economic and demographic characteristics, health status and health service utilisation.

Each year in South Australia approximately 10,000¹ people are injured on our roads and around 46,500² people experience a work related injury or illness. Recovering from the physical and/or psychological injury can be difficult. However, evidence shows that the challenge becomes even greater when they make a compensation claim.

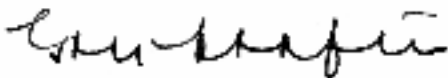
Despite the obvious benefits of compensation, people who are injured and have to "navigate" their way through compensation schemes have significantly poorer outcomes than people with similar injuries who remain outside compensation settings.³ This holds true whether they are seeking or receiving compensation through South Australia's common law, fault based CTP scheme or our no-fault workers' compensation scheme.

Understanding this, in December 2005 the South Australian Government established TRACsa – a new centre of excellence on recovery from road trauma, with funding from MAC. TRACsa also works closely with WorkCover SA to ensure a consistent approach to best practice care wherever possible and appropriate across both the CTP and workers' compensation schemes.

To be effective, TRACsa's strategies and interventions will need to be based on available evidence and have the support of a wide range of community groups and government agencies. They must take account of the broader context within which health and community services are provided and accessed, and of the way regional economies and labour markets impact on people's opportunities to return to work and the community.

Mapping data reveals that not all regions of South Australia face the same challenges and highlights the need for a range of responses. In developing our strategies we will need to pay careful attention to targeted and customised programs.

A Social Health Atlas of Compensable Injury in South Australia adds greatly to our knowledge of injured people in compensation settings. It will be a valuable source of information for TRACsa as we work with service providers to develop best practice models and programs to achieve the best possible personal, social and economic wellbeing for injured persons, their families and friends, their employers and our State. We at TRACsa trust that you will find this atlas a valuable resource.



The Hon Greg Crafter
TRACsa Board Chair

¹ Baldock MRJ and McLean AJ. (2005) 'The Economic Cost of the Road Toll on South Australia'. Centre for Automotive Safety Research. CASR Report Series, SASR009 (Table 2.1).

² Australian Bureau of Statistics. (2001) 'Work Related Injuries in Australia', ABS Cat # 6324.0 (Table 2).

³ See for example *Compensable Injuries and Health Outcomes* published by the Royal Australasian College of Physicians, Sydney 2001.

Acknowledgements

The authors wish to thank the following people for their assistance in producing this report:

- Dan Tyson, Lucinda Glover and Andrew Andrews at TRACsa;
- Eleni Labadas, Jim Gaetjens and Margaret Swincer at WorkCover;
- Craig Kloeden from the Centre for Automotive Safety Research, The University of Adelaide, who provided data on road crashes; and
- Libby Whitehorn and John Hamam from Allianz Australia Insurance Ltd.

The TRACsa and WorkCover staff mentioned also reviewed the draft report and provided valuable comment.

Finally, we express our appreciation to Liz Furler, Executive Director, TRACsa, for the opportunity to undertake this work.

Notwithstanding these contributions, the responsibility for the analysis and interpretation presented in the report remains with the authors.

Executive summary

This Atlas is an initiative of TRACsa: trauma and injury recovery, with funding from the Motor Accident Commission (MAC) and WorkCover Corporation of South Australia (WorkCover). It describes injuries arising from trauma on the roads and at work, using data from MAC and WorkCover, in the context of the socioeconomic and demographic characteristics of the population.

Presenting the data in maps and graphs highlights the associations that exist between injury, illness or death from road crashes and work-related accidents, and the socioeconomic status and health status of the population as a whole. Variations in the geographic distribution of the injured party across the State by remoteness are also highlighted.

The strength of these associations make clear that a health program response to the management of people with injuries arising from trauma on the roads and at work is both legitimate and warranted. They also emphasise the need for an organised population health response to the phenomenon of compensable injuries arising from trauma on the roads and at work; and the need to coordinate with other health and community service providers, across both public and private sectors, to achieve maximum impact of investment by MAC and WorkCover in primary and secondary prevention activities.

Compulsory Third Party Insurance scheme

The Motor Accident Commission has advised that the most representative data for analysis of both claims and costs were those from the 2002/03 financial year; therefore, other than for some trend data to 2004/05 for claims, the analysis has been restricted to that year.

Overview

After a period of relative stability, the number of claims opened under the Compulsory Third Party Insurance scheme has decreased markedly in recent years, to be down by around one third over the seven year period from 1997/98 to 2004/05. The decline from 2002/03 to 2003/04 is believed to reflect a number of factors, falling into two broad categories. The first group of factors includes the introduction of a number of significant legislative and regulatory road safety measures, including (but not limited to) the 50 km/h speed limit in many urban locations from March 2003 (which is believed to have impacted on the number of injury crashes being reported by the South Australian Police and on subsequent claims in 2003/04 and later years (MAC Annual Report 2003/04)), speed camera demerit points and speed detection on red lights. Secondly, a change in the CTP Claims Manager from 1 July 2003, and subsequent changes in some administrative practices (from 1 July 2004, claims were opened only after a direct approach from an injured party, rather than as previously on advice of a vehicle owner or driver that there may have been an injury), also resulted in a reduction in the number of claims in 2004/05 and later years.

The majority (82.2%) of costs under the Compulsory Third Party Insurance scheme are generated by a relatively small proportion (20%) of claims, with 95.1% of costs coming from 35% of claims. This is to be expected, as crashes resulting in catastrophic injuries are less common but involve larger costs in terms of medical services and compensation.

Claims are also categorised as relating to 'WAD injuries' or 'Other injuries'. WAD Injuries' refers to a group of injuries best described as 'Whiplash Associated Disorders and non-specific painful conditions of the neck, shoulder and back' (see the Glossary for additional details). 'Other injuries' effectively refers to all non-WAD injury cases, and includes those injuries deemed and classified by the CTP claims manager as having sufficient medical evidence to demonstrate the indisputable existence of an injury attributable to a road accident.

The rate of claims in 2002/03 for WAD injuries was almost three (2.80) times that for Other injuries. However, total costs for these WAD injuries were only 16% higher (\$117.6m) than those for Other injuries (\$101.2m), resulting in an average cost per WAD injury claims less than half (42%) of the average cost of Other injury claims.

Notably more claims were made in each year by females; however, the average cost per claim was much higher for males than for females, although the gap has varied somewhat over the years.

The majority (85.1%) of claims for each year from 1997/98 to 2002/03 were opened within three months of the date of the crash, and a further 10.2% of claims between three and six months. Over half (57.9%) of all claims made between 1999/00 and 2002/03 were finalised within six months of the claim being lodged.

The average cost per claim increased by 8.8% over the period from 1999/00 to 2002/03; however, this overall increase included a decline (11.0%) from 1999/00 to 2001/02, followed by a marked increase (21.7%) in 2002/03. The pattern of movements in average costs for males and females varied over these years, although both had higher average costs in the latest period.

Geographic variations

The rate of claims opened in Adelaide in 2002/03 was 73% greater than in country South Australia: higher rates were recorded in Adelaide for both Other injury (37% higher) and WAD injury (2.43 times higher) claims. The total cost of finalised claims in Adelaide was more than five (5.19) times the cost of claims by country residents, compared with the distribution of the population between metropolitan and country areas of 3 to 1. The average incurred cost per claim was the same for both metropolitan and country areas.

The geographic distribution of claims at the Statistical Local Area (SLA) level across Adelaide in 2002/03 has a number of similarities to that of the socioeconomically disadvantaged population: the results of a correlation analysis support this contention. Average incurred costs per finalised claim in Adelaide show a more diverse pattern, bearing little relationship to the pattern of disadvantage. In country South Australia, there is a concentration of high rates of claims in SLAs nearer to Adelaide; for average cost per claim, the pattern shifts notably, generally outward and away from Adelaide, with the highest rates occurring in some of the most remote areas of the State.

Socioeconomic status

When areas within Adelaide are allocated to five groups based on the average socioeconomic status of the area's population, the rate of claims is 44% higher in the most disadvantaged areas, compared with the least disadvantaged areas. However, average incurred costs are slightly (6%) lower in the most disadvantaged areas. In country South Australia, the reverse is the case, with 16% fewer claims and 26% higher average incurred costs in the most disadvantaged areas.

Remoteness

The rate of claims opened in 2002/03 declined with increasing remoteness, being 61% lower in the most remote areas of the State than in the Major Cities areas (Adelaide). However, the reverse was true for average incurred cost per finalised claim, with the cost per claim in the most remote areas over twice (2.29 times) that in Adelaide.

Age and sex, by injury category

Over half of claims (53.1%) and incurred costs (59.1%) were paid out to people aged 15 to 39 years; 85% of average costs were incurred at ages 15 to 54 years.

Claims rates for WAD injuries were higher for females than for males. The rates of Other injury claims opened across the State were higher in Adelaide than country South Australia, other than in the 20 to 24 years and 85 years and over age groups. For WAD injury claims opened, rates were generally much higher for people in Adelaide than in country South Australia and especially high across the 15 to 29 year age groups.

The cost of finalised Other injury claims was higher than for WAD injury claims for most age groups. Costs for finalised Other injury claims were also generally higher for males than for females, in particular at ages below the 55 to 59 year age group; the highest costs per claim for WAD injury for both males and females were in the 30 to 64 year age groups. Costs of finalised claims for WAD injuries were higher in country South Australia across most age groups; and costs for Other injury claims were higher in Adelaide at almost all ages.

For claims involving Other injuries, there was a moderate correlation between their geographic distribution and the distribution of the socioeconomically disadvantaged population in Adelaide, and a strong

correlation between costs per finalised claim and socioeconomic disadvantage. There was no such relationship evident at the SLA level in country South Australia for claims opened; however, there was a weak correlation between costs per finalised claim and areas of least socioeconomic disadvantage.

The distribution of these two measures for WAD injuries shows no consistent correlation with socioeconomic disadvantage, other than a weak association in country South Australia with cost per finalised claim.

Workers' compensation

The majority of the analysis for workers' compensation is based on data from 2004/05 and covers registered employers (employers registered with WorkCover SA, whose workers' compensation claims are managed by WorkCover's claims agent); similar details for self-insured employers (employers who are responsible for managing and funding their own workers' compensation claims) are not available. In this atlas, services were analysed for only the two major provider groups of general medical practitioners and physiotherapists.

Overview

All employers (registered and self-insured)

The number of new workers' compensation claims through all employers (both registered and self-insured) decreased by 21.1% over the years from 1997/98 to 2003/04; this is a marked decrease, 3,851.8 claims per 100,000 population in 2003/04, compared with 5,081.1 in 1997/98. There were similar decreases in claims for both registered and self-insured employers. In 2004/05, 64.7% of workers' compensation claims made under WorkCover provisions in South Australia were from registered employers.

Registered employers

Income maintenance claims (i.e. claims with time lost from work of more than ten days) represent under one fifth (19.4%) of claims in 2004/05, but account for over four fifths (84.0%) of costs.

One fifth of workers' compensation claims accounted for 90.8% of costs; and just over one third (35%) of claims accounted for the vast majority (98.1%) of costs.

Almost three quarters (74.6%) of claims were made by males. Similarly, a majority of services provided to claimants by a general medical practitioner (71.3%) were for males. While males also used a majority of physiotherapy services, the proportion was lower, at just under two thirds (64.2%).

Geographic variations

The geographic distribution of those people making workers' compensation claims in Adelaide in 2004/05 closely follows the pattern of socioeconomic status. The correlation analysis supports this contention, showing a strong association between workers' compensation claims (and selected services – general medical practitioner and physiotherapy services – utilised under workers compensation claims) and indicators of socioeconomic disadvantage. There is also a clear, step-wise increase in the rates for claims and services by general medical practitioner and physiotherapists, with rates rising substantially from the least disadvantaged areas to the most disadvantaged areas.

Related datasets

Road traffic accidents

The majority of road traffic accidents in 1994 and 2002 (83% and 83.5%) occurred in Adelaide. In both of these years, over 80% of accidents in Adelaide resulted in property damage only, with the remaining accidents requiring treatment by a private doctor or at hospital, or admission to hospital. In country South Australia, around three quarters of road traffic accidents resulted in property damage only, a slightly lower proportion than in Adelaide.

Hospital admissions

Data from the Department of Health SA show there were 9,044 admissions to hospitals in South Australia funded under compensation schemes in 2003/04, representing 1.6% of all admissions. Admissions covered by workers' compensation (all workers' compensation, not just claims through WorkCover) accounted for three times the level of admissions for motor vehicle third party personal claims; however, both types of admission accounted for a similar proportion of bed days, reflecting the longer hospital stays of those involved in motor vehicle accidents.

Deaths by external cause

Motor vehicle accidents accounted for 26.1% of deaths from all external causes (and the majority (97%) of transport accident deaths). Deaths of occupants of cars accounted for over half (58.0%) of the transport accident deaths, or 15.6% of deaths from all external causes, with a further 4.4% of all causes deaths being of pedestrians (106 deaths), and motor cycle riders accounting for 3.0% (72 deaths).

Foreword	iii
Acknowledgements.....	iv
Executive summary.....	v
List of tables	x
List of figures	xi
List of maps	xii
Glossary.....	xiv
1. Purpose.....	1
2. Context	3
Overview of the compensation sector in South Australia.....	3
Compulsory Third Party Insurance scheme.....	3
Workers' compensation	6
Socioeconomic status of South Australia's population.....	9
Income support payments	16
Health status: chronic disease and injury prevalence estimates.....	18
Health status: self-reported health	19
Health status: avoidable mortality	20
Health status: Years of life lost to disability (YLD).....	21
Use of emergency assistance, medical and hospital services	21
3. Compulsory Third Party Insurance scheme claims and costs	27
Claims by year and sex	27
Claims by period from date of crash to claim lodgement and finalisation.....	30
Distribution of CTP claims across the State	31
Distribution of CTP claims and costs by SLA	32
Change in geographic distribution of CTP claims	36
Distribution of CTP claims and costs by socioeconomic status of area	38
Distribution of CTP claims and costs by remoteness	40
Distribution of CTP claims and costs by age.....	41
Injury category by age.....	42
Distribution of CTP claims and costs by injury category.....	46
4. Workers' compensation claims: Registered employers	51
Claims by year and sex	51
Distribution of claims and selected services by SLA: Adelaide.....	52
Distribution of claims and selected services by SLA: country South Australia.....	55
Distribution of claims and selected services by socioeconomic status.....	58
Distribution of claims and selected services by remoteness	60
Distribution of claims and selected services by age.....	61
5. Other relevant datasets.....	63
Road traffic accidents	63
Hospital inpatient data by compensation type.....	66
Deaths by external cause	69
Health and welfare workforce estimates.....	71
6. Summary	73
Bibliography.....	75
Appendix.....	77
Key Maps.....	83

List of tables	Page
Table 2.1: Compulsory Third Party Insurance scheme – summary data, for 2002/03	4
Table 2.2: Workers’ compensation claims, by employer type, 1997/98 to 2004/05	6
Table 2.3: Workers’ compensation claims from injury year 2004/05 and payments made on those claims to 31 December 2005	7
Table 2.4: Selected services provided under workers’ compensation claims through registered employers, 2004/05.....	7
Table 3.1: Compulsory Third Party Insurance scheme – number and rate of claims by sex and year, South Australia, claims opened between 1997/98 and 2004/05.....	27
Table 3.2: Compulsory Third Party Insurance scheme – cost of claims by sex and year, South Australia, claims finalised between 1999/00 and 2002/03	28
Table 3.3: Compulsory Third Party Insurance scheme – time from crash date to date claim opened, South Australia, 1997/98 to 2002/03	30
Table 3.4: Compulsory Third Party Insurance scheme – time from date claim lodged to date claim finalised, South Australia, 1999/00 to 2002/03	31
Table 3.5: Compulsory Third Party Insurance scheme data by Adelaide and country South Australia, 2002/03.....	32
Table 3.6: Correlation summary – Compulsory Third Party Insurance scheme data and indicators of socioeconomic status.....	34
Table 3.7: Distribution, by remoteness, of CTP claims opened and incurred costs of finalised claims, South Australia, 2002/03	40
Table 3.8: Compulsory Third Party Insurance scheme – age distribution of claims opened and incurred costs of claims finalised, South Australia, 2002/03	41
Table 4.1: Workers’ compensation claims through registered employers – number and rate of claims by sex and year, South Australia, 1997/98 and 2004/05.....	51
Table 4.2: Workers’ compensation – number and rate of claims by sex and selected service provider, South Australia, 2004/05	52
Table 4.3: Correlations – workers’ compensation summary data and indicators of socioeconomic status, Adelaide	54
Table 4.4: Correlations – workers’ compensation summary data and indicators of socioeconomic status, country South Australia, 2004/05	57
Table 4.5: Workers’ compensation - distribution, by remoteness, of rates of claims and selected services, South Australia, 2004/05	60
Table 5.1: Road traffic accidents by severity type and area, 1994 and 2002	63
Table 5.2: Road traffic accidents by severity type and area, 2002	64
Table 5.3: Individuals and drivers involved in road traffic accidents involving injury, by severity type, 1994 and 2002.....	64
Table 5.4: Hospital admissions and bed days by compensation type, South Australia, 2003/04	66
Table 5.5: Hospital admissions by compensation type and external cause, South Australia, 2003/04.....	66
Table 5.6: Deaths from external causes, South Australia, 1999-2002	69
Table 5.7: Occupation by Health Region in which worked, Adelaide, 6 August 2001	71
Table 5.8: Occupation by Health Region in which worked, country South Australia, 6 August 2001	72
Table A1: Correlations, Adelaide.....	77
Table A2: Correlations, country South Australia.....	78
Table A3: Selected health and welfare occupations by region in which they worked on Census day, Adelaide, 2001	79
Table A4: Selected health and welfare occupations by region in which they worked on Census day, Adelaide, 2001	80
Table A5: Data sources.....	82

List of figures	Page
Figure 2.1: Compulsory Third Party Insurance scheme, claims opened, by sex, 1997/98 to 2004/05	3
Figure 2.2: Compulsory Third Party Insurance scheme – proportion of costs incurred by proportion of claims, 2002/03	5
Figure 2.3: Compulsory Third Party Insurance scheme – proportion of costs incurred by age, 2002/03	5
Figure 2.4: Workers' compensation claims, by employer type, 1997/98 to 2004/05	6
Figure 2.5: Workers' compensation claims through registered employers – proportion of costs incurred by proportion of claims, 2004/05.....	7
Figure 2.6: Workers' compensation claims through registered employers – proportion of costs incurred by age, 2004/05	8
Figure 3.1: Compulsory Third Party Insurance scheme – rate of claims by sex and year, South Australia, 1997/98 to 2004/05.....	28
Figure 3.2: Compulsory Third Party Insurance scheme – average cost per claim finalised by sex and year, current prices, South Australia, 1999/00 to 2002/03.....	29
Figure 3.3: Compulsory Third Party Insurance scheme – average cost per claim finalised by sex and year, constant prices, South Australia, 1999/00 to 2002/03	29
Figure 3.4: Year CTP claim finalised, South Australia, 1997/98 to 2002/03	30
Figure 3.5: Compulsory Third Party Insurance scheme – claims opened and average cost of claims finalised by socioeconomic status, 2002/03.....	38
Figure 3.6: Compulsory Third Party Insurance scheme - claims opened by area of remoteness, South Australia, 2002/03.....	40
Figure 3.7: Compulsory Third Party Insurance scheme – average cost per finalised claim by area of remoteness, South Australia, 2002/03	40
Figure 3.8: Compulsory Third Party Insurance scheme – WAD injury and Other injury CTP claims opened by age, South Australia, 2002/03	42
Figure 3.9: Compulsory Third Party Insurance scheme – WAD injury CTP claims opened by age and sex, South Australia, 2002/03	42
Figure 3.10: Compulsory Third Party Insurance scheme – Other injury CTP claims opened by age and sex, South Australia, 2002/03	43
Figure 3.11: Compulsory Third Party Insurance scheme – WAD injury CTP claims opened by area of State and age, South Australia, 2002/03.....	43
Figure 3.12: Compulsory Third Party Insurance scheme – Other injury CTP claims opened by area of State and age, South Australia, 2002/03.....	43
Figure 3.13: Compulsory Third Party Insurance scheme – WAD injury and Other injury cost per finalised claim by age, South Australia, 2002/03.....	44
Figure 3.14: Compulsory Third Party Insurance scheme – WAD injury cost per finalised claim by age and sex, South Australia, 2002/03	44
Figure 3.15: Compulsory Third Party Insurance scheme – Other injury cost per finalised claim by age and sex, South Australia, 2002/03	44
Figure 3.16: Compulsory Third Party Insurance scheme – WAD injury cost per finalised claim by area of State and age, South Australia, 2002/03.....	45
Figure 3.17: Compulsory Third Party Insurance scheme – Other injury cost per finalised claim by area of State and age, South Australia, 2002/03.....	45
Figure 4.1: Workers' compensation claims through registered employers, 1997/98 to 2003/04	51
Figure 4.2: Workers' compensation – claims and selected services provided, by socioeconomic status, 2004/05	58
Figure 4.3: Workers' compensation – claims and selected services provided, by socioeconomic status, South Australia, 2004/05	59
Figure 4.4: Workers' compensation – distribution, by remoteness, of claims and selected services, South Australia, 2004/05.....	60
Figure 4.5: Workers' compensation – total claims by age and sex, South Australia, 2004/05	61
Figure 4.6: Workers' compensation – GP services by age and sex, South Australia, 2004/05	61
Figure 4.7: Workers' compensation – physiotherapy services by age and sex, South Australia, 2004/05	62
Figure 5.1: Drivers involved in road traffic accidents, South Australia, 2002	65
Figure 5.2: Deaths from motor vehicle traffic accidents, by socioeconomic status, 1999-2002	70

List of maps	Page
Map 2.1: Index of Relative Socio-Economic Disadvantage, 2001	9
Map 2.2: Jobless families with children aged less than 15 years, 2001	10
Map 2.3: Unemployment rate, 2003	10
Map 2.4: Unskilled and semi-skilled workers, 2001	11
Map 2.5: Female labour force participation, 2001	11
Map 2.6: Full-time participation in secondary school education at age 16, 2001	12
Map 2.7: People who used the Internet at home, 2001	12
Map 2.8: Aboriginal and Torres Strait Islander people, 2001.....	13
Map 2.9: People born in predominantly non-English speaking countries and resident in Australia for 5 years or more, 2001.....	13
Map 2.10: People born in predominantly non-English speaking countries and resident in Australia for less than 5 years, 2001	14
Map 2.11: Dwellings rented from the SA Housing Trust, 2001	14
Map 2.12: Rent assistance, 1999 to 2002.....	15
Map 2.13: Dwellings with no motor vehicles, 2001	16
Map 2.14: Disability support pensioners, June 2004.....	16
Map 2.15: Female sole parent pensioners, June 2004.....	17
Map 2.16: People receiving an unemployment benefit, June 2004	17
Map 2.17: Chronic disease estimates: mental and behavioural problems, 2001.....	18
Map 2.18: Chronic disease estimates: musculoskeletal system diseases, 2001.....	18
Map 2.19: Estimates of injury events, 2001.....	19
Map 2.20: Estimates of very high levels of psychological distress, people aged 18 years and over, 2001	19
Map 2.21: Estimates of fair or poor self-assessed health status, people aged 15 years and over, 2001	19
Map 2.22: Estimates of high health risk due to alcohol consumed, people aged 18 years and over, 2001.....	20
Map 2.23: Deaths at ages 0 to 74 years from potentially avoidable causes, 1999 to 2002	20
Map 2.24: Years of Life Lost to Disability, 1999 to 2001	21
Map 2.25: Emergency family assistance, 2001 to 2002	21
Map 2.26: Population per general medical practitioner, 2002/03.....	22
Map 2.27: General medical practitioner services to males, 2002/03.....	22
Map 2.28: General medical practitioner services to females, 2002/03.....	23
Map 2.29: Accident and emergency department attendances, 2003/04.....	23
Map 2.30: Outpatient department attendances, 2003/04.....	23
Map 2.31: Specialist medical practitioner services, metropolitan regions, 2003/2004.....	24
Map 2.32: People covered by private health insurance, 30 June 2001	24
Map 2.33: Admissions to public acute and private hospitals, 2003/04	25
Map 2.34: Admissions to public acute hospitals, 2003/04	25
Map 2.35: Admissions to private hospitals, 2003/04	26
Map 2.36: Hospital booking lists: people waiting for more than six months for elective (non-urgent) surgical procedures, 30 June 2004.....	26
Map 3.1: Compulsory Third Party Insurance scheme – claims opened, Adelaide, 2002/03	32
Map 3.2: Compulsory Third Party Insurance scheme – average incurred cost per finalised claim, Adelaide, 2002/03	32
Map 3.3: Compulsory Third Party Insurance scheme – claims opened, South Australia, 2002/03.....	35
Map 3.4: Compulsory Third Party Insurance scheme – average incurred cost per finalised claim, South Australia, 2002/03.....	35
Map 3.5: Compulsory Third Party Insurance scheme – change in rate of claims opened, Adelaide, 1997/98 to 2002/03.....	36
Map 3.6: Compulsory Third Party Insurance scheme – change in rate of claims opened, South Australia, 1997/98 to 2002/03.....	36
Map 3.7: Compulsory Third Party Insurance scheme – change in average incurred cost per finalised claim, Adelaide, 1999/00 to 2002/03	37
Map 3.8: Compulsory Third Party Insurance scheme – change in average incurred cost per finalised claim, South Australia, 1999/00 to 2002/03.....	37
Map 3.9: Compulsory Third Party Insurance scheme – WAD injury claims opened, Adelaide, 2002/03.....	46
Map 3.10: Compulsory Third Party Insurance scheme – Other injury claims opened, Adelaide, 2002/03.....	46
Map 3.11: Compulsory Third Party Insurance scheme – WAD injury claims opened, South Australia, 2001/02 to 2002/03.....	47

Map 3.12: Compulsory Third Party Insurance scheme – Other injury claims opened, South Australia, 2001/02 to 2002/03	47
Map 3.13: Compulsory Third Party Insurance scheme – WAD injury cost per finalised claim, Adelaide, 2002/03	48
Map 3.14: Compulsory Third Party Insurance scheme – Other injury cost per finalised claim, Adelaide, 2002/03	48
Map 3.15: Compulsory Third Party Insurance scheme – WAD injury cost per finalised claim, South Australia, 2001/02 to 2002/03	49
Map 3.16: Compulsory Third Party Insurance scheme – Other injury cost per finalised claim, South Australia, 2001/02 to 2002/03	49
Map 4.1: Workers' compensation – claims, Adelaide, 2004/05	52
Map 4.2: Workers' compensation – general medical practitioner services, Adelaide, 2004/05	53
Map 4.3: Workers' compensation – physiotherapy services, Adelaide, 2004/05	53
Map 4.4: Workers' compensation – claims, South Australia, 2004/05	55
Map 4.5: Workers' compensation – general medical practitioner services provided, South Australia, 2004/05	56
Map 4.6: Workers' compensation – physiotherapy services, South Australia, 2004/05	56
Map 5.1: Drivers involved in road traffic accidents, Adelaide, 2002	65
Map 5.2: Drivers involved in road traffic accidents, South Australia, 2002	65
Map 5.3: Hospital admissions covered by workers' compensation, Adelaide, 2003/04	67
Map 5.4: Hospital admissions covered by workers' compensation, South Australia, 2003/04	67
Map 5.5: Hospital admissions covered by a motor vehicle third party personal (CTP) claim, Adelaide, 2003/04	68
Map 5.6: Hospital admissions covered by a motor vehicle third party personal (CTP) claim, South Australia, 2003/04	68
Map 5.7: Deaths from motor vehicle traffic accidents, Adelaide, 1999-2002	70
Map A1: Key to areas mapped for Adelaide	83
Map A2: Key to areas mapped for South Australia	85

Glossary

Compensation schemes

Compulsory Third Party Insurance scheme

Claims

- Injury category

'WAD injury' refers to a group of injuries best described as 'Whiplash Associated Disorders and non-specific painful conditions of the neck, shoulder and back'. This injury category terminology (as adopted in this document) is derived from the 'non-demonstrable' injury category historically used by the CTP claims manager for internal operational purposes. Each CTP claim was coded as either 'demonstrable' or 'non-demonstrable' in the CTP claims database, which is the primary data source for the present analysis. Historically, the claims manager classed a CTP claim as 'non-demonstrable' where the underlying pathology was unknown, or was unable to be determined with existing medical knowledge and technology. An analysis of the CTP claims database shows that the overwhelming majority of 'non-demonstrable' injuries relate to whiplash or similar soft-tissue disorders.

'Other injury' effectively refers to all non-WAD injury cases. This category includes those injuries deemed and classified by the CTP claims manager as having sufficient medical evidence to demonstrate the indisputable existence of an injury attributable to a road crash. This broad category of injuries includes lacerations, fractures, internal organ injuries, head injuries, spinal injuries etc.

- Finalised (closed) claims

A claim is finalised when all costs of a claim have been identified and there are no further expected claim payments or claims recoveries. Includes claims where no payments applied; medical and hospital payments only; and payments for general damages where there is no outstanding payment for legal fees.

- Opened claims

The total number of current claims at any given point in time. This would include all claims including those opened for recovery only unless specifically stated. This number relates to the current, active claims portfolio.

Costs

- Incurred cost

The total amount paid for finalised claims.

- Average incurred cost per finalised claim

This is the incurred cost (for finalised claims) divided by the number of finalised claims.

- Heads of Damage

The term 'heads of damage' can be defined to mean 'types of loss (harm), against which damages are awarded in order to arrive at the total settlement' In the SA CTP Insurance scheme, there are several specific 'heads of damage' that fall within the broad sub-categories 'Claimant Benefits' (non-economic loss, economic loss, treatment costs, other costs), and 'Claims Costs' (plaintiff and defence legal costs).

Workers' compensation (data from WorkCover Corporation)

Claims

- All claims: In the time series presented in *Chapter 2: Context* and *Chapter 4: Workers' compensation claims*, claims data reflect the year in which the injury occurred. The detailed analysis presented for 2004/05 is based on claims with an injury in 2004/05, where a payment was made in that year.

- Income maintenance claims: are claims with time lost from work of more than ten days.

Workers' compensation ... cont

Employer type

- Registered employers: employers registered with WorkCover SA whose workers' compensation claims are managed by WorkCover's claims agent and funded by WorkCover.
- Self-insured employers: employers who are responsible for managing and funding their own workers' compensation claims.

Selected services

Details are shown of services provided by two major primary provider groups, general medical practitioners (GPs) and physiotherapists. For each primary provider group, only services and costs from the principal provider have been utilised in this analysis. The principal provider on each claim is the provider who delivered the highest number of services.

Deaths

- External cause of death: Deaths from external causes are attributed to the event leading to the fatal injury, rather than to the nature of the injury which is coded separately.

Geographic areas

- Country South Australia: the rest of the State, outside of Adelaide.
- Adelaide: the area from Gawler in the north to Sellicks Hill in the south, bounded by the Adelaide Hills to the east (including Stirling/Aldgate, but not Mount Barker) and in the west by the sea.
- SLA (Statistical Local Area): The SLA is a spatial unit within the Australian Standard Geographical Classification (ABS 2001), the geographical classification defined by the ABS for coding data to areas within Australia. In country areas of South Australia, SLAs are of the same size as local government areas; in almost all instances in Adelaide, SLAs are smaller than LGAs.

Hospital admissions and bed days

- Admissions: The technical term describing a completed hospital episode (i.e. the discharge, death or transfer of a patient) is a 'separation'. In this Atlas, the more commonly used term of 'admission' has been used. Details are of admissions to hospitals in South Australia.
- Bed days refer to the total number of days spent in hospital for these admissions.
- External cause of injury: the event, circumstance or condition associated with the occurrence of injury.

Measures of socioeconomic disadvantage

- IRSD: Index of Relative Socio-Economic Disadvantage

The geographic distribution of the population in Adelaide can be summarised using the Index of Relative Socio-Economic Disadvantage (IRSD), produced by the Australian Bureau of Statistics (Map 2.1). The IRSD is a summary measure of socioeconomic disadvantage based on information collected at the 2001 Census of Population and Housing: contributing variables include unemployment, single parent families, education level attained, and income. It is an area-based measure, in that it is calculated for areas for which the ABS holds the Census data; however, all of the variables used in producing the index reflect characteristics of the population in those areas, or of the dwellings in which they live. The average index score is 1000, with scores below 1000 indicating greater relative disadvantage, and scores above 1000 indicating greater relative advantage.

- Quintiles of area of socioeconomic disadvantage

The data are also presented to show variations by socioeconomic status of the SLA of the address of residence of the person about whom the event is recorded (SLA of the claimant, driver involved in a road crash, etc). To do this, each SLA in Adelaide was allocated to one of five categories (quintiles) based on its Index of Relative Socio-Economic Disadvantage (IRSD) score. Quintile 1 comprises (approximately) twenty per cent of the population living in the SLAs in Adelaide with the highest IRSD

scores, and Quintile 5 comprises the twenty per cent of the population in SLAs with the lowest IRSD scores. The average rate (or standardised ratio or percentage) was then calculated for each of the five quintiles. For example, the average rate of claims was calculated for the least disadvantaged SLAs (Quintile 1), for the most disadvantaged SLAs (Quintile 5) and for each of the intervening quintiles (Quintiles 2 to 4). These rates were then graphed. This exercise was repeated for SLAs in country South Australia (excluding Gawler).

Rates

Most rates are age-standardised rates per 100,000 population (and, for costs, per 100,000 claims). The process of age standardisation, using the indirect method, has been undertaken where it was considered that variations in the age distribution of the population for any variable could affect the analysis, as this adjustment largely removes variations in rates between areas where such variations arise solely as a result of the age structure.

Symbols

- represents zero, or less than half the final digit
- .. not applicable

1. Purpose

The goal of improving health and social outcomes for people injured on the roads and in the workplace requires a joint effort by the Motor Accident Commission (MAC) and WorkCover, as they administer respectively the compulsory third party (CTP) and workers' compensation schemes through which many injured people who receive compensation access the health and community services they require. In turn, MAC and WorkCover together need effective partnerships with service providers, community groups, professional peak organisations, relevant government departments and academic bodies; not only because they have both a direct and indirect influence on the services provided in the compensation sectors, but because they provide or shape the mainstream services people turn to for care and support throughout their lifetimes, and they provide services to injured people who are not eligible for compensation. For such partnerships to be effective, a shared understanding is required; of the issues to be tackled, and the context within which solutions must be found. The purpose of this Atlas is to facilitate this shared understanding.

In commissioning the Atlas, TRACsa is committed to

- Promoting public awareness of the issues relating to compensable injuries arising from trauma on the roads and at work, based on sound data from a range of sources;
- Securing acceptance among a wide range of interested parties that a health program response to caring for people with compensable injuries arising from trauma on the roads and at work is both legitimate and warranted;
- Promoting understanding of the social, economic and structural/systemic factors that contribute to patterns of health, injury, disability and service use in this area among a wide range of interested parties;
- Promoting understanding and acceptance among a wide range of interested parties of the need for:
 - an organised population health response to the phenomenon of compensable injuries arising from trauma on the roads and at work;
 - coordination and integration of services provided in the compensation sectors with other relevant services (both public and private) in the mainstream health and community services sectors, wherever possible and appropriate;
- A dialogue with the Health Portfolio about the nature and extent of health related activities occurring in the compensation sectors, and collaboration to achieve common policy and program objectives;
- Planning and implementation of strategies and services which are targeted to suit local circumstances and needs.

In addressing the purpose, as stated above, the Atlas describes injuries arising from trauma on the roads and at work, using data from the Motor Accident Commission and WorkCover, in the context of the socioeconomic and demographic characteristics of the population. A particular focus is the relationship between the geographic distribution of the injured party in relation to the distribution of the population as a whole by a range of characteristics, including their socioeconomic status and health status.

The Atlas includes the following chapters:

Chapter 2: Context, containing a statistical overview of the compensable sector, followed by a summary of the socioeconomic and health status of the State's population, describing geographic variations across Adelaide and country South Australia.

Chapter 3: A description of the level of activity and geographic variations in claims and cost of finalised claims under the Compulsory Third Party Insurance scheme.

Chapter 4: A description of the level of activity and geographic variations in workers' compensation scheme claims.

Chapter 5: Analyses of other relevant datasets - road traffic accidents, compensable admissions, deaths from external causes and health and welfare occupations, by region.

Chapter 6: A Summary chapter.

Appendix: The appendix includes a range of supporting information, including keys to the areas mapped in the Atlas.

2. Context

Overview of the compensation sector in South Australia

The “compensation sector” in South Australia is covered largely by the CTP and workers’ compensation schemes administered by MAC and WorkCover, respectively. A small amount of activity in the sector is funded under other compensation schemes (e.g., public liability, common law, medical negligence, Seamen’s compensation).

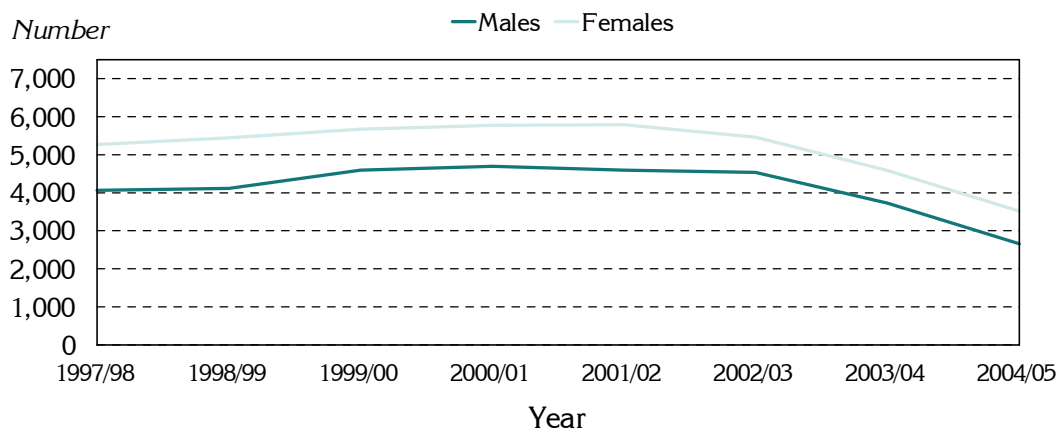
CTP insurance covers victims of crashes for personal injury where the owner or driver of a registered South Australian vehicle is at fault. It also covers injured victims where a passenger is at fault. CTP insurance premiums are included with South Australian car registration payments. MAC provides the insurance and Allianz Australia is contracted to handle all enquiries and claims.

The WorkCover Corporation of South Australia manages South Australia’s Workers’ Rehabilitation and Compensation Scheme on behalf of approximately 65,000 employers and an estimated 625,000 employees (DEWR 2006). This represents about 55% of the State’s workforce; the balance of the workforce is employed by self-insured employers, including State government agencies, who manage their own claims and liabilities. *The Workers’ Rehabilitation and Compensation Act 1986* provides for the rehabilitation and compensation of workers who suffer workplace-related injury, illness or death. Unlike the Compulsory Third Party Insurance scheme, the workers’ compensation and rehabilitation scheme is a no-fault scheme. It aims to rehabilitate and restore injured or ill workers to work and to the community. Payable entitlements include income maintenance to the injured worker plus medical and associated costs related to the injury or illness, as well as lump sum claims for non-economic loss (permanent disability).

Compulsory Third Party Insurance scheme

After a period of relative stability, the number of claims opened under the Compulsory Third Party Insurance scheme (CTP) has decreased markedly in recent years (Figure 2.1), to be down by around one third over the seven year period from 1997/98 to 2004/05. Comments on this trend and factors affecting it, and details of the distribution of claimants across the State and by their socioeconomic status, is provided in Chapter 3.

Figure 2.1: Compulsory Third Party Insurance scheme, claims opened, by sex, 1997/98 to 2004/05



This document adopts the terms ‘WAD injury’ and ‘Other injuries’ to classify injury type. Readers should be aware that the use of these terms is a close, but not perfect, approximation of the administratively derived categories ‘non-demonstrable’ and ‘demonstrable’ injury respectively (see the Glossary, above, for more detail).

The rate of claims for WAD injuries in 2002/03¹ was almost three (2.80) times the rate of claims for Other injuries (Table 2.1). There was a much smaller differential in total costs, with costs for WAD injuries only 16% higher than those for Other injuries. The reverse was the case for average incurred cost per claim, with WAD injury claims only 42% of the average cost of Other injury claims.

¹ On advice from the Motor Accident Commission, analysis of injury and financial data is restricted to the 2002/03 financial year, as details of claims opened and finalised are believed to be most consistent in that year.

Table 2.1: Compulsory Third Party Insurance scheme – summary data, for 2002/03¹

Variable	Number	Rate ²
Claims	10,003	655.0
WAD injuries	5,835	389.2
Other injuries	2,081	139.2
Ratio WAD injuries/Other injuries	2.80	2.80
Total cost (\$m)	219.7	..
WAD injuries	117.6	..
Other injuries	101.2	..
Ratio WAD injuries/Other injuries	1.16	..
Average incurred cost/claim (\$)	21,459	..
WAD injuries	18,584	..
Other injuries	44,456	..
Ratio WAD injuries/Other injuries	0.42	..

¹ Includes the number of claims opened in 2002/03 and the cost of claims finalised in 2002/03

² Age standardised rate per 100,000 population

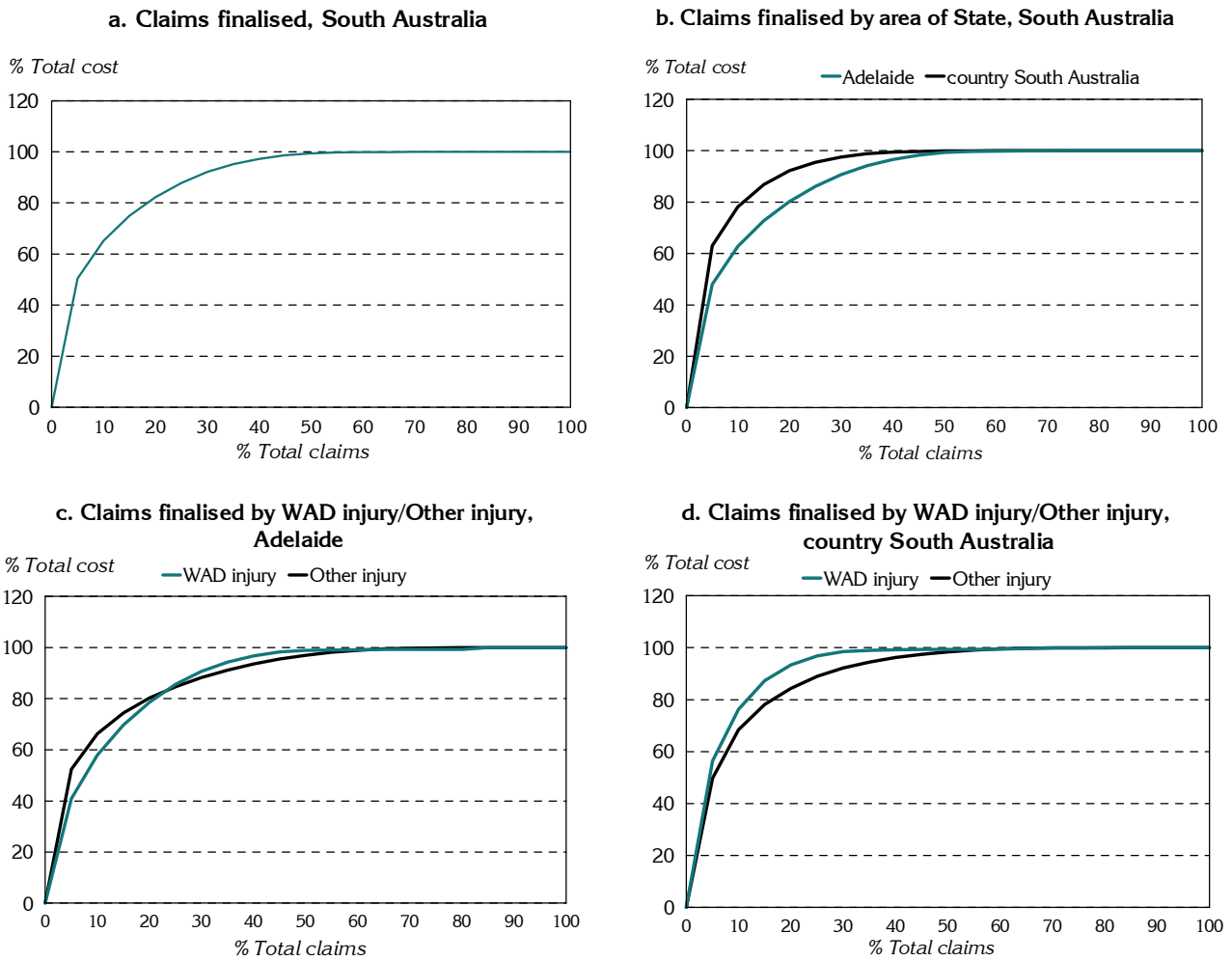
Note: A total of 2,087 claims opened and 1,632 claims finalised could not be allocated to injury type (WAD injury, Other injury)

Consistent with the 80:20 rule (simply put, that 80% of the consequences stem from 20% of the causes)², 82.2% of costs relate to one fifth (20%) of claims (Figure 2.2a), and the vast majority (95.1%) of costs relate to just over one third (35%) of claims. The concentration of costs in a relatively small number of claims is even stronger in the country areas of the State than in Adelaide, with 92.2% of Compulsory Third Party Insurance scheme costs (Figure 2.2b) arising from 20% of claims, compared with 82.2% for metropolitan residents. This slightly different pattern is likely to be attributable to the relatively higher numbers of high-cost catastrophic injury claims arising from crashes in country areas.

When claims are categorised as being or WAD injury or Other injury, there is little difference in cost shares in Adelaide (Figure 2.2c). However, there is a notable difference evident in country South Australia (Figure 2.2d), with 93.4% of incurred costs for WAD injury claims relating to 20% of these claims, compared with 84.3% for claims with injuries categorised as Other injury.

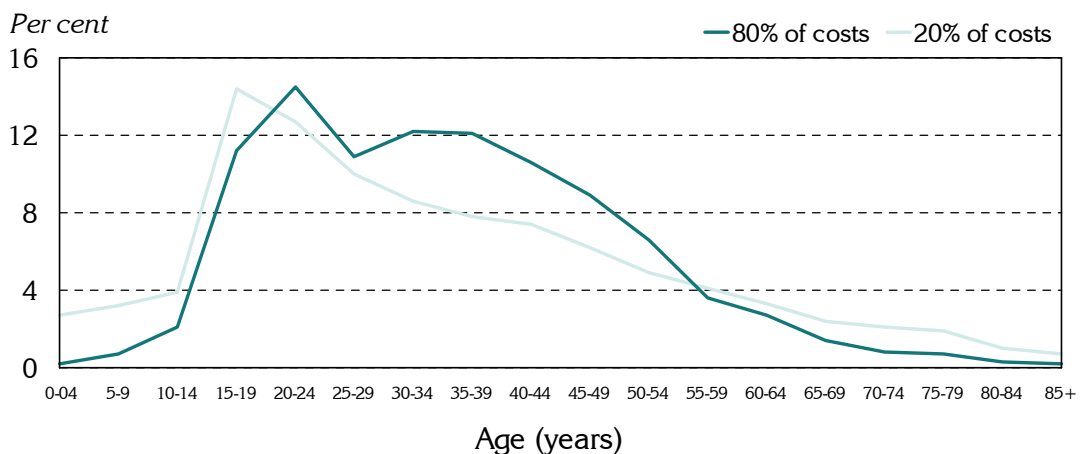
² Vilfredo Pareto was an economist who is credited with establishing what is now widely known as the Pareto Principle or the 80:20 rule. When he discovered the principle, it established that 80% of the land (or wealth, depending on the reference accessed) in Italy was owned by 20% of the population. (Wikipedia 2006).

Figure 2.2: Compulsory Third Party Insurance scheme – proportion of costs incurred by proportion of claims, 2002/03



Although the patterns are similar, the population groups generating the larger share of costs (the 80% described above) were somewhat older than those responsible for the smaller share of costs, with the greatest differences from the 30 to 34 to the 50 to 54 year age groups (Figure 2.3).

Figure 2.3: Compulsory Third Party Insurance scheme – proportion of costs incurred by age, 2002/03

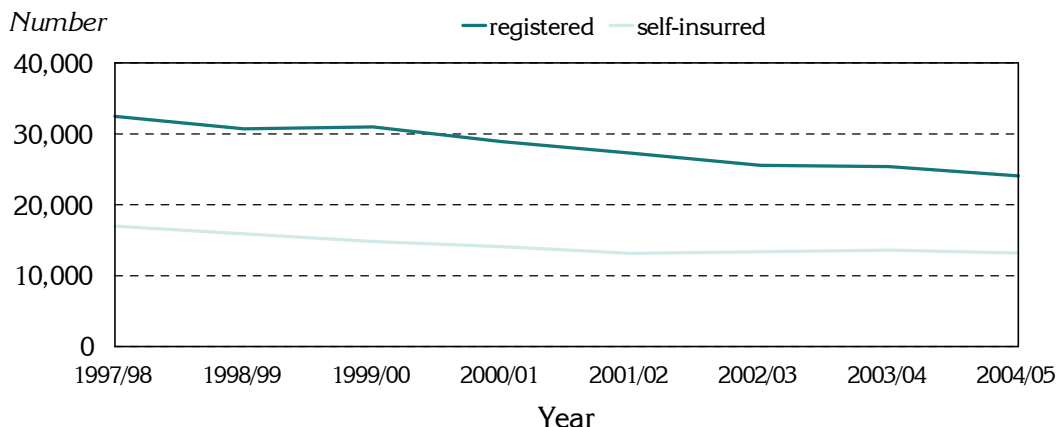


Workers' compensation

All employers (registered and self-insured)

The number of workers' compensation claims decreased by 21.1% over the years from 1997/98 to 2003/04 (Figure 2.4), with similar decreases in claims from both registered (21.8%) and self-insured employers (19.9%)³. In 2004/05, 64.7% of claims made under WorkCover provisions in South Australia were from registered employers.

Figure 2.4: Workers' compensation claims, by employer type, 1997/98 to 2004/05



The data shown in the graph (above) and in Table 2.2 are based on the year in which the injury occurred (date of injury): in the following pages in this section, the data have been restricted to claims with a date of injury in 2004/05, for which a payment was also made in that year.

Table 2.2: Workers' compensation claims, by employer type, 1997/98 to 2004/05

Year	Registered employers			Self-insured employers		
	Males	Females	Persons	Males	Females	Persons
1997/98	24,556	7,906	32,462	11,442	5,547	16,989
1998/99	23,207	7,487	30,694	10,335	5,557	15,892
1999/00	23,306	7,699	31,005	9,541	5,291	14,832
2000/01	21,512	7,374	28,886	8,754	5,311	14,065
2001/02	20,203	7,101	27,304	8,152	4,968	13,120
2002/03	18,856	6,703	25,559	8,225	5,125	13,350
2003/04	18,861	6,525	25,386	8,280	5,330	13,610
% change 1997/98 to 2003/04 ¹	-23.2	-17.5	-21.8	-27.6	-3.9	-19.9
2004/05	17,846	6,253	24,099	7,944	5,229	13,173

¹The percentage change has been calculated on the change to 2003/04, as the 2004/05 claims figure is not a final figure (it is estimated to be around 95% of all claims that will be lodged in respect of injuries occurring in 2004/05)

Source: Data sourced from WorkCover SA statistical review, Part 1, 2004-05

Registered employers

In 2004/05, there were 24,099 workers' compensation claims through registered employers when these data were closed off (see footnote to Table 2.2, above), of which 19,033 received a payment in that year. Of these, 18,879 claims had South Australian addresses suitable for mapping and form the basis of the analysis in Chapter 4; this represents a rate of 1,858 claims per 100,000 working age population (people aged 15 to 64 years) (Table 2.3).

Claims are classified as income maintenance or non-income maintenance (see Glossary). Income maintenance claims represented under one fifth (19.4%) of claims, but accounted for over four fifths (84.0%) of costs (Table 2.3).

³ Registered employers are employers registered with WorkCover SA, whose workers compensation claims are managed by WorkCover's claims agent; self-insured employers are responsible for managing and funding their own workers' compensation claims.

Table 2.3: Workers' compensation claims from injury year 2004/05 and payments made on those claims to 31 December 2005

Variable	Cost	Number	Rate ¹
Claims			
All claims through registered employers		24,099	2,371.2
Income maintenance		4,671	459.6
Non-income maintenance		19,428	1,911.6
Total claims (with payment in 2004/05)		18,879	1,858
<i>Income maintenance claims as proportion of all claims</i>		19.4%	..
Total cost (\$m) for All claims through registered employers			
Income maintenance	\$78,429,000		\$7,716,929
Non-income maintenance	\$14,890,000		\$1,465,084
<i>Income maintenance as proportion of total</i>		84.0%	..
Average cost/claim (\$) for All claims through registered employers			
Income maintenance claims	\$16,791 (avg)		\$1,652
Non-income maintenance claims	\$766 (avg)		\$75

¹ Rate per 100,000 population

Source: Data sourced from WorkCover SA statistical review, Part 1, 2004-05

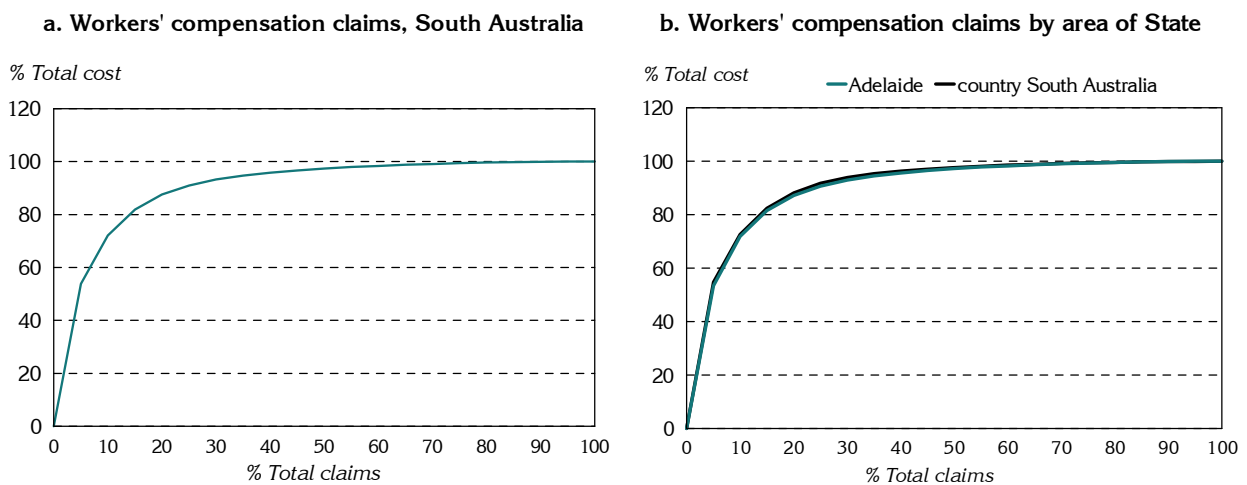
In this atlas, services were analysed for only the two major provider groups of general medical practitioners (GPs) and physiotherapists. Services provided by GPs in 2004/05 represented 3.9 services per claim, with 2.9 services per claim provided by physiotherapists (Table 2.4).

Table 2.4: Selected services provided under workers' compensation claims through registered employers, 2004/05

Variable	Number	Services per claim
Services by		
- General medical practitioners	72,719	3.9
- Physiotherapists	54,870	2.9

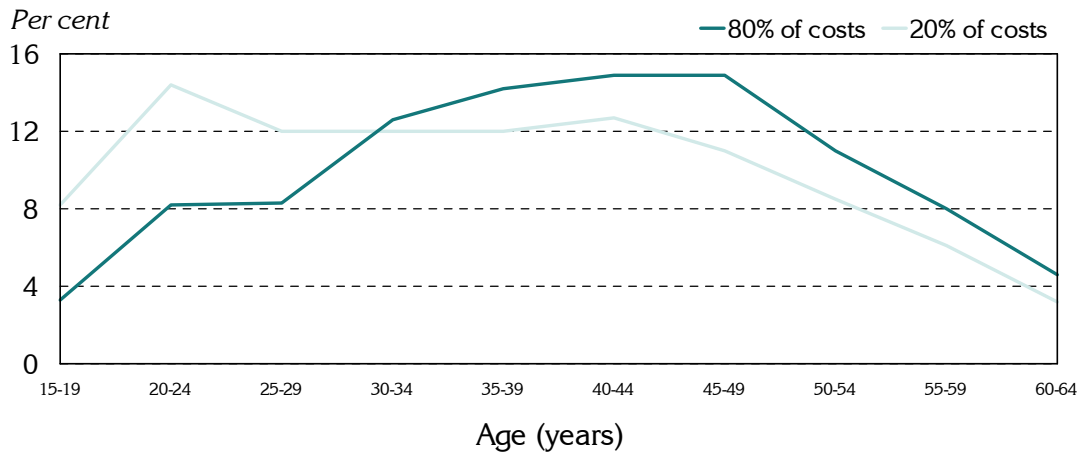
The concentration of workers' compensation claims and costs for 2004/05 was strong, and slightly stronger than that for Compulsory Third Party Insurance scheme claims, with 20% of claims generating 87.5% of costs (Figure 2.5a) and 35% of claims generating 94.7% of costs. The concentration of costs in a relatively small number of claims was identical in Adelaide and country South Australia (Figure 2.5b).

Figure 2.5: Workers' compensation claims through registered employers – proportion of costs incurred by proportion of claims, 2004/05



The population groups generating the larger share of costs (the 80% described above) were generally older than those responsible for the smaller share of costs, although the reverse was apparent for age groups under 30 years (Figure 2.6). This pattern is different for that shown for CTP in Figure 2.3, above.

Figure 2.6: Workers' compensation claims through registered employers – proportion of costs incurred by age, 2004/05



Socioeconomic status of South Australia's population

Introduction

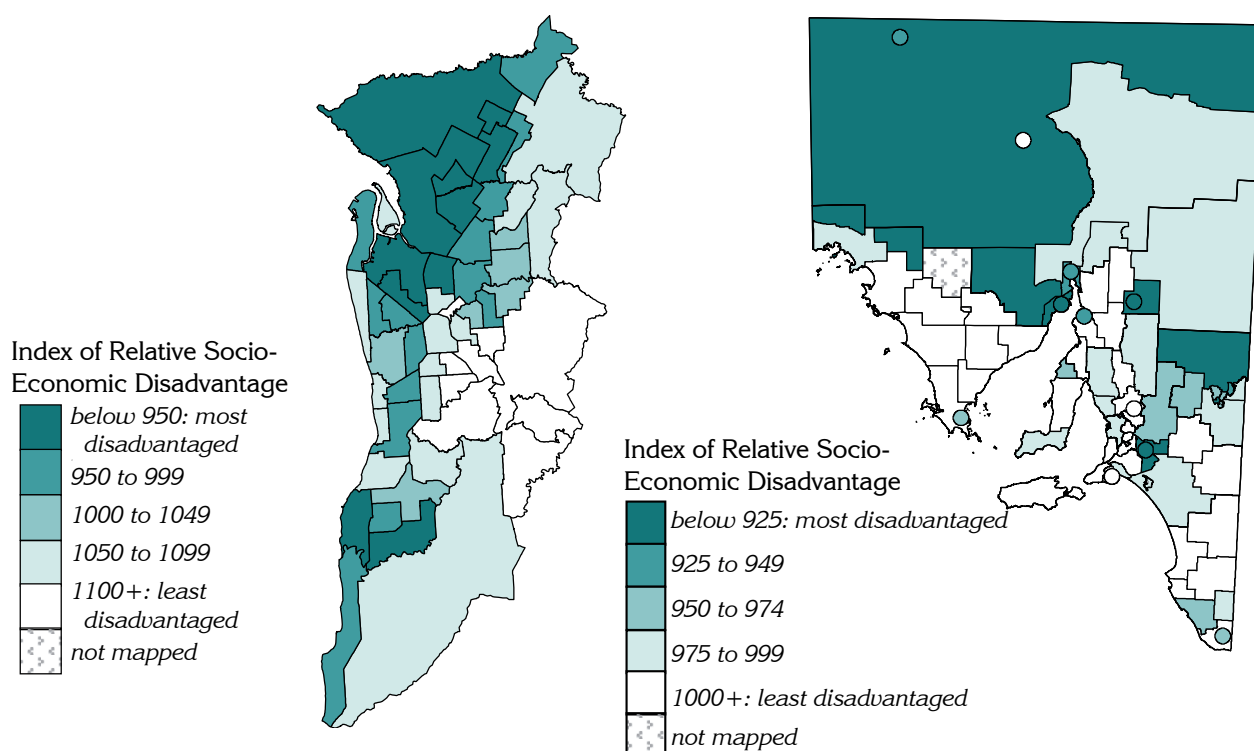
The socioeconomic status of a population is a major determinant of its health and wellbeing, and influences many other facets of life. It is described here, at a geographic level, using a number of indicators to enable comparisons to be made with the statistics of compensable injuries.

The first measure is a summary indicator of disadvantage, the Index of Relative Socio-Economic Disadvantage (IRSD – see Glossary for additional detail). A number other indicators are provided on the following pages to further illustrate geographic variations in socioeconomic status.

Indicators

At the 2001 Census, the IRSD score for Adelaide was 1006, marginally (6 index points) higher than the index score for South Australia, of 1000. The lowest IRSD scores (that is, scores indicating the highest levels of disadvantage) were found in a contiguous band of Statistical Local Areas (SLAs) covering the north-west, inner north and much of the outer north, as well as in some parts of the outer south (Map 2.1). Areas with populations of least socioeconomic disadvantage included the City of Adelaide and adjacent SLAs to the north, east and south; a band of SLAs further out to the south-east, east and north-east; and some beach-side SLAs.

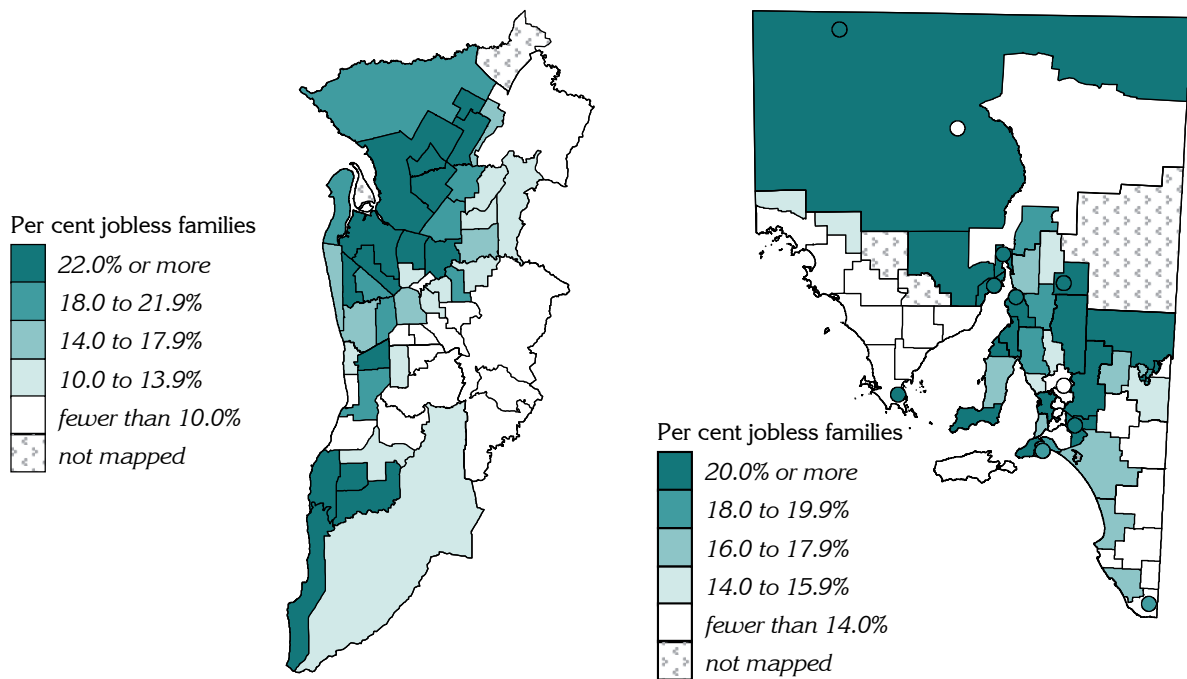
Map 2.1: Index of Relative Socio-Economic Disadvantage, 2001



In 2001, the IRSD score for country South Australia was 983, below the index score for South Australia of 1000. The lowest index scores were recorded for SLAs in the north and west of the State, as well as in a number of the towns mapped; the areas with these lowest scores correspond with areas that have high percentages of Indigenous people.

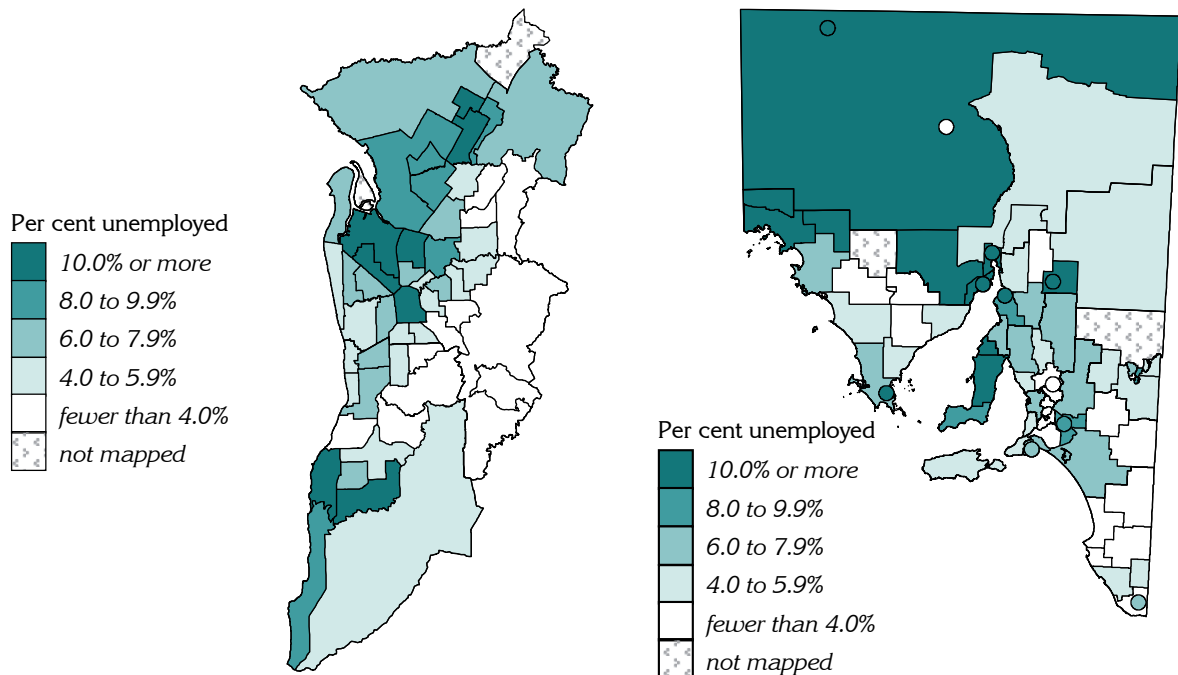
The distribution of jobless families (families with children under 15 years and no parent in paid work) in Adelaide was similar to that for the IRSD, with the highest rates recorded in the north-west and in a number of inner and outer northern SLAs, as well as in the outer south (Map 2.2). In contrast, there were very low rates in the eastern, south-eastern and north-eastern suburbs. In country South Australia, high rates of jobless families were found across much of the State, in both rural areas and towns, including areas with high proportions of Aboriginal and Torres Strait Islander people.

Map 2.2: Jobless families with children aged less than 15 years, 2001



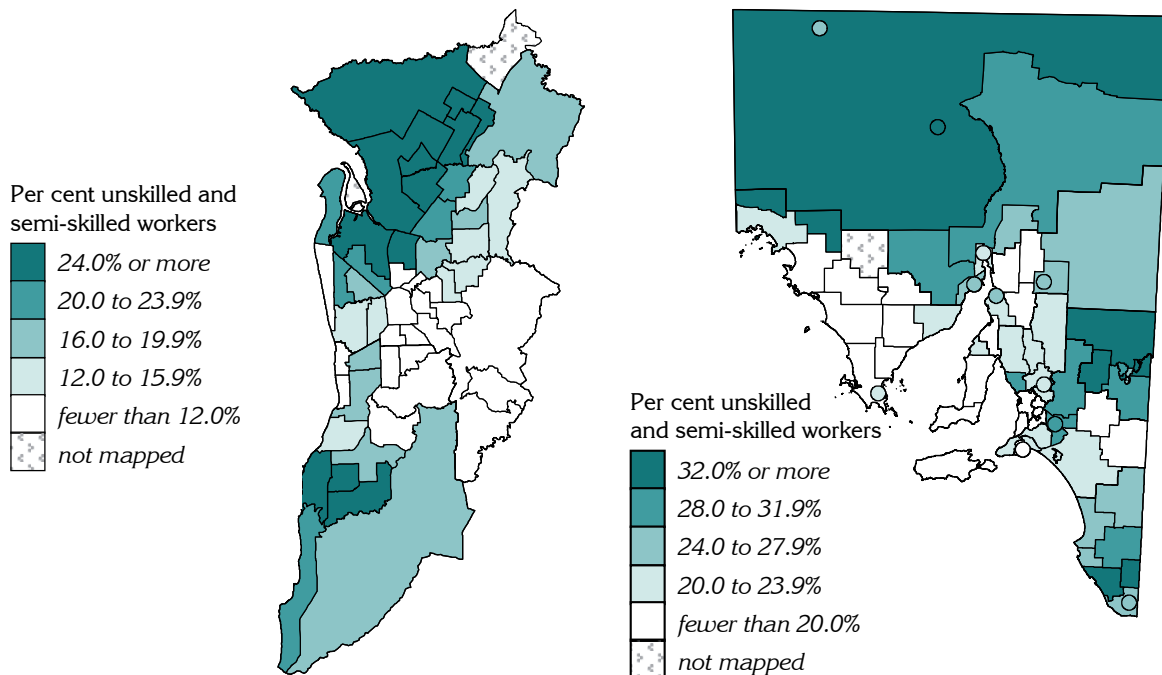
High unemployment rates in Adelaide were concentrated in an area running from the city centre to the north-west and north, as well as in a number of outer northern and southern suburbs (Map 2.3). The highest rates in the north and north-west were in the LGAs of Munno Para, Salisbury and Port Adelaide Enfield and the SLA of Charles Sturt - Inner West. There are also high rates in Marion - North and Marion - Central, and to the south in the coastal SLAs of Onkaparinga. The highest unemployment rates in country South Australia were in the far north, and north in the Unincorporated areas of Far North, Flinders, and Whyalla, the west coast in Unincorporated West Coast and Ceduna, and in the cities of Whyalla and Port Augusta, all regions with relatively large Indigenous populations. These figures included people receiving payments under the Community Development Employment Program. There were also high rates in the LGAs of Yorke Peninsula and Peterborough, and in the city of Port Pirie.

Map 2.3: Unemployment rate, 2003



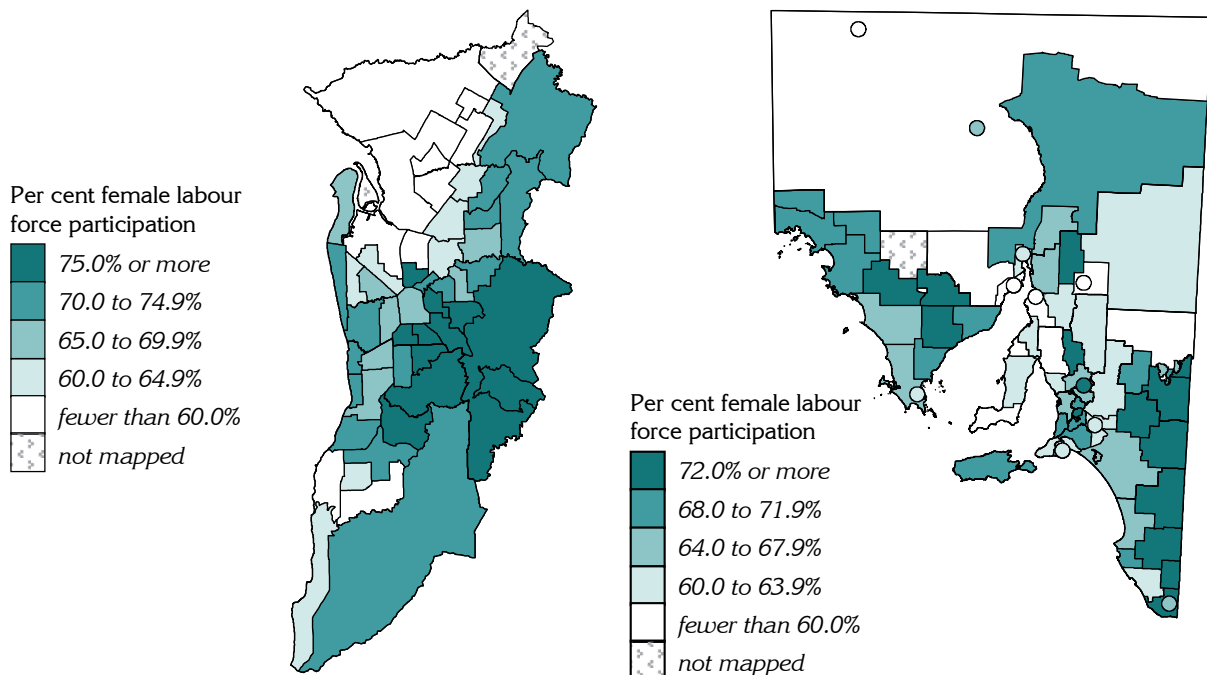
The pattern of variation in the proportion of unskilled and semi-skilled workers in the metropolitan region reflects the long-established contrast between the working class northern, western and southern suburbs, and the middle and upper class suburbs in and around the city, and to the east and south-east (Map 2.4). SLAs in country South Australia with high proportions of unskilled and semi-skilled workers were located in the far north and west, the Riverland and lower South East.

Map 2.4: Unskilled and semi-skilled workers, 2001



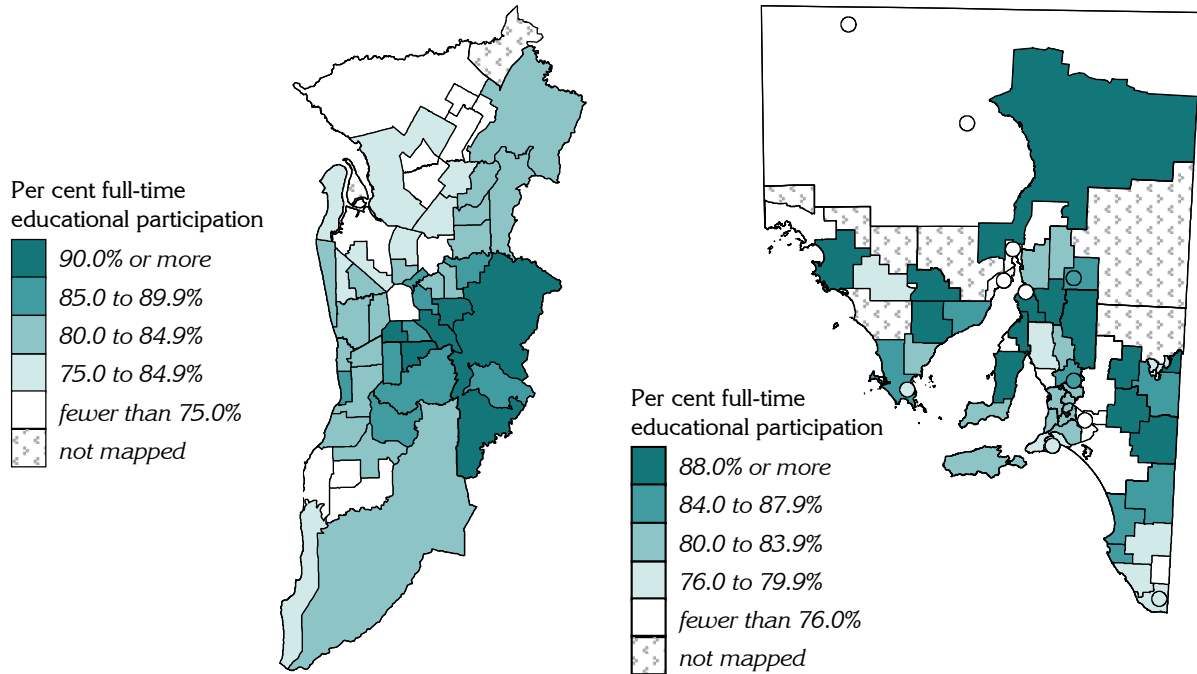
SLAs with the highest female labour force participation rates in Adelaide form a solid block to the east, south-east and south of the city, and stand in marked contrast to the lowest rates (Map 2.5). The most striking feature in the country map is the low rates in the towns, where high proportions of sole parent beneficiaries are unable to work as they care for young children, find work difficult to get, or it is uneconomic for them to do so.

Map 2.5: Female labour force participation, 2001



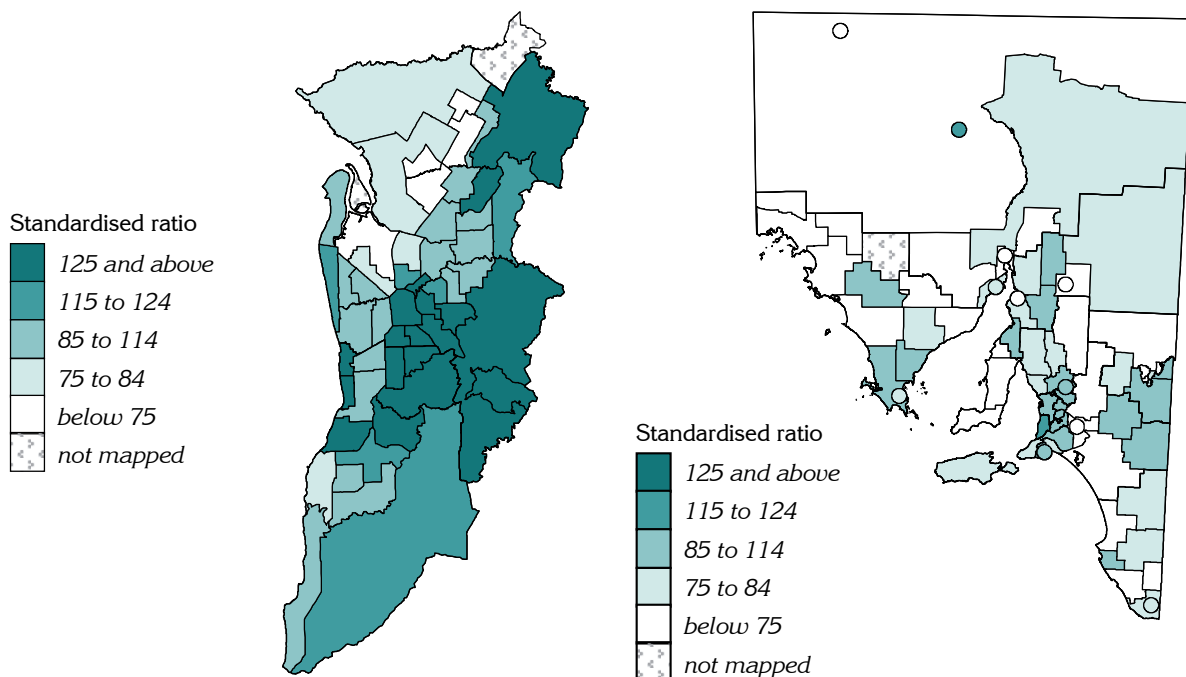
Variations within Adelaide in educational participation provide a striking illustration of the links between education, employment, occupation and income, with the highest rates of full-time participation in secondary school education at age 16 years strongly concentrated in the higher socioeconomic eastern and south-eastern SLAs of Adelaide (Map 2.6). In country South Australia, the pattern of distribution of participation rates showed the very low rates in the country towns mapped, as well as in a number of SLAs with large Aboriginal populations.

Map 2.6: Full-time participation in secondary school education at age 16, 2001



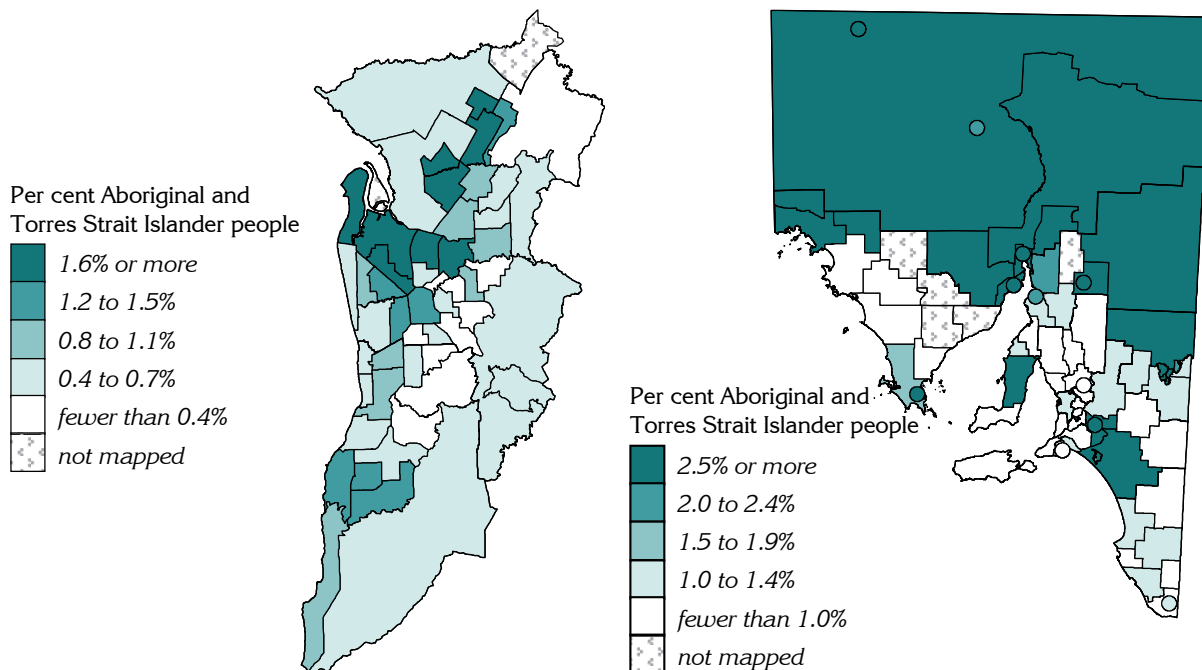
Higher Internet use was predominant among residents of the higher socioeconomic status suburbs in the north-east, east, south-east and south of Adelaide (Map 2.7: this indicator has been adjusted, to remove variations due to differences in the age structure of SLAs). Usage was relatively even across country areas, being lowest in the most remote areas, and highest close to Adelaide. These small variations were likely to be influenced by a number of factors, including availability and reliability of the service, and cost of access.

Map 2.7: People who used the Internet at home, 2001



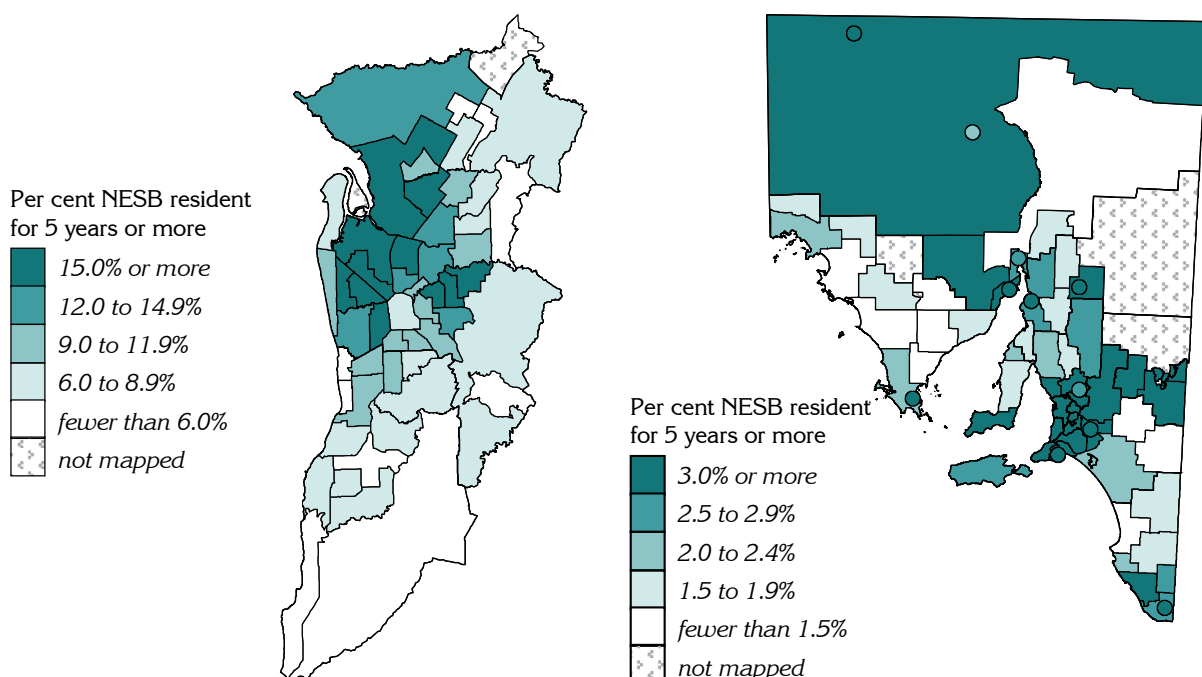
The highest proportions of Aboriginal and Torres Strait Islanders in Adelaide were living in the north-west and outer northern SLAs, with very low proportions in the eastern and south-eastern SLAs (Map 2.8). In country South Australia, Aboriginal and Torres Strait Islanders were most predominant in the more remote areas in the far north and west of the State.

Map 2.8: Aboriginal and Torres Strait Islander people, 2001



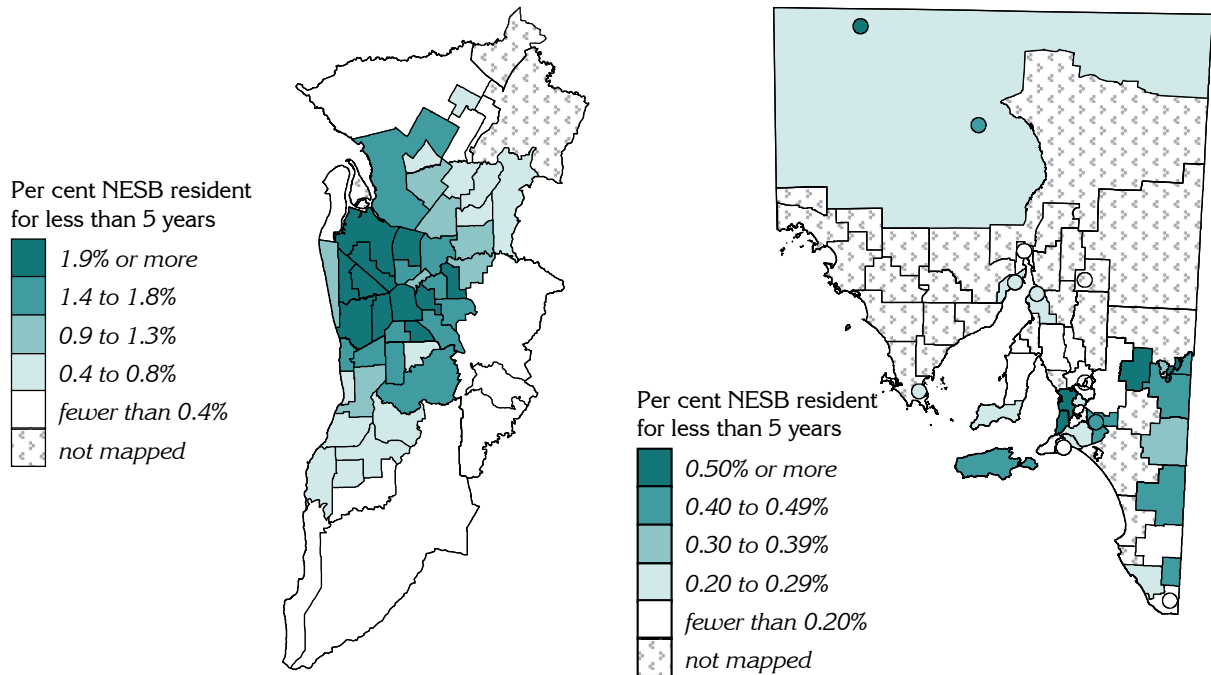
The highest proportions of Adelaide's long-term residents born in non-English speaking countries lived in a group of SLAs adjacent to the west, north-west and north-east of the city (Map 2.9). Although at a much lower level, the highest proportions in country South Australia were concentrated in SLAs adjacent to Adelaide, in a number of the towns, and also in the Riverland region.

Map 2.9: People born in predominantly non-English speaking countries and resident in Australia for 5 years or more, 2001



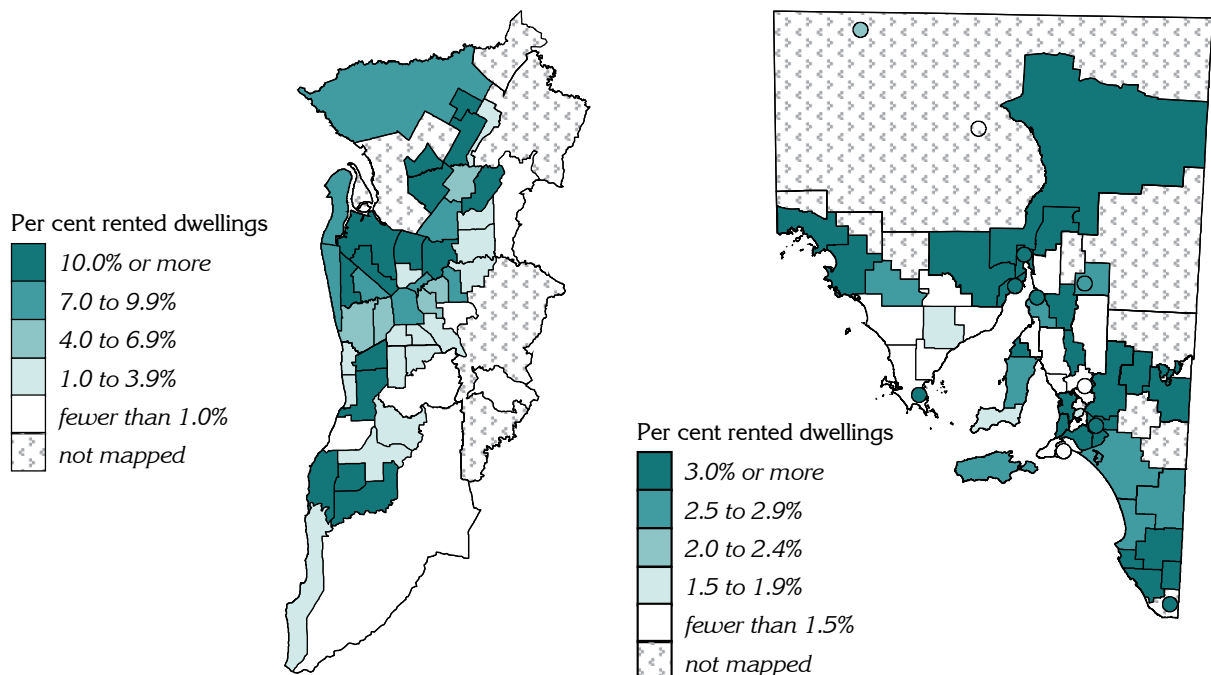
The highest proportions of recently-arrived immigrants lived in and around the central city, in the middle suburbs, in particular to the west, north-west and north, and in a few SLAs to the east and south. The lowest proportions were recorded further away from the city to the north, south and in the Adelaide Hills (Map 2.10).

Map 2.10: People born in predominantly non-English speaking countries and resident in Australia for less than 5 years, 2001



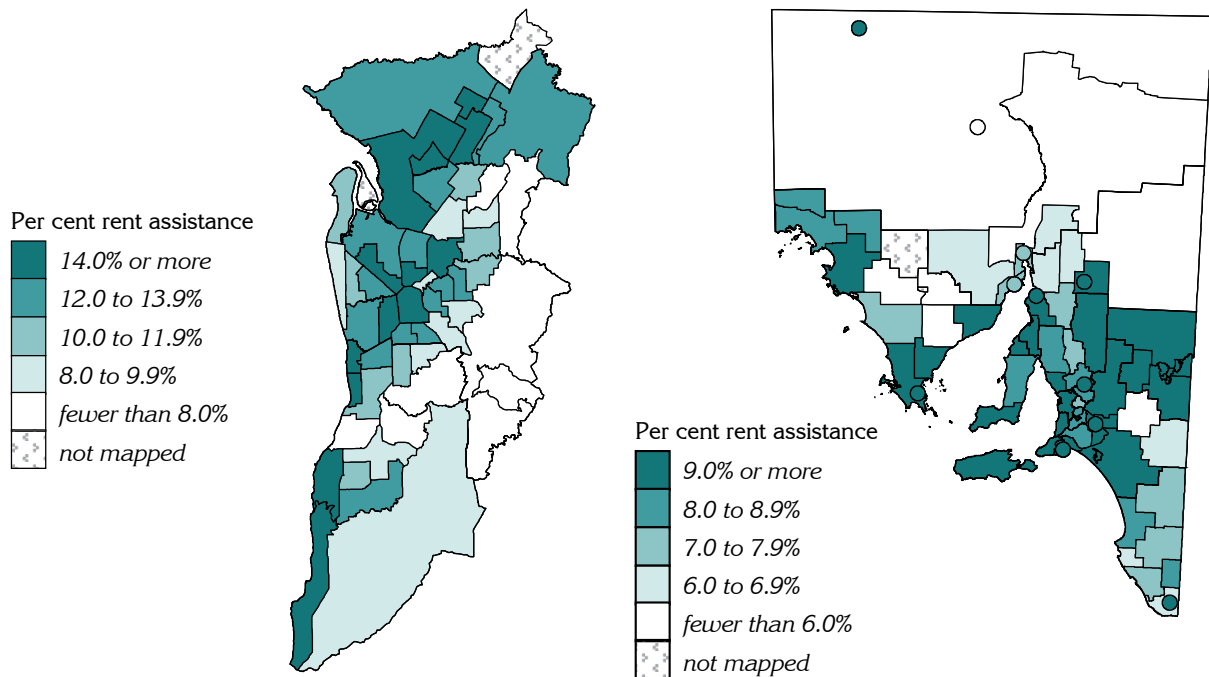
The location of dwellings rented from the South Australia Housing Trust strongly replicates Map 2.1, the IRSD, with the highest proportions in the north-west, inner north and outer north, as well as in some parts of the middle outer south. Areas with the lowest stock of these dwellings were located in the more affluent eastern, north-eastern and inner southern areas (Map 2.11).

Map 2.11: Dwellings rented from the SA Housing Trust, 2001



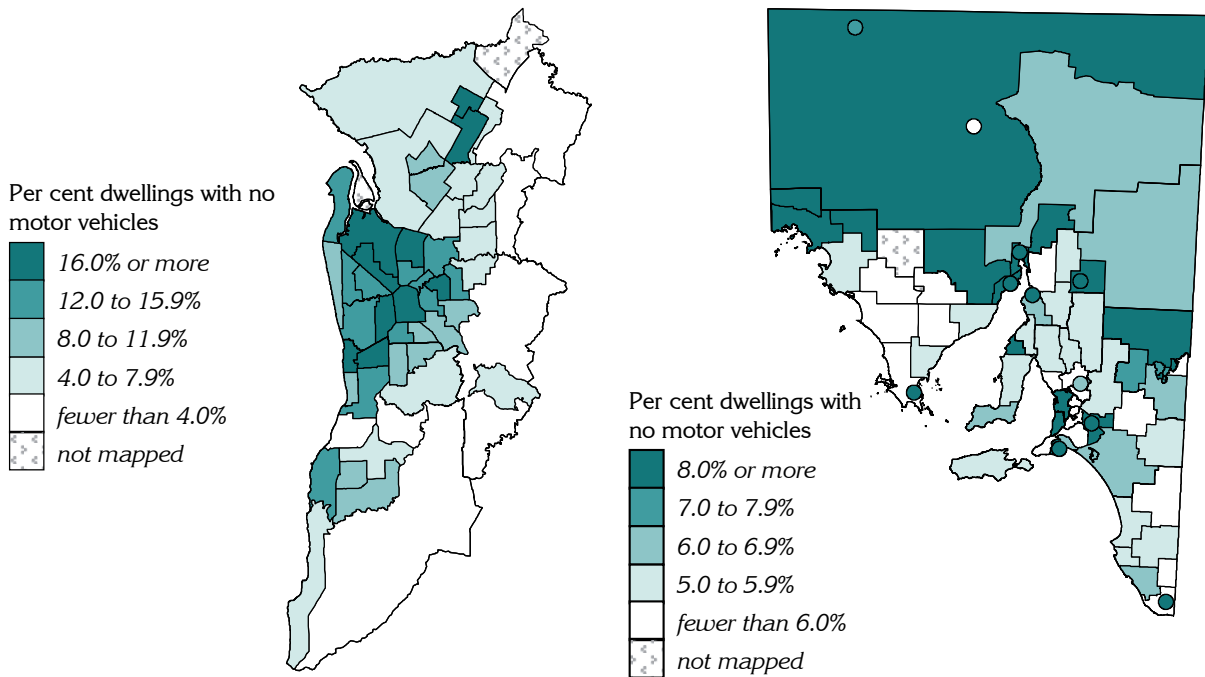
The highest proportions of low income families in private rental dwellings and receiving rent assistance from Centrelink were located in and around the city centre to the west and north, in the outer northern suburbs and in a number of coastal SLAs to the south-west and in the outer south (Map 2.12). Rent assistance was paid to households across much of the State, other than in the far north (with the exception of Coober Pedy) and Roxby Downs.

Map 2.12: Rent assistance, 1999 to 2002



Variations in car-ownership levels within Adelaide are influenced by socioeconomic status, age structure and distance from the city centre. The map (Map 2.13) shows a band of areas along the eastern side of Adelaide, from the north-east to the south, which had very low levels of dwellings without a motor vehicle; areas with high proportions of dwellings without a motor vehicle were predominant in the inner SLAs (in particular to the north-west and south-west of the city centre), and in the outer northern suburbs. The low rate of car ownership in far north and west of the State is notable given the relative isolation of much of the region, and reflects the higher numbers of Indigenous people in the area's population.

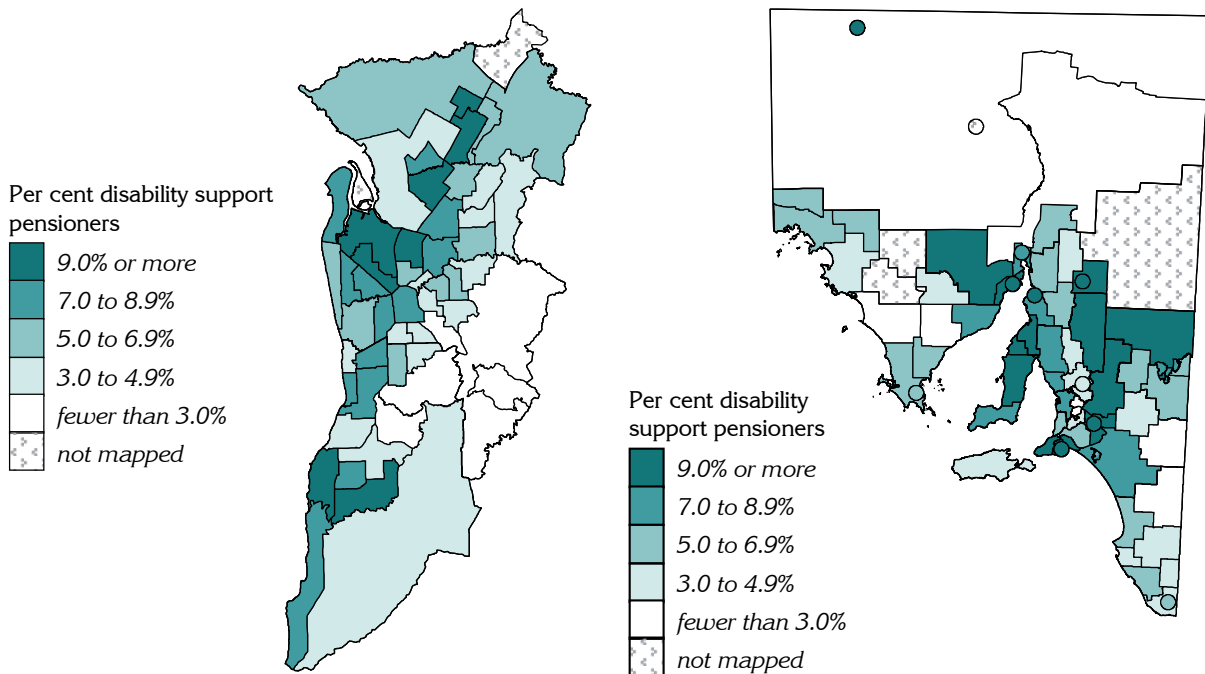
Map 2.13: Dwellings with no motor vehicles, 2001



Income support payments

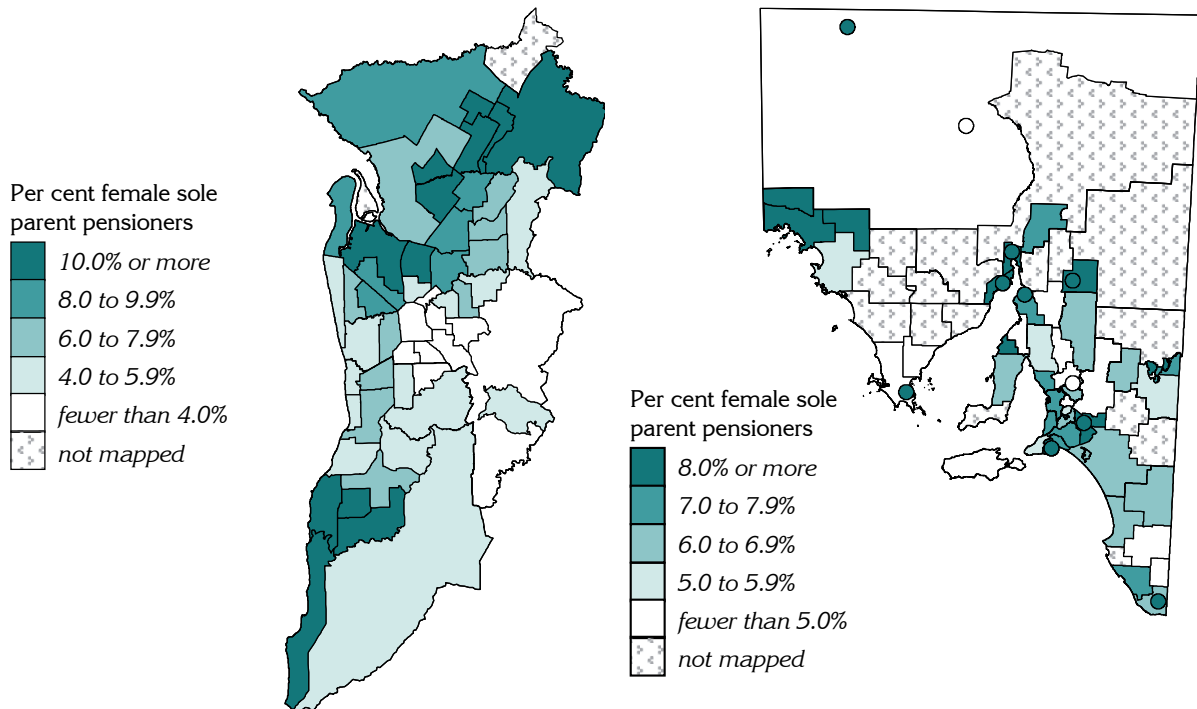
The highest proportions of disability support pensioners in the metropolitan region were mapped in the north-western, outer northern and southern SLAs, with low proportions to the east and south-east (Map 2.14), following the pattern of socioeconomic disadvantage seen in the previous maps. In country South Australia, SLAs with the highest proportions of people on a Disability Support Pension were located in the less remote parts of the State (other than Coober Pedy), and in a number of the towns mapped.

Map 2.14: Disability support pensioners, June 2004



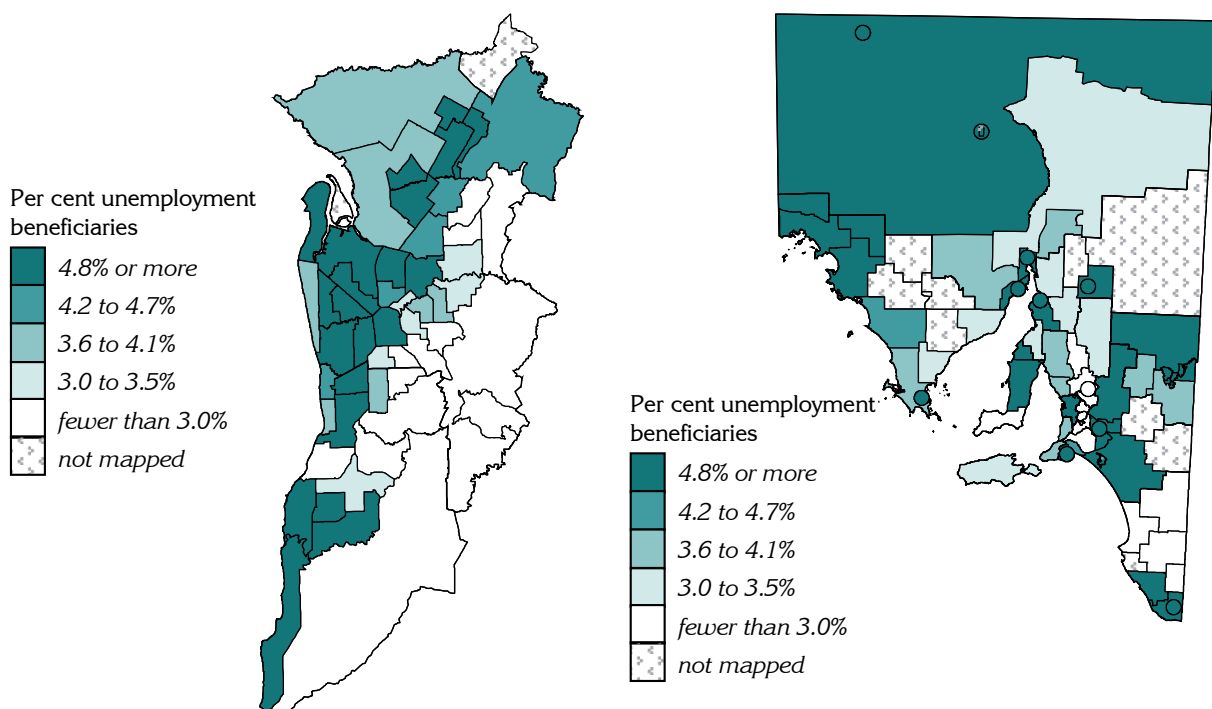
High proportions of female sole parent pensioners were also found in the north-western and outer northern and southern areas of Adelaide (Map 2.15). In country South Australia, the highest proportions were in areas with relatively large numbers of Indigenous people, including Coober Pedy, the far west coast and the Riverland.

Map 2.15: Female sole parent pensioners, June 2004



The SLAs with the highest proportions of people receiving an unemployment benefit in Adelaide were located in three distinct areas: in the outer north; in an area extending from the inner north, through the north-west and west to the south-west; and in the outer south (Map 2.16). High rates of people receiving an unemployment benefit in country South Australia were recorded in the far northern and western parts of the State, the Riverland and in and around a number of the towns; these data included people receiving unemployment benefits through the Commonwealth Development Employment scheme. Areas such as the Barossa, the Adelaide Hills and parts of the South East stood out as having very low rates of people receiving these benefits.

Map 2.16: People receiving an unemployment benefit, June 2004



The following indicators (with the exception of the indicator for private health insurance) are presented as standardised ratios, where 100 is the rate for the State or (where data are only available for Adelaide) metropolitan average. A ratio of 110 indicates there are 10% more cases than the State/ Adelaide average; a ratio of 85 indicates there are 15% fewer cases. The ratio is used as it shows variations between the rate in the area for the State/ Adelaide, regardless of variations in age structure between the area and the State/ Metropolitan area.

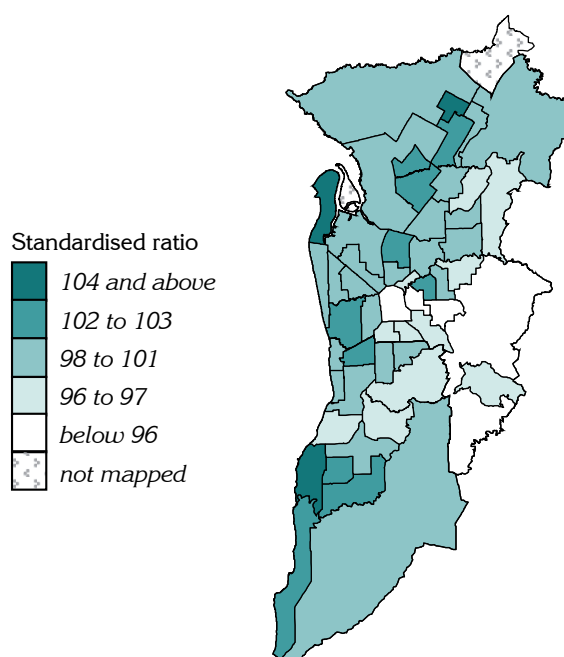
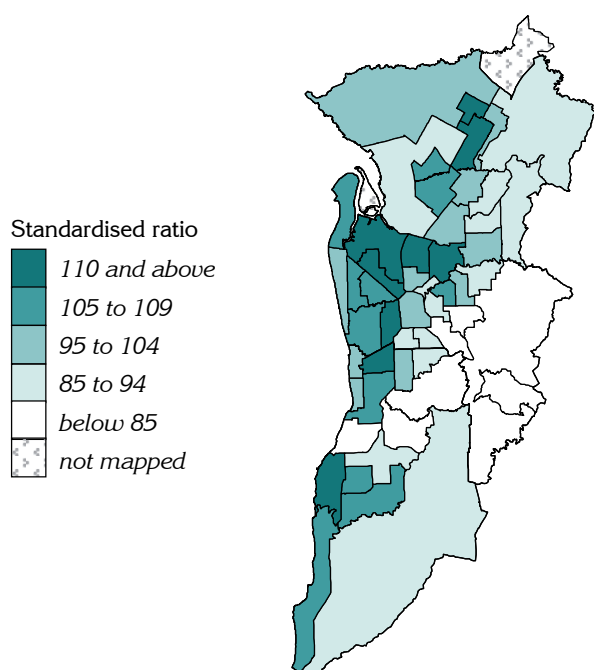
Health status: chronic disease and injury prevalence estimates

Estimates of the number of people with mental and behavioural problems revealed highly elevated ratios in a number of western, north-western and outer northern and southern SLAs, with low ratios in the east and south-east (Map 2.17), following the pattern of socioeconomic status in Adelaide.

The prevalence of musculoskeletal diseases was more evenly spread, with above-average ratios mapped in a small number of outer northern and southern SLAs, and Port Adelaide Enfield - Coast, with below average ratios in the city and some eastern and south-eastern suburbs (Map 2.18).

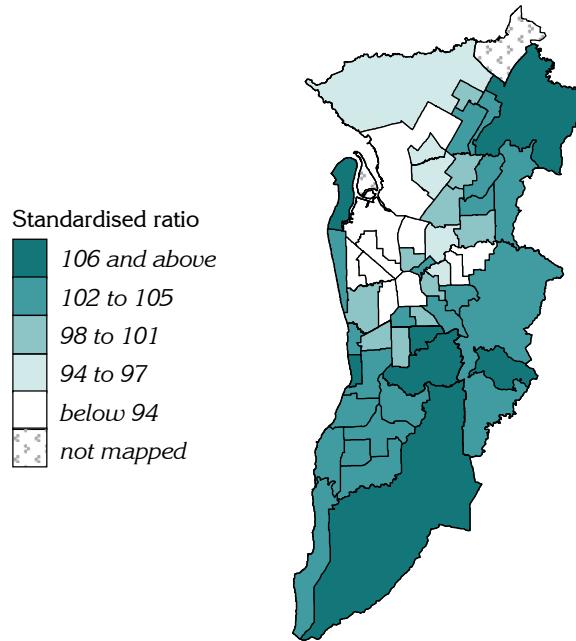
Map 2.17: Chronic disease estimates: mental and behavioural problems, 2001

Map 2.18: Chronic disease estimates: musculoskeletal system diseases, 2001



The geographic distribution of rates of self-reported injuries was rather different to that seen for other variables, with many of the highest ratios in SLAs in the Adelaide Hills and in, or adjacent to, the foothills, as well as in two beachside SLAs; these injuries are likely to reflect those received in motor vehicle accidents. The lowest ratios were estimated for the SLA of Adelaide and adjacent western, north-western and inner and middle SLAs to the north of the city, as well as in the Campbelltown SLAs (Map 2.19).

Map 2.19: Estimates of injury events, 2001

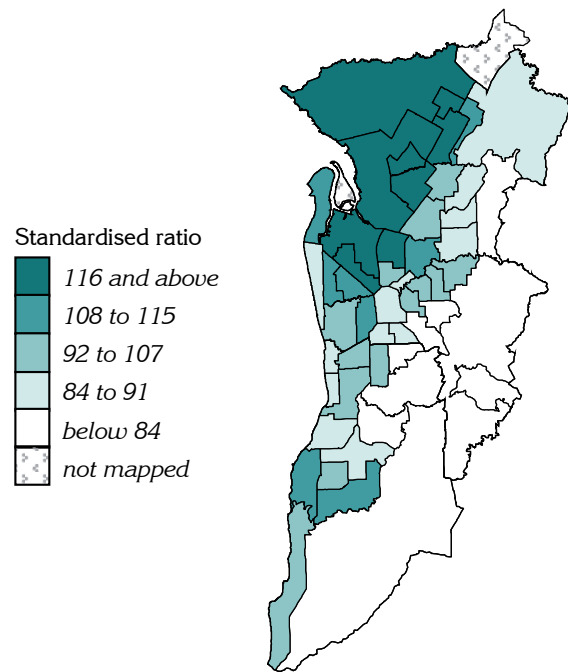
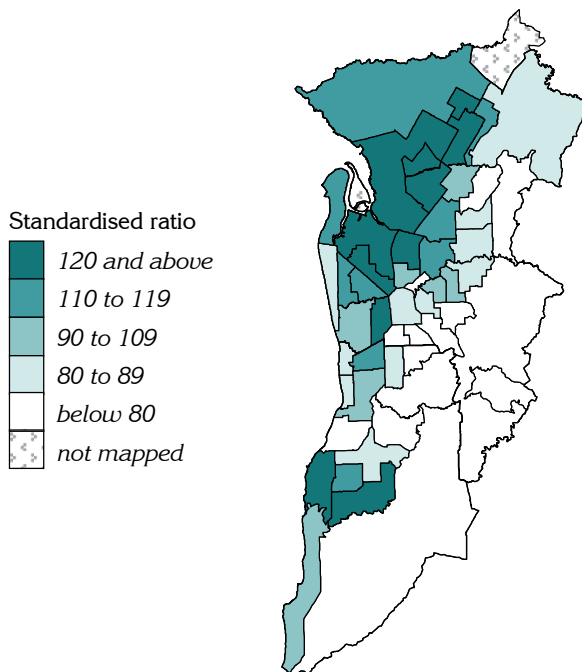


Health status: self-reported health

The two maps of self-reported health status show almost identical patterns, with SLAs with elevated ratios closely following the pattern of socioeconomic disadvantage for high rates of very high levels of psychological distress (Map 2.20), and high rates of people reporting their health as 'fair' or 'poor' (Map 2.21), rather than 'good', very good' or 'excellent'.

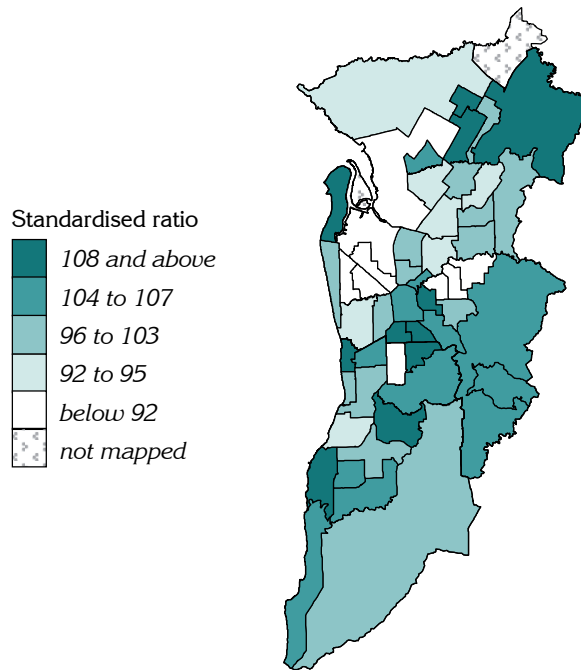
Map 2.20: Estimates of very high levels of psychological distress, people aged 18 years and over, 2001

Map 2.21: Estimates of fair or poor self-assessed health status, people aged 15 years and over, 2001



SLAs with the largest numbers of people at high health risk due to their level of alcohol consumption were scattered throughout Adelaide, including in the outer north; in Port Adelaide Enfield - Coast; in some SLAs to the east and south of the city centre; and at Glenelg and further south. The lowest ratios were largely in a group of north-western, north-eastern and northern SLAs (Map 2.22).

Map 2.22: Estimates of high health risk due to alcohol consumed, people aged 18 years and over, 2001

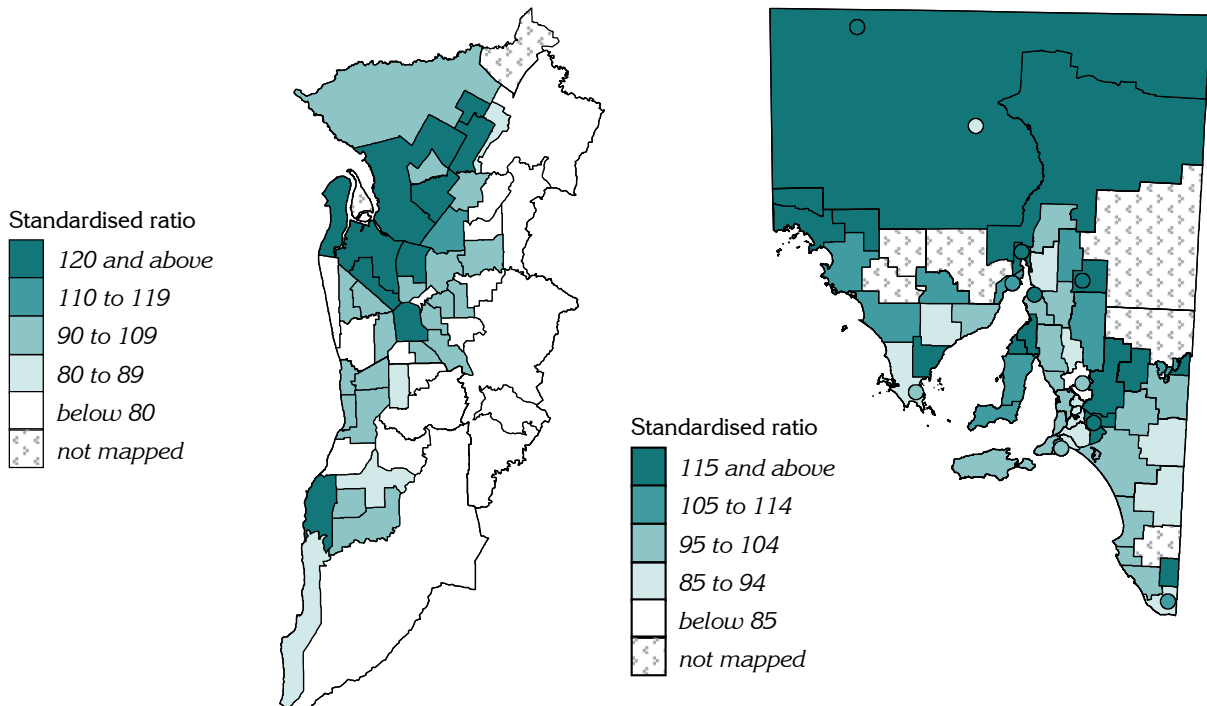


Health status: avoidable mortality

In Adelaide, the geographic distribution of deaths (before 75 years of age) from avoidable causes (Map 2.23) was also consistent with the pattern of socioeconomic disadvantage. The highest ratios covered a broad area from the city centre, through the north-west, inner northern areas to the outer north, and in the outer south in Onkaparinga - North Coast.

Many SLAs across the State also had high rates of premature mortality, particularly in the far northern and western parts, in the Riverland, as well as in a majority of the towns mapped.

Map 2.23: Deaths at ages 0 to 74 years from potentially avoidable causes, 1999 to 2002

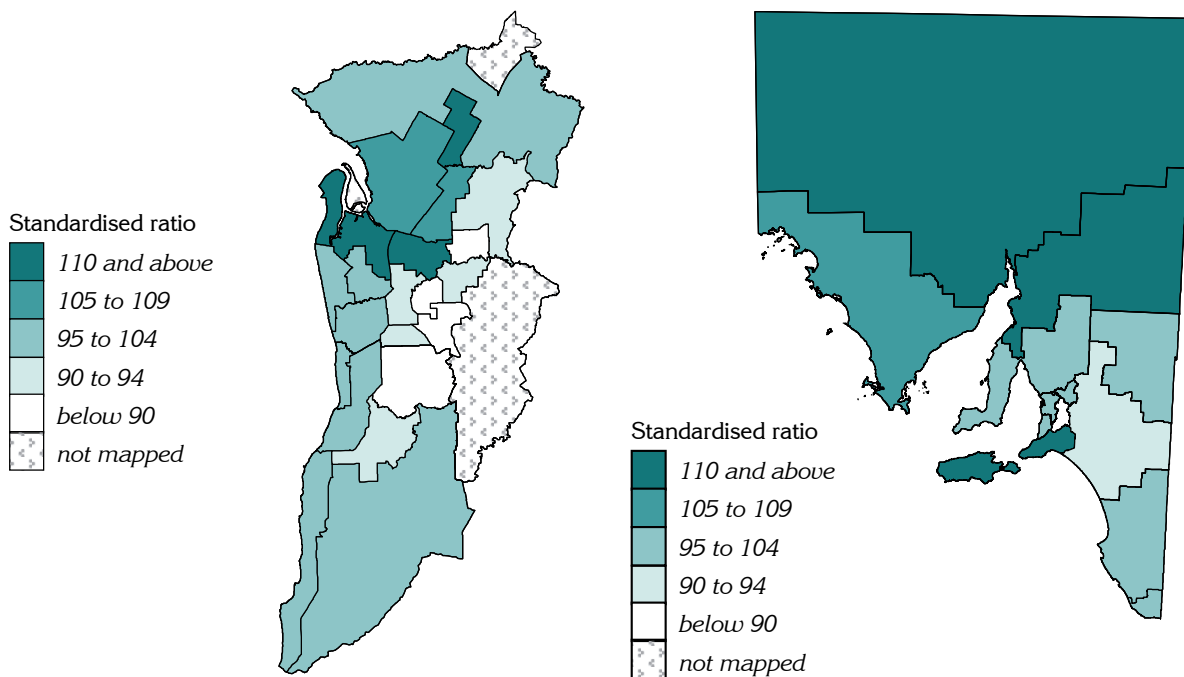


Health status: Years of life lost to disability (YLD)

This measure provides an estimate of the impact of disability on the population, based on the number of years of healthy life lost as a result of disability. In Adelaide, the highest rates of YLD were concentrated in areas to the north of the city centre (Map 2.24). In country South Australia, high rates were found in the far north of the state and in the combined area of Fleurieu Peninsula/ Kangaroo Island.

High rates were also recorded in the far north and west of the State, in the Riverland, and in the majority of the towns mapped – all but Tanunda and Roxby Downs.

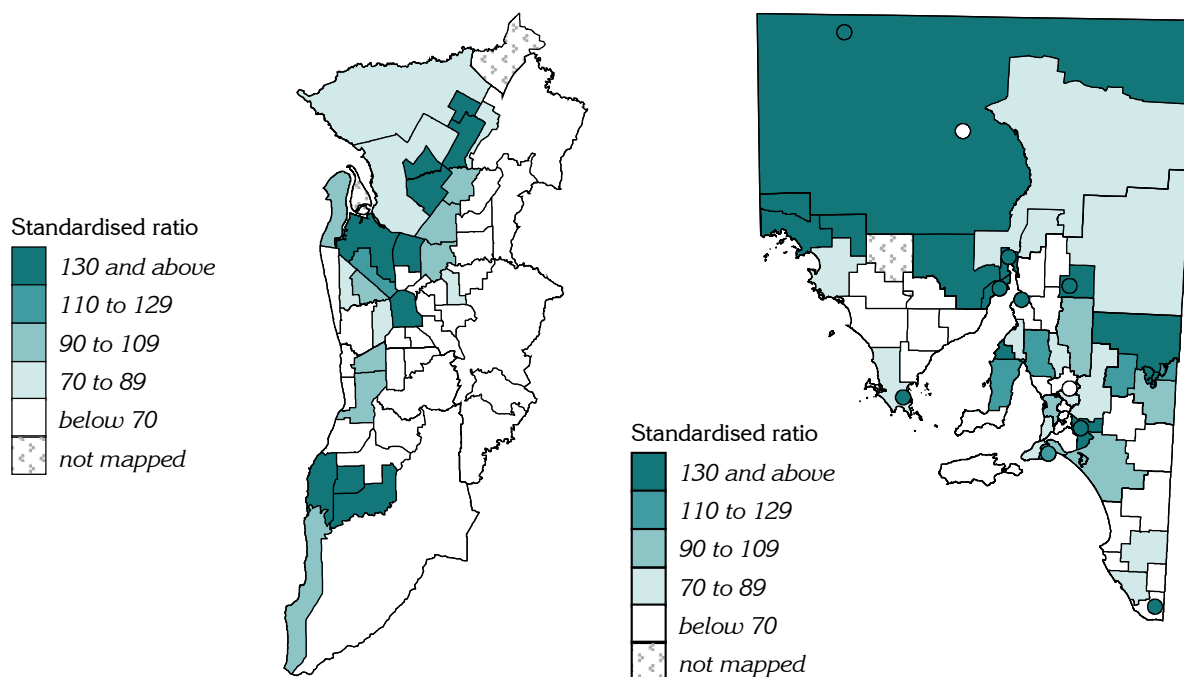
Map 2.24: Years of Life Lost to Disability, 1999 to 2001



Use of emergency assistance, medical and hospital services

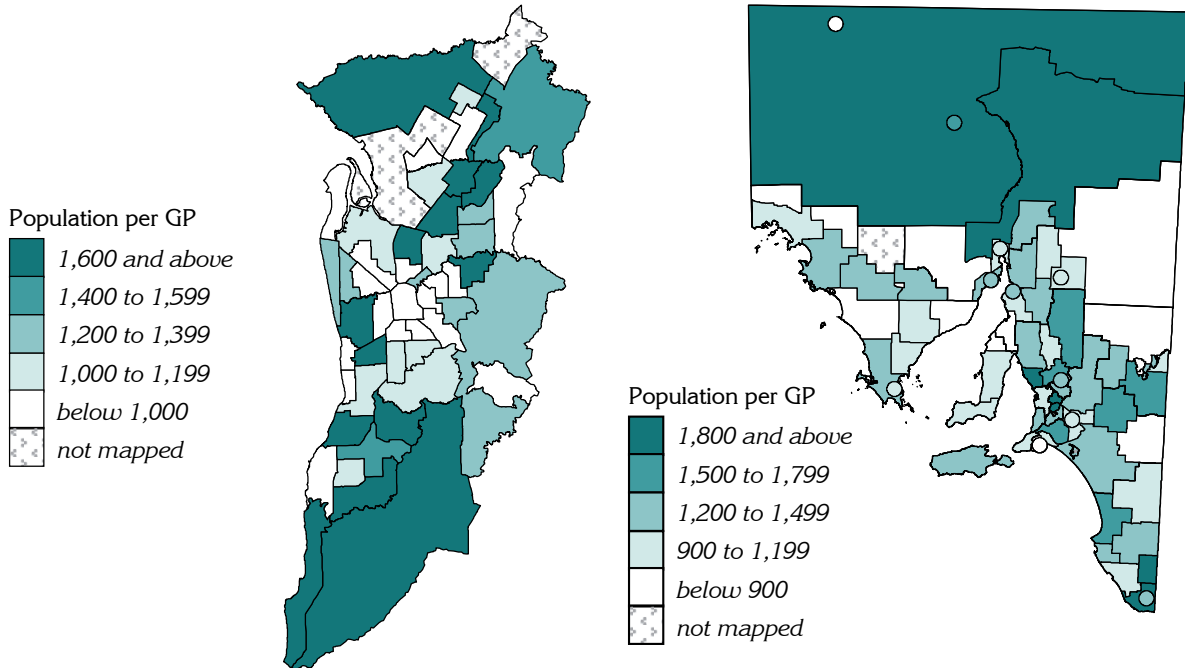
In the metropolitan area, there were high rates of clients of the Department for Families and Communities receiving emergency financial assistance in parts of the north-west, inner and outer north, and outer south, and in the city (Map 2.25), including some of the most disadvantaged SLAs in Adelaide.

Map 2.25: Emergency family assistance, 2001 to 2002



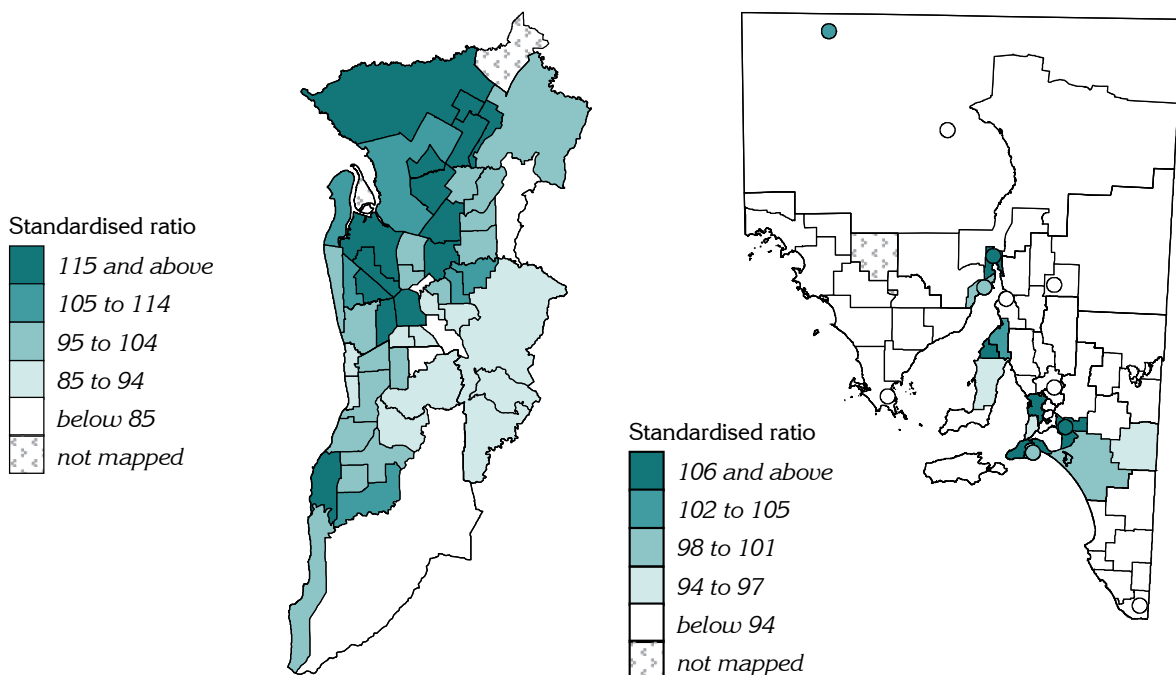
The overall impression in Adelaide was of high rates of provision of general medical practitioners (GPs - fewer people per GP, areas mapped white) across the inner, middle and some beachside suburbs, as well as parts of the outer north, where practices were located in Playford - Elizabeth and Salisbury - Inner North. Low rates of GPs were more common in some outer SLAs, in particular in the south, where Onkaparinga - North Coast was the location of most GPs servicing this large area (Map 2.26). While much of the State had medium levels of provision, the far north of the State had a very low level of GPs. The high level of provision in Coober Pedy should be seen in the context of the low levels of provision in surrounding areas.

Map 2.26: Population per general medical practitioner, 2002/03



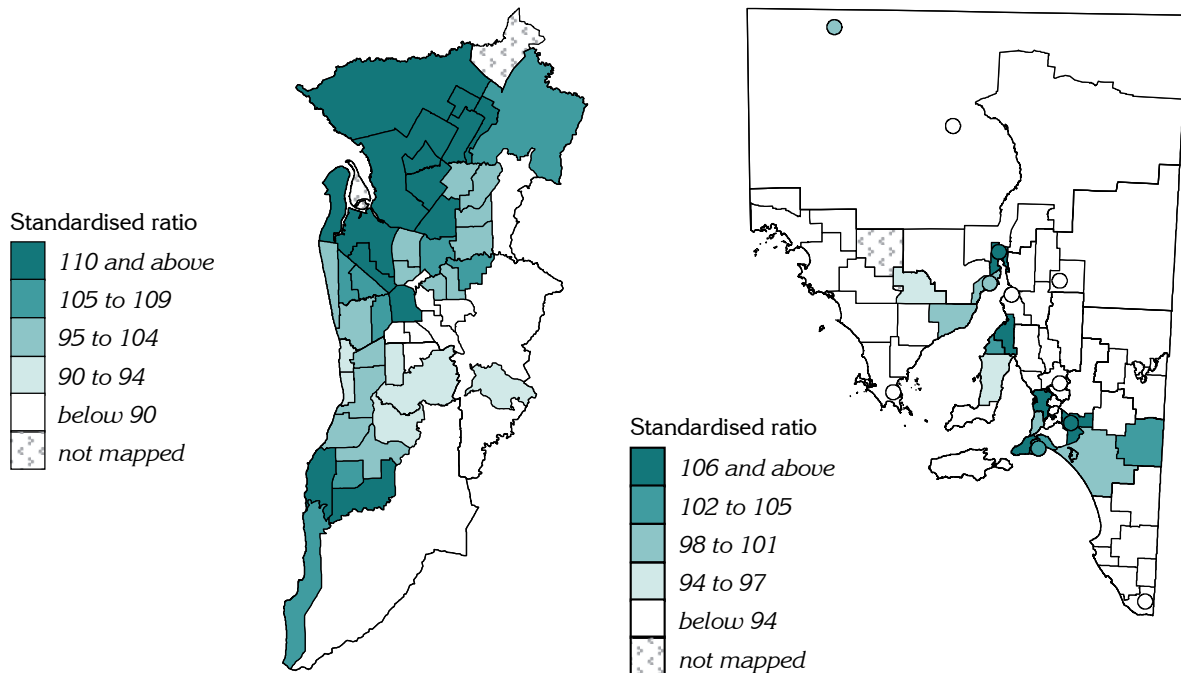
The distribution of services provided by GPs to males (Map 2.27) and females (Map 2.28) in Adelaide shows a similar pattern, with the highest ratios in the most disadvantaged areas in the north-western, some north-eastern and outer northern SLAs, as well as in parts of the outer south. These high ratios stand in sharp contrast to the low and very low (for females) ratios in the inner eastern, southern and south-eastern suburbs.

Map 2.27: General medical practitioner services to males, 2002/03



Generally low levels of services were predominant across country South Australia, reflecting the limited access to GPs. Only in the towns and in a small number of other SLAs were ratios above the lowest range mapped (although the ranges were narrower than those mapped for Adelaide).

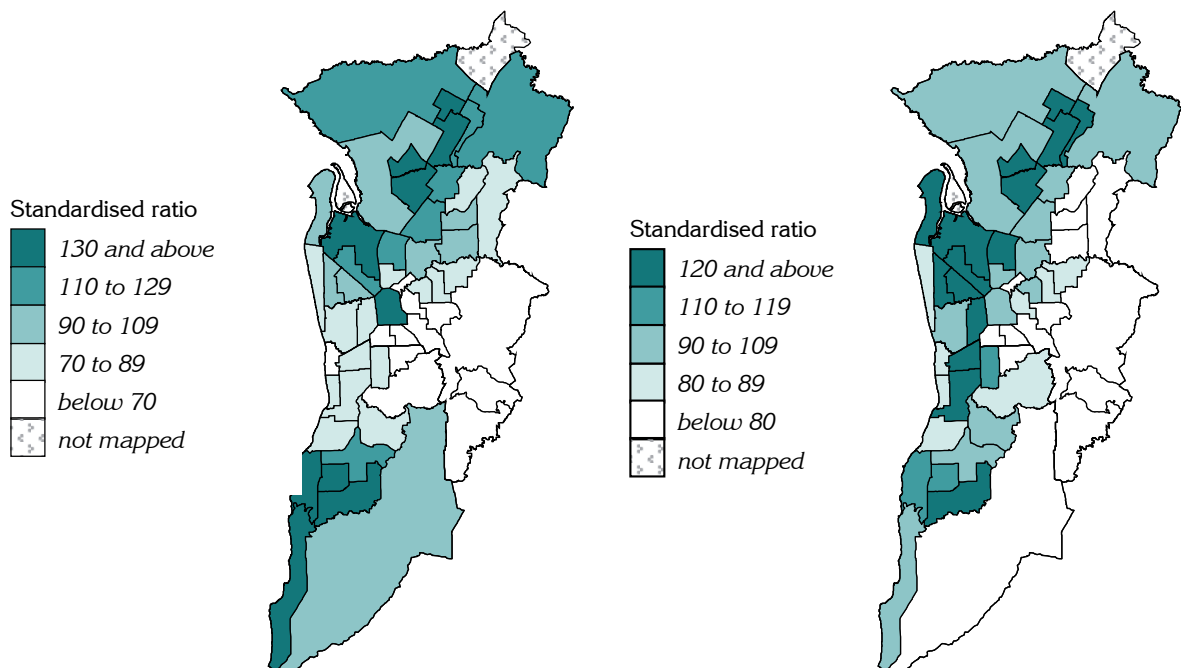
Map 2.28: General medical practitioner services to females, 2002/03



The distribution of attendances at Accident and Emergency departments (Map 2.29) showed the highest ratios were in a relatively small number of SLAs, including the city, Port Adelaide Enfield - Inner and clusters of SLAs in the outer north and outer south. Outpatient department attendances (Map 2.30) were highest in many of the same areas, in more SLAs in the north-west, and in a number to the west and south-west of the city. In both maps, the lower levels of use of these services by residents of the inner eastern and southern and south- and north-eastern suburbs is evident; apart from lower overall use, this reflects the greater ability of people in these areas to access private services, from their own funds or through health insurance.

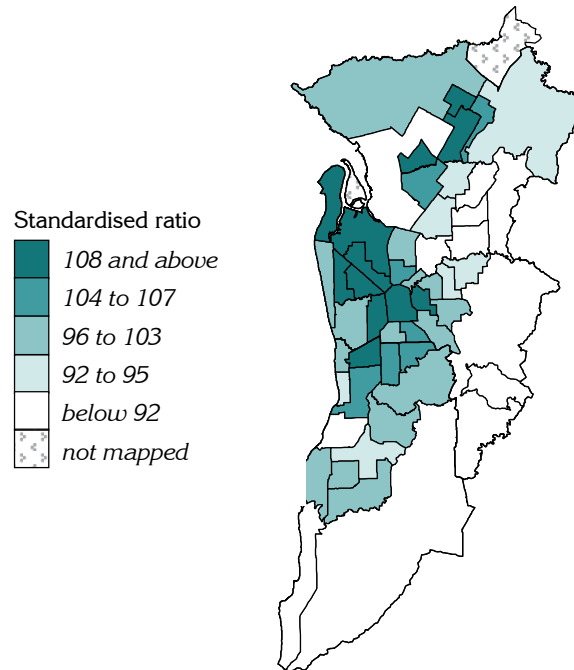
Map 2.29: Accident and emergency department attendances, 2003/04

Map 2.30: Outpatient department attendances, 2003/04



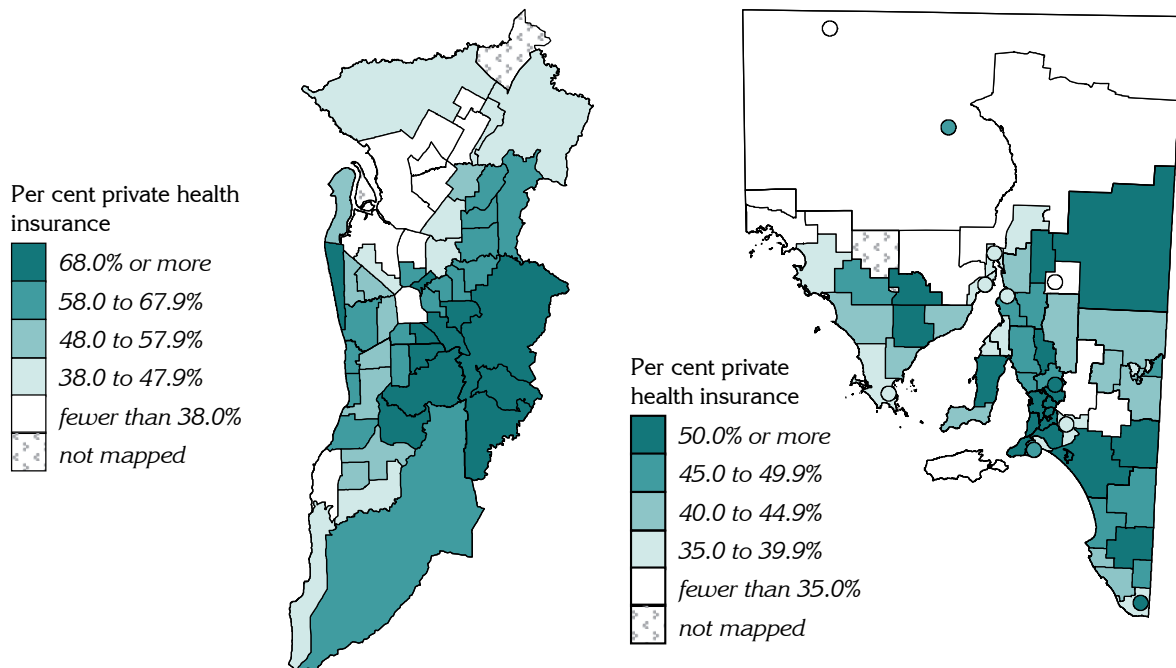
The map of specialist medical practitioner services (consultations in outpatient departments of public hospitals and under Medicare) strongly reflects the pattern of socioeconomic disadvantage seen in the earlier maps for Adelaide, highlighting the importance of access to specialist medical practitioners in public hospitals for the populations in these areas (Map 2.31).

Map 2.31: Specialist medical practitioner services, metropolitan regions, 2003/2004



The geographic distribution of the population with private health insurance cover in Adelaide (Map 2.32) is consistent with that of higher socioeconomic status residents. In country South Australia, the rates were lower overall; the lowest of these were found in the more remote areas of the State.

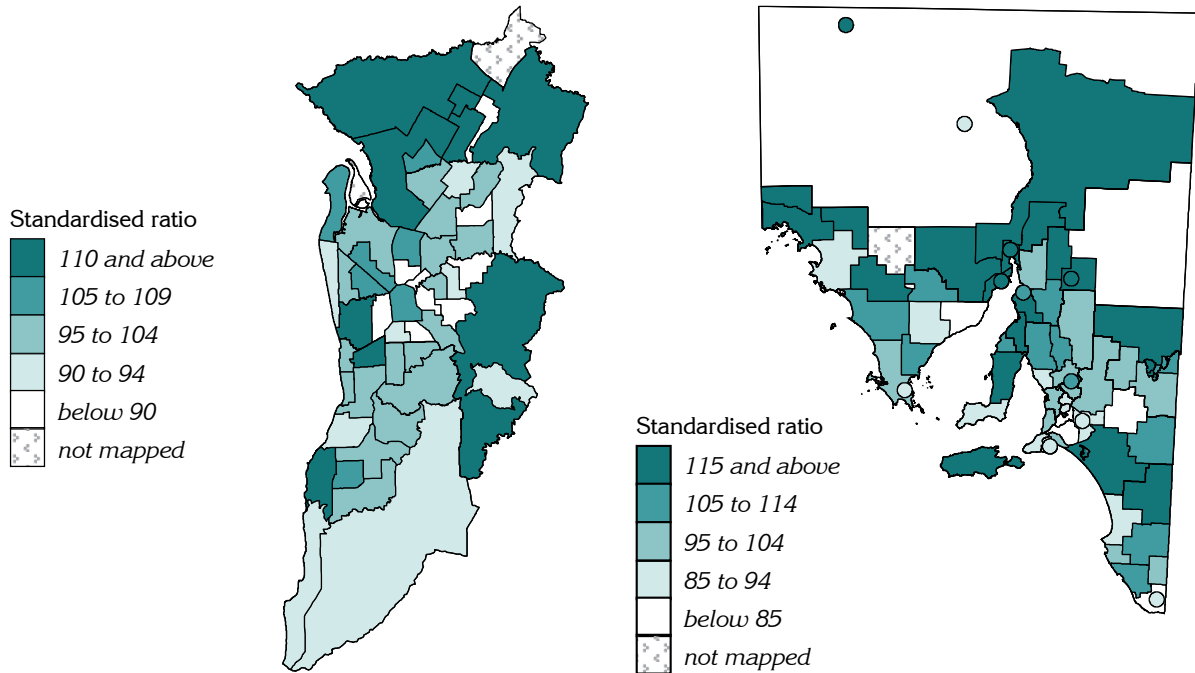
Map 2.32: People covered by private health insurance, 30 June 2001



The highest rates of hospital admissions of residents of Adelaide were concentrated in outer northern SLAs; other SLAs mapped in this range were in a few middle south-western and outer southern SLAs, as well as to the east in the Adelaide Hills, although in an area with a relatively small population. The lowest ratios were in SLAs around and to the east of the city centre (Map 2.33).

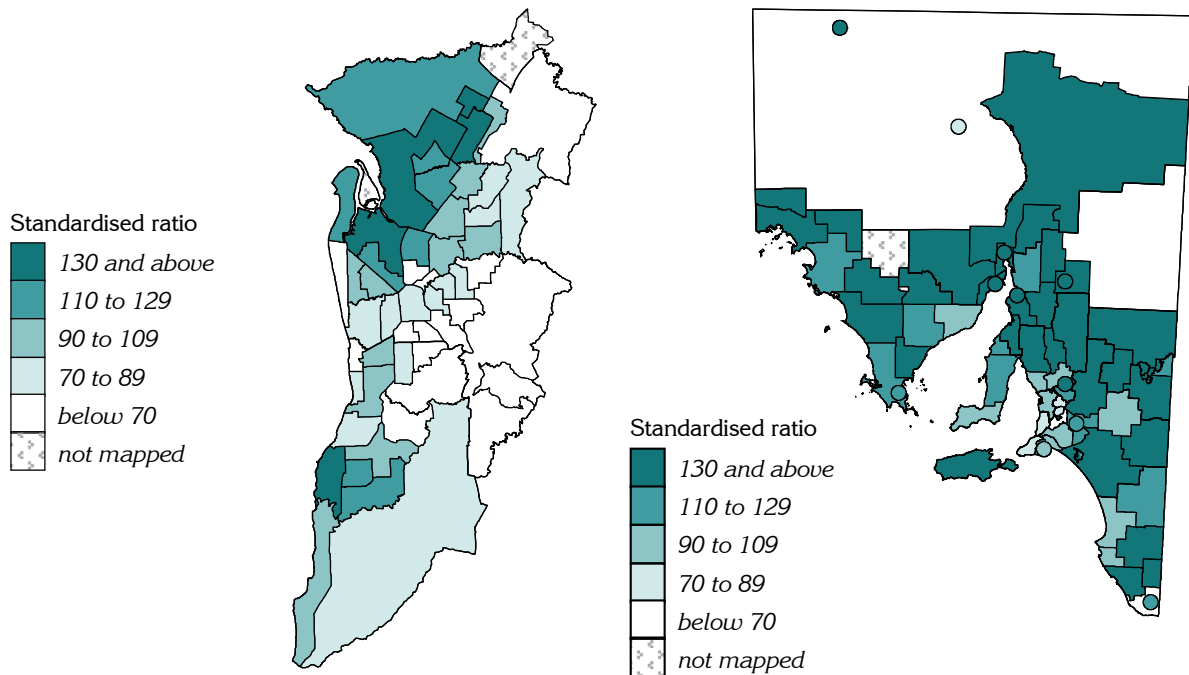
In country South Australia, the highest ratios were in the north, far west, mid north and Riverland and Murray Mallee areas, as well as in a number of the towns. Very low ratios were recorded for the far north, where there are very few facilities and considerable loss of address data when people are hospitalised in the Northern Territory, or in Adelaide.

Map 2.33: Admissions to public acute and private hospitals, 2003/04



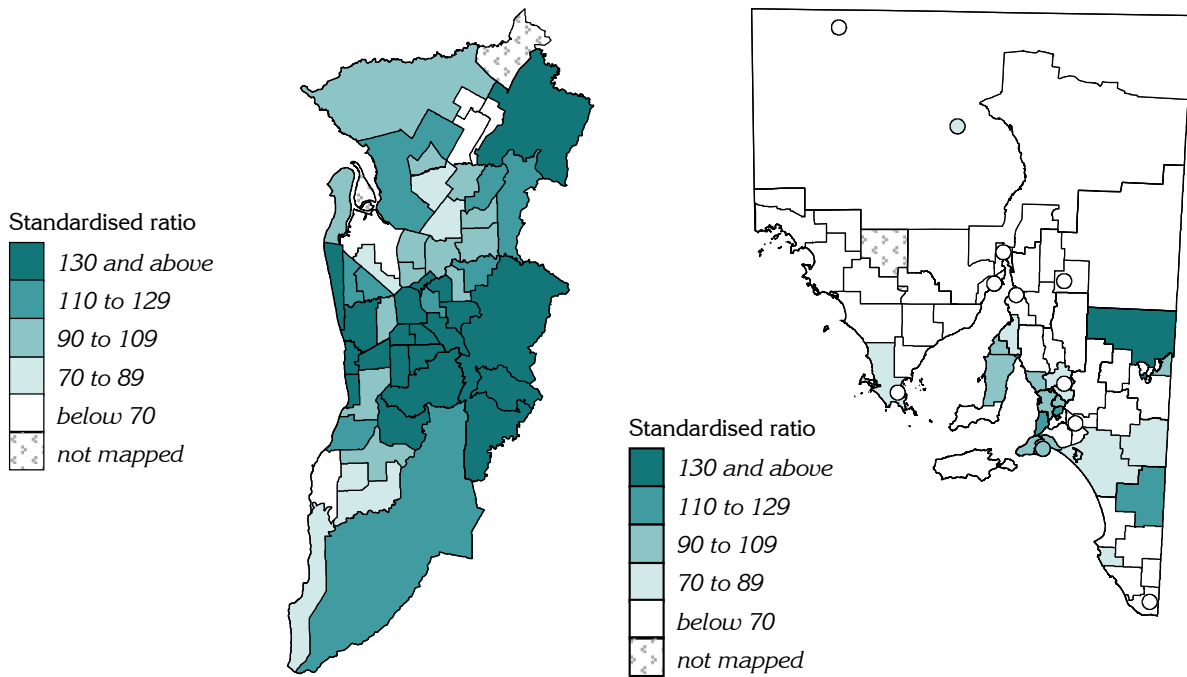
The distribution of admissions to public hospitals (Map 2.34) shows a striking separation between areas with the highest, and those with the lowest, ratios - again reflecting the pattern of socioeconomic disadvantage in Adelaide. High ratios were recorded throughout much of the State, with the lowest ratios in SLAs nearer Adelaide, and in the far north (see note above).

Map 2.34: Admissions to public acute hospitals, 2003/04



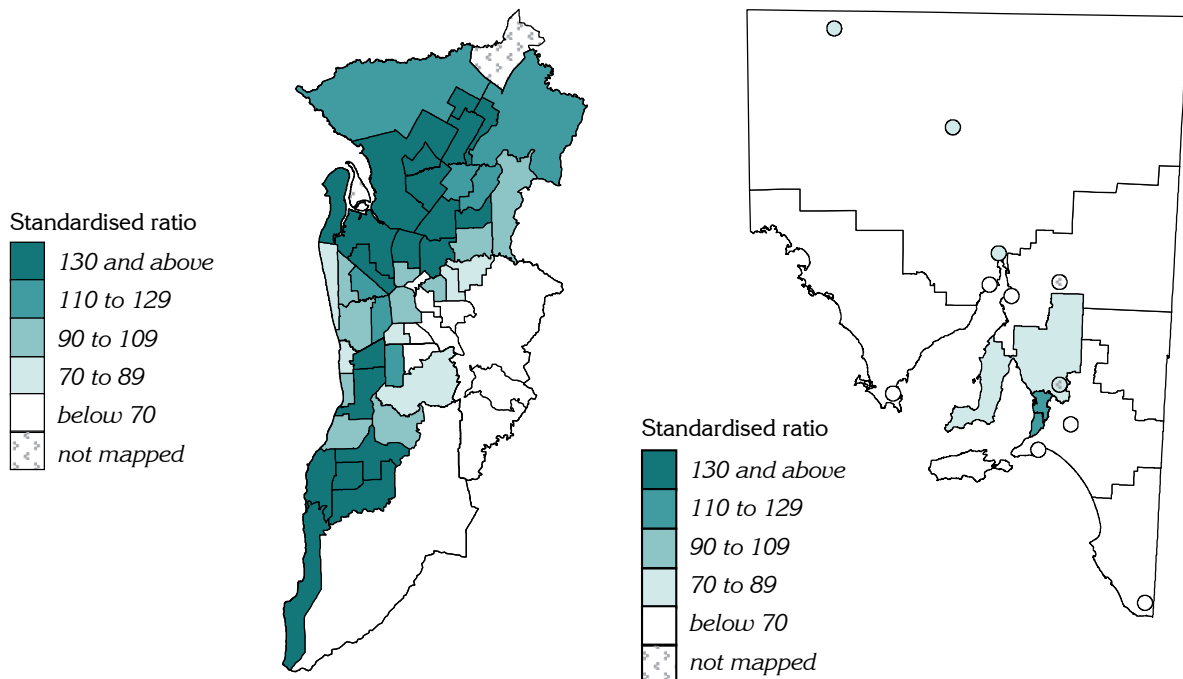
The widespread use of private hospitals by people across much of Adelaide can be seen in Map 2.35, with the greatest concentrations in the more affluent beach-side, eastern, southern and south-eastern suburbs. There were generally low ratios throughout country areas, with the notable exception of the Riverland: this in large part reflects the lack of these facilities in country South Australia.

Map 2.35: Admissions to private hospitals, 2003/04



The distribution of Adelaide residents who waited six months or more for an admission for an elective 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 north and north-west (Map 2.36). Ratios in country South Australia were very low in comparison to those in Adelaide.

Map 2.36: Hospital booking lists: people waiting for more than six months for elective (non-urgent) surgical procedures, 30 June 2004



3. Compulsory Third Party Insurance scheme claims and costs

Readers should be aware of two factors likely to influence the data for the latest two years in Table 3.1 and Figure 3.1. They are:

- 1) the introduction of a number of significant legislative and regulatory road safety measures, including (but not limited to) the 50 km/h speed limit in many urban locations from March 2003 (which is believed to have impacted on the number of road crashes being reported by the South Australian Police and on subsequent claims in 2003/04 and later years (MAC Annual Report 2003/04)), speed camera demerit points and speed detection on red lights; and*
- 2) changes in the insuring agent from 1 July 2003, and subsequent changes in some administrative practices (from 1 July 2004, claims were opened only after a direct approach from an injured party, rather than as previously on advice of a vehicle owner or driver that there may have been an injury), resulted in a reduction in the number of claims in 2004/05 and later years.*

Further, on advice from the Motor Accident Commission, the major analysis in this chapter is restricted to the 2002/03 financial year, as details of claims opened and finalised are believed to be most consistent in that year. However, the number of claims in the latest years for which complete data of lodgements are available, 2003/04 and 2004/05, have been shown in the following section, to indicate the substantial reduction in claim lodgements.

Claims by year and sex

The number and rate of claims increased by 11.8% and 10.2% respectively, from 1997/98 to 2000/01, before declining slightly in 2001/02 and 2002/03 (Table 3.1 and Figure 3.1). This was followed by more substantial declines in the two subsequent years, with the number of claims in 2004/05 down by 38.0% on the level in 2002/03 and the rate down by 37.1%. These trends were also evident for males and females, with the decline for males in the latest years somewhat larger than for females: for males, the decline between 2002/03 and 2003/04 was 17.5% (13.3% for females), and from 2003/04 to 2004/05, it was 28.7% (23.4% for females). These declines reflect the changes described in the box above.

More claims were made in each year by females, with markedly higher rates per 100,000 female population compared to claims made by males. The differential in rates had decreased, from 27% more claims by females in 1997/98 to 18% more in 2002/03; however, the female rate has since risen to be 33% higher in 2004/05.

Table 3.1: Compulsory Third Party Insurance scheme – number and rate¹ of claims by sex and year, South Australia, claims opened between 1997/98 and 2004/05

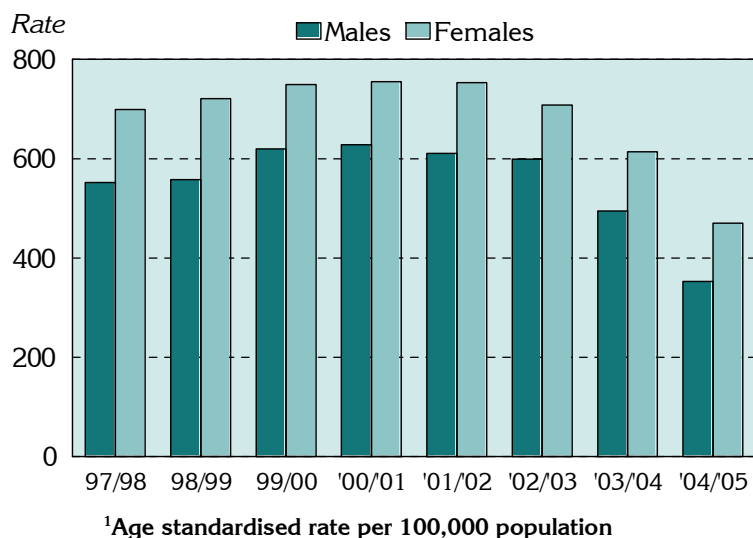
Year	Males		Females		Persons		Female/male claims ratio ²
	Number	Rate	Number	Rate	Number	Rate	
1997/98	4,065	552.1	5,267	699.3	9,372	629.2	1.27
1998/99	4,116	557.5	5,440	720.8	9,570	641.0	1.29
1999/00	4,591	619.9	5,672	749.2	10,281	686.5	1.21
2000/01	4,694	628.2	5,773	755.2	10,479	693.2	1.20
2001/02	4,592	610.8	5,787	753.0	10,389	683.4	1.23
2002/03	4,530	599.4	5,459	707.7	10,003	655.0	1.18
2003/04	3,727	494.7	4,582	613.9	8,369	556.5	1.24
2004/05	2,662	352.6	3,513	470.3	6,204	412.1	1.33
% change							
1997/98 to 2004/05	-34.5	-36.1	-33.3	-32.7	-33.8	-34.5	..

¹Age standardised rate per 100,000 population

²Ratio of female to male claims rates

The increase in rate of claims for males and females from 1997/98 to 2000/01, and the subsequent declines, are highlighted in Figure 3.1.

Figure 3.1: Compulsory Third Party Insurance scheme – rate¹ of claims by sex and year, South Australia, 1997/98 to 2004/05



The average cost per claim increased by 8.8% from 1999/00 to 2002/03. However, this masks a decrease in cost in the two middle years, with the average cost in 2001/02 being 10.6% lower than in 1999/2000, followed by a marked increase between 2001/02 and 2002/03, of 21.7%. It also masks differential movements for males and females over these years (described below).

Despite the lower rate of claims opened for males, the average cost per claim was much higher than for females. For example, in 1999/00, the average cost of claims by females was 75% of male claims: in 2000/01 it was lower, at 63%, before returning to 75% in 2002/03. However, average costs have moved differentially for males and females over the years shown. For males, the average cost per claim increased from 1999/00 to 2000/01, then decreased (by 15.8%) in 2001/02, before increasing markedly (by 31.9%) between 2001/02 and 2002/03. For females, the average cost decreased (by 10.3%) between 1999/00 and 2000/01, increased marginally (3.9%) to 2001/02, and then increased markedly (by 26.4%) in 2002/03. Again, changes in claims administration practices may have influenced these movements.

Table 3.2: Compulsory Third Party Insurance scheme – cost of claims by sex and year, South Australia, claims finalised between 1999/00 and 2002/03

Year	Males		Females		Persons		Female/ male cost ratio ¹
	cost (\$m)	average cost per claim (\$)	cost (\$m)	average cost per claim (\$)	cost (\$m)	average cost per claim (\$)	
Current prices							
1999/00	92.1	21,055	88.1	15,834	198.1	19,716	0.75
2000/01	107.4	22,450	84.4	14,199	196.1	18,210	0.63
2001/02	93.6	18,909	89.9	14,747	196.8	17,628	0.78
2002/03	113.7	24,937	105.5	18,637	219.7	21,459	0.75
Constant prices²							
1999/00	107.6	24,609	102.8	18,506	231.4	23,044	0.75
2000/01	116.6	24,379	91.7	15,419	212.9	19,775	0.63
2001/02	97.2	19,644	93.4	15,320	204.6	18,313	0.78
2002/03	113.7	24,937	105.5	18,637	219.7	21,459	0.75

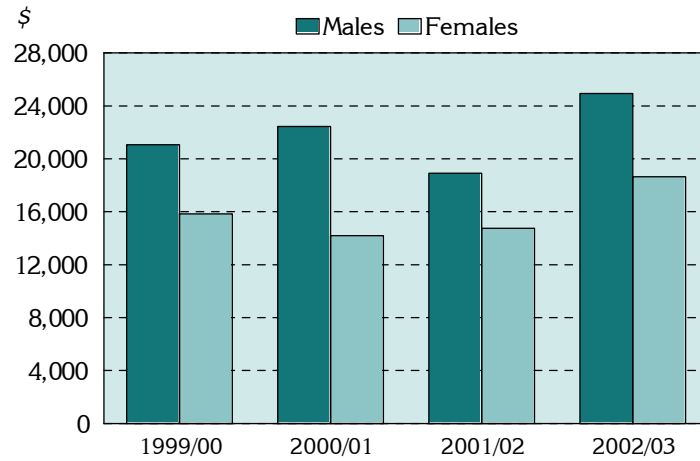
¹ Ratio of female to male average cost per claim

² (Using the implicit price deflator for health (reference year 2002/03))

Note: Some 278 claims could not be allocated by sex

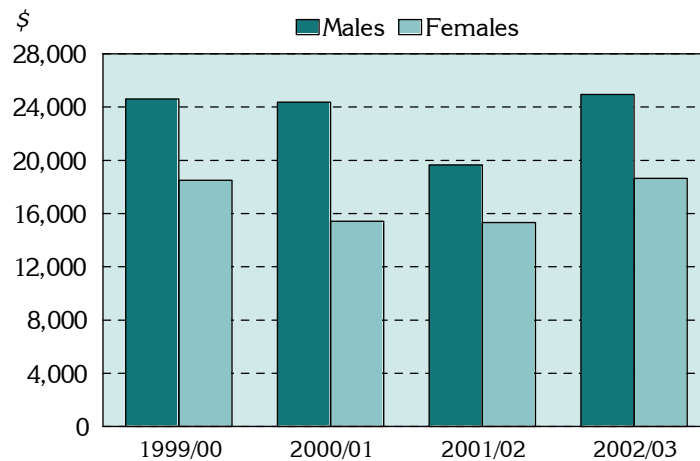
The data in Table 3.2, at current prices, are represented graphically in Figure 3.2.

Figure 3.2: Compulsory Third Party Insurance scheme – average cost per claim finalised by sex and year, current prices, South Australia, 1999/00 to 2002/03



The constant price estimates in Table 3.2 (above), graphed in Figure 3.3, indicate what expenditure would have been if 2002/03 prices had applied in all years. For both males and females, costs in the first and last periods are similar, with a lower average cost for males only in 2001/02, and for females in both intervening years.

Figure 3.3: Compulsory Third Party Insurance scheme – average cost per claim finalised by sex and year, constant prices, South Australia, 1999/00 to 2002/03



Claims by period from date of crash to claim lodgement and finalisation

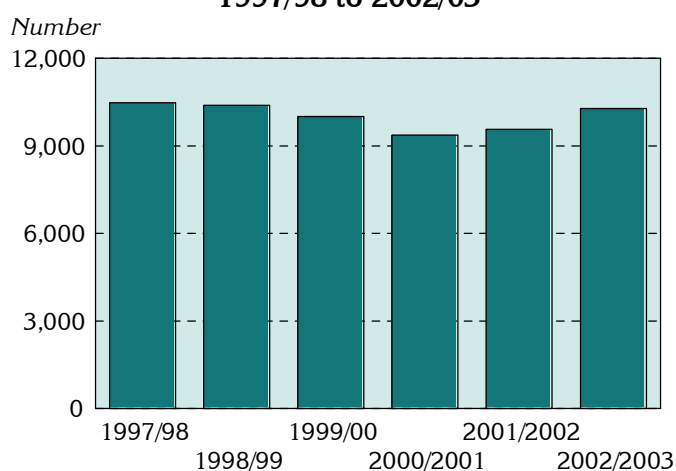
Table 3.3 shows the time taken from the date of the crash for a claim to be opened in South Australia. The majority of claims, around 85% for each year from 1997/98 to 2002/03, were opened within three months of the date of the accident (the average elapsed time between the crash event and claim lodgement is around 60 days). A further 10.0% of claims were opened in a three to six month period following the accident, with an average of 2.4% being opened between seven and twelve months after the accident.

Table 3.3: Compulsory Third Party Insurance scheme – time from crash date to date claim opened, South Australia, 1997/98 to 2002/03

Time from crash date (months)	Year claim opened						Total
	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	
	Number						
Less than 3	8,870	8,809	8,499	8,039	8,199	8,716	51,132
3-6	1,121	1,053	1,015	902	942	1,121	6,154
7-12	243	259	249	220	230	218	1,419
13-24	137	157	136	116	108	118	772
25-36	73	77	63	52	52	62	379
37-48	19	20	27	23	22	29	140
48+	16	14	14	20	17	17	98
Total	10,479	10,389	10,003	9,372	9,570	10,281	60,094
	Per cent						
Less than 3	84.6	84.8	85.0	85.8	85.7	84.8	85.1
3-6	10.7	10.1	10.1	9.6	9.8	10.9	10.2
7-12	2.3	2.5	2.5	2.3	2.4	2.1	2.4
13-24	1.3	1.5	1.4	1.2	1.1	1.1	1.3
25-36	0.7	0.7	0.6	0.6	0.5	0.6	0.6
37-48	0.2	0.2	0.3	0.2	0.2	0.3	0.2
48+	0.2	0.1	0.1	0.2	0.2	0.2	0.2
Total	100	99.9	100	99.9	99.9	110	100

The number of claims finalised each year from 1997/98 to 2002/03 are shown in Figure 3.4, and are discussed above.

Figure 3.4: Year CTP claim finalised, South Australia, 1997/98 to 2002/03



Fewer than half (43.6%) of all claims made in 2002/03 were finalised within six months of the claim being lodged, with 26.2% finalised in less than three months and 17.4% within three to six months (Table 3.4). A further 19.2% were finalised 13 to 24 months after the claim was opened, with 15.4% within seven to twelve months. The remaining claims were finalised from 25 to 48 months and beyond, with 6.5% not being finalised until more than four years after the initial claim was lodged.

Table 3.4: Compulsory Third Party Insurance scheme – time from date claim lodged to date claim finalised, South Australia, 1999/00 to 2002/03

Time from lodgement (months)	Year claim finalised				Total	
	1999/00	2000/01	2001/02	2002/03		
	Number				Per cent	Number
Less than 3	1,471	2,018	3,032	2,684	26.2	9,205
3-6	2,496	2,388	2,081	1,783	17.4	8,748
7-12	1,627	1,830	1,631	1,408	13.8	6,496
13-24	1,922	2,055	2,146	1,970	19.2	8,093
25-36	1,152	1,148	1,119	1,108	10.8	4,527
37-48	656	601	534	618	6.0	2,409
48+	721	728	620	666	6.5	2,735
Total	10,045	10,768	11,163	10,237	100.0	42,213
	Per cent					
Less than 3	14.6	18.7	27.2	26.2	..	21.8
3-6	24.8	22.2	18.6	17.4	..	20.7
7-12	16.2	17.0	14.6	13.8	..	15.4
13-24	19.1	19.1	19.2	19.2	..	19.2
25-36	11.5	10.7	10.0	10.8	..	10.7
37-48	6.5	5.6	4.8	6.0	..	5.7
48+	7.2	6.8	5.6	6.5	..	6.5
Total	100.0	100.0	100.0	100.0	..	100.0

Distribution of CTP claims across the State

In this and the following chapters, the location described and mapped or graphed relates to the address of usual residence of the claimant.

The rate of claims opened in Adelaide in 2002/03 was considerably (73%) higher than in country South Australia, with a rate of 757.6 claims per 100,000 for residents of Adelaide compared to 437.5 per 100,000 for people in country South Australia. The rate of claims in Adelaide was higher for both Other injuries (37% higher) and, more particularly, WAD injuries (2.43 times higher) claims (Table 3.5).

In the 2002/03 period, the total cost of finalised claims in Adelaide was more than five (5.19) times the cost of claims by country residents; however, the average cost per claim was the same for both areas. Again, the metropolitan/ country differential (for average incurred costs) was greater for WAD injury claims.

Claims rates for both WAD injuries and Other injury claims per head of population were higher in Adelaide than in country areas, although the rate of WAD injury claims (458.0 per 100,000 population) was by far the higher (2.43 times the country rate), and over three times the rate of Other injury claims (149.5 per 100,000 population). The differentials for total costs were even greater, with costs for WAD injuries in Adelaide over ten times (10.16) those in country South Australia; and over three times (3.07) for Other injuries).

Table 3.5: Compulsory Third Party Insurance scheme data by Adelaide and country South Australia, 2002/03¹

Variable	Adelaide		Country South Australia		Metro/ country ratio ³
	Number	Rate ²	Number	Rate ²	
Claims	8,328	757.6	1,665	437.5	1.73
WAD injuries	5,101	458.0	727	188.7	2.43
Other injuries	1,658	149.5	421	109.0	1.37
Total cost (\$m)	183.6	-	35.4	-	5.19
WAD injuries	106.7	-	10.5	-	10.16
Other injuries	76.1	-	24.8	-	3.07
Average incurred cost/claim finalised (\$)	21,404	-	21,454	-	1.00
WAD injuries	19,223	-	13,619	-	1.41
Other injuries	41,966	-	53,855	-	0.78

¹ Details are of the number of claims opened in 2002/03 and the cost of claims finalised in 2002/03

² Age standardised rate per 100,000 population

³ Ratio of number of claims, total costs and average incurred cost per claim of residents of Adelaide to those in country South Australia

Note: Some 2,087 claims opened and 1,632 claims finalised could not be allocated to an injury category (WAD injury, Other injury)

Distribution of CTP claims and costs by SLA

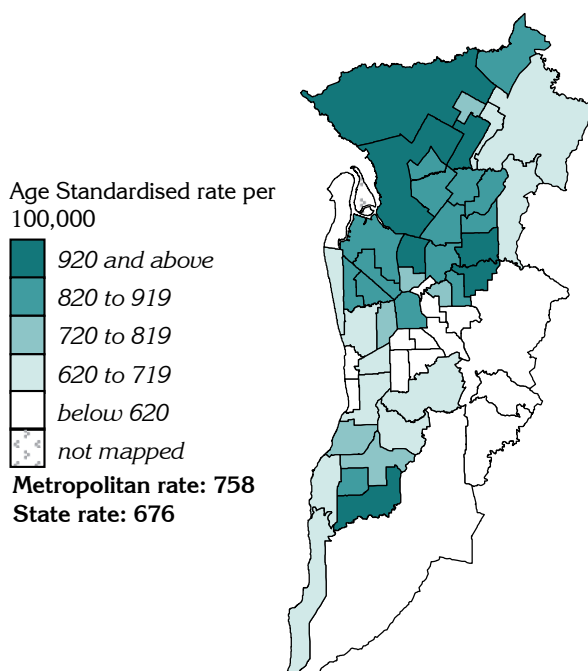
The pattern of distribution of CTP claims opened per 100,000 population across Adelaide in 2002/03 (Map 3.1) has a number of similarities with the geographic distribution of the socioeconomically disadvantaged population, as shown by the IRSD (Map 2.1): the strong inverse correlation (a correlation coefficient of -0.60) with the IRSD also supports the existence of this relationship.

Note: A positive association with socioeconomic disadvantage is indicated by an inverse (negative) correlation coefficient because of the way the ABS have constructed the index, to give relatively disadvantaged areas low(er) scores.

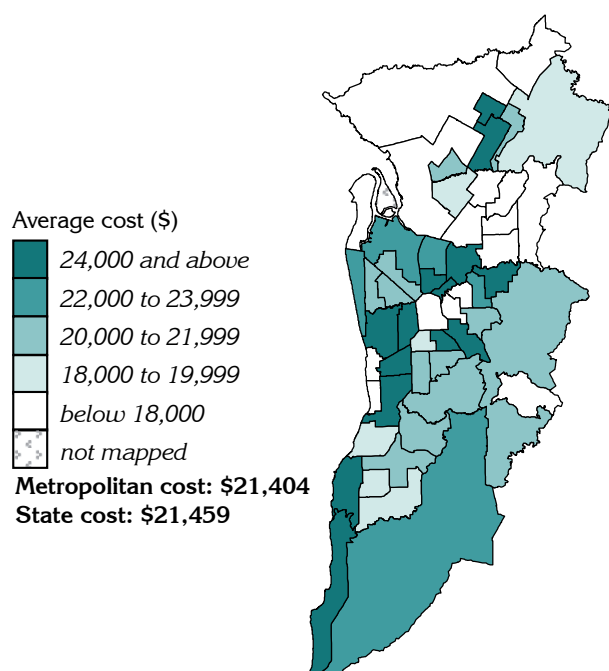
However, there were some differences, most notably:

- the high claims rate in an area to the north-east of the city, including the south-western portion of Tea Tree Gully local government area (LGA) and the eastern section of Campbelltown LGA; and
- the lower rates in some SLAs in the north-west.

Map 3.1: Compulsory Third Party Insurance scheme – claims opened, Adelaide, 2002/03
Claims per 100,000 population



Map 3.2: Compulsory Third Party Insurance scheme – average incurred cost per finalised claim, Adelaide, 2002/03



The map of average incurred cost per finalised claim in 2002/03 (Map 3.2), however, shows a more diverse pattern, bearing little relationship to the pattern of disadvantage. The SLAs with the highest rates for incurred cost per claim were clustered around the central city in the LGAs of West Torrens and Marion (North and Central SLAs), Prospect and Walkerville, and the SLAs of Port Adelaide Enfield - East, Campbelltown - East, Burnside - South-West and Unley - East. There were also high rates to the north in the SLAs of Playford - Elizabeth and - West Central, and in the south in the Onkaparinga SLAs of North Coast and South Coast.

Thus, areas with high average incurred cost per finalised claim included a mix of those with high IRSD scores (least disadvantage, such as Burnside - South-West) and low IRSD scores (greatest disadvantage, such as Playford - Elizabeth). The same is true for areas with low costs. Clearly, given the larger numbers of claims from the most disadvantaged areas, the total cost of claims and claims per head of population in these areas were higher (again supported by the correlation analysis, a correlation coefficient of -0.41 between the IRSD and average cost of claims per head of population).

This point is discussed further on page 40, *Distribution by socioeconomic status of area*.

Correlation is the degree to which one variable is statistically associated with another. The correlation coefficient is a measure of the strength of this association. When high values for one variable are matched by high values for the other (or when low values are matched by low values), then they are positively correlated. Where the interdependence is inverse (i.e. high values for one variable are matched by low values for the other), the two variables are negatively correlated. The correlation coefficients are not shown in the text, but are shown in the Appendix in Tables A1 (Adelaide) and A2 (country South Australia).

The correlation coefficients at the SLA level in Adelaide between the claims' data and a number of the indicators of greatest socioeconomic disadvantage (including unskilled and semi-skilled workers and jobless families) were generally strong (0.50 or higher), and supported the findings described in the maps; the inverse correlations, with indicators of least socioeconomic disadvantage (managers and administrators, and professionals; high income families and Internet use at home) were slightly stronger (Table 3.6).

The correlations between average incurred costs per finalised claim and socioeconomic status at the SLA level in Adelaide were very weak, and there was no discernible pattern.

Table 3.6: Correlation summary – Compulsory Third Party Insurance scheme data and indicators of socioeconomic status

Indicator <i>(see Appendix for full descriptions)</i>	Adelaide			Country South Australia		
	Claims opened	Average incurred cost per		Claims opened	Average incurred cost per	
		claim	head		claim	head
Low income families	0.51	0.12	0.49	-0.20	-0.14	-0.19
High income families	-0.57	-0.03	-0.45	0.11	0.13	0.16
Unskilled and semi-skilled workers	0.59	-0.10	0.30	0.02	0.25	0.35
Managers & administrators, & professionals	-0.60	0.16	-0.31	-0.29	-0.14	-0.32
Unemployment rate	0.41	0.10	0.37	-0.12	0.16	0.14
Jobless families	0.54	0.06	0.42	0.02	-0.08	-0.01
Female labour force participation	-0.59	0.02	-0.34	-0.13	0.07	0.00
Full-time education participation at age 16	-0.59	0.16	-0.21	-0.21	-0.03	-0.12
Average subject scores ¹						
- PES scores	-0.52	0.15	-0.21	0.19	0.00	-0.04
- PAS scores	-0.52	-0.01	-0.40	-0.24	-0.08	-0.24
- SAS scores	-0.56	0.10	-0.32	-0.19	-0.09	-0.28
Aboriginal and Torres Strait Islander peoples	0.43	0.05	0.39	-0.05	0.33	0.35
People born overseas in predominantly non-English speaking countries						
- resident for 5 years or more	0.46	0.04	0.33	0.23	0.00	0.22
- resident for less than 5 years	0.09	0.09	0.19	-0.08	0.15	0.24
- poor proficiency in English	0.49	0.00	0.31	0.07	0.08	0.25
Dwellings rented from the SA Housing Trust	0.38	0.19	0.46	-0.01	-0.01	0.00
Households receiving rent assistance from Centrelink	0.22	0.06	0.28	0.25	-0.13	0.15
Internet used at home	-0.59	-0.02	-0.44	0.29	-0.03	0.05
IRSD	-0.60	0.00	-0.41	0.03	-0.10	-0.16

¹Students (less than 19 years) sitting for Year 12 examinations

Note: Correlations between 0.3 and 0.49 are referred to as being 'weak'; between 0.50 and 0.70 as being 'strong', and shaded in light green; and those 0.71 and above as being 'very strong', and shaded in dark green. There is a more complete table in Appendix A1.

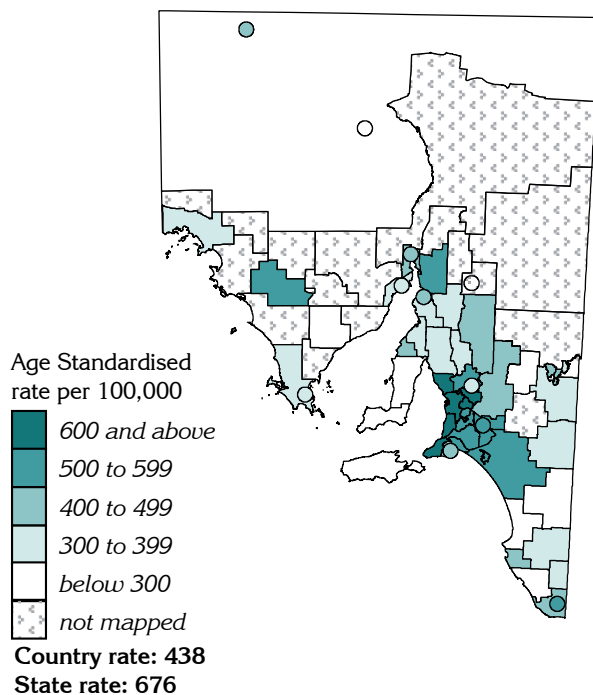
More complete details of the correlation coefficients are in the Appendix (Tables A1 and A2).

The geographic distribution of claims opened in country South Australia (Map 3.3) clearly shows the concentration of high rates of claims in SLAs nearer to Adelaide, with lesser concentrations around Mount Gambier, Cooper Pedy, The Coorong and the northern District Councils of Mount Remarkable and Le Hunte.

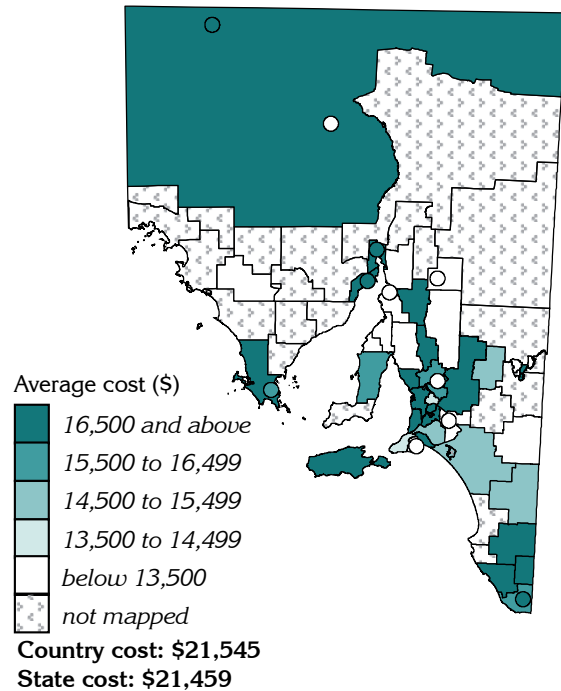
For average incurred costs per finalised claim (Map 3.4), the pattern shifts notably, generally outward and away from Adelaide, with the highest rates occurring in some of the most remote areas of the State. It is also evident that the rates in a number of the towns and other SLAs swap, from higher to lower, and vice versa, between the maps of claims and of average incurred costs.

Map 3.3: Compulsory Third Party Insurance scheme – claims opened, South Australia, 2002/03

Claims per 100,000 population



Map 3.4: Compulsory Third Party Insurance scheme – average incurred cost per finalised claim, South Australia, 2002/03



The results of the correlation analysis (Table 3.6, above) at the SLA level in country South Australia between the claims' data and the indicators of socioeconomic status are weak and inconsistent. This inconsistency is not unusual, given the relatively small population of the area overall and in many of the SLAs. The correlations for average incurred costs per claim are weaker again.

Change in geographic distribution of CTP claims

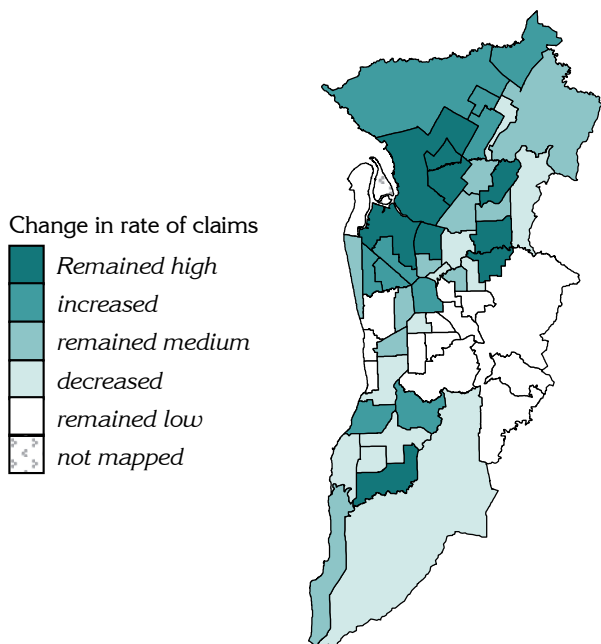
The following maps show the way in which the geographic distribution of claims and average costs have changed over the period 1997/98 to 2002/03. SLAs are allocated to five categories – where rates or average costs have remained in the middle range; where rates were high (or low) and have remained in those intervals; where rates or average costs have increased; and where rates or average costs have decreased.

Claims opened: 1997/98 to 2002/03

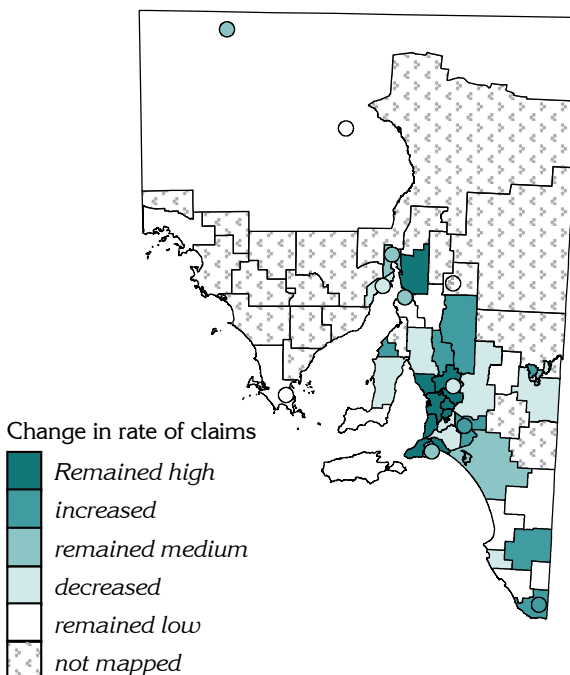
The map of change in rate of claims opened between 1997/98 and 2002/03 shows that the rate of claims in a number of areas remained high over the period: these were Salisbury - Central, - Inner North and - Balance; Tea Tree Gully - North and - South; Campbelltown - East; Port Adelaide Enfield - Port and - Inner; and Onkaparinga - Hackham (Map 3.5). There were reductions in the rate of claims in a number of SLAs in of Marion and Onkaparinga, as well as in other SLAs throughout Adelaide. Claim rates remained low in the inner east, south and south-east, as well as along parts of the coast.

The change in rate of claims across South Australia (Map 3.6) indicates that claim rates remained high throughout Adelaide and in a number of adjacent SLAs, as well as to the north, in Mount Remarkable. Rates increased in Goyder, Clare and Gilbert Valleys, Copper Coast, and the southern SLAs of Naracoorte and Lucindale, and Grant. In Wattle Ranges, Tatiara and Le Hunte, in the south of the State; Loxton Waikerie – West in the east; and, in the north, Northern Areas, Port Pirie Districts Balance and Unincorporated Far North, rates remained low.

Map 3.5: Compulsory Third Party Insurance scheme – change in rate of claims opened, Adelaide, 1997/98 to 2002/03



Map 3.6: Compulsory Third Party Insurance scheme – change in rate of claims opened, South Australia, 1997/98 to 2002/03

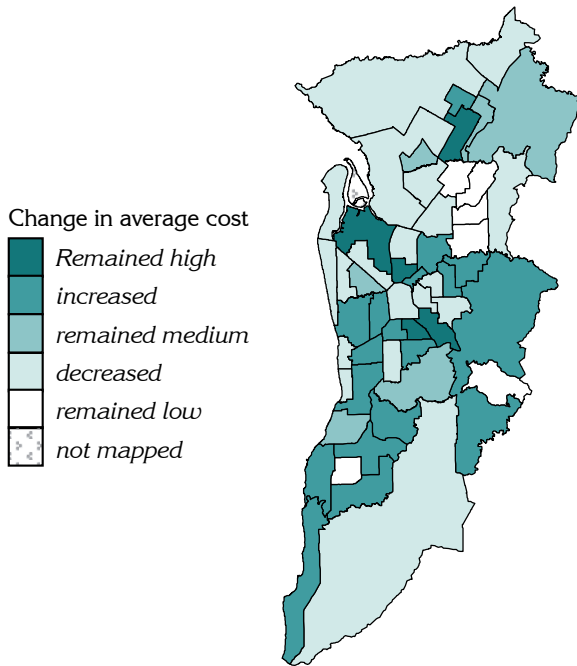


CTP Claims finalised: 1999/00 to 2002/03

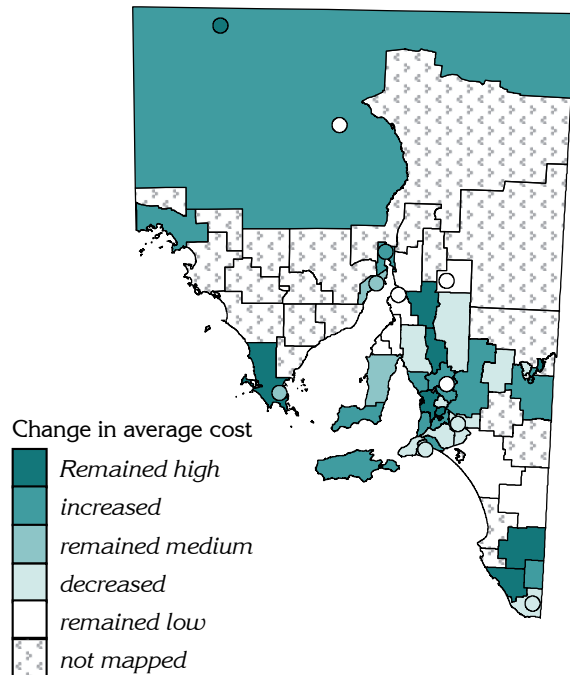
The map of change in average cost incurred for finalised claims shows that there were reductions in the northern SLAs of Salisbury and Playford, in Onkaparinga - Hills in the south, and a number of coastal and inner metropolitan SLAs (Map 3.7). High average costs remained in Playford - Elizabeth, Port Adelaide Enfield - Port, Unley - East and Burnside - South-West, while rates remained low in much of Tea Tree Gully, in Salisbury - North-East, Adelaide Hills - Central and Onkaparinga - Morphett.

Changes in average cost per finalised claim across South Australia were diverse (Map 3.8), with increased costs across much of the north of the State, including the SLAs of Unincorporated Far North, Ceduna and Port Augusta, as well as throughout the Riverland, Kangaroo Island, Yorke Peninsula - South and a number of SLAs near Adelaide. Costs remained high in Cooper Pedy and the District Councils of Lower Eyre Peninsula, Northern Areas, Clare and Gilbert Valleys, Wattle Range - West and Naracoorte and Lucindale. Reductions in average cost were evident in Mount Gambier, Victor Harbor and Murray Bridge; and costs remained low in Barossa Tanunda, Port Pirie City and Districts - City, Peterborough and Roxby Downs.

Map 3.7: Compulsory Third Party Insurance scheme – change in average incurred cost per finalised claim, Adelaide, 1999/00 to 2002/03



Map 3.8: Compulsory Third Party Insurance scheme – change in average incurred cost per finalised claim, South Australia, 1999/00 to 2002/03

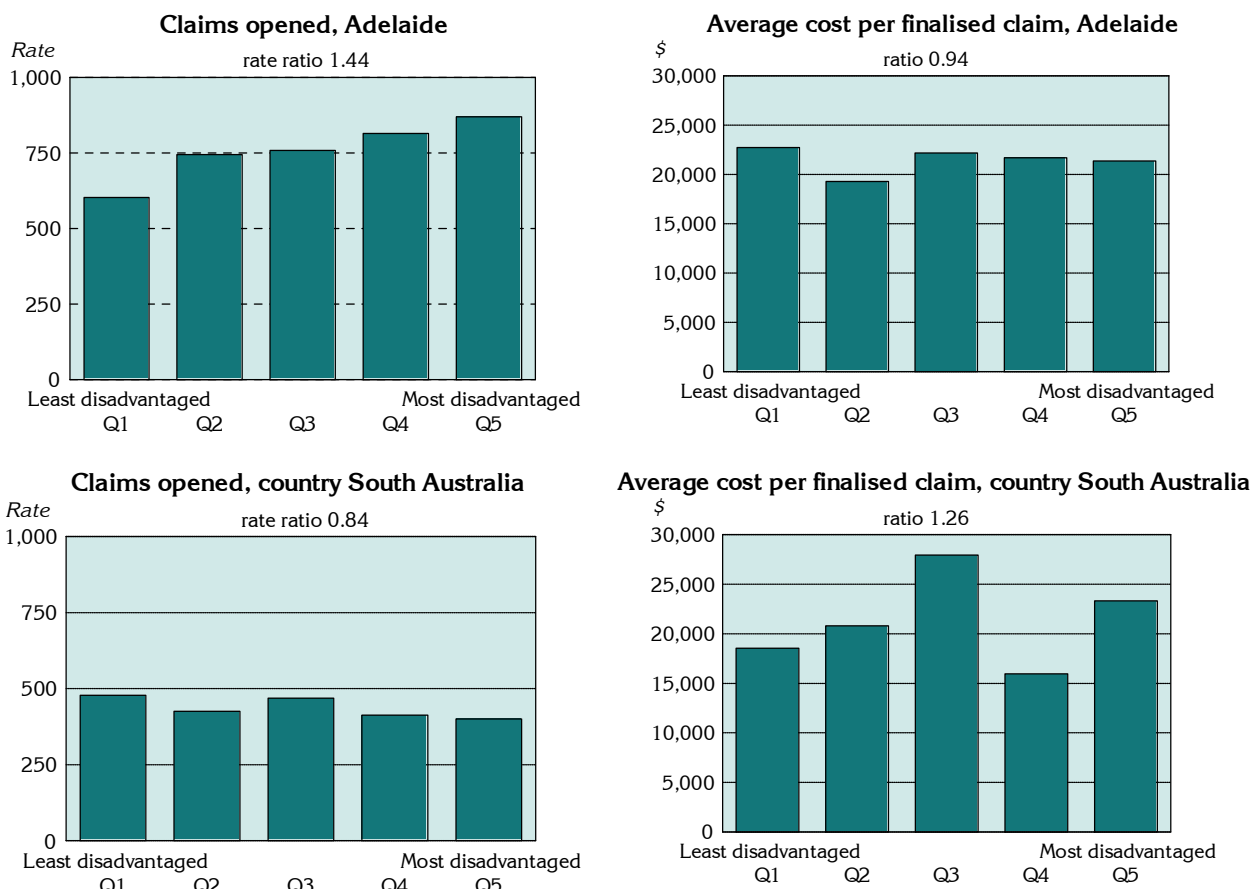


Distribution of CTP claims and costs by socioeconomic status of area

Each grouping (quintile) in the chart comprises SLAs with approximately 20% of Adelaide's population: they include populations of similar socioeconomic status, as measured by the Index of Relative Socio-Economic Disadvantage: see Glossary for additional details.

The geographic distribution of claims in Adelaide by quintile of socioeconomic status of area shows a gradient in claim rates, with rates in the most disadvantaged areas 44% higher than those in the least disadvantaged areas (Figure 3.5). For average incurred costs per finalised claim, the pattern is quite different, with similar costs at each end of the socioeconomic spectrum and marginally lower rates in intervening quintiles. In country South Australia, there is a reverse gradient for claims, with 16% fewer claims in the most disadvantaged areas but variation in average incurred costs, with costs in the most disadvantaged areas 26% higher than those in the least disadvantaged areas.

Figure 3.5: Compulsory Third Party Insurance scheme – claims opened and average cost of claims finalised by socioeconomic status, 2002/03



Rate ratio is the ratio of the rate in Quintile 5 to the rate in Quintile 1

As discussed on page 35, and shown above in Figure 3.5, there are different patterns evident in the distribution of claims and average incurred costs per claim; however, the pattern for the average cost of claims per head of population is more like that of claims, although not as strong. This can be seen from a comparison of these three measures in Table 3.7: both the correlation coefficients and the rate ratios support this contention.

Table 3.7: Relationship between CTP claims opened, average incurred costs and socioeconomic status, 2002/03

Variable	Population group	Ratio of rates: Q5 to Q1	Correlation coefficient
Adelaide			
Claims per head	Claims higher for disadvantaged	1.39	-0.60
Costs per head	Costs higher for disadvantaged	1.31	-0.41
Costs per claim	No consistent pattern	0.94	0.00
Country SA			
Claims per head	Claims higher for advantaged	0.83	0.03
Costs per head	Costs (slightly) higher for disadvantaged	1.04	-0.16
Costs per claim	Costs higher for disadvantaged	1.26	-0.10

Note: Correlations between 0.3 and 0.49 are referred to as being 'weak'; between 0.50 and 0.70 as being 'strong'; and those 0.71 and above as being 'very strong'. There is a more complete table in Appendix A1

A preliminary analysis of data by 'Heads of damage' (i.e. categories of payments) showed that the higher payments per head of population to people in the most disadvantaged areas are consistent for all of these categories, Economic loss, Pain and suffering (including Non-economic loss), Future care and treatment, Cost of services, and Claim management (including other costs). The data examined in this preliminary analysis excluded some \$56 million in claims made before 1997 and not finalised in 2002/03. It appears that payments under these late-finalised claims are more heavily oriented to claims from people in the least disadvantaged areas: the result is likely to be a weakening of the pattern of higher payments per head of population to people in the most disadvantaged areas (lower rate ratios than shown above, with Future care and treatment costs likely to be weighted in favour of claims from the least disadvantaged areas. Data were not available to examine payments per claim.

Distribution of CTP claims and costs by remoteness

Each SLA can be allocated (either in whole or part) to a level of remoteness under the ASGC remoteness classification. In this analysis, data have been allocated to five levels of remoteness: Major Cities, Inner Regional, Outer Regional, Remote and Very Remote.

The rate of claims opened in 2002/03 declines steeply with increasing remoteness, being 61% lower (a rate ratio of 0.39) in the most remote areas than in the Major Cities areas; however, the reverse is true for average incurred cost per finalised claim, with the cost per claim in the most remote areas over twice (2.29 times) that for the Major Cities areas. Readers should note that, because of the small numbers of claims by people in these remote areas, the total cost may be less important, but the average cost may have other implications, for example, as to the nature of injury and possibilities for a positive health and wellbeing outcome. The total cost of claims finalised in 2002/03 decreased from more than \$180 million in the Major Cities to \$1.9 million in the Very Remote areas (Table 3.7).

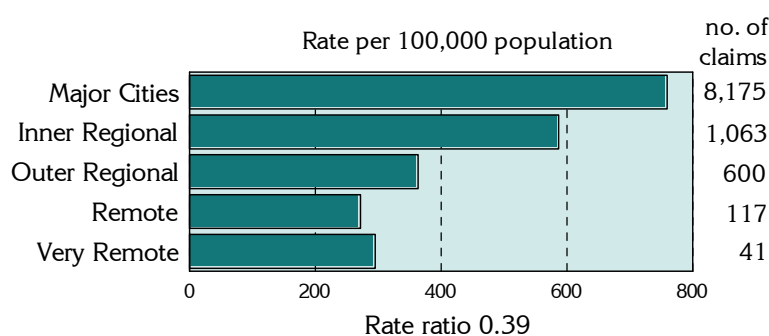
Table 3.7: Distribution, by remoteness, of CTP claims opened and incurred costs of finalised claims, South Australia, 2002/03

Remoteness category	Claims		Incurred cost (\$)	
	Number	Rate ¹	Total cost	Cost per claim
Major Cities	8,175	759.3	180,120,842	21,401
Inner Regional	1,063	586.9	20,592,078	19,118
Outer Regional	600	363.5	13,578,332	22,954
Remote	117	271.7	2,737,781	27,529
Very Remote	41	295.1	1,930,578	49,087
Rate ratio	-	0.39	-	2.29

¹ Age standardised rate per 100,000 population

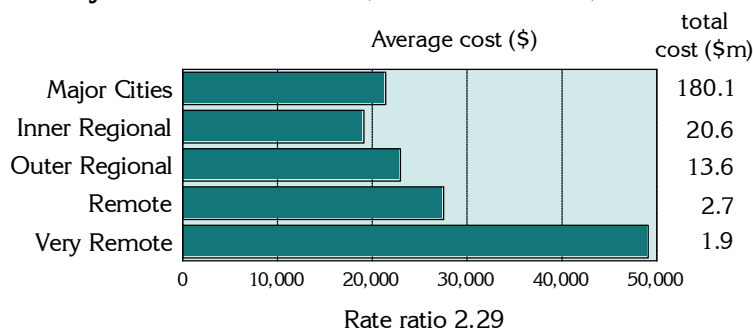
Figure 3.6 shows claims opened in South Australia in 2002/03 by area of remoteness. As discussed above, the majority of claims opened are in Major Cities, followed by lower rates in Inner Regional areas, Outer Regional areas, Remote and Very Remote areas.

Figure 3.6: Compulsory Third Party Insurance scheme - claims opened by area of remoteness, South Australia, 2002/03



The average cost per claim in by area of remoteness is shown in Figure 3.7. Very Remote areas, despite having the lowest rate of claims, had the highest costs per claim, followed by Remote, Outer Regional, Major Cities and Inner Regional areas.

Figure 3.7: Compulsory Third Party Insurance scheme – average cost per finalised claim by area of remoteness, South Australia, 2002/03



Distribution of CTP claims and costs by age

Over half of claims (53.1%) and incurred costs (59.1%) were paid out to people aged from 15 to 39 years, with 85 % of average incurred costs at ages 15 to 54 years (Table 3.8). The average incurred cost is highest at ages from 15 to 54 years.

Table 3.8: Compulsory Third Party Insurance scheme – age distribution of claims opened and incurred costs of claims finalised, South Australia, 2002/03

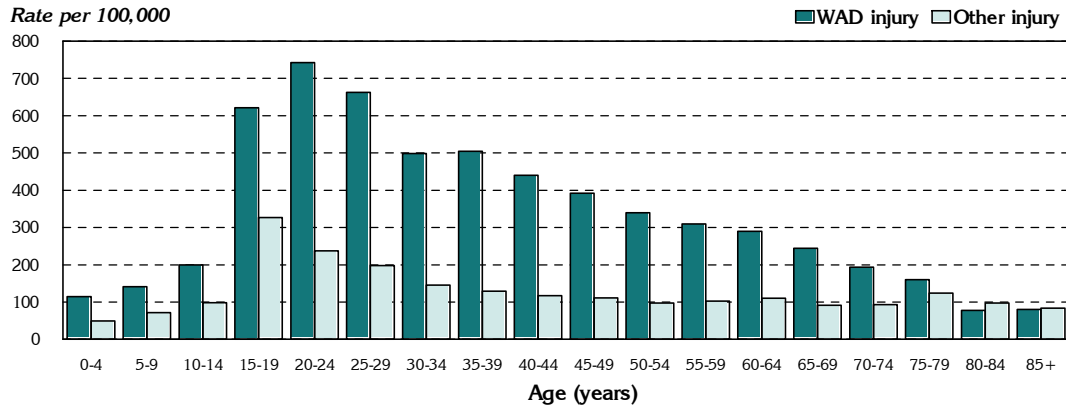
Age (years)	Claims		Average incurred costs		Cumulative %: by age			Average cost per claim (\$)
	No.	Per cent	\$m	Per cent	Age (years)	Claims	Incurred costs (\$)	
0-4	235	2.3	2.1	1.0				9,052
5-9	280	2.8	3.9	1.8				13,973
10-14	390	3.9	4.3	2.0				11,819
15-19	1,367	13.7	22.1	10.1	15-19	13.7	10.1	15,674
20-24	1,267	12.7	29.7	13.5	15-24	26.4	23.6	22,283
25-29	1,007	10.1	22.9	10.4	15-29	36.5	34.0	21,925
30-34	833	8.3	27.0	12.3	15-34	44.8	46.3	28,567
35-39	828	8.3	28.1	12.8	15-39	53.1	59.1	31,971
40-44	773	7.7	27.1	12.3	15-44	60.8	71.4	33,076
45-49	657	6.6	16.8	7.6	15-49	67.4	79.0	24,445
50-54	539	5.4	13.1	6.0	15-54	72.8	85.0	24,650
55-59	455	4.5	7.1	3.3	15-59	77.3	88.3	17,341
60-64	313	3.1	5.8	2.6	15-64	80.4	90.9	17,978
65-69	243	2.4	3.4	1.5				15,197
70-74	190	1.9	2.4	1.1				12,371
75-79	175	1.7	1.8	0.8				10,521
80-84	85	0.8	0.9	0.4				9,956
85+	56	0.6	0.5	0.2				9,047
Unknown	310	3.1	0.7	0.3				2,937
Total	10,003	100.0	219.7	100.0				21,459

Injury category by age

Injuries are classified at the broadest level as either 'WAD injury' or 'Other injury'. These closely approximate the administrative or operational injury categorisations 'demonstrable' or 'non-demonstrable' injury respectively in the source CTP claims data. As described in the Glossary, WAD Injuries are those injuries best described as 'Whiplash Associated Disorders and non-specific painful conditions of the neck, shoulder and back'. Other injuries refer to all other injury types including head injury, fractures, lacerations, internal organ injuries, spinal injuries, and so on.

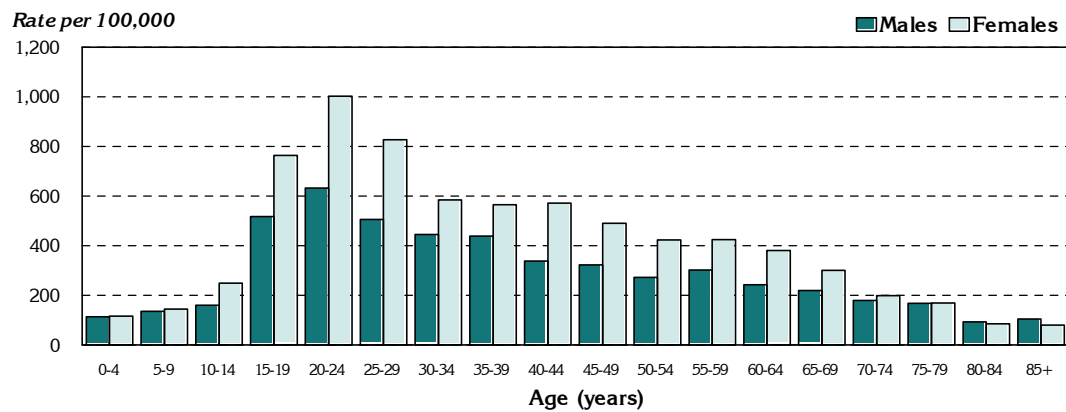
As noted previously, the rate of WAD injury claims is higher than the rate for Other injury claims (Figure 3.8). This is evident in all but the oldest age groups, and is most evident across the 20 to 59 year age groups.

Figure 3.8: Compulsory Third Party Insurance scheme – WAD injury and Other injury CTP claims opened by age, South Australia, 2002/03



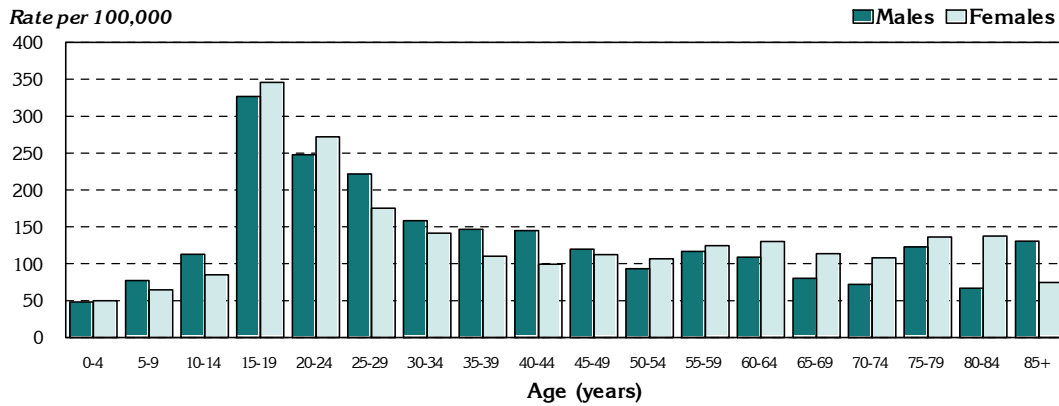
Claims rates for WAD injuries are higher for females than for males at almost all ages (Figure 3.9), showing a pattern that has clearly influenced the shape of the graph in Figure 3.9.

Figure 3.9: Compulsory Third Party Insurance scheme – WAD injury CTP claims opened by age and sex, South Australia, 2002/03



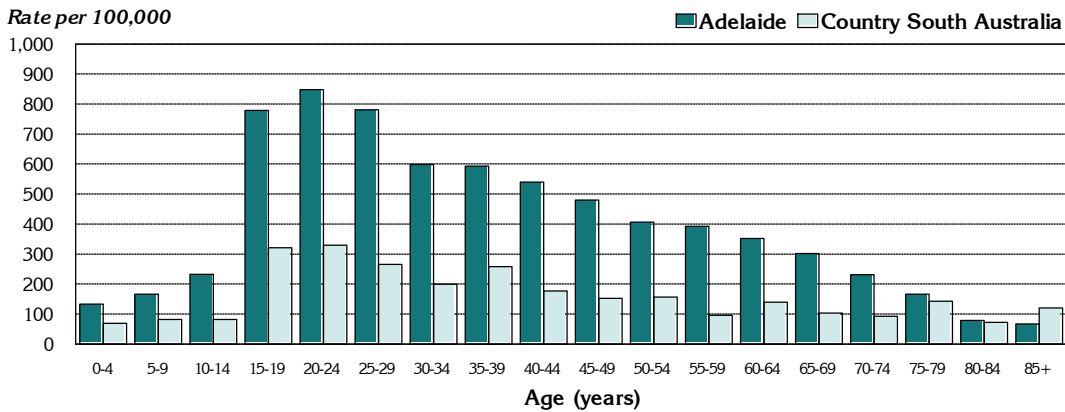
However, for Other injuries, claims rates show little variation for males and females in most age categories (Figure 3.10).

Figure 3.10: Compulsory Third Party Insurance scheme – Other injury CTP claims opened by age and sex, South Australia, 2002/03



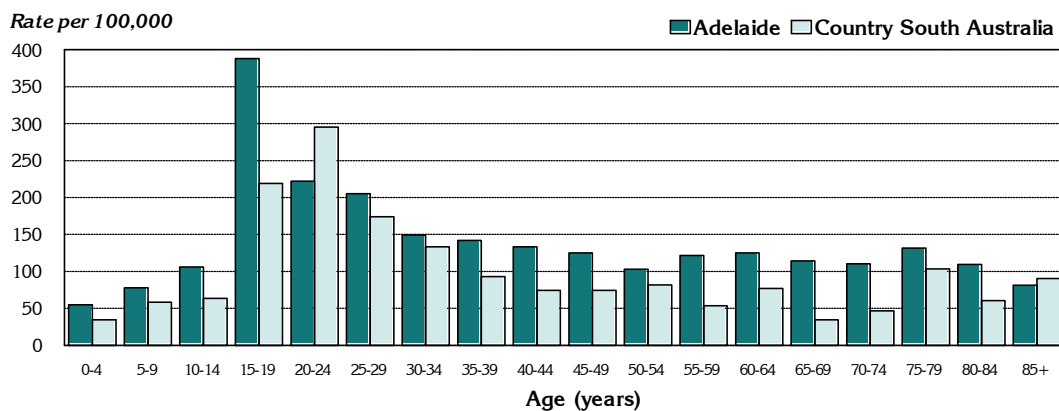
The rates of WAD injury claims opened across the State (Figure 3.11) were much higher for Adelaide than for country South Australia in all age groups except for the 85 years and over age group.

Figure 3.11: Compulsory Third Party Insurance scheme – WAD injury CTP claims opened by area of State and age, South Australia, 2002/03



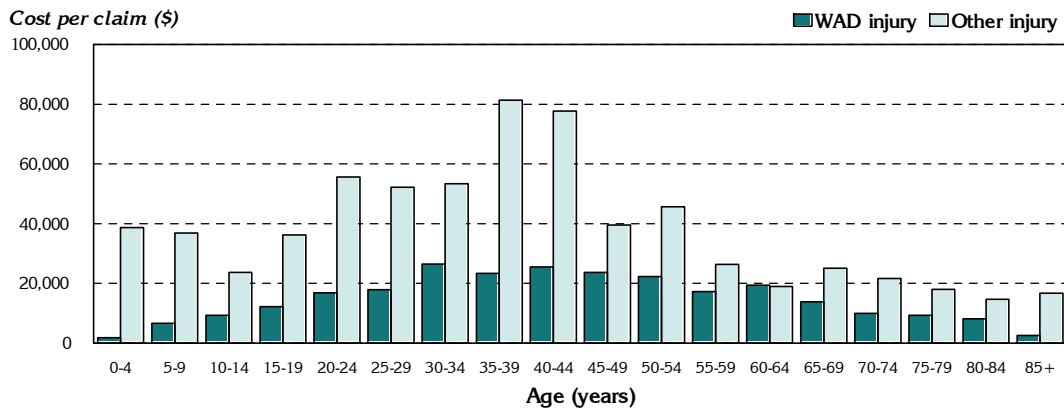
The rates of Other injury claims opened across the State (Figure 3.12) were generally higher in Adelaide than in country South Australia; however, in the 20 to 24 and 85 years plus age groups the reverse occurred, with more claims opened in country South Australia than in Adelaide.

Figure 3.12: Compulsory Third Party Insurance scheme – Other injury CTP claims opened by area of State and age, South Australia, 2002/03



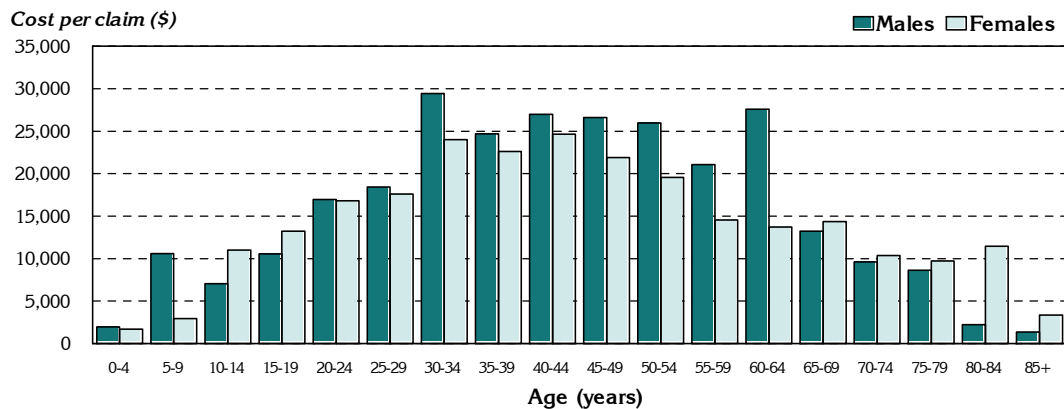
The cost of finalised Other injury claims was higher than for WAD injury claims across all ages, except for the 60 to 64 year age group, where they were the same (Figure 3.13).

Figure 3.13: Compulsory Third Party Insurance scheme – WAD injury and Other injury cost per finalised claim by age, South Australia, 2002/03



The pattern of costs for WAD injury claims by age and sex varied, with the highest cost of claims for both males and females occurring mainly in the 30 to 54 year age groups (Figure 3.14). The differences between the cost for males and females were generally not great, other than at age 5 to 9 and 55 to 64 years (higher for males) and 80 to 85 years (higher for females). From the age of 65 years onwards, the cost of claims for WAD injuries was higher for females.

Figure 3.14: Compulsory Third Party Insurance scheme – WAD injury cost per finalised claim by age and sex, South Australia, 2002/03



Costs for finalised Other injury claims (Figure 3.15) were generally higher for males than females, with the greatest differences in the 35 to 39 and 40 to 44 year age groups, where costs were almost two and a half times greater for males than females. In the 5 to 9 and 65 to 69 and 75 to 79 year age groups, costs were higher for females than for males.

Figure 3.15: Compulsory Third Party Insurance scheme – Other injury cost per finalised claim by age and sex, South Australia, 2002/03

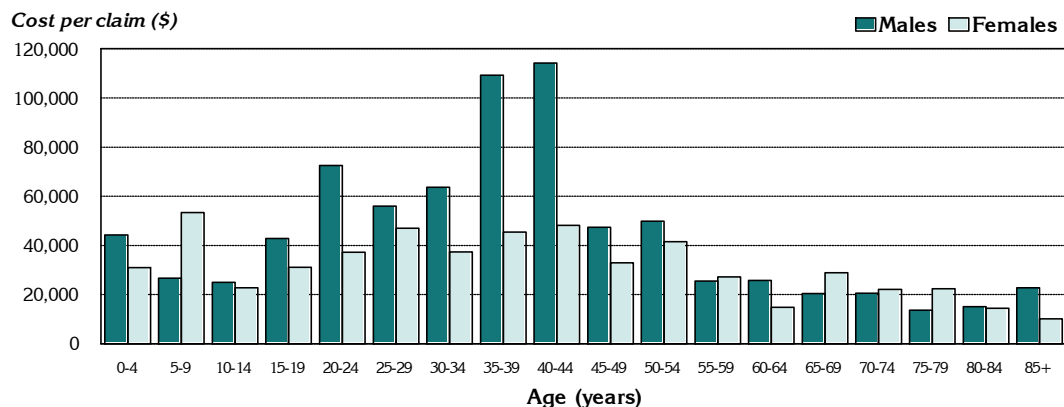
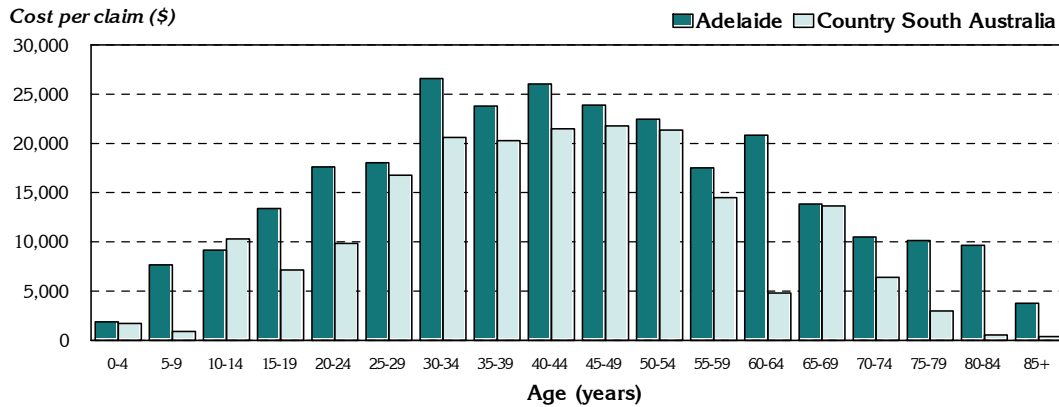


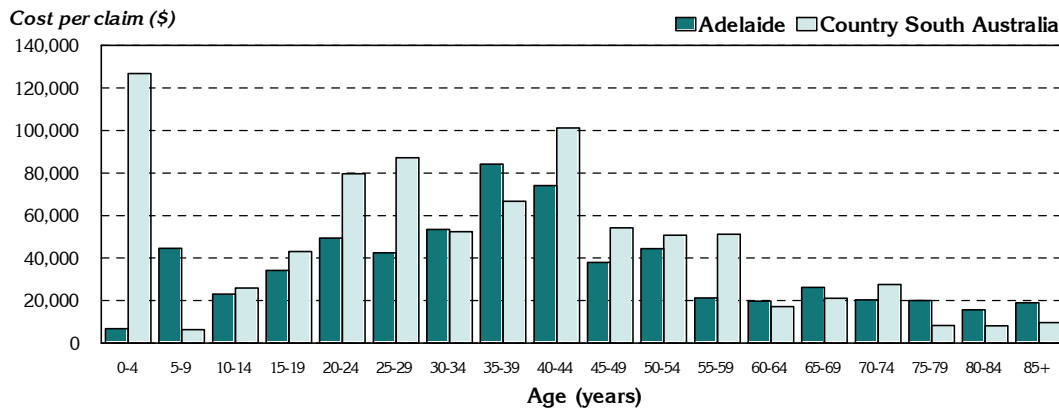
Figure 3.16 shows costs of finalised claims for WAD injuries across the State, with costs in Adelaide higher across all age groups, with the exception of the 10 to 14 year age group, where costs were slightly higher in country South Australia. Costs per claim increased with age to the 30 to 34 age group in Adelaide, and to the 45 to 49 year age group in country South Australia, before gradually decreasing in both areas into the older age groups. The largest differences in costs between Adelaide and country South Australia were in the 5 to 9, 60 to 64 and 80 to 84 year age groups.

Figure 3.16: Compulsory Third Party Insurance scheme – WAD injury cost per finalised claim by area of State and age, South Australia, 2002/03



Costs per finalised claim for Other injuries also varied across the State (Figure 3.17), with higher costs in country South Australia for most age groups, in particular the 0 to 4 year age group where costs were almost twenty times higher in country areas than in Adelaide (the reverse applied in the 5 to 9 year age group, where the cost was much lower in country South Australia). Notably higher costs also occurred in country South Australia for the 20 to 24, 25 to 29 and 55 to 59 year age groups; however, the 75 years and over age groups showed higher costs for metropolitan areas than for the country.

Figure 3.17: Compulsory Third Party Insurance scheme – Other injury cost per finalised claim by area of State and age, South Australia, 2002/03

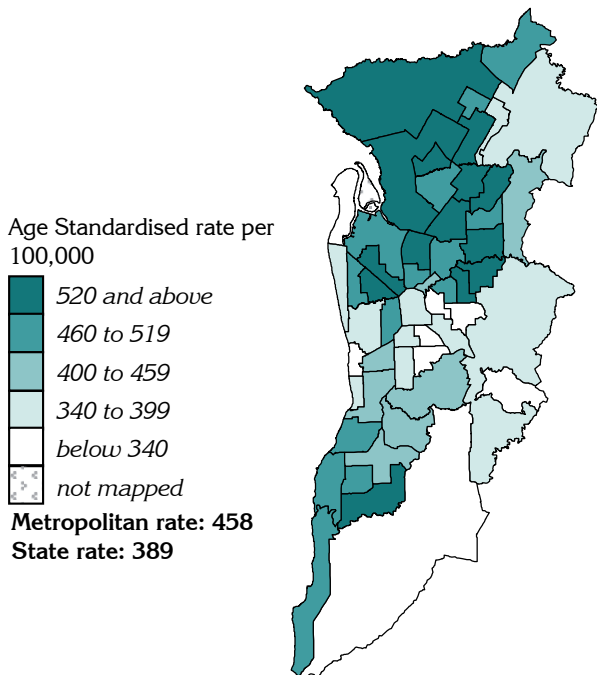


Distribution of CTP claims and costs by injury category

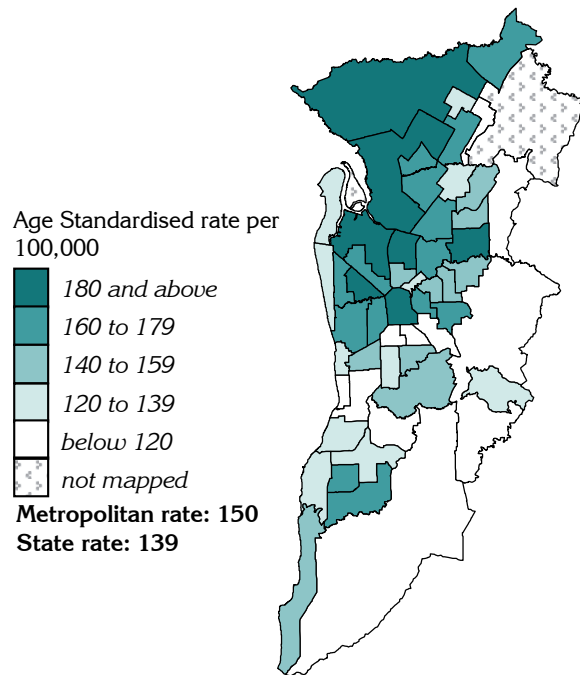
The overall rate of claims opened in 2002/03 in Adelaide for WAD injuries (458 per 100,000 population) was one fifth higher than the rate for South Australia (389). Areas with high rates are generally found in the northern and western areas of Adelaide (Map 3.9), including parts of Salisbury, Playford, Tea Tree Gully and Charles Sturt SLAs. Campbelltown, Onkaparinga - Hackham and Port Adelaide Enfield - Inner SLAs also had high rates. Lowest rates of WAD injury claims were in Onkaparinga - Hills, Adelaide Hills - Central, Unley - East, Mitcham - North East, Norwood Payneham St Peters - West, Burnside - North-East, Port Adelaide Enfield - Coast, and Holdfast Bay - North SLAs.

The overall rate of claims for Other injuries in Adelaide (150 per 100,000 population) was higher than the total State rate (139) with the highest rates concentrated in the northern and western SLAs of Playford - West, Salisbury Balance, Tea Tree Gully - South, Port Adelaide Enfield - Port and -Inner, Chares Sturt - Inner West and Adelaide (Map 3.10). The lowest rates were spread throughout the metropolitan area, particularly in the eastern and southern SLAs of Unley, Adelaide Hills - Ranges, and parts of Marion, Holdfast Bay and Onkaparinga. Low rates also occurred in Tea Tree Gully - Hills and Playford - West Central.

Map 3.9: Compulsory Third Party Insurance scheme – WAD injury claims opened, Adelaide, 2002/03



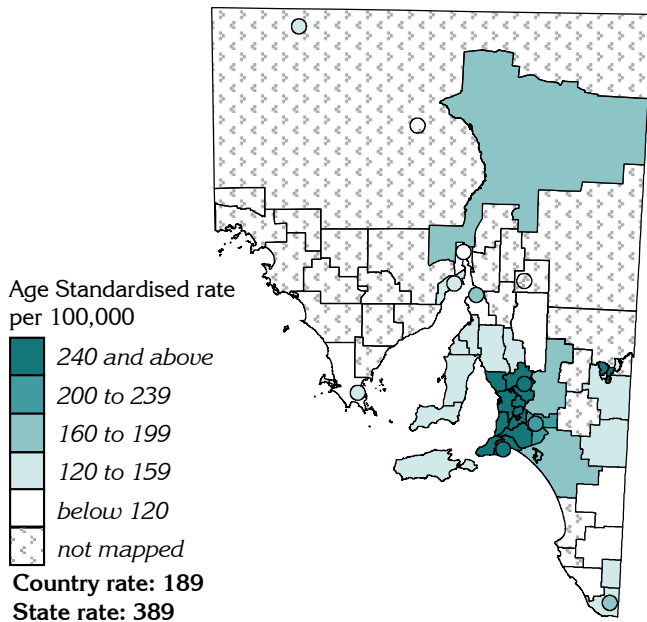
Map 3.10: Compulsory Third Party Insurance scheme – Other injury claims opened, Adelaide, 2002/03



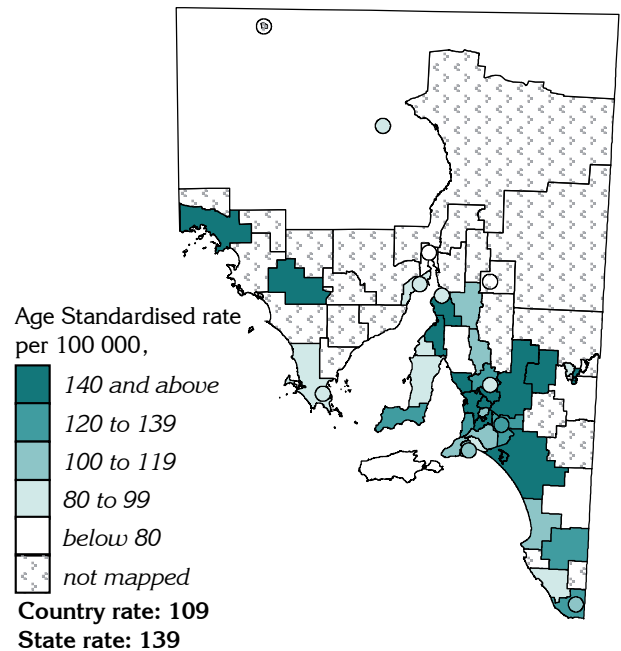
Map 3.11 shows the rate of claims opened in South Australia in 2001/02 to 2002/03 for WAD injuries, with high rates in a cluster of SLAs surrounding Adelaide. There were also high rates in the SLAs of Berri - Barmera and Renmark Paringa - Paringa. The lowest rates of claims for WAD injuries were concentrated in the lower south east of the State: some northern and mid north areas also had lower rates.

The map of claims opened in 2001/02 to 2002/03 across South Australia for Other injuries (Map 3.12) shows that the highest rates of claims were made in the western country areas, namely Ceduna and Le Hunte, and areas in the Riverland including the SLAs of Mid Murray and Loxton Waikerie - West. Other country areas which had high rates were Barossa - Barossa, Mallala, Barunga West, Port Pirie Districts and The Coorong. Country areas with the lowest rates of claims for Other injuries were Unincorporated Far North, Port Augusta, Wakefield, Loxton Waikerie - East, Tatiara, and Kangaroo Island.

Map 3.11: Compulsory Third Party Insurance scheme – WAD injury claims opened, South Australia, 2001/02 to 2002/03



Map 3.12: Compulsory Third Party Insurance scheme – Other injury claims opened, South Australia, 2001/02 to 2002/03

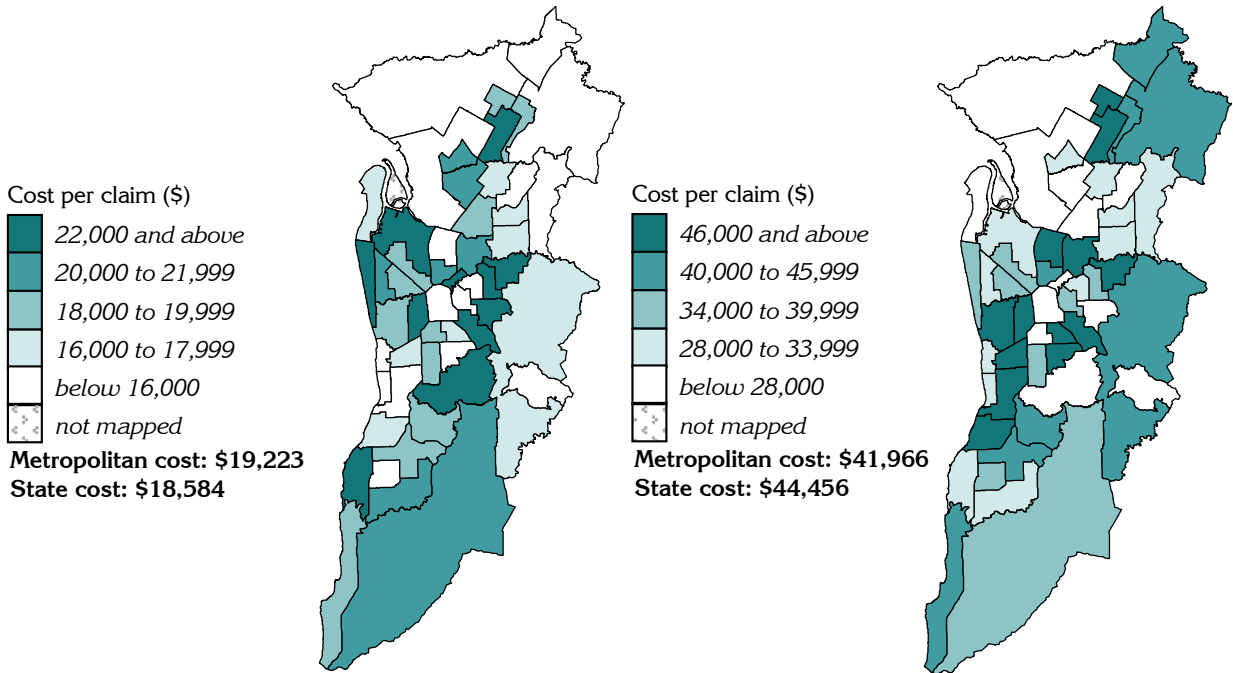


The cost of finalised claims for WAD injuries across Adelaide in 2002/03 (Map 3.13), shows high cost claims to be scattered throughout the north, south, east and west of the metropolitan area, including both areas of high and of low socioeconomic status. The lowest costs per claim were similarly found in both areas of high and of low socioeconomic status.

Costs per claim for Other injuries across Adelaide in 2002/03 (Map 3.14) showed no definite pattern. Lower costs per claim were spread across most of the Salisbury SLA and the northern SLAs of Playford - West and Tea Tree Gully - North. Other SLAs with low claim costs were Adelaide, Burnside - North-East, Adelaide Hills - Central, Mitcham - Hills, Unley - West, Walkerville and Port Adelaide Enfield - Coast.

Map 3.13: Compulsory Third Party Insurance scheme – WAD injury cost per finalised claim, Adelaide, 2002/03

Map 3.14: Compulsory Third Party Insurance scheme – Other injury cost per finalised claim, Adelaide, 2002/03

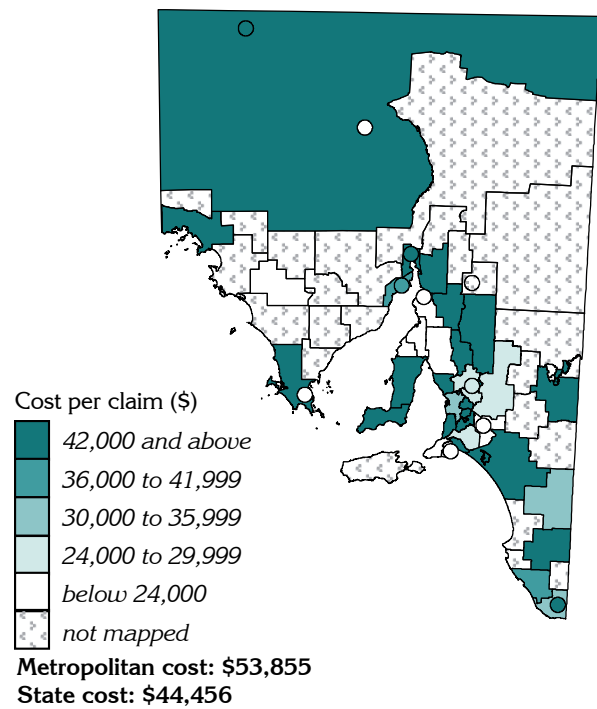
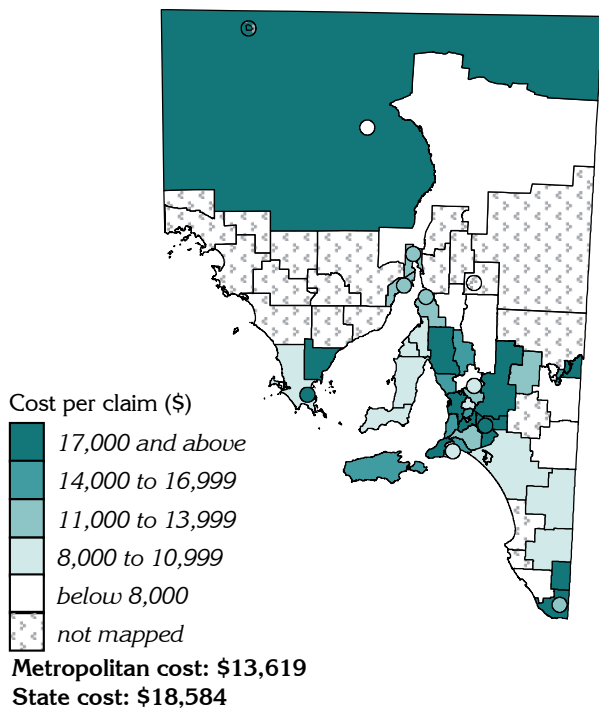


Costs per claim for WAD injuries across South Australia (Map 3.15) revealed no distinct geographic pattern, with high costs per claim concentrated in SLAs closer to Adelaide, and in isolated SLAs in more remote parts of the State. The distribution of low cost claims also showed no particular geographic pattern, with Roxby Downs, Unincorporated Flinders Ranges, Northern Areas, Goyder, Loxton Waikerie - East, Southern Mallee and Wattle Range - West all with the lowest costs per claim in country South Australia.

The distribution of cost per finalised claim for Other injuries in South Australia in 2001/02 to 2002/03 is shown in Map 3.16, with a large proportion of the mapped areas in the State showing high costs per claim, particularly to the north of Adelaide. Low costs per claim were recorded in a number of SLAs in the Mid North and the Riverland, in Le Hunte and in Roxby Downs.

Map 3.15: Compulsory Third Party Insurance scheme – WAD injury cost per finalised claim, South Australia, 2001/02 to 2002/03

Map 3.16: Compulsory Third Party Insurance scheme – Other injury cost per finalised claim, South Australia, 2001/02 to 2002/03



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4. Workers' compensation claims: Registered employers

Workers' compensation claims in this more detailed analysis include only those made through registered employers, as similar details are not available from self-insured employers (i.e. self-employers responsible for managing and funding their own workers' compensation claims): claims made under WorkCover provisions in South Australia in 2004/05 through registered employers represented 64.7% of all claims.

The data shown are for claims with a date of injury in 2004/05, for which a payment was also made in that year.

Claims by year and sex

The number and rate of claims decreased, by 21.8% and 24.8% respectively, from 1997/98 to 2003/04⁴ (Table 4.1 and Figure 4.1): this is a marked decrease, with 2,507.5 claims per 100,000 population in 2003/04, compared with 3,335.4 in 1997/98. This trend was more evident for males than females, with a 25.4% decline in the rates for males compared to 21.4% for females. More claims were made in each year by males, with markedly higher rates per 100,000 male population. The differential in rates has decreased slightly, from just over three times more claims by males in 1997/98, to just under three times more in 2003/04.

Table 4.1: Workers' compensation claims through registered employers – number and rate¹ of claims by sex and year, South Australia, 1997/98 and 2004/05

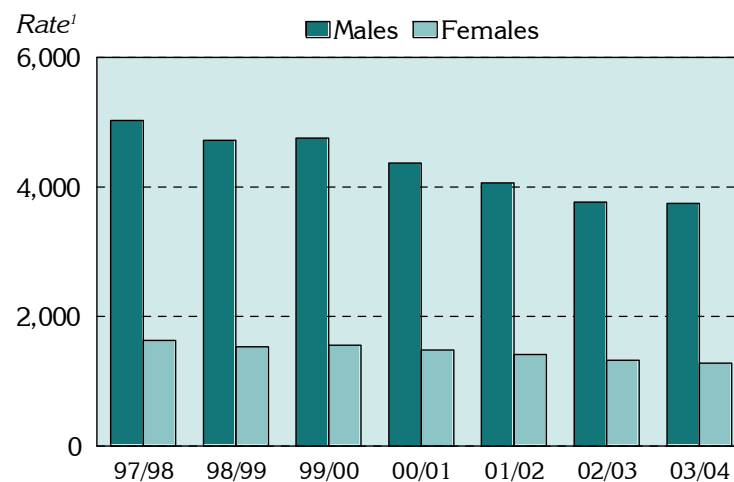
Year	Males		Females		Persons		Male/female claims ratio ²
	Number	Rate	Number	Rate	Number	Rate	
1997/98	24,556	5,024.8	7,906	1,631.6	32,462	3,335.4	3.08
1998/99	23,207	4,719.3	7,487	1,533.9	30,694	3,132.5	3.08
1999/00	23,306	4,752.5	7,699	1,557.2	31,005	3,148.4	3.05
2000/01	21,512	4,367.9	7,374	1,483.8	28,886	2,919.4	2.94
2001/02	20,203	4,060.7	7,101	1,415.9	27,304	2,733.0	2.87
2002/03	18,856	3,764.3	6,703	1,326.3	25,559	2,539.9	2.84
2003/04	18,861	3,746.9	6,525	1,281.9	25,386	2,507.5	2.92
% change 1997/98 to 2003/04 ³	-23.2	-25.4	-17.5	-21.4	-21.8	-24.8	..
2004/05	17,846	3,536.6	6,253	1,222.0	24,099	2,371.2	2.89

¹Age standardised rate per 100,000 population

²Ratio of male to female claims rates

³The percentage change has been calculated on the change to 2003/04, as the 2004/05 claims figure is not a final figure (it is estimated to be around 95% of all claims that will be lodged in respect of injuries occurring in 2004/05)

Figure 4.1: Workers' compensation claims through registered employers, 1997/98 to 2003/04



¹Age standardised rate per 100,000 population

⁴ The comparison is made with 2003/04, as the 2004/05 claims figure is not a final figure (it is estimated to be around 95% of all claims that will be lodged in respect of injuries occurring in 2004/05)

As described on page 6, the variance between the number of persons shown in Table 4.1 and Table 4.2 is attributable to how the data were extracted: Table 4.1 is based on claims with a date of injury in 2004/05, whereas Table 4.2 is based on claims with a date of injury and a payment in 2004/05.

Table 4.2 shows the number and rate of claims made under WorkCover provisions in South Australia in 2004/05, by sex of claimant for selected services (services by general medical practitioners (GPs) and physiotherapists). Almost three quarters of claims (74.6%) were made by males. Similarly, a majority of services provided to claimants by a GP (71.3%) were for males. While males also used a majority of physiotherapy services, the proportion was lower, at just under two thirds (64.2%).

Table 4.2: Workers' compensation – number and rate of claims by sex and selected service provider, South Australia, 2004/05

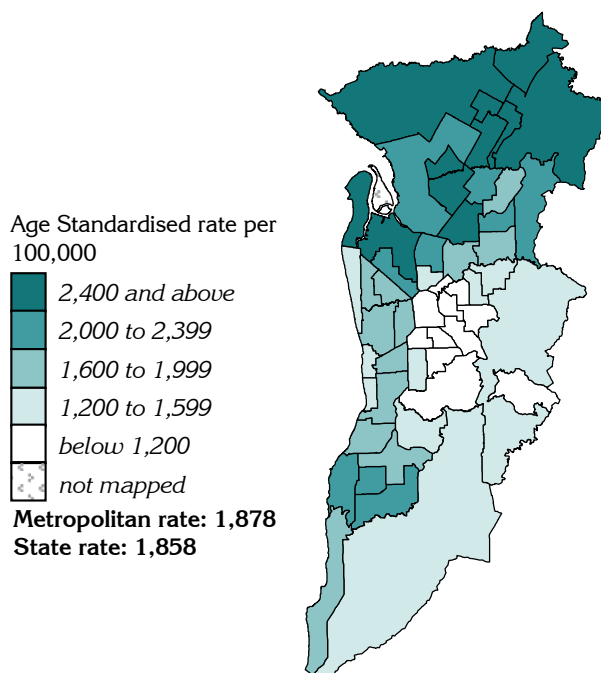
Variable	Males	Females	Persons		
	Number	Number	Number	Rate ¹	Services per claim
Claims:					
Number	14,093	4,786	18,879	1,858	..
Per cent	74.6	25.4	100.0
Services by:					
General medical practitioners	51,845	20,874	72,719	7,155	3.9
Physiotherapists	35,267	19,603	54,870	5,399	2.9

¹ Claims or services per 100,000 population

Distribution of claims and selected services by SLA: Adelaide

The geographic distribution in Adelaide of people making workers' compensation claims in 2004/05 (Map 4.1) closely follows the pattern of socioeconomic status shown in Map 2.1. The highest rates were recorded in all SLAs in Playford; in Salisbury - Inner North, - Central and - South-East; Port Adelaide Enfield - Coast and - Port; and in Gawler. Slightly lower rates were recorded in parts of Onkaparinga and Tea Tree Gully. Following this pattern, the lowest rates were recorded in the city and adjacent SLAs, as well as to the east and south.

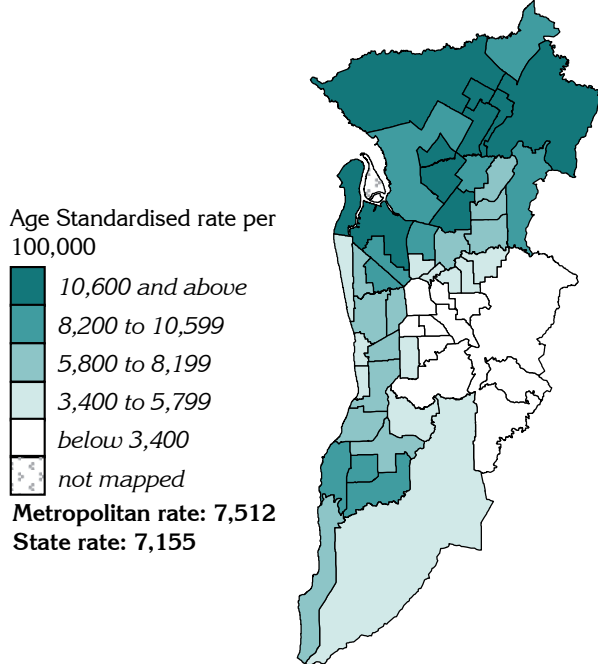
Map 4.1: Workers' compensation – claims, Adelaide, 2004/05
Claims per 100,000 population



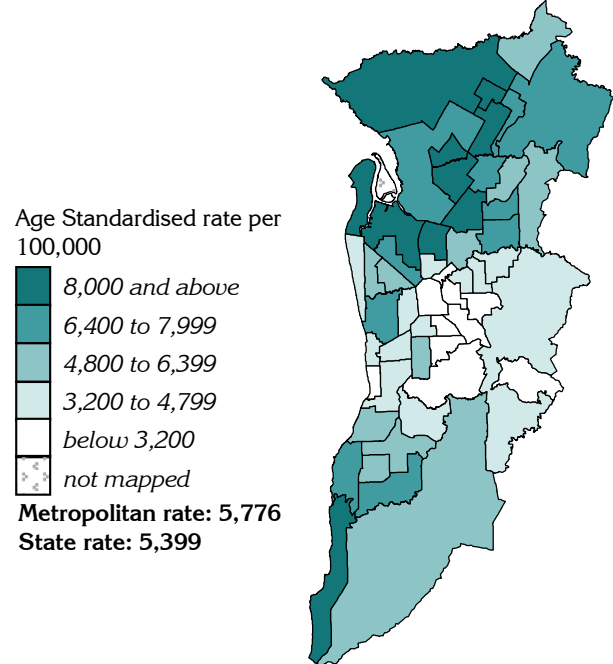
Services provided by GPs under workers' compensation claims in Adelaide (Map 4.3) have a distribution that is almost identical to that for claims. Again, the highest rates are in the Playford SLAs; in Salisbury - Inner North, - Central and - South-East; and Port Adelaide Enfield - Coast and - Port. The lowest rates are in a group of SLAs running from the City of Adelaide to the east, south and south-east.

The distribution of services provided by physiotherapists under workers' compensation claims (Map 4.4) again follows a similar pattern, although with fewer SLAs in the outer north in the highest range, and Onkaparinga - South Coast also with a high rate. The overall rate of physiotherapy services is around three quarters that of GP services.

Map 4.2: Workers' compensation – general medical practitioner services, Adelaide, 2004/05
Services per 100,000 population



Map 4.3: Workers' compensation – physiotherapy services, Adelaide, 2004/05
Services per 100,000 population



The correlation analysis shows a number of strong and very strong associations at the SLA level between high rates of workers' compensation claims and selected services utilised under these claims, and a wide range of indicators of socioeconomic disadvantage; there were similarly very strong inverse correlations with many indicators of socioeconomic advantage (Table 4.3). A more complete table is in the Appendix (Table A1).

Table 4.3: Correlations – workers' compensation summary data and indicators of socioeconomic status, Adelaide

Variable <i>(see Appendix for full descriptions)</i>	Claims	GP services	Physiotherapy services
Low income families	0.66	0.68	0.71
High income families	-0.76	-0.76	-0.79
Unskilled and semi-skilled workers	0.91	0.91	0.87
Managers & administrators, & professionals	-0.88	-0.84	-0.86
Unemployment rate	0.67	0.70	0.63
Jobless families	0.71	0.73	0.71
Female labour force participation	-0.80	-0.83	-0.77
Full-time education participation at age 16	-0.76	-0.78	-0.70
Average subject scores ¹			
- PES scores	-0.91	-0.88	-0.85
- PAS scores	-0.81	-0.81	-0.79
- SAS scores	-0.85	-0.85	-0.82
Aboriginal and Torres Strait Islander peoples	0.74	0.75	0.71
People born overseas in predominantly non-English speaking countries			
- resident 5 years or more	-0.03	0.03	0.07
- resident less than 5 years	-0.35	-0.29	-0.30
-poor proficiency in English	0.12	0.18	0.21
Dwellings rented from the SA Housing Trust	0.57	0.61	0.56
Households receiving rent assistance from Centrelink	0.21	0.26	0.19
Internet used at home	-0.72	-0.74	-0.76
IRSD	-0.80	-0.82	-0.79

¹Students (less than 19 years) sitting for Year 12 examinations

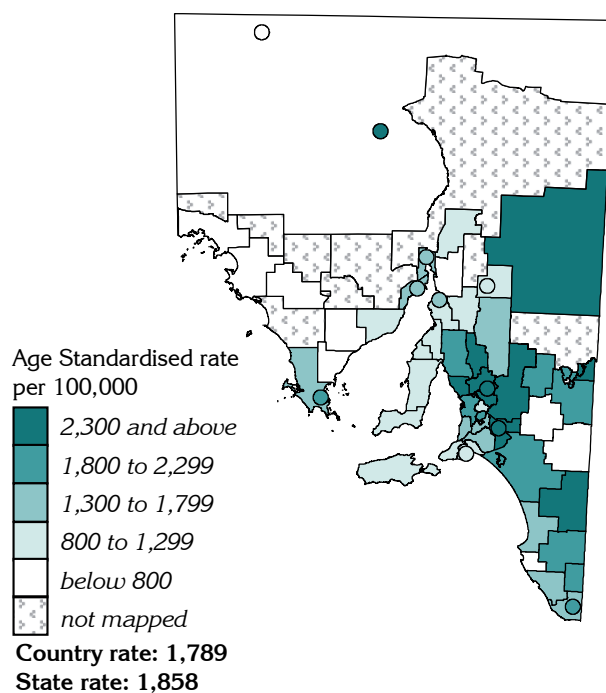
Note: Correlations between 0.3 and 0.49 are referred to as being 'weak'; between 0.50 and 0.70 as being 'strong', and are shaded in light green; and those 0.71 and above as being 'very strong', and are shaded in dark green. There is a more complete table in Appendix A1.

The correlations were similar for GP services and physiotherapy services. Most notably, there were very strong correlations with the indicators for single parent families, jobless families, unskilled and semi-skilled workers, and Indigenous people. Strong correlations were also seen for unemployed people, low income families and persons living in rented dwellings. There were strong to very strong inverse correlations with high income families, managers, administrators and professionals, Internet use at home and the Index of Relative Socio-Economic Disadvantage. There is a more complete table of correlation coefficients in the Appendix (Table A1).

Distribution of claims and selected services by SLA: country South Australia

The rate of claims was highest in a number of the SLAs immediately to the north and east of Adelaide (including the towns of Barossa - Tanunda and Murray Bridge, and Light and Clare and Gilbert Valleys), in parts of the Riverland and the Murray Mallee, and in Roxby Downs (Map 4.4). The lowest rates were recorded in SLAs scattered across the State, in the far north (including Coober Pedy), Eyre Peninsula, Murray Mallee and the South East.

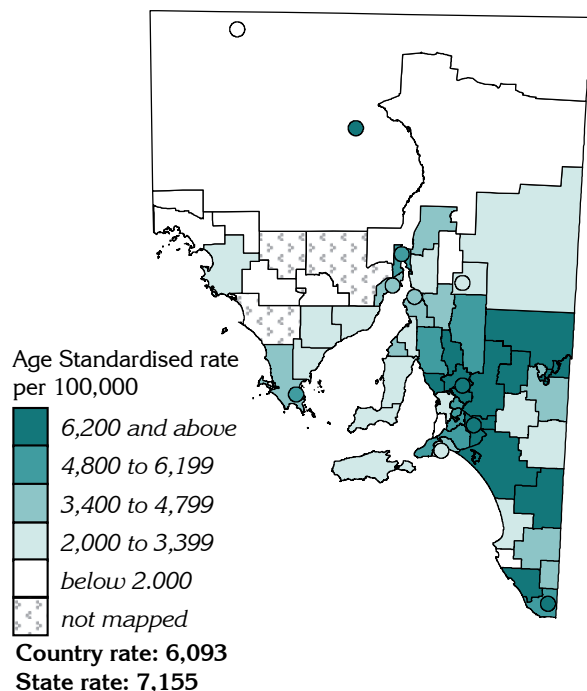
**Map 4.4: Workers' compensation – claims,
South Australia, 2004/05**
Claims per 100,000 population



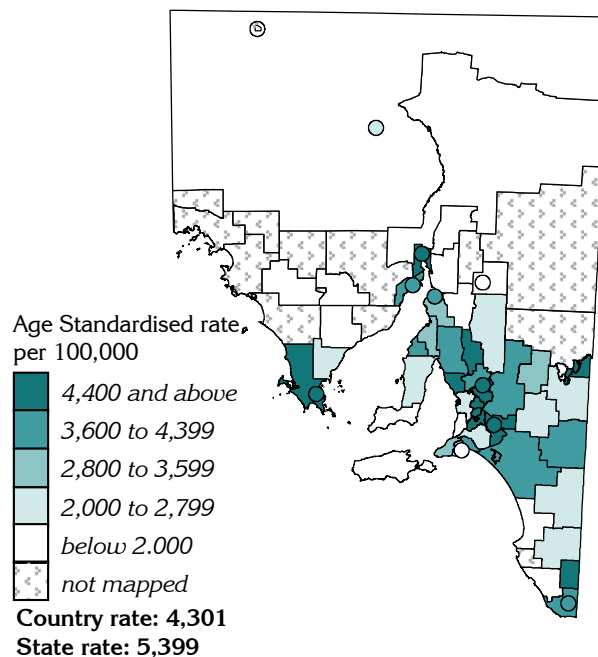
The distribution of services provided by GPs (Map 4.5) shows a similar pattern to that described for claims, although the rates in the Iron Triangle towns of Whyalla, Port Augusta and Port Pirie, and in Port Lincoln and Mount Gambier, were noticeably higher.

The distribution of physiotherapy services provided under workers' compensation claims (Map 4.6) is somewhat different, no doubt reflecting issues of access in country South Australia: for example, there are an estimated 148 physiotherapists in country South Australia (a rate of 0.6 per 1,000 Estimated Resident Population) compared with an estimated 785 physiotherapists in Adelaide (1.2 per 1,000 Estimated Resident Population) (Tables A3 and A4). The highest rates are in and around the larger towns, as well as in the more heavily populated areas close to Adelaide (to the east) and in the Riverland. Low rates were spread across the State, including in much of the Northern & Far Western, Eyre and Mid North health regions, as well as in the SLAs of Yorke Peninsula - South, Kangaroo Island, Lincepede and Wattle Range - East.

Map 4.5: Workers' compensation – general medical practitioner services provided, South Australia, 2004/05
Services per 100,000 population



Map 4.6: Workers' compensation – physiotherapy services, South Australia, 2004/05
Services per 100,000 population



Despite somewhat inconsistent results (in part related to relatively small numbers of the population and claims in these SLAs), the correlations analysis for country South Australia suggests a weak association at the SLA level between workers' compensation claims and selected services, and indicators of socioeconomic disadvantage, although not with the summary measure, the IRSD (Table 4.4). There was a strong inverse correlation between claims made and low income families, and weak inverse correlations with several other indicators of socioeconomic advantage. There is a more complete table of correlation coefficients in the Appendix (Table A2).

Table 4.4: Correlations – workers’ compensation summary data and indicators of socioeconomic status, country South Australia, 2004/05

Variable	Claims	GP services	Physiotherapy services
Low income families	-0.50	-0.42	-0.31
High income families	0.45	0.43	0.36
Unskilled and semi-skilled workers	0.48	0.42	0.21
Managers & administrators, & professionals	-0.36	-0.37	-0.39
Unemployment rate	-0.33	-0.29	-0.17
Jobless families	-0.13	-0.13	0.05
Female labour force participation	0.08	0.10	-0.02
Full-time education at 16 years ¹	0.00	0.12	0.11
Average subject scores ¹			
- PES	0.18	0.07	0.00
- PAS	-0.30	-0.33	-0.42
- SAS	-0.20	-0.28	-0.49
Aboriginal and Torres Strait Islander peoples	-0.16	-0.16	-0.14
People born overseas in predominantly non-English speaking countries			
- resident 5 years or more	0.09	0.14	0.16
- resident less than 5 years	0.26	0.30	0.19
-poor proficiency in English	0.17	0.20	0.15
Dwellings rented from the SA Housing Trust	0.14	0.08	0.24
Households receiving rent assistance	0.19	0.21	0.32
Internet used at home	0.26	0.26	0.27
IRSD	0.00	0.03	0.00

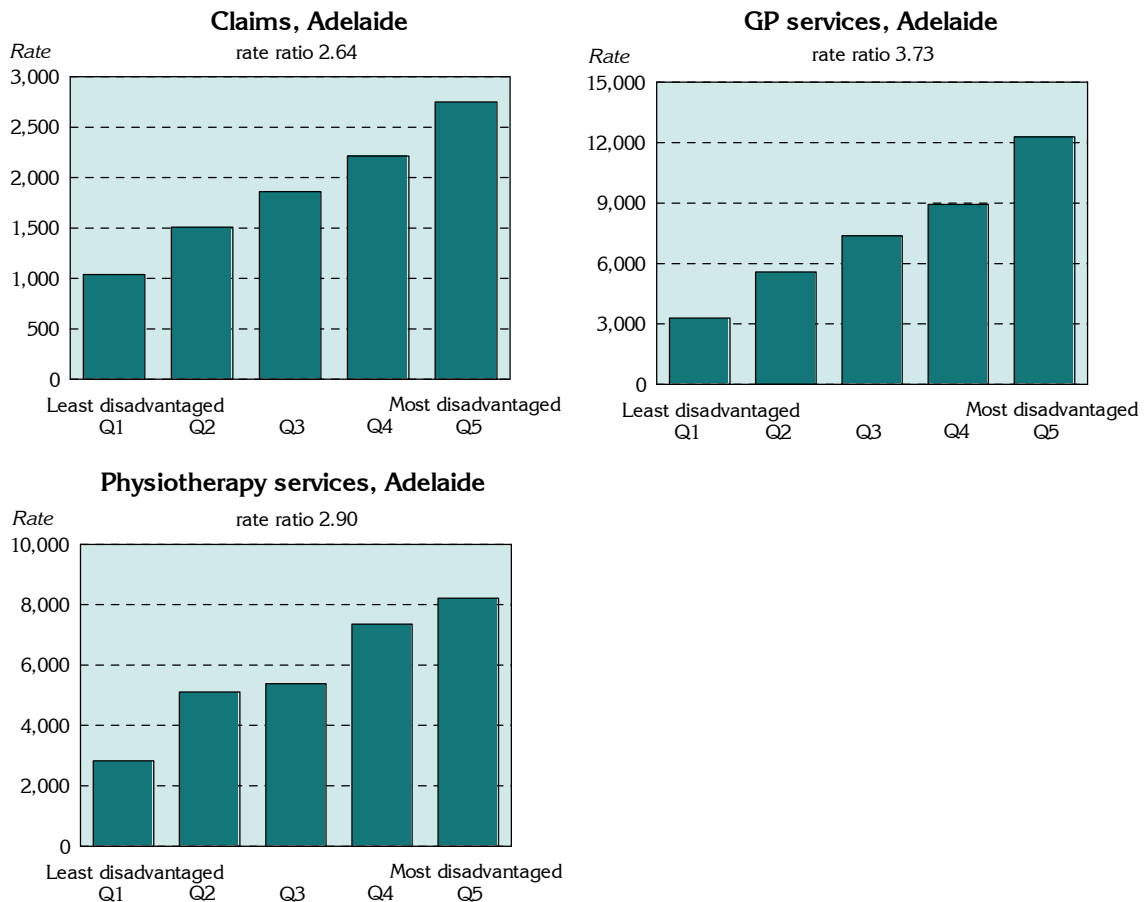
¹Students (less than 19 years) sitting for Year 12 examinations

Note: Correlations between 0.3 and 0.49 are referred to as being ‘weak’; between 0.50 and 0.70 as being ‘strong’, and are shaded in light green; and those 0.71 and above as being ‘very strong’, and are shaded in dark green. There is a more complete table in Appendix A1.

Distribution of claims and selected services by socioeconomic status

The distributions of workers' compensation claims and selected services in Adelaide in 2004/05 show a clear socioeconomic pattern (Figure 4.2), with rates increasing substantially, from the least disadvantaged areas (Quintile 1) through to the most disadvantaged (Quintile 5). Claims rates were over two and a half times higher in the most disadvantaged areas (a rate ratio of 2.64). For GP services, the most disadvantaged areas had almost four (a rate ratio of 3.73) times the rate of service usage, compared to the least disadvantaged areas. Physiotherapy services were also utilised much more by claimants in the most disadvantaged areas, with almost three times the rate of service usage (a rate ratio of 2.9).

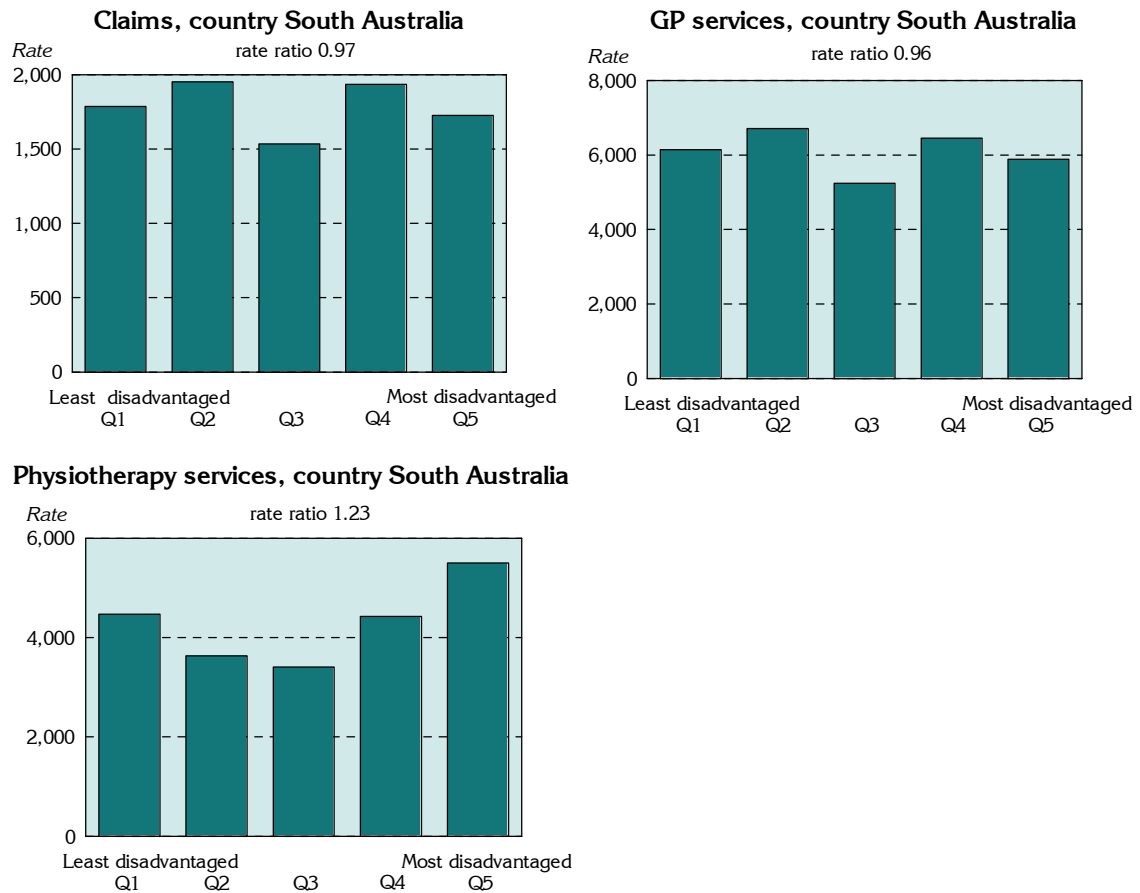
Figure 4.2: Workers' compensation – claims and selected services provided, by socioeconomic status, 2004/05



Note: Rate ratio is the ratio of the rate in Quintile 5 to Quintile 1

For workers' compensation claims by residents of country South Australia, there was no such distinctive pattern for either claims or selected services provided (Figure 4.3). However, physiotherapy services were utilised more by claimants living in the most disadvantaged areas (a rate ratio of 1.23).

Figure 4.3: Workers' compensation – claims and selected services provided, by socioeconomic status, South Australia, 2004/05



Rate ratio is the ratio of the rate in Quintile 5 to the rate in Quintile 1

Distribution of claims and selected services by remoteness

The highest rates of workers' compensation claims were recorded in the most accessible areas, with 1,988 claims per 100,000 population in the Inner Regional areas and 1,880 in the Major Cities class (covering Adelaide) (Table 4.5 and Figure 4.4). The rates decreased across the remaining remoteness classes to a low of 469 claims per 100,000 in the Very Remote areas.

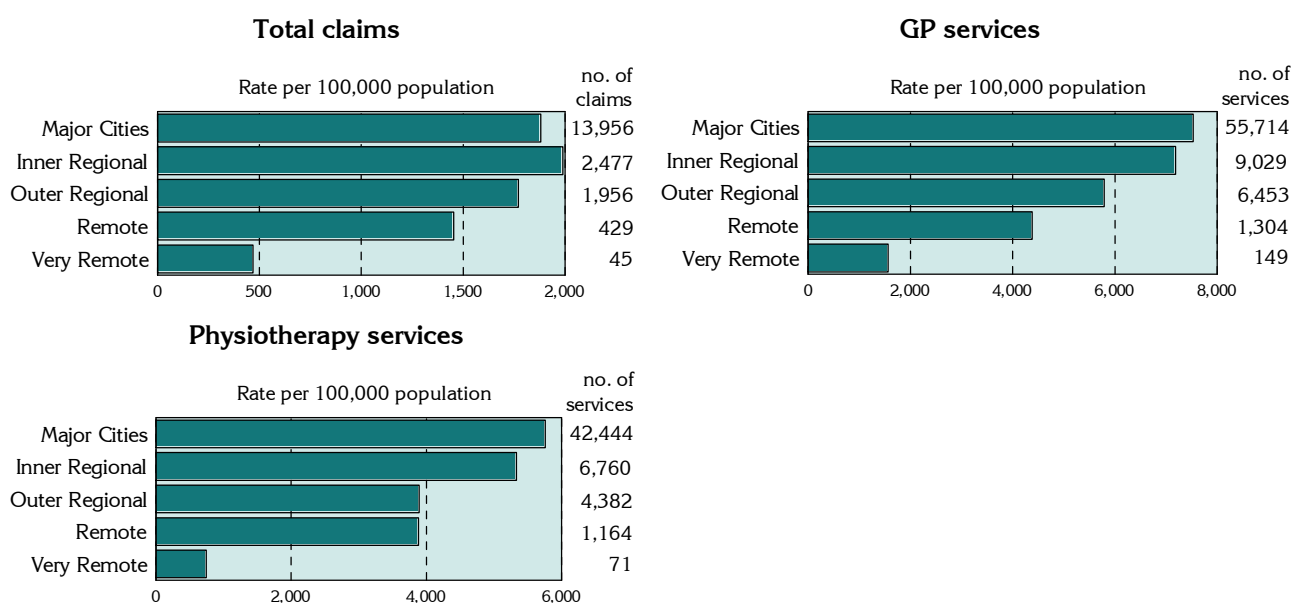
The rate of GP services accessed across the State also decreased with increasing remoteness, with 79% fewer services to people in the Very Remote areas compared with those in the Major Cities class (a rate ratio of 0.21, Table 4.5 and Figure 4.4). The pattern for physiotherapy services is stronger, with 87% fewer services to people in the Very Remote areas (a rate ratio of 0.13).

Table 4.5: Workers' compensation - distribution, by remoteness, of rates¹ of claims and selected services, South Australia, 2004/05

Remoteness category	Claims	GP services	Physiotherapy services
Major Cities	1,880	7,530	5,756
Inner Regional	1,988	7,183	5,330
Outer Regional	1,771	5,788	3,891
Remote	1,454	4,382	3,882
Very Remote	469	1,564	747
Rate ratio	0.25	0.21	0.13

¹ Age standardised rate per 100,000 population

Figure 4.4: Workers' compensation – distribution, by remoteness, of claims and selected services, South Australia, 2004/05

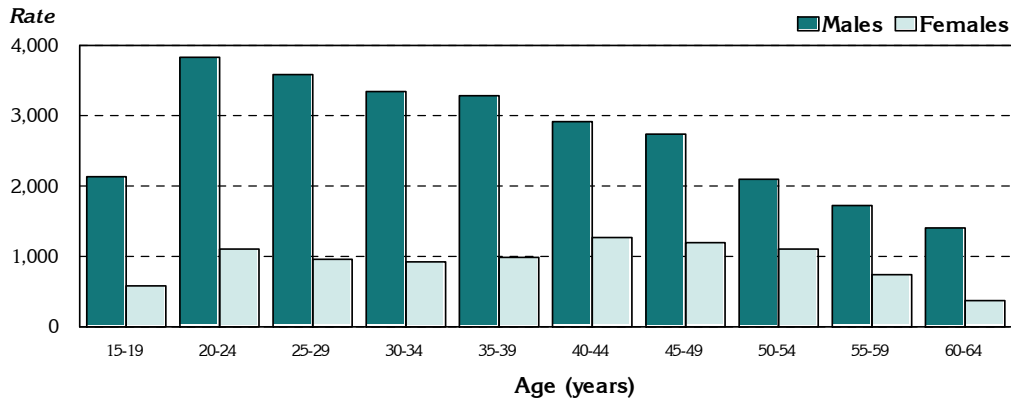


Distribution of claims and selected services by age

Figures 4.5 to 4.9 show the rates of workers' compensation claims and selected services for each five year age group from 15 to 64 years.

As can be seen from Figure 4.5, the distribution of workers' compensation claims differs for males and females across the age groups. Whereas the highest rates for males occurred in the younger age groups (20 to 29 year olds), the highest rates for females were recorded for those aged 40 to 49 years, although the variation is not as large as for males.

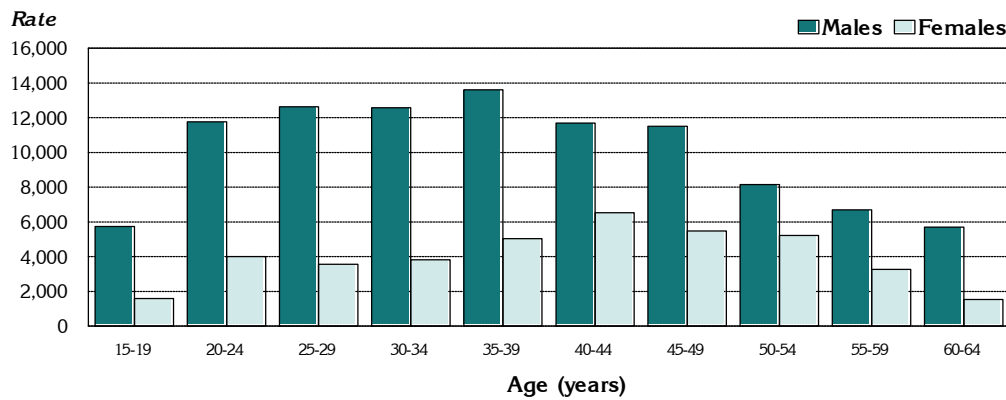
Figure 4.5: Workers' compensation – total¹ claims by age and sex, South Australia, 2004/05



¹ Age standardised rate per 100,000 population

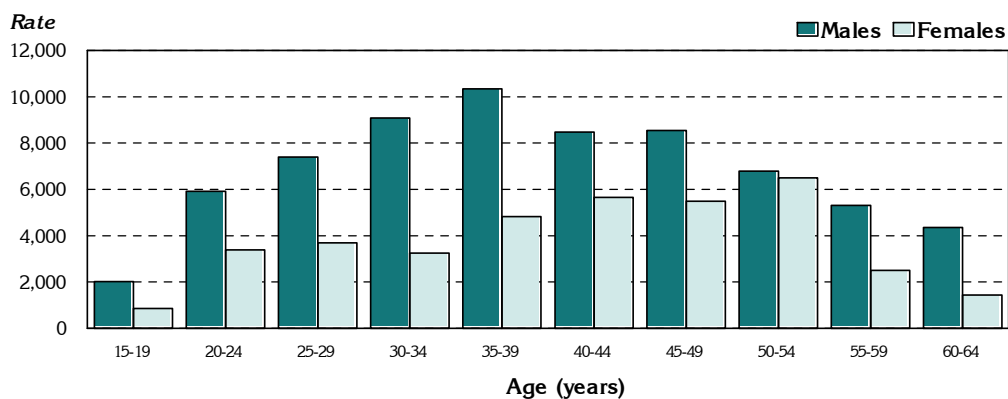
The rate of GP services provided under workers' compensation claims is also greater for males, but has a different pattern, with the highest rates in the 35 to 39 year age group (Figure 4.6), and dropping off steadily to younger and older ages. The pattern for GP services to females is less consistent (although similar to that for claims), with the highest rates in the 40 to 44 and 50 to 54 year age groups.

Figure 4.6: Workers' compensation – GP services by age and sex, South Australia, 2004/05



For males, the age distribution of people using physiotherapy services under workers' compensation claims (Figure 4.7) again shows a similar pattern. While similar, however, there are a number of differences in the pattern for females, most noticeably in the age groups from 45 to 54 years, where the rates continued to increase, rather than to decline.

Figure 4.7: Workers' compensation – physiotherapy services by age and sex, South Australia, 2004/05



5. Other relevant datasets

Road traffic accidents

Severity type and area of residence: 1994 and 2002

The number and proportion of road traffic accidents that occurred in South Australia in 1994 and 2002, is shown below by severity and area of usual residence of the driver (Table 5.1). In 1994, drivers involved in the majority (83.7%) of road traffic accidents had an address of usual residence in Adelaide. Most of these accidents resulted in property damage only (PDO), with 57.2% resulting in PDO of less than \$3,000, and a further 27.8% resulting in PDO of \$3,000 or more. The remaining 15.0% of accidents resulted in treatment, of the driver or others injured in the accident, by a private doctor or at a hospital, or admission to hospital. A small proportion (0.2%) of accidents resulted in fatalities.

In country South Australia, the pattern was similar, with most traffic accidents resulting in PDO, either of less than \$3,000 (44.4%) or \$3,000 or more (31.5%). The percentage of the injured who were treated in hospital (11.1%) or admitted to hospital (8.0%), or were fatalities (1.2%), were substantially higher in country South Australia than in Adelaide. In addition to reflecting the greater severity of accidents, the higher rates of admission to hospital may reflect differences in resources in country areas, where the supply of general medical practitioners is more limited, and hospital beds are more available than in the city.

In 2002, more road traffic accidents occurred than in 1994, in both Adelaide (3.7% higher) and in country South Australia (0.9% higher). In Adelaide, the majority of accidents (48.7%) resulted in PDO of less than \$3,000, followed by accidents resulting in PDO of \$3,000 or more (33.7%). The number and proportion of accidents resulting in treatment by a private doctor and treatment at hospital has increased since 1994; however, the number and proportions for admissions to hospital and fatalities were both lower.

In country South Australia, 37.5% of accidents resulted in PDO of less than \$3,000, a smaller proportion than in 1994, and accidents resulting in PDO of \$3,000 or more, increased to 37.0%. The number and proportion treated by a private doctor (3.0%) were less than in 1994; however, there were increases in the number and proportion of fatalities, as well as in those treated at hospital (12.5%) or admitted to hospital (8.7%).

Table 5.1: Road traffic accidents by severity type and area, 1994 and 2002

Severity type	Adelaide		Country South Australia		South Australia	
	Number	Per cent	Number	Per cent	Number	Per cent
1994						
PDO <\$3,000	18,467	57.2	2,913	44.4	21,380	55.1
PDO \$3,000+	8,967	27.8	2,071	31.5	11,038	28.4
Treated by private doctor	1,925	6.0	243	3.7	2,168	5.6
Treated at hospital	2,180	6.8	732	11.1	2,912	7.5
Admitted to hospital	657	2.0	528	8.0	1,185	3.1
Fatal	65	0.2	80	1.2	145	0.4
Total	32,261	100.0	6,567	100.0	38,828	100.0
2002						
PDO <\$3,000	16,308	48.7	2,486	37.5	18,794	46.9
PDO \$3,000+	11,278	33.7	2,449	37.0	13,727	34.2
Treated by private doctor	2,318	6.9	196	3.0	2,514	6.3
Treated at hospital	2,906	8.7	830	12.5	3,736	9.3
Admitted to hospital	621	1.9	578	8.7	1,199	3.0
Fatal	50	0.1	88	1.3	138	0.3
Total	33,481	100.0	6,627	100.0	40,108	100.0

PDO: property damage only

Note: the PDO coding threshold in 1994 was >\$600 (equivalent to \$867 in 2002 prices). In 2002 it was \$1000+.

Overall, the rate of road traffic accidents were 84% higher in Adelaide compared to country South Australia (Table 5.2). The greatest differences were recorded for accidents in which the individual was treated by a doctor (more than four times higher in Adelaide) and where the property damage was less than \$3,000 (more than double in Adelaide). In contrast, accidents in which the individual was admitted to hospital and fatal accidents were higher in country South Australia.

Table 5.2: Road traffic accidents by severity type and area, 2002

Severity type	Adelaide		Country South Australia		South Australia		Adelaide/ country SA ratio
	Number	Rate	Number	Rate	Number	Rate	
PDO <\$3,000	16,308	1,463.5	2,486	612.4	18,794	1,236.3	2.39
PDO \$3,000+	11,278	1,012.1	2,449	603.3	13,727	902.9	1.68
Treated by private doctor	2,318	208.0	196	48.3	2,514	165.4	4.31
Treated at hospital	2,906	260.8	830	204.5	3,736	245.8	1.28
Admitted to hospital	621	55.7	578	142.4	1,199	78.9	0.39
Fatal	50	4.5	88	21.7	138	9.1	0.21
Total	33,481	3,004.7	6,627	1,632.4	40,108	2,638.3	1.84

PDO: property damage only

The number of individuals involved in a road traffic accident in 1994 and 2002 are shown by severity type in Table 5.3. The proportion of individuals treated at hospital increased over the period, from 45.1% in 1992 to 48.9% in 2002. The proportion of individuals admitted to hospital and those involved in a fatal accident decreased, while individuals treated by a private doctor remained consistent. In 2002, just under half of drivers involved in a road traffic accident were treated at hospital (48.3%), while just over a third were treated by a private doctor (37.0%).

Table 5.3: Individuals and drivers involved in road traffic accidents involving injury, by severity type, 1994 and 2002

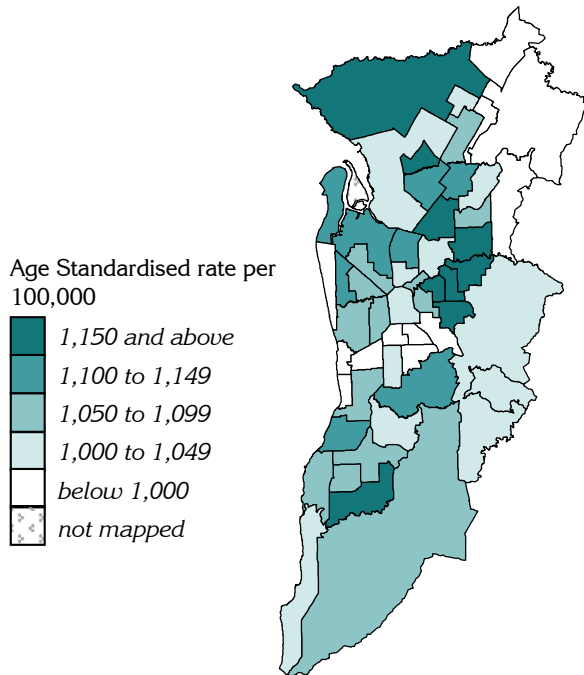
Severity type	1994		2002			
	Individuals		Individuals		Drivers	
	number	per cent	number	per cent	number	per cent
Treated by private doctor	4,460	36.9	5,216	36.2	5,138	37.0
Treated at hospital	5,452	45.1	7,049	48.9	6,717	48.3
Admitted to hospital	1,931	16.0	1,930	13.4	1,835	13.2
Fatal	244	2.0	220	1.5	206	1.5
Total	12,087	100.0	14,415	100.0	13,896	100.0

Residential location of driver

Map 5.1 shows the distribution of drivers involved in road traffic accidents in 2002, mapped to the SLA of the address of their usual residence. The highest rates (drivers involved in road traffic accidents per 100,000 population) were from a group of SLAs in the eastern and north-eastern suburbs, running from Burnside - North-East, through Norwood Payneham St Peters - East, Campbelltown - West, and Tea Tree Gully - South, to Salisbury - South-East and - Inner-North, and in Playford - West; high rates were also recorded in Onkaparinga - Hackham. The lowest rates were recorded in the SLAs of Tea Tree Gully - Hills, Holdfast Bay, Charles Sturt - Coastal, Marion - North, Unley, Mitcham - North East, Burnside - South-West, Gawler and Playford - East Central and - Hills. The relatively low rates in the Playford SLAs of Elizabeth and West Central are consistent with the low rates of vehicle ownership in these areas (see Map 2.13).

In country South Australia, areas with the highest rates were mainly located near the metropolitan area: they were Mount Barker (Central and Balance), Murray Bridge, Adelaide Hills - North, Barossa - Barossa, Mallala, Yankalilla, and Alexandrina - Coastal (Map 5.2). The more remote areas of the State, as well as a number of country towns, were among areas with the lowest rates: they included Wattle Range - West, Renmark Paringa - Paringa, Kangaroo Island, Unincorporated Far North, Flinders Ranges, Northern Areas, Streaky Bay, Tumby Bay, Port Augusta, Peterborough and Roxby Downs.

Map 5.1: Drivers involved in road traffic accidents, Adelaide, 2002



Map 5.2: Drivers involved in road traffic accidents, South Australia, 2002

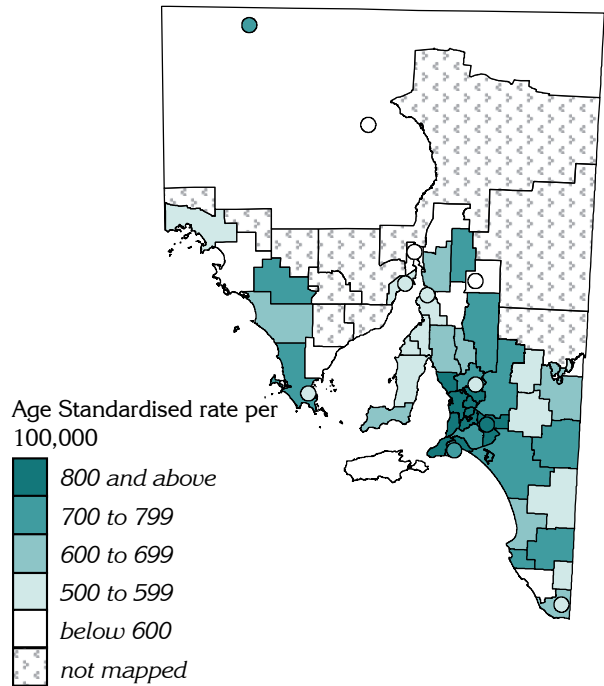
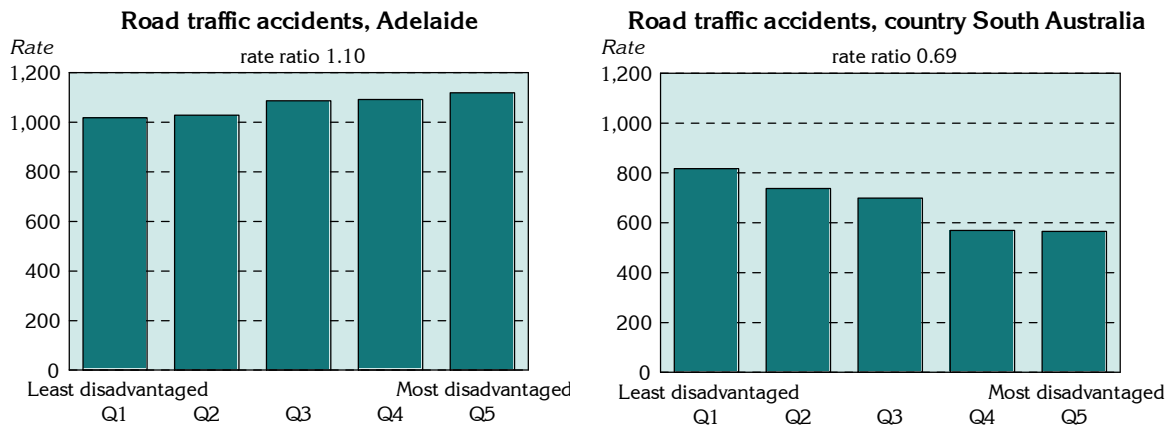


Figure 5.1 shows the rate of drivers involved in road traffic accidents by socioeconomic status. In Adelaide, there was a slightly (10%) higher rate of drivers from the most disadvantaged areas (Quintile 5), when compared with the least disadvantaged areas (Quintile 1), involved in accidents. In country South Australia, the reverse was the case, with a markedly lower rate of drivers involved in accidents in the least disadvantaged areas (31% lower, a rate ratio of 0.69).

Figure 5.1: Drivers involved in road traffic accidents, South Australia, 2002



Rate ratio is the ratio of the rate in Quintile 5 to Quintile 1

Hospital inpatient data by compensation type

Information on admissions to public acute and private hospitals in South Australia by 'source of funding', provided by the Department of Health SA, is shown in Table 5.4. The major sources of funding are Australian Health Care Agreements and private health insurance, which together accounting for 91.5% of compensation admissions. There were 9,044 hospital admissions funded under compensation schemes in 2003/04, representing 1.6% of all admissions. Although the small number of admissions covered by workers' compensation accounted for three times the level of admissions for motor vehicle third party personal claims, both types of admission accounted for similar proportions of bed days, reflecting the longer hospital stays of those involved in motor vehicle accidents.

Table 5.4: Hospital admissions and bed days by compensation type, South Australia, 2003/04

Source of funding	Hospital admissions			Bed days		
	No.	Rate ¹	%	No.	Rate ¹	%
Workers' compensation ²	6,738	441.2	1.2	17,817	1,166.7	0.9
Motor vehicle third party personal (CTP) claim	2,113	138.4	0.4	14,397	942.7	0.7
Other compensation ³	193	12.6	0.0	524	34.3	0.0
Total compensable	9,044	592.2	1.6	32,738	2,143.7	1.6
Other sources ⁴	564,659	37,567.0	98.4	2,017,738	132,124.7	98.4
Total	573,703	36,974.8	100.0	2,050,476	134,268.4	100.0

¹Age standardised rate per 100,000 population

²Includes all admissions to South Australian hospitals under workers' compensation claims, not just claims managed by WorkCover .

³Includes public liability, common law, medical negligence, Seamen's compensation, etc.

⁴Includes funding under Australian Health Care Agreements, private health insurance, Department of Veterans' Affairs, self-funded and other sources

The main categories of external causes for hospital admissions under workers' compensation (Table 5.6) were accidents, with exposure to mechanical force (9.7%), other external causes of accidental injury (7.8%), falls (3.5%) and transport accidents (2.1%) being the main types of accident. Complications of medical and surgical care (4.8%) and sequelae and supplementary factors (4.5%) were the next main external causes. Notably, almost two thirds (64.9%) of the external causes were 'Unknown' for hospital admission under workers' compensation.

Table 5.5: Hospital admissions by compensation type and external cause, South Australia, 2003/04

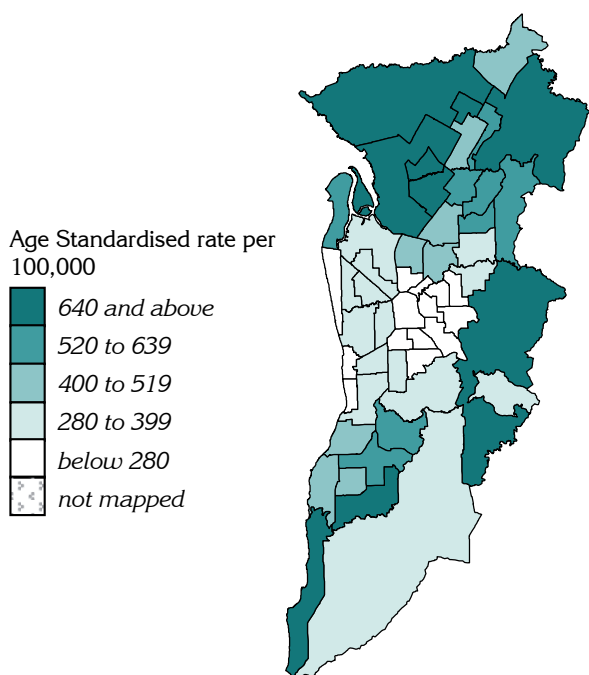
External cause	Workers' compensation		Motor vehicle third party personal claim		Other compensation	
	no.	%	no.	%	no.	%
Accidents						
Transport accidents	144	2.1	1503	71.1	19	9.8
Falls	235	3.5	4	0.2	11	5.7
Exposure to mechanical forces	655	9.7	4	0.2	6	3.1
Accidental drowning and submersion	1	0.0	0	0.0	0	0.0
Other accidental threats to breathing	2	0.0	0	0.0	0	0.0
Exposure to electric current, radiation and extreme ambient air temperature and pressure	14	0.2	0	0.0	0	0.0
Exposure to smoke, fire and flames	62	0.9	1	0.0	0	0.0
Exposure to venomous animals and plants	22	0.3	2	0.1	0	0.0
Accidental poisoning	59	0.9	5	0.2	0	0.0
Complications of medical and surgical care	324	4.8	54	2.6	7	3.6
Sequelae and supplementary factors	300	4.5	147	7.0	29	15.0
Other external causes of accidental injuries	523	7.8	9	0.4	7	3.6
Other	24	0.4	6	0.3	1	0.5
Unknown	4,373	64.9	378	17.9	113	58.5
Total	6,738	100.0	2,113	100.0	193	100.0

For motor vehicle third party personal (CTP) claims, the main external cause was also accidents, namely transport accidents (71.1%). Sequelae and supplementary factors (7.0%) and complications of medical and surgical care (2.6%) were the next main external causes of hospital admissions. Almost a fifth of hospital admissions were for 'Unknown' external cause under motor vehicle third party personal claims.

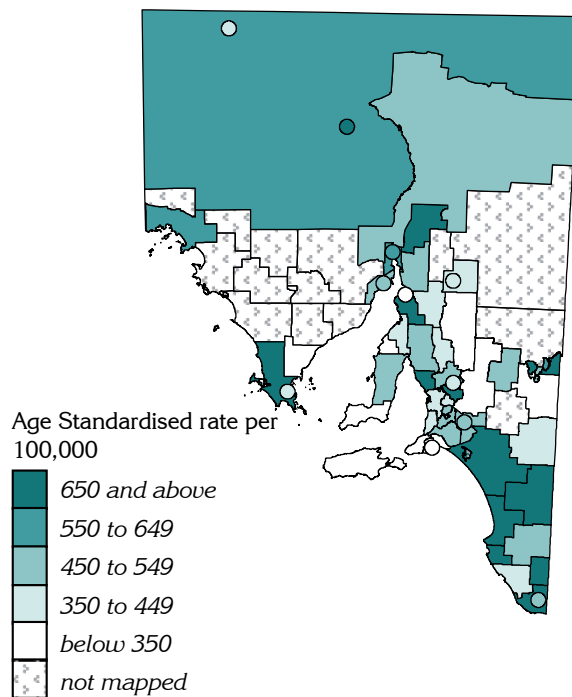
The main category of external cause of hospital admission for the 'Other' compensation types was again accidents, with transport accidents (9.8%), falls (5.7%), other causes of external injury (3.6%) and exposure to mechanical force (3.1%) being the main types of accidents. Sequelae and supplementary factors (15.0%) and complications of medical and surgical care (3.6%) were the next main categories of external cause for hospital admissions under 'Other' compensation, while over half (58.5%) of hospital admissions for all external causes under this compensation type were 'Unknown'.

The geographic distribution of people whose admission to hospital was under a motor vehicle third party personal claim (Map 5.3) has elements of the socioeconomic pattern seen in many of the maps in Chapter 2, with the highest rates generally in outer northern and southern SLAs, and the lowest rates in and around the city to the east, north-east and south-east, and along the beachfront. There are, however, notable differences, with low rates in some disadvantaged areas which are characterised by low rates of car ownership (see Map 2.13), most notably in Playford - Elizabeth and Port Adelaide Enfield - Port.

Map 5.3: Hospital admissions covered by workers' compensation, Adelaide, 2003/04

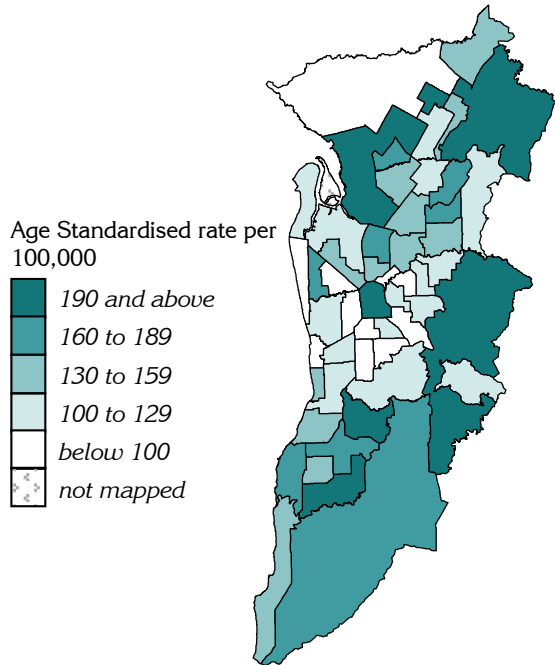


Map 5.4: Hospital admissions covered by workers' compensation, South Australia, 2003/04

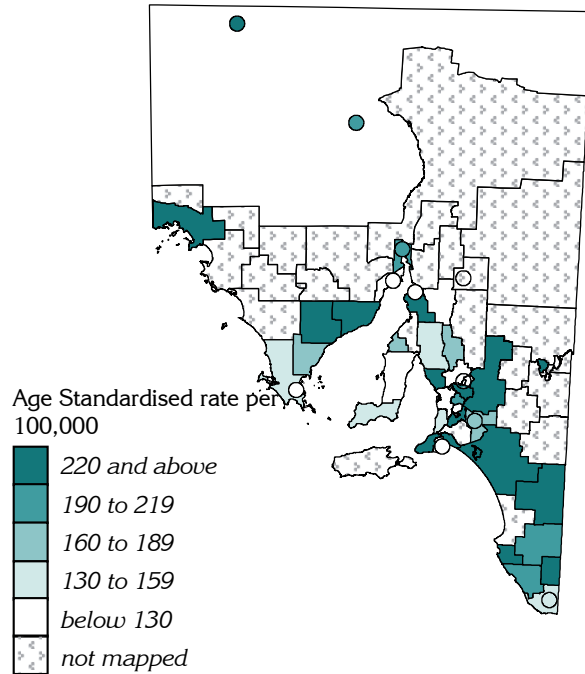


There was a less consistent pattern for hospital admissions covered by a motor vehicle third party personal (CTP) claim, with the highest rates recorded for residents in a small number of SLAs in the outer north, outer east and outer south, as well as in the City of Adelaide (Map 5.5). Again, the relatively low rates in Playford - Elizabeth are consistent with low rates of vehicle ownership (see Map 2.13).

Map 5.5: Hospital admissions covered by a motor vehicle third party personal (CTP) claim, Adelaide, 2003/04



Map 5.6: Hospital admissions covered by a motor vehicle third party personal (CTP) claim, South Australia, 2003/04



Deaths by external cause

Details of deaths from external causes in South Australia between 1999 and 2002 are shown below in Table 5.6: deaths from these external causes accounted for one fifth (20.4%) of all deaths over this period.

Motor vehicle accidents accounted for 26.1% of deaths from all external causes (and 97% (633) of the 653 transport accident deaths). Deaths of occupants of cars accounted for over half (58.0%) of the 379 transport accident deaths, or 15.6% of deaths from all external causes, with a further 4.4% of all causes deaths being of pedestrians (106), and motor cycle riders accounting for 3.0% (72).

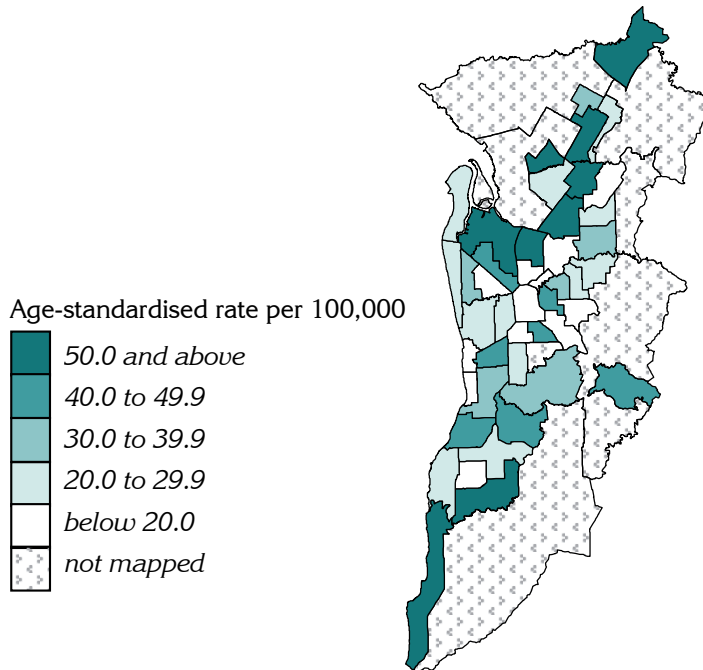
It is not possible to separately identify workplace related deaths from the deaths data from ABS.

Table 5.6: Deaths from external causes, South Australia, 1999-2002

Major external cause	Persons		Males		Females	
	No.	%	No.	%	No.	%
Transport accidents	653	27.0	474	28.6	179	23.4
Pedestrian injured in transport accident	106	4.4	69	4.2	37	4.8
Pedal cyclist injured in transport accident	12	0.5	10	0.6	2	0.3
Motorcycle rider injured in transport accident	72	3.0	68	4.1	4	0.5
Car occupant injured in transport accident	379	15.6	255	15.4	124	16.2
Occupant of pick-up truck or van injured in transport accident	10	0.4	8	0.5	2	0.3
Occupant of heavy transport vehicle injured in transport accident	24	1.0	22	1.3	2	0.3
Bus occupant injured in transport accident	4	0.2	3	0.2	1	0.1
Other land transport accidents	26	1.1	22	1.3	4	0.5
Motor vehicle traffic accidents	633	26.1	457	27.6	176	23.0
Water transport accidents	6	0.2	6	0.4	0	0.0
Air and space transport accidents	14	0.6	11	0.7	3	0.4
Other external causes of accidental injuries	804	33.2	452	27.3	352	46.0
Falls	110	4.5	58	3.5	52	6.8
Exposure to inanimate mechanical forces	43	1.8	35	2.1	8	1.0
Exposure to animate mechanical forces	4	0.2	4	0.2	0	0.0
Accidental drowning and submersion	48	2.0	40	2.4	8	1.0
Other accidental threats to breathing	81	3.3	49	3.0	32	4.2
Exposure to electrical current, radiation and extreme ambient air temperature and pressure	16	0.7	16	1.0	0	0.0
Exposure to smoke, fire and flames	38	1.6	19	1.1	19	2.5
Contact with heat and hot substances	1	0.0	0	0.0	1	0.1
Contact with venomous animals and plants	3	0.1	3	0.2	0	0.0
Exposure to forces of nature	9	0.4	4	0.2	5	0.7
Accidental poisoning by and exposure to noxious substances	193	8.0	132	8.0	61	8.0
Overexertion, travel and privation	3	0.1	3	0.2	0	0.0
Accidental exposure to other and unspecified factors	255	10.5	89	5.4	166	21.7
Other external causes of mortality	888	36.7	692	41.8	196	25.6
Intentional self-harm	764	31.5	616	37.2	148	19.3
Assault	87	3.6	57	3.4	30	3.9
Event of undetermined intent	35	1.4	17	1.0	18	2.3
Legal intervention and operations of war	2	0.1	2	0.1	0	0.0
Other	77	3.2	38	2.3	39	5.1
Total: external causes	2,422	100.0	1,656	100.0	766	100.0
Total: all causes	11,892	..	6,023	..	5,869	..

The highest rate of deaths from motor vehicle traffic accidents in Adelaide over the four years 1999 to 2002 (Map 5.7) occurred in Gawler; Playford – Elizabeth; Salisbury - Inner North, - North-East and - South-East; Port Adelaide Enfield - Port and - Inner; and Onkaparinga - Hackham and - South Coast. SLAs with the lowest rates of death from motor vehicle accidents were Tea Tree Gully - North, Adelaide, Prospect, Port Adelaide Enfield - East, Burnside - North-East and - South-West, Unley - West, Charles Sturt - Inner East, Holdfast Bay - North and - South and Onkaparinga - Morphett.

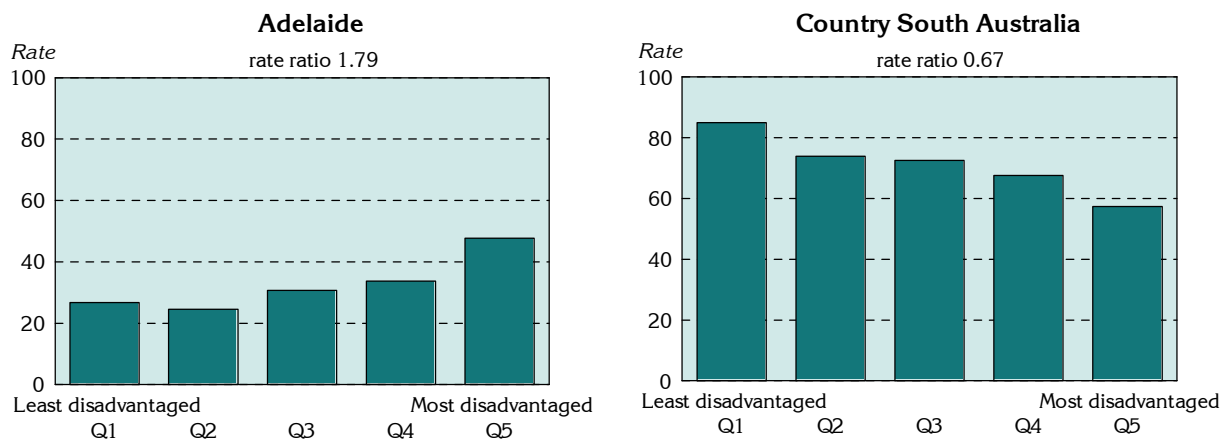
Map 5.7: Deaths from motor vehicle traffic accidents, Adelaide, 1999-2002



The numbers of deaths from these causes at the SLA level in country South Australia were too small to map.

Figure 5.2 shows the rates of death from motor vehicle traffic accidents by socioeconomic status of area in Adelaide and country South Australia. In Adelaide, deaths from a motor vehicle accident were substantially higher for people in the most disadvantaged areas (a rate ratio of 1.79). Conversely, in country South Australia, deaths resulting from motor vehicle accidents were markedly lower among the most disadvantaged (33% lower, a rate ratio of 0.67).

Figure 5.2: Deaths from motor vehicle traffic accidents, by socioeconomic status, 1999-2002



Health and welfare workforce estimates


The following information, drawn from the 2001 ABS Census, allocates people working in the occupations listed in the table, to the Health Region in which they worked on Census day - thus, it provides a snapshot of the region's workforce on 6 August 2001. This 'proxy' measure of the workforce has flaws; in particular, it misses people who work part-time (on other days of the week), and cannot provide an accurate assessment of the full-time equivalent workforce. However, it is the best available measure when an overview of a wide range of occupations is required and, at a broad level of occupation and geography, it provides a useful indication of the supply of people in health and welfare occupations.


The summary data in Table 5.7 is presented to highlight variations in the workforce between each region/sub-region in Adelaide and the State rate for each occupation per 1,000 population: the figure of -47.6 in the cell for general medical practitioners (GPs) in the Northern Sub-region of the Central Northern Region indicates that there are 47.6% fewer GPs per 1,000 population in this sub-region than across the State as a whole; the figure of 241.8 for specialist medical practitioners shows there are 242% (or 3.4 times) fewer people in these occupations in the sub-region than in the State as a whole. The full data, showing the number and rate for each occupation, are in Appendix Table A3.

The Northern and Western Sub-regions of the Central Northern Adelaide Health Service Region and Central Southern Region all have deficits of workers across the majority of occupations (with the largest deficits, in almost all cases, in Northern Sub-region); the reverse is the case in Central East Sub-region, with rates of provision well above the State average for all occupations other than Aboriginal and Torres Strait Islander health workers.

Table 5.7: Occupation by Health Region in which worked, Adelaide, 6 August 2001
Percentage variation in occupations per 1,000 population in the region compared with the State rate

Occupation	Central Northern				Central Southern	Metropolitan Adelaide
	Northern	Western	Central East	Total		
Medical practitioners	-85.8	-1.2	64.9	32.3	-12.0	19.9
General medical practitioners	-47.6	4.3	55.5	22.7	-2.6	15.9
Specialist medical practitioners	-241.8	-12.8	74.5	49.5	-26.6	27.8
Nursing professionals	-108.8	-0.3	59.7	19.2	-14.4	9.8
Enrolled Nurses	-88.2	-25.2	51.7	4.5	-35.7	-6.9
Miscellaneous health professionals	-57.3	-0.5	55.0	18.8	-6.8	11.6
Dental practitioners & associate professionals	-38.2	-41.5	64.9	33.1	-14.1	19.8
Pharmacists	-34.1	26.3	41.6	18.6	-4.5	11.9
Occupational therapists	5.8	10.3	38.6	23.9	-1.6	16.5
Optometrists	-107.3	-17.0	58.4	13.4	-5.8	7.8
Physiotherapists	-56.7	6.2	51.9	16.6	3.9	13.4
Speech pathologists	-25.4	5.0	42.7	13.8	4.1	11.0
Chiropractors and osteopaths	-152.4	1.7	50.1	2.4	2.4	2.4
Podiatrists	-49.9	-5.5	55.2	19.2	-2.2	13.0
Medical imaging professionals	-132.7	-12.5	70.2	39.3	-29.7	19.3
Dietitians	-86.6	-66.3	61.3	14.3	3.9	11.3
Natural therapy professionals	-135.8	-12.1	58.6	12.3	-14.1	6.0
Other health professionals	-89.7	-5.3	57.6	16.6	9.7	14.6
Welfare Associate Professionals	23.9	-11.8	27.8	22.3	-18.0	10.9
Miscellaneous health & welfare associate professionals	-101.6	-43.9	55.5	5.4	-30.8	-4.5
Aboriginal and Torres Strait Islander health workers	-718.7	-143.2	-44.0	-63.6	-86.7	-66.5
Massage therapists	-79.0	-26.5	51.6	5.4	-16.9	-1.1
Total workers	-58.8	17.1	42.6	10.4	-36.0	-2.7


 Percentages for occupations in regions with rates below the State average are shaded green

 Percentages for occupations in regions with rates above the State average are unshaded

Similar data for country regions (Table 5.8) show widespread shortages of the selected health and welfare occupations across the State (in comparison with the average level of provision): the exception is Aboriginal and Torres Strait Islander health workers in Northern & Far Western, Eyre, Mid North and Riverland Regions. The full data, showing the number and rate for each occupation, are in Appendix Table A34.

Table 5.8: Occupation by Health Region in which worked, country South Australia, 6 August 2001
Percentage variation in occupations per 1,000 population in the region compared with the State rate

	Hills Mallee Southern	Wakefield	South East	NFW	Eyre	Mid North	River- land	Country SA
Medical practitioners	-58.5	-69.9	-52.5	-52.2	-67.7	-63.0	-54.1	-60.1
General medical practitioners	-41.3	-58.5	-42.3	-40.5	-63.4	-49.8	-38.7	-47.4
Specialist medical practitioners	-89.5	-93.4	-73.1	-80.1	-87.4	-68.6	-81.0	-84.4
Nursing professionals	-54.0	-49.0	-30.8	-19.1	-25.6	-16.5	-23.6	-37.6
Enrolled Nurses	-49.9	-40.7	-29.3	-8.9	-18.3	1.2	-16.2	-30.6
Miscellaneous health professionals	-31.1	-54.5	-30.8	-46.2	-44.9	-41.6	-33.1	-40.3
Dental practitioners & associate professionals	-47.3	-73.1	-63.3	-56.6	-47.5	-73.1	-51.2	-59.0
Pharmacists	-30.9	-56.0	-47.9	-53.0	-25.7	-22.8	-25.2	-40.5
Occupational therapists	-55.2	-35.3	-40.9	-37.8	-38.5	-100.0	-50.5	-47.8
Optometrists	-75.1	-71.2	-12.4	-48.1	-17.9	-9.1	-17.5	-47.5
Physiotherapists	-27.0	-56.9	-31.8	-62.8	-50.9	-51.0	-16.0	-41.9
Speech pathologists	-38.7	-64.5	-19.0	6.5	-15.7	-44.0	-32.2	-34.0
Chiropractors and osteopaths	2.2	-52.7	19.9	-57.4	-32.6	-25.3	35.6	-17.3
Podiatrists	-38.7	-100.0	-52.0	-14.8	-32.6	-100.0	58.2	-47.9
Medical imaging professionals	-69.9	-100.0	-64.7	-66.6	-73.5	-19.4	-60.1	-71.4
Dietitians	-41.6	-32.5	-48.6	-39.2	-3.8	6.6	-3.2	-30.7
Natural therapy professionals	-40.6	14.4	13.2	-69.1	-100.0	-45.8	-50.8	-29.5
Other health professionals	-51.9	1.9	-78.8	-8.2	-100.0	-12.2	-100.0	-42.9
Welfare Associate Professionals	-56.4	-77.4	-57.7	13.2	-32.5	4.1	-40.9	-45.0
Miscellaneous health & welfare associate professionals	-8.4	-66.2	-14.9	72.0	2.9	-4.4	73.6	-4.7
Aboriginal and Torres Strait Islander health workers	-6.8	-100.0	-29.7	1008.8	689.8	191.6	164.8	180.8
Massage therapists	41.1	-66.4	-34.3	-74.1	-59.0	-24.2	37.6	-22.3
Total workers	-20.8	-28.2	9.4	-6.5	0.7	-15.7	5.2	-12.0

 Percentages for occupations in regions with rates below the State average are shaded green

 Percentages for occupations in regions with rates above the State average are unshaded

6. Summary

The information presented in this Atlas describes, in part, the social, economic and structural/systemic factors that contribute to patterns of health, injury, disability and service use in the compensable sector. While extensive, the available data have some important limitations. In particular, there is a need for better data to improve our overall understanding of the incidence and other contextual information relating to injuries that occur in the workplace and on the roads, and of the outcomes for those injured.

Despite these limitations, we can say that there is a strong association at the area level in Adelaide between high rates of workers' compensation claims and socioeconomic disadvantage, and high rates of claims under the Compulsory Third Party Insurance scheme: there is also a weak association between cost per head of Compulsory Third Party claims and socioeconomic disadvantage.

For workers' compensation claims (and number of services provided by GPs and physiotherapists) the association with socioeconomic disadvantage is very strong.

The correlation analysis for country South Australia showed there to be only weak and inconsistent associations with socioeconomic disadvantage, in part because of the smaller populations and numbers of claims in these areas.

The data support the need for an organised, population health response to the phenomenon of compensable injuries arising from trauma on the roads and at work. This response requires a close partnership between the compensation authorities and the Health Portfolio; and, wherever possible and appropriate, the integration and coordination of services provided in the compensation sector with other health and community services (both public and private) in the mainstream health and community services sectors.

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Appendix

Table A1: Correlations, Adelaide

Variable	Compulsory Third Party Insurance scheme							Workers' compensation			RTA: drivers in an accident	Hospital admissions			Deaths from mvta
	Claims	Average incurred cost		Injury category: claims		Injury category: costs		Claims	Services			All compensable	CTP	Workers' Comp	
		Per claim	Per head of pop'n	WAD injuries	Other injuries	WAD injuries	Other injuries		GP	Physiotherapy					
Population 0-4 yrs, 2001	0.44	-0.09	0.18	0.49	0.13	-0.03	-0.05	0.77	0.77	0.69	0.24	0.50	0.42	0.48	0.35
Population 5-14 yrs, 2001	0.26	-0.22	-0.13	0.32	-0.06	-0.06	-0.12	0.57	0.55	0.51	0.17	0.60	0.43	0.59	0.45
Population 15-24 yrs, 2001	0.24	-0.24	-0.10	0.07	0.38	-0.13	-0.21	-0.01	0.00	-0.11	0.03	0.11	0.41	0.06	-0.03
Population 65+, 2001	-0.33	0.37	0.18	-0.31	-0.06	0.15	0.27	-0.43	-0.39	-0.33	-0.17	-0.60	-0.57	-0.56	-0.31
Total Fertility Rate, 2000-02	0.30	0.00	0.16	0.37	0.01	0.10	-0.01	0.75	0.74	0.68	0.23	0.53	0.39	0.52	0.46
Single parent families, 2001	0.42	0.08	0.39	0.42	0.31	0.08	0.01	0.69	0.70	0.67	0.22	0.08	0.20	0.06	0.17
Low income families, 2001	0.51	0.12	0.49	0.53	0.40	0.12	0.02	0.66	0.68	0.71	0.34	0.04	0.03	0.04	0.19
High income families, 2001	-0.57	-0.03	-0.45	-0.60	-0.39	-0.07	0.04	-0.76	-0.76	-0.79	-0.39	-0.15	-0.12	-0.15	-0.24
Unskilled and semi-skilled workers, 2001	0.59	-0.10	0.30	0.59	0.38	0.04	-0.14	0.91	0.91	0.87	0.35	0.37	0.31	0.36	0.34
Managers & administrators, & professionals, 2001	-0.60	0.16	-0.31	-0.66	-0.28	0.05	0.14	-0.88	-0.84	-0.86	-0.34	-0.36	-0.25	-0.36	-0.30
Unemployment rate, 2003	0.41	0.10	0.37	0.36	0.39	0.16	-0.05	0.67	0.70	0.63	0.19	0.18	0.21	0.17	0.24
Jobless families, 2001	0.54	0.06	0.42	0.51	0.45	0.12	-0.05	0.71	0.73	0.71	0.29	0.12	0.19	0.10	0.22
Female labour force participation, 2001	-0.59	0.02	-0.34	-0.55	-0.46	-0.13	0.12	-0.80	-0.83	-0.77	-0.31	-0.26	-0.29	-0.24	-0.28
F/t education participation at age 16 yrs	-0.59	0.16	-0.21	-0.48	-0.50	0.01	0.21	-0.76	-0.78	-0.70	-0.25	-0.26	-0.34	-0.24	-0.19
Average subject scores, 2002															
- PES scores	-0.52	0.15	-0.21	-0.55	-0.24	0.02	0.16	-0.91	-0.88	-0.85	-0.19	-0.48	-0.31	-0.48	-0.37
- PAS scores	-0.52	-0.01	-0.40	-0.53	-0.29	0.09	-0.04	-0.81	-0.81	-0.79	-0.26	-0.40	-0.23	-0.40	-0.33
- SAS scores	-0.56	0.10	-0.32	-0.51	-0.41	0.06	0.11	-0.85	-0.85	-0.82	-0.24	-0.50	-0.44	-0.48	-0.50
Aboriginal & Torres Strait Islanders, 2001	0.43	0.05	0.39	0.39	0.30	0.09	-0.03	0.74	0.75	0.71	0.26	0.11	0.15	0.10	0.10
People born in predominantly non-English speaking countries															
- resident for 5 years or more, 2001	0.46	0.04	0.33	0.41	0.48	0.23	-0.08	-0.03	0.03	0.07	0.49	-0.18	-0.14	-0.18	-0.02
- resident for <5 years, 2001	0.09	0.09	0.19	-0.07	0.42	0.03	0.00	-0.35	-0.29	-0.30	0.00	-0.33	-0.03	-0.35	-0.20
- with poor proficiency in English, 2001	0.49	0.00	0.31	0.42	0.57	0.13	-0.10	0.12	0.18	0.21	0.40	-0.11	-0.05	-0.11	0.08
Rental assistance (Centrelink), 1999-02	0.22	0.06	0.28	0.09	0.46	-0.02	-0.02	0.21	0.26	0.19	-0.06	0.04	0.13	0.03	0.07
Dwellings rented from the SAHT, 2001	0.38	0.19	0.46	0.38	0.29	0.18	0.07	0.57	0.61	0.56	0.24	-0.01	0.03	-0.01	0.09
Dwellings with no motor vehicle, 2001	0.07	0.26	0.37	0.00	0.30	0.14	0.13	0.02	0.07	0.04	0.02	-0.41	-0.26	-0.41	-0.19
Internet use at home, 2001	-0.59	-0.02	-0.44	-0.59	-0.48	-0.07	0.06	-0.72	-0.74	-0.76	-0.33	-0.10	-0.06	-0.10	-0.20
IRSD, 2001	-0.60	0.00	-0.41	-0.58	-0.47	-0.08	0.08	-0.80	-0.82	-0.79	-0.35	-0.18	-0.20	-0.17	-0.25
CTP, 2002/03															
- claims	1.00	-0.37	0.18	0.92	0.76	-0.03	-0.36	0.55	0.59	0.60	0.60	0.23	0.28	0.21	0.19
- average incurred cost/claim	-0.37	1.00	0.75	-0.21	-0.35	0.47	0.83	-0.18	-0.13	-0.22	-0.16	-0.23	-0.25	-0.21	-0.02
- average incurred cost/head	0.18	0.75	1.00	0.29	0.02	0.35	0.61	0.20	0.25	0.17	0.17	-0.08	-0.12	-0.06	0.07
- WAD injuries claims	0.92	-0.21	0.29	1.00	0.52	0.09	-0.24	0.55	0.56	0.59	0.62	0.20	0.18	0.19	0.18
- Other injuries claims	0.76	-0.35	0.02	0.52	1.00	-0.07	-0.38	0.27	0.33	0.38	0.42	0.08	0.27	0.05	0.14
- WAD injuries costs	-0.03	0.47	0.35	0.09	-0.07	1.00	-0.05	-0.05	-0.03	-0.03	0.27	-0.16	-0.22	-0.14	-0.09
- Other injuries costs	-0.36	0.83	0.61	-0.24	-0.38	-0.05	1.00	-0.18	-0.12	-0.24	-0.29	-0.16	-0.19	-0.15	0.02
Workers' compensation, 2004/05															
- claims	0.55	-0.18	0.20	0.55	0.27	-0.05	-0.18	1.00	0.98	0.90	0.28	0.53	0.29	0.53	0.35
- GP services	0.59	-0.13	0.25	0.56	0.33	-0.03	-0.12	0.98	1.00	0.88	0.28	0.50	0.27	0.50	0.35
- physiotherapy services	0.60	-0.22	0.17	0.59	0.38	-0.03	-0.24	0.90	0.88	1.00	0.38	0.42	0.28	0.41	0.37
RTA: drivers in an accident, 2002	0.60	-0.16	0.17	0.62	0.42	0.27	-0.29	0.28	0.28	0.38	1.00	0.02	-0.02	0.03	0.10
Compensable admissions, 2003/04	0.23	-0.23	-0.08	0.20	0.08	-0.16	-0.16	0.53	0.50	0.42	0.02	1.00	0.64	0.99	0.70
- CTP	0.28	-0.25	-0.12	0.18	0.27	-0.22	-0.19	0.29	0.27	0.28	-0.02	0.64	1.00	0.55	0.47
- Workers' compensation	0.21	-0.21	-0.06	0.19	0.05	-0.14	-0.15	0.53	0.50	0.41	0.03	0.99	0.55	1.00	0.69
Deaths, mvta, 1999-02	0.19	-0.02	0.07	0.18	0.14	-0.09	0.02	0.35	0.35	0.37	0.10	0.70	0.47	0.69	1.00

Note: Correlations between 0.3 and 0.49 are referred to as being 'weak'; between 0.50 and 0.70 as being 'strong', and are shaded in light green; and those 0.71 and above as being 'very strong', and are shaded in dark green

Table A2: Correlations, country South Australia

Variable	Compulsory Third Party Insurance scheme							Workers' compensation			RTA: drivers in accidents	Hospital admissions		
	Claims	Average incurred cost		Injury category: claims		Injury category: costs		Claims	Services			All compensable	CTP	Workers' compensation
		Per claim	Per head	WAD injuries	Other injuries	WAD injuries	Other injuries		GP	Physiotherapy				
Population 0-4 yrs, 2001	-0.08	0.15	0.18	-0.13	0.25	-0.08	0.09	0.12	0.12	-0.04	-0.14	0.24	0.13	0.23
Population 5-14 yrs, 2001	-0.10	0.17	0.10	0.00	0.16	-0.09	0.17	-0.02	0.03	0.03	-0.11	-0.07	-0.15	-0.03
Population 15-24 yrs, 2001	0.25	0.09	0.28	0.13	0.32	0.25	0.07	0.39	0.33	0.35	-0.04	0.24	0.17	0.22
Population 65+, 2001	-0.14	-0.31	-0.37	-0.08	-0.27	-0.14	-0.29	-0.19	-0.17	-0.13	-0.05	-0.37	-0.23	-0.35
Total Fertility Rate, 2000-02	-0.37	-0.08	-0.27	-0.26	-0.17	-0.01	-0.11	-0.05	-0.04	-0.06	-0.13	-0.09	-0.37	0.02
Single parent families, 2001	0.14	0.04	0.22	-0.03	0.09	0.13	0.04	0.05	0.03	0.22	-0.01	0.09	0.20	0.04
Low income families, 2001	-0.20	-0.14	-0.19	-0.34	-0.14	0.01	-0.17	-0.50	-0.42	-0.31	-0.11	-0.22	0.13	-0.31
High income families, 2001	0.11	0.13	0.16	0.22	0.10	0.11	0.15	0.45	0.43	0.36	0.07	0.14	-0.18	0.23
Unskilled and semi-skilled workers, 2001	0.02	0.25	0.35	-0.07	0.06	0.27	0.21	0.48	0.42	0.21	-0.07	0.46	0.22	0.46
Managers and administrators, and professionals, 2001	-0.29	-0.14	-0.32	-0.26	-0.21	-0.23	-0.11	-0.36	-0.37	-0.39	-0.15	-0.08	-0.01	-0.10
Unemployment rate, 2003	-0.12	0.16	0.14	-0.23	0.18	0.16	0.05	-0.33	-0.29	-0.17	-0.23	-0.02	0.15	-0.08
Jobless families, 2001	0.02	-0.08	-0.01	-0.15	-0.13	0.13	-0.06	-0.13	-0.13	0.05	0.13	0.05	0.13	0.01
Female labour force participation, 2001	-0.13	0.07	0.00	0.01	0.09	-0.12	0.06	0.08	0.10	-0.02	-0.08	-0.22	-0.32	-0.14
F/t education participation at age 16 yrs	-0.21	-0.03	-0.12	-0.10	-0.10	-0.02	-0.01	0.00	0.12	0.11	-0.16	-0.37	-0.32	-0.32
Year 12 examination subject scores, 2002														
- PES	0.19	0.00	-0.04	0.19	0.05	-0.10	0.05	0.18	0.07	0.00	0.13	0.04	-0.18	0.11
- PAS	-0.24	-0.08	-0.24	-0.19	-0.10	-0.26	-0.05	-0.30	-0.33	-0.42	-0.08	-0.32	-0.19	-0.31
- SAS	-0.19	-0.09	-0.28	0.00	-0.16	-0.32	-0.06	-0.20	-0.28	-0.49	-0.17	-0.15	-0.22	-0.09
Indigenous, 2001	-0.05	0.33	0.35	-0.26	0.18	0.09	0.28	-0.16	-0.16	-0.14	-0.22	0.36	0.53	0.23
People born in predominantly non- English speaking countries														
- resident 5 years or more, 2001	0.23	0.00	0.22	0.15	0.07	0.31	-0.02	0.09	0.14	0.16	0.19	0.02	0.13	-0.02
- resident <5 years, 2001	-0.08	0.15	0.24	-0.10	0.01	0.31	0.14	0.26	0.30	0.19	-0.10	0.02	-0.09	0.05
- with poor proficiency in English, 2001	0.07	0.08	0.25	0.03	0.03	0.29	0.07	0.17	0.20	0.15	-0.01	0.04	0.05	0.03
Rental assistance, 1999-2002	0.25	-0.13	0.15	0.17	-0.03	0.15	-0.13	0.19	0.21	0.32	0.12	-0.05	0.19	-0.13
Dwellings rented from the SAHT, 2001	-0.01	-0.01	0.00	-0.05	0.02	0.09	0.00	0.14	0.08	0.24	-0.11	-0.08	-0.12	-0.05
Dwellings with no motor vehicle, 2001	-0.11	0.09	0.10	-0.28	-0.03	0.10	0.07	-0.10	-0.15	-0.05	-0.25	0.19	0.30	0.12
Internet use at home, 2001	0.29	-0.03	0.05	0.38	0.20	0.01	0.02	0.26	0.26	0.27	0.37	-0.04	-0.29	0.05
IRSD, 2001	0.03	-0.10	-0.16	0.22	0.02	-0.17	-0.08	0.00	0.03	0.00	0.11	-0.31	-0.35	-0.24
CTP, 2002/03														
- claims	1.00	-0.21	0.25	0.83	0.56	-0.05	-0.18	0.37	0.34	0.45	0.72	0.16	0.21	0.12
- average incurred cost/claim	-0.21	1.00	0.78	-0.19	0.00	0.19	0.97	-0.13	-0.08	-0.05	-0.21	0.04	-0.01	0.05
- average incurred cost/head	0.25	0.78	1.00	0.13	0.32	0.23	0.75	0.17	0.25	0.30	0.15	0.17	0.19	0.13
- WAD injuries claims	0.83	-0.19	0.13	1.00	0.21	-0.04	-0.15	0.41	0.32	0.37	0.63	0.06	-0.03	0.08
- Other injuries claims	0.56	0.00	0.32	0.21	1.00	0.02	-0.08	0.04	0.15	0.23	0.38	0.18	0.36	0.09
- WAD injuries costs	-0.05	0.19	0.23	-0.04	0.02	1.00	0.09	0.15	0.20	0.39	-0.01	0.00	-0.16	0.06
- Other injuries costs	-0.18	0.97	0.75	-0.15	-0.08	0.09	1.00	-0.09	-0.06	-0.04	-0.19	0.01	-0.05	0.02
Workers' compensation, 2004/05														
- claims	0.37	-0.13	0.17	0.41	0.04	0.15	-0.09	1.00	0.89	0.65	0.20	0.33	0.01	0.39
- GP services	0.34	-0.08	0.25	0.32	0.15	0.20	-0.06	0.89	1.00	0.70	0.18	0.26	0.04	0.29
- physiotherapy services	0.45	-0.05	0.30	0.37	0.23	0.39	-0.04	0.65	0.70	1.00	0.33	0.12	-0.02	0.15
RTA: drivers in an accident, 2002	0.72	-0.21	0.15	0.63	0.38	-0.01	-0.19	0.20	0.18	0.33	1.00	0.11	0.03	0.12
Compensable admissions, 2003/04	0.16	0.04	0.17	0.06	0.18	0.00	0.01	0.33	0.26	0.12	0.11	1.00	0.62	0.96
- CTP	0.21	-0.01	0.19	-0.03	0.36	-0.16	-0.05	0.01	0.04	-0.02	0.03	0.62	1.00	0.37
- Workers' compensation	0.12	0.05	0.13	0.08	0.09	0.06	0.02	0.39	0.29	0.15	0.12	0.96	0.37	1.00

Note: between 0.3 and 0.49 are referred to as being 'weak'; between 0.50 and 0.70 as being 'strong', and are shaded in light green; and those 0.71 and above as being 'very strong', and are shaded in dark green

Table A3: Selected health and welfare occupations by region in which they worked on Census day, Adelaide, 2001

Number and rate¹

Occupation		Central Northern				Southern	Adelaide
		Northern	Western	Eastern	Total	Total	Total
Medical Practitioners	No.	521	568	1,778	2,867	781	3,662
	Rate	2.6	4.7	13.6	6.3	4.2	5.7
General Medical Practitioners	No.	419	384	896	1,699	552	2,261
	Rate	2.1	3.2	6.9	3.8	3.0	3.5
Specialist Medical Practitioners	No.	100	180	864	1,144	230	1,378
	Rate	0.5	1.5	6.6	2.5	1.2	2.2
Nursing Professionals	No.	1,637	2,024	5,465	9,126	2,683	11,842
	Rate	8.1	16.8	41.9	20.2	14.5	18.6
Enrolled Nurses	No.	328	293	824	1,445	364	1,813
	Rate	1.6	2.4	6.3	3.2	2.0	2.8
Nursing Professionals (including Enrolled Nurses)	No.	1,965	2,317	6,289	10,571	3,047	13,655
	Rate	9.7	19.3	48.2	23.3	16.4	21.4
Miscellaneous Health Professionals	No.	845	786	1,904	3,535	1,135	4,681
	Rate	4.2	6.5	14.6	7.8	6.1	7.3
Dental Practitioners and Dental Associate Professionals	No.	193	112	490	795	210	1,008
	Rate	1.0	0.9	3.8	1.8	1.1	1.6
Pharmacists	No.	173	187	256	616	203	819
	Rate	0.9	1.6	2.0	1.4	1.1	1.3
Occupational Therapists	No.	93	58	92	243	79	322
	Rate	0.5	0.5	0.7	0.5	0.4	0.5
Optometrists	No.	19	20	61	100	34	134
	Rate	0.1	0.2	0.5	0.2	0.2	0.2
Physiotherapists	No.	140	139	294	573	209	785
	Rate	0.7	1.2	2.3	1.3	1.1	1.2
Speech Pathologists	No.	51	40	72	163	61	224
	Rate	0.3	0.3	0.6	0.4	0.3	0.4
Chiropractors and Osteopaths	No.	19	29	62	110	45	155
	Rate	0.1	0.2	0.5	0.2	0.2	0.2
Podiatrists	No.	32	27	69	128	43	171
	Rate	0.2	0.2	0.5	0.3	0.2	0.3
Medical Imaging Professionals	No.	70	86	352	508	105	613
	Rate	0.3	0.7	2.7	1.1	0.6	1.0
Dietitians	No.	18	12	56	86	32	118
	Rate	0.1	0.1	0.4	0.2	0.2	0.2
Natural Therapy Professionals	No.	28	35	103	166	52	221
	Rate	0.1	0.3	0.8	0.4	0.3	0.3
Other Health Professionals	No.	43	46	124	213	82	295
	Rate	0.2	0.4	1.0	0.5	0.4	0.5
Welfare Associate Professionals	No.	482	195	328	1,005	276	1,284
	Rate	2.4	1.6	2.5	2.2	1.5	2.0
Miscellaneous Health and Welfare Associate Professionals	No.	161	134	471	766	206	978
	Rate	0.8	1.1	3.6	1.7	1.1	1.5
Aboriginal and Torres Strait Islander Health Workers	No.	3	6	11	20	3	26
	Rate	0.0	0.0	0.1	0.0	0.0	0.0
Massage Therapists	No.	44	37	105	186	60	246
	Rate	0.2	0.3	0.8	0.4	0.3	0.4
Total	No.	7,384	7,715	20,966	36,065	10,492	46,691

¹Rate per 1,000 Estimated Resident Population

Table A4: Selected health and welfare occupations by region in which they worked on Census night, country South Australia, 2001

Number and rate¹

Occupation		Hills Mallee Southern	Wakefield	South East	Northern & Far Western	Eyre	Mid North	Riverland	Country South Australia
Medical Practitioners	No.	123	77	80	68	29	30	41	448
	Rate	2.0	1.4	2.3	2.3	1.5	1.8	2.2	1.9
General Medical Practitioners	No.	111	68	62	54	21	26	35	377
	Rate	1.8	1.3	1.8	1.8	1.1	1.5	1.9	1.6
Specialist Medical Practitioners	No.	11	6	16	10	4	9	6	62
	Rate	0.2	0.1	0.5	0.3	0.2	0.5	0.3	0.3
Nursing Professionals	No.	481	461	411	406	236	239	241	2475
	Rate	7.8	8.6	11.7	13.7	12.6	14.1	12.9	10.6
Enrolled Nurses	No.	138	172	85	134	70	103	71	773
	Rate	2.2	3.2	2.4	4.5	3.7	6.1	3.8	3.3
Nursing Professionals (including Enrolled Nurses)	No.	619	633	496	540	306	342	312	3248
	Rate	10.0	11.8	14.1	18.2	16.3	20.2	16.7	13.8
Miscellaneous Health Professionals	No.	280	160	160	105	68	65	82	920
	Rate	4.5	3.0	4.6	3.5	3.6	3.8	4.4	3.9
Dental Practitioners and Dental Associate Professionals	No.	43	19	17	17	13	6	12	127
	Rate	0.7	0.4	0.5	0.6	0.7	0.4	0.6	0.5
Pharmacists	No.	49	27	21	16	16	15	16	160
	Rate	0.8	0.5	0.6	0.5	0.9	0.9	0.9	0.7
Occupational Therapists	No.	12	15	9	8	5	0	4	53
	Rate	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Optometrists	No.	3	3	6	3	3	3	3	24
	Rate	0.0	0.1	0.2	0.1	0.2	0.2	0.2	0.1
Physiotherapists	No.	49	25	26	12	10	9	17	148
	Rate	0.8	0.5	0.7	0.4	0.5	0.5	0.9	0.6
Speech Pathologists	No.	12	6	9	10	5	3	4	49
	Rate	0.2	0.1	0.3	0.3	0.3	0.2	0.2	0.2
Chiropractors and Osteopaths	No.	15	6	10	3	3	3	6	46
	Rate	0.2	0.1	0.3	0.1	0.2	0.2	0.3	0.2

Table A4: Selected health and welfare occupations by region in which they worked on Census night, country South Australia, 2001...cont

Number and rate¹

Occupation		Hills Mallee Southern	Wakefield	South East	Northern & Far Western	Eyre	Mid North	Riverland	Country South Australia
Podiatrists	No.	9	0	4	6	3	0	7	29
	Rate	0.1	0.0	0.1	0.2	0.2	0.0	0.4	0.1
Medical Imaging Professionals	No.	15	0	10	8	4	11	6	54
	Rate	0.2	0.0	0.3	0.3	0.2	0.6	0.3	0.2
Dietitians	No.	6	6	3	3	3	3	3	27
	Rate	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1
Natural Therapy Professionals	No.	12	20	13	3	0	3	3	54
	Rate	0.2	0.4	0.4	0.1	0.0	0.2	0.2	0.2
Other Health Professionals	No.	12	22	3	11	0	6	0	54
	Rate	0.2	0.4	0.1	0.4	0.0	0.4	0.0	0.2
Welfare Associate Professionals	No.	49	22	27	61	23	32	20	234
	Rate	0.8	0.4	0.8	2.1	1.2	1.9	1.1	1.0
Miscellaneous Health and Welfare Associate Professionals	No.	91	29	48	82	31	26	52	359
	Rate	1.5	0.5	1.4	2.8	1.7	1.5	2.8	1.5
Aboriginal and Torres Strait Islander Health Workers	No.	7	0	3	40	18	6	6	80
	Rate	0.1	0.0	0.1	1.3	1.0	0.4	0.3	0.3
Massage Therapists	No.	34	7	9	3	3	5	10	71
	Rate	0.5	0.1	0.3	0.1	0.2	0.3	0.5	0.3
Total	No.	2,181	1,784	1,528	1,603	874	945	957	9,872

¹Rate per 1,000 Estimated Resident Population

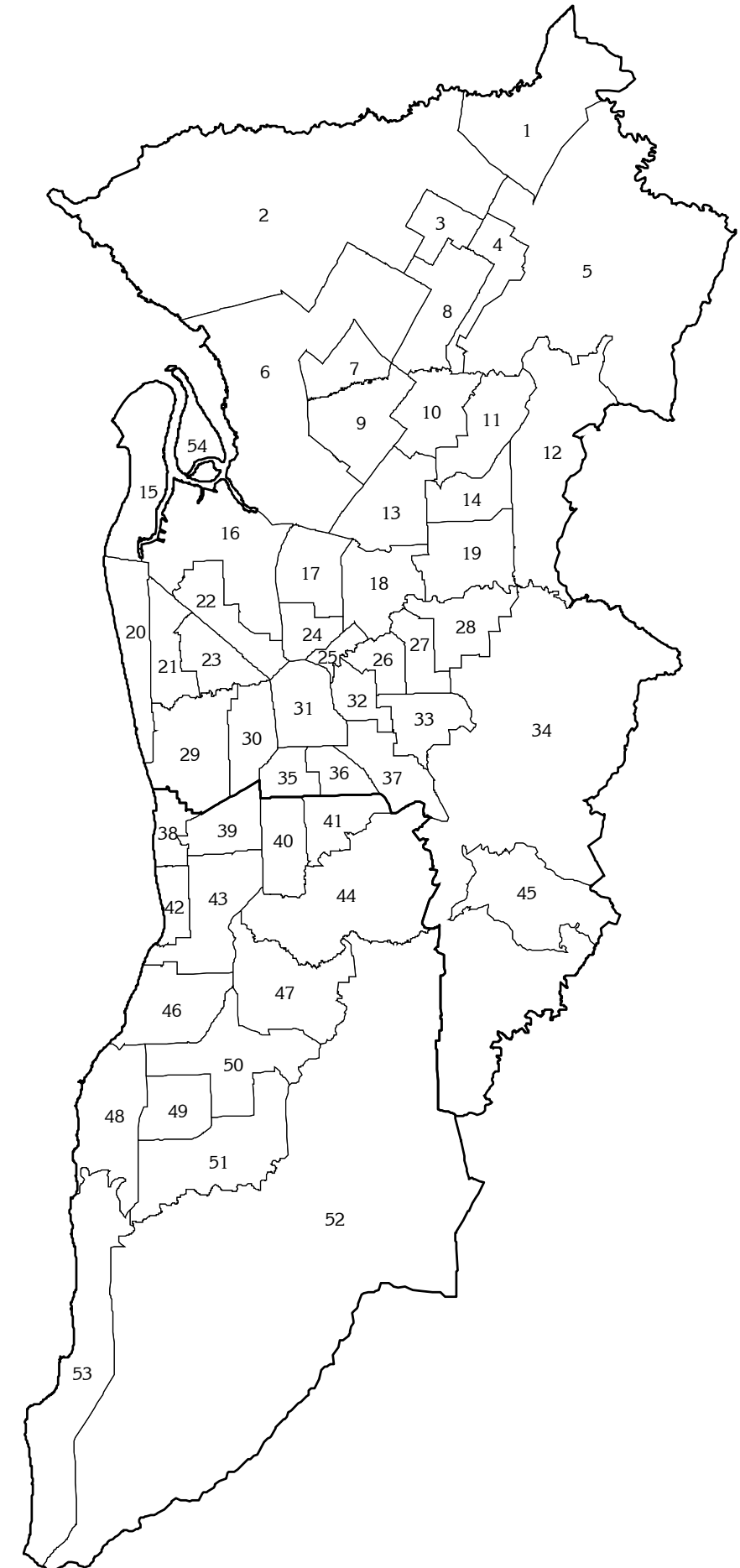
Table A5: Data sources

Reference	Data source
CTP	
Table 2.1; Table 3.1 – 3.8 Figure 2.1 – 2.2; Figure 3.1 – 3.17 Map 3.1 – 3.16	CTP data provided by Allianz Australia; populations used in calculating rates are Estimated Resident Populations from the ABS, for the appropriate years
Workers' compensation	
Table 2.3 Table 2.2, 2.4; Table 4.1 – 4.7 Figure 2.3 – 2.5; Figure 4.1 – 4.10 Map 4.1 – 4.11	WorkCover Corporation SA Statistical Review, Part I 2004-2005 Data provided by WorkCover Corporation; populations used in calculating rates are Estimated Resident Populations from the ABS, for the appropriate years
Other data	
Map 2.1 – 2.36 Table 5.1 – 5.3 Figure 5.1 Map 5.1 – 5.2	Data from <i>A Social Health Atlas of South Australia, Third Edition</i> , Public Health Information Development Unit, The University of Adelaide, 2006 Data supplied by Centre for Accident Statistics and Research, The University of Adelaide
Table 5.4 – 5.5 Map 5.3 – 5.6	Data from Department of Health SA
Table 5.6 Figure 5.2 Map 5.7	Data extracted from deaths files purchased from ABS
Table 5.7 – 5.8	Calculated on 2001 Census data purchased from ABS

Key Maps

Map A1: Key to areas mapped for Adelaide

Alphabetical key to Statistical Local Areas, Metropolitan Adelaide			
<i>SLAs in Southern Adelaide Health Service Region are in green type: SLAs in Central Northern Adelaide Health Service Region are in black type</i>			
Adelaide (C)	31	Onkaparinga (C) - South Coast	53
Adelaide Hills (DC) - Central	45	Onkaparinga (C) - Woodcroft	50
Adelaide Hills (DC) - Ranges	34	Playford (C) - East Central	4
Burnside (C) - North-East	33	Playford (C) - Elizabeth	8
Burnside (C) - South-West	37	Playford (C) - Hills	5
Campbelltown (C) - East	28	Playford (C) - West	2
Campbelltown (C) - West	27	Playford (C) - West Central	3
Charles Sturt (C) - Coastal	20	Port Adelaide Enfield (C) - Coast	15
Charles Sturt (C) - Inner East	23	Port Adelaide Enfield (C) - East	18
Charles Sturt (C) - Inner West	21	Port Adelaide Enfield (C) - Inner	17
Charles Sturt (C) - North-East	22	Port Adelaide Enfield (C) - Port	16
Gawler (M)	1	Prospect (C)	24
Holdfast Bay (C) - North	38	Salisbury (C) - Central	9
Holdfast Bay (C) - South	42	Salisbury (C) - Inner North	7
Marion (C) - Central	43	Salisbury (C) - North-East	10
Marion (C) - North	39	Salisbury (C) - South-East	13
Marion (C) - South	46	Salisbury (C) Balance	6
Mitcham (C) - Hills	44	Tea Tree Gully (C) - Central	14
Mitcham (C) - North-East	41	Tea Tree Gully (C) - Hills	12
Mitcham (C) - West	40	Tea Tree Gully (C) - North	11
Norwood Payneham St Peters (C) - East	26	Tea Tree Gully (C) - South	19
Norwood Payneham St Peters (C) - West	32	Unley (C) - East	36
Onkaparinga (C) - Hackham	51	Unley (C) - West	35
Onkaparinga (C) - Hills	52	Walkerville (M)	25
Onkaparinga (C) - Morphett	49	West Torrens (C) - East	30
Onkaparinga (C) - North Coast	48	West Torrens (C) - West	29
Onkaparinga (C) - Reservoir	47	Unincorporated Western	54



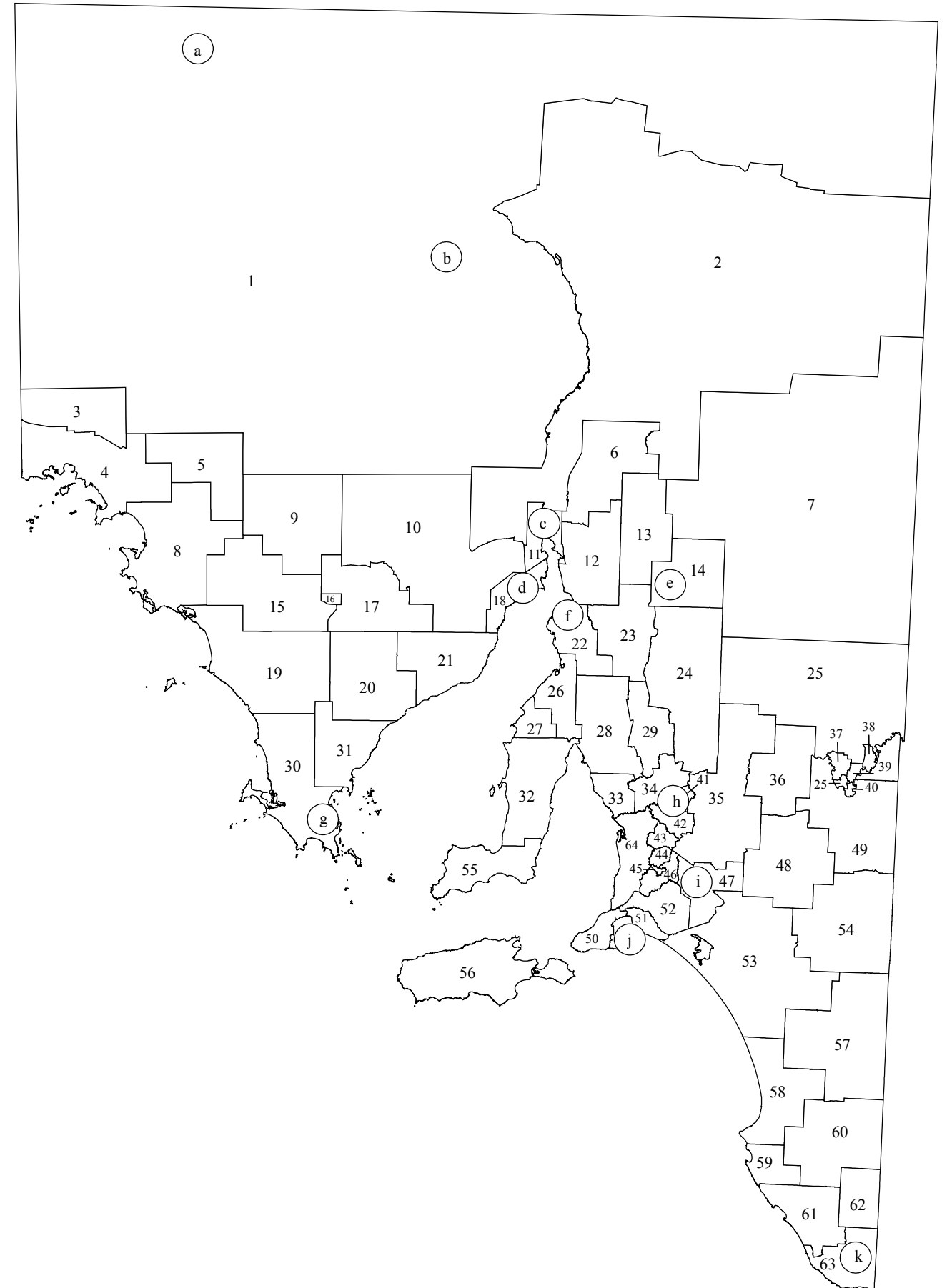
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Map A2: Key to areas mapped for South Australia

Alphabetical key to Statistical Local Areas, country South Australia

Adelaide Hills (DC) - North	43	Port Pirie Districts (M) Balance	22
Adelaide Hills (DC) Balance	44	Renmark Paringa (DC) - Paringa	39
Alexandrina (DC) - Coastal	51	Renmark Paringa (DC) - Renmark	38
Alexandrina (DC) - Strathalbyn	52	Robe (DC)	59
Barossa (DC) - Angaston	41	Southern Mallee (DC)	54
Barossa (DC) - Barossa	42	Streaky Bay (DC)	8
Barunga West (DC)	26	Tatiara (DC)	57
Berri & Barmera (DC) - Barmera	37	The Coorong (DC)	53
Berri & Barmera (DC) - Berri	40	Tumby Bay (DC)	31
Ceduna (DC)	4	Wakefield (DC)	28
Clare and Gilbert Valleys (DC)	29	Wattle Range (DC) - East	62
Cleve (DC)	20	Wattle Range (DC) - West	61
Copper Coast (DC)	27	Whyalla (C)	18
Elliston (DC)	19	Yankalilla (DC)	50
Flinders Ranges (DC)	6	Yorke Peninsula (DC) - North	32
Franklin Harbor (DC)	21	Yorke Peninsula (DC) - South	55
Goyder (DC)	24	Unincorporated Far North	1
Grant (DC)	63	Unincorporated Flinders Ranges	2
Kangaroo Island (DC)	56	Unincorporated Lincoln	9,16
Karoonda East Murray (DC)	48	Unincorporated Pirie	7
Kimba (DC)	17	Unincorporated Riverland	25
Lacepede (DC)	58	Unincorporated West Coast	3,5
Le Hunte (DC)	15	Unincorporated Whyalla	10
Light (DC)	34		
Lower Eyre Peninsula (DC)	30	<i>Metropolitan Adelaide</i>	64
Loxton Waikerie (DC) - East	49		
Loxton Waikerie (DC) - West	36	Towns¹	
Mallala (DC)	33	Barossa (DC) - Tanunda	h
Mid Murray (DC)	35	Cooper Pedy (DC)	a
Mount Barker (DC) - Central	45	Mount Gambier (C)	k
Mount Barker (DC) Balance	46	Murray Bridge (DC) ¹	i
Mount Remarkable (DC)	12	Peterborough (DC)	e
Murray Bridge (RC)	47	Port Augusta (C)	c
Naracoorte & Lucindale (DC)	60	Port Lincoln (C)	g
Northern Areas (DC)	23	Port Pirie City & Districts (M) – City	f
Orroroo/Carrieton (DC)	13	Roxby Downs (M)	b
Peterborough (DC)	14	Victor Harbor (DC)	j
Port Augusta (C)	11	Whyalla (C)	d

¹These towns are represented on the map by a circle: in some cases the LGA (C, DC or M) is larger than the circle, and can also be seen



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