

# ***A Social Health Atlas of Australia: Volume 1, Australia***

## **Errata 9 August 2000**

Details of the following errors have been posted to the PHIDU web site, and the affected pages replaced in the PDF documents on the web site at <http://www.publichealth.gov.au>

### **Contents: Executive summary, page v-vi**

Percentages incorrect for Early school leavers, Unskilled and semi-skilled workers and Disability Support Pensioners.

### **Ch 3: Intro**

Melbourne was established in 1835, not 1855.

### **Ch 3: Unemployed people, 1996**

Users of the data on page 40 and (in particular) page 42 should be aware of the following additional information.

The 1996 Census unemployment figures are based on self-report information in the Census. As it is unclear how Indigenous people would record their involvement in CDEP schemes, it may be more appropriate to use the information provided for unemployment beneficiaries on pages 96 and 98.

### **Ch 4: Disability support pensioners, page 88-91**

The data shown include details of the wife pension, thus inflating the proportions (although not the spatial patterns) shown in the tables and maps.

This data also affects:

- Executive summary, page vi
- Rates for females shown in Figure 4.2, page 82
- Correlations, page 353-356
- Table 9.1 and associated text, page 359-360

### **Ch 5: Fair/poor health, Map 5.2, page 117**

The sub heading says 'Standardised Ratio: number of deaths ...' – it should be 'number of people ...'

### **Ch 8: Correlations, page 353-356**

Correlation matrices affected by Disability Support Pension data.

### **Ch 9: Summary, page 359-360**

Table 9.1 and associated text for Early school leavers, Unskilled and semi-skilled workers and Disability Support Pensioners.

### **Appendix 1.4: Lens insertion, page 387**

Codes should be 13.1, 13.2, 13.3, 13.4, 13.5, 13.6, 13.7, not just 13.7

For additional copies of this document or a similar document for other volumes please visit our web site or contact PHIDU at:

Contact details:

Phone: (08) 8303 6239

Fax: (08) 8303 6240

E-mail: [sarah.tennant@adelaide.edu.au](mailto:sarah.tennant@adelaide.edu.au)

World Wide Web: <http://www.publichealth.gov.au>

Postal: PHIDU, University of Adelaide, SA 5005

***This page intentionally left blank***

## Executive summary: Amended text / figures highlighted

The information in this atlas adds to a convincing body of evidence built up over a number of years in Australia on the striking disparities in health that exist between groups in the population. People of low socioeconomic status (those who are relatively socially or economically deprived) experience worse health than those of higher socioeconomic status for almost every major cause of mortality and morbidity. The challenge for policy makers, health practitioners and governments is to find ways to address these health inequities.

The primary aims of the first edition of *A Social Health Atlas of Australia* were to illustrate the spatial distribution of the socioeconomically disadvantaged population, and to compare this with patterns of distribution of major causes of illness and death and use of health services. The maps and correlation analysis highlighted associations between social and economic factors in relation to health and illness.

A number of new variables have been included in this second edition, together with new data on many of the variables from the first edition. One of the additions is the presentation of data by the new Accessibility/Remoteness Index of Australia (ARIA).

The extent of change (between the editions) in the patterns of distribution in death rates by socioeconomic status is also highlighted.

There is clear evidence in the data of an association at the SLA level between high premature death rates (for both deaths from all causes and from most specific causes) and socioeconomic disadvantage, as measured by the IRSD. These associations are generally evident not only between the most advantaged (Quintile 1) and disadvantaged areas (Quintile 5), but also at each of the intervening levels of socioeconomic status (Quintiles 2 to 4) (**Figures 9.2 and 9.4**).

Similarly, there are associations between socioeconomic disadvantage and high rates of use of general medical practitioner services in the major urban centres, and for most of the variables for hospital admission in both the major urban centres and the non-metropolitan areas (**Figures 9.4 and 9.5**). The gradients by socioeconomic status for admissions are particularly strong in the non-metropolitan areas.

It is also clear that, despite the overall improvement in deaths rates from all causes and for a majority of the specific causes studied (**Table 9.2, Figure 9.6**), these improvements have not resulted in a reduction in the disparities evident in death rates, for all causes and for a number of specific causes, between residents of the most well off areas and those in the poorest areas (**Figure 9.6**).

### Correlation analysis

There were correlations of significance at the Statistical Local Area (SLA) level between the indicators of socioeconomic disadvantage drawn from the 1996 Population Census (Chapter 3) and a number of the health status variables. Across the major urban centres (the capital cities and other major urban centres with populations of 100,000 or more), the strongest of these were generally with the variables for people reporting their health as fair or poor (as distinct from people reporting their health as

excellent, very good or good) and the Physical Component Summary (PCS); and premature deaths from lung cancer, circulatory system diseases and respiratory system diseases (**Table 8.1**). Similarly strong associations were evident in the correlation analysis with the variables for use of GP services by males and females; and of admissions to a public hospital.

There were fewer correlations of significance at the SLA level in the non-metropolitan areas of Australia than was the case in major urban centres. This is, in part, a result of the number of areas with relatively small numbers of cases (population, deaths, hospital admissions, etc.) which reduces the strength of the analysis. However, the correlation analysis revealed a reasonably strong relationship between the general health of the community, as measured by people reporting fair/poor health and the PCS, and the indicators of socioeconomic disadvantage. There were also correlations of significance with the distribution of people with a handicap.

The correlation analysis was not undertaken for specific causes of premature death in the non-metropolitan areas, other than for cancer deaths, due to low numbers of deaths. There were, however, correlations of significance between the variables for years of potential life lost (the summary measure of premature death) and the variables for single parent families, the indigenous population, dwellings without a motor vehicle, people receiving unemployment benefits and people reporting fair/poor health.

In contrast to the situation in the capital cities, there were only weak associations evident in the correlation analysis between the indicators of socioeconomic status and the variables for admissions to public acute and private hospitals, the use of GP services and immunisation levels.

### Changes over time in socioeconomic status

Marked variations were recorded between 1986 and 1996 for a majority of the socioeconomic status variables mapped for Australia (**Table 9.1**). For the capital cities, the largest increases were for the population of Aboriginal and Torres Strait Islander people (an increase of 79.0 per cent over this ten year period); the occupational grouping of managers and administrators, and professionals (42.2 per cent); low income families (41.1 per cent); single parent families (39.5 per cent); people born overseas in predominantly non-English speaking countries (an increase of 33.1 per cent for those resident for five years or more, of 26.1 per cent for those resident for less than five years, and of 24.5 per cent for those with poor proficiency in English); and people aged 65 years and over (27.0 per cent). The largest decreases recorded over this ten year period were for the variables for unemployment among 15 to 19 year olds (down by 14.7 per cent) and early school leavers (down by 13.3 per cent).

Variations of this order were also recorded in the non-metropolitan areas of Australia. The major differences from the changes noted for the capital cities were the larger increases in single parent families and the population aged 65 years and over; smaller increases in the indigenous population, the occupations of managers and administrators and professionals, low income families and people born overseas in predominantly non-English

speaking countries who have been resident for five years or more; and decreases for the remaining two variables for people born overseas in predominantly non-English speaking countries.

Changes over this period for the other major urban centres were relatively consistent with those recorded in the capital cities, although with much larger increases recorded for the population aged from 0 to 4 years, people aged 65 years and over, single parent families and people born in predominantly non-English speaking countries who had been resident for five years or more.

Substantial variations were recorded in income support payments to residents of the capital cities for all of the payment types analysed, other than the Age Pension, for which there was a small increase (an increase of 0.6 per cent). **The number of recipients for each of the other payment types increased substantially, with the number of unemployment beneficiaries more than doubling (an increase of 142.9 per cent) (Table 9.1).** Similar, although smaller increases were recorded in the non-metropolitan areas of Australia for all of these income support payments other than the Age Pension, for which there was a larger increase (1.3 per cent). The increases in the other major urban centres were more in line with those recorded for the capital cities than with those in the non-metropolitan areas.

## Changes over time in death rates

Death rates in Australia have declined over the years 1985 to 1989 and 1992 to 1995 for the majority of causes studied.

In the capital cities, the largest decreases were recorded for the infant death rate (down by 29.5 per cent); and for deaths of people aged from 15 to 64 years from circulatory system diseases (-37.7 per cent), respiratory system diseases (-30.9 per cent) and accidents, poisonings and violence (-22.9 per cent). All causes mortality was 22.6 per cent lower over this period, marginally more so for males than for females.

There were reductions in death rates for each of the causes studied for the other major urban centres.

There were also reductions in rates of premature death in the non-metropolitan areas of Australia for all major causes of death. However the reductions were all lower than those recorded for the capital cities, at around two thirds (65.4 per cent) for all cause mortality.

## Differences in health by socioeconomic status of area of residence

Comparisons are made of differences in the health status and health service use of the population by socioeconomic status. In the absence of any direct measure of socioeconomic status in the data, the socioeconomic status of the SLA of usual residence in the health records is used. In this analysis, socioeconomic status is measured by the Index of Relative Socio-Economic Disadvantage (IRSD, see page 17). The SLAs in the capital cities and other major urban centres have been sorted into five groups (quintiles) based on the IRSD score, with Quintile 1 comprising the twenty per cent of SLAs with the highest IRSD scores, and Quintile 5 comprising the twenty per cent of SLAs with the lowest IRSD scores.

## Health status by socioeconomic status of area of residence

Although there is some variability across the quintiles, the pattern is always for the highest socioeconomic status SLAs (those in Quintile 1) to have the most advantageous (ie. in the majority of cases the lowest) rates and, generally, for the most disadvantaged SLAs (those in Quintile 5) to have the highest rates. The exception is the PCS, for which low scores indicate poorer health (**Figure 9.2**).

Years of potential life lost (YPLL) from deaths between the ages of 15 to 64 years varied from a standardised ratio (SR) of 75 in the most advantaged areas (25 per cent fewer YPLL than were expected from the Australian rates) to an SR of 121 in the most disadvantaged areas (indicating that there were 21 per cent more YPLL than were expected from the State rates). Large differentials were also evident for deaths of 15 to 64 year old males (from an SDR of 71 in Quintile 1 to 126 in Quintile 5) and deaths of 15 to 64 years olds from lung cancer (66 to 125), circulatory system diseases (63 to 121) and respiratory system diseases (53 to 127).

in the non-metropolitan areas of Australia the gradients are, overall, more marked than in the major urban centres. The only other notable difference from the gradients evident for the major urban centres is for deaths of 15 to 24 year olds from the combined causes of accidents, poisonings and violence, for which the pattern is not consistent across the quintiles, although the most disadvantaged areas do have the highest rates of death.

## Health service utilisation by socioeconomic status of area of residence

Although there is some variability across the quintiles for the health service utilisation variables for SLAs in the major urban centres, the pattern is generally for the most advantaged SLAs (those in Quintile 1) to have the lowest rates of admission, and for the most disadvantaged SLAs (those in Quintile 5) to have the highest rates. The largest differentials between Quintile 1 and Quintile 5 (with higher rates in Quintile 5) occur for admissions to public acute hospitals, for lung cancer, circulatory system diseases (as well as for ischaemic heart disease), respiratory system diseases (at all ages and for 0 to 4 year old children; as well as for bronchitis, emphysema and asthma). Variables with the largest differentials and lower rates in Quintile 5, are admissions to private hospitals and admissions for a myringotomy (**Figure 9.3**).

The largest differentials between Quintile 1 and Quintile 5 (with higher rates in Quintile 5) in the non-metropolitan areas are for admissions to public acute hospitals; admissions of females; admissions for lung cancer; neurotic, personality and other mental disorders; and respiratory system diseases (at all ages and for 0 to 4 year old children; as well as for bronchitis, emphysema and asthma) (**Figure 9.5**).

***This page intentionally left blank***

**Chapter 4: The amended data in this chapter has not been highlighted as the majority of figures (other than for 1989) have been amended**

The postcode data were converted to Statistical Local Areas (SLAs) for mapping using a converter produced by the Australian Bureau of Statistics (ABS). This process is described in Appendix 1.2. In some instances, the number of people in receipt of a pension or benefit in a postcode exceeds the population in that postcode: this is particularly a problem with the Age Pension data. This is the case even when the pensioner/beneficiary data are compared with the population data by five year age group, separately for males and females. As a result, the calculation of the proportion of the population in receipt of a particular pension or benefit type can produce percentages of greater than 100 per cent. Other percentages of less than 100 per cent may also be overstated.

The reason for this is not clear. It is unlikely to be the result of people claiming both a DFACS Age and a DVA Service Pension (Age), as checks are made each year to ensure that such events do not occur. While it is likely in part to be a result of faults in the process of allocating pensions data, and it would have been possible to scale all the percentages back to 100, or less than

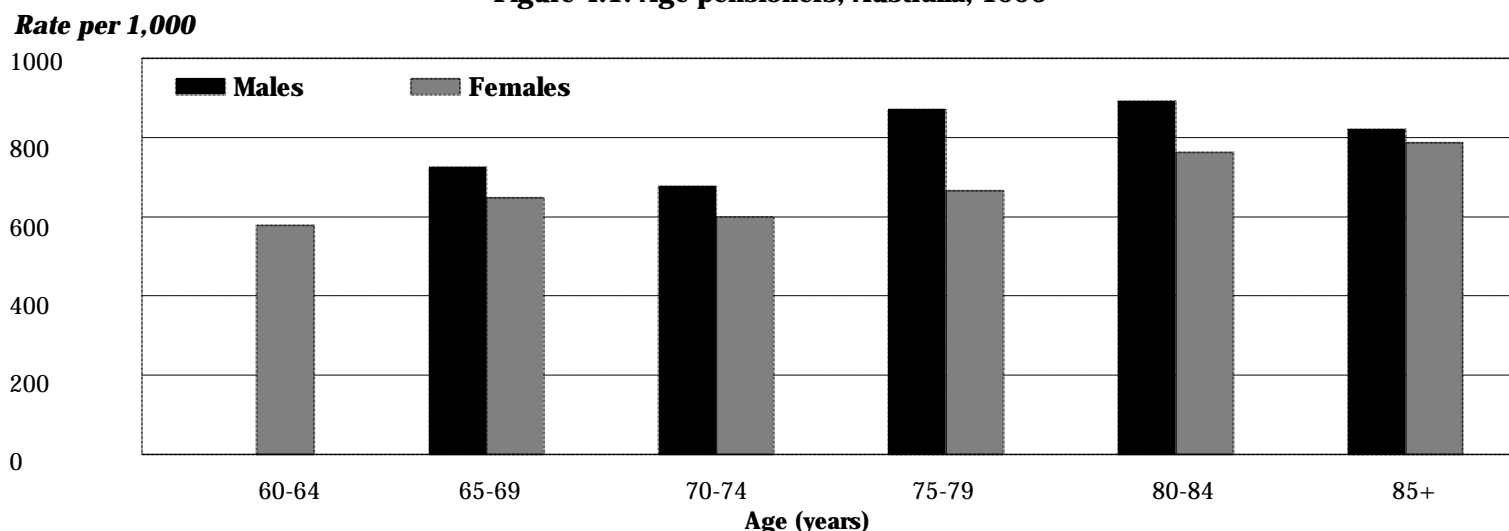
100, this would have concealed the problem and would not have represented the data for the areas as estimated. Percentages in excess of 100 per cent are noted separately in the text. Although the other pension or benefit types analysed only rarely have such high proportions, it is not possible to say to what extent they may also be overstated.

**Details of age and sex of recipients**

The age and sex profiles of recipients of the Age and Disability Support Pensions and unemployment benefits and the age profiles of female sole parent pensioners are shown in the following charts.

Females can receive the Age Pension from age 60 years and males from age 65 years (Figure 4.1). Although the numbers of females receiving this pension are higher from 65 years of age, their rates are lower in all age groups. Rates for both males and females follow a pattern of a decline in the 70 to 74 year age group, then increasing over the next two age groups, before declining for men and slowing for women.

**Figure 4.1: Age pensioners, Australia, 1996**

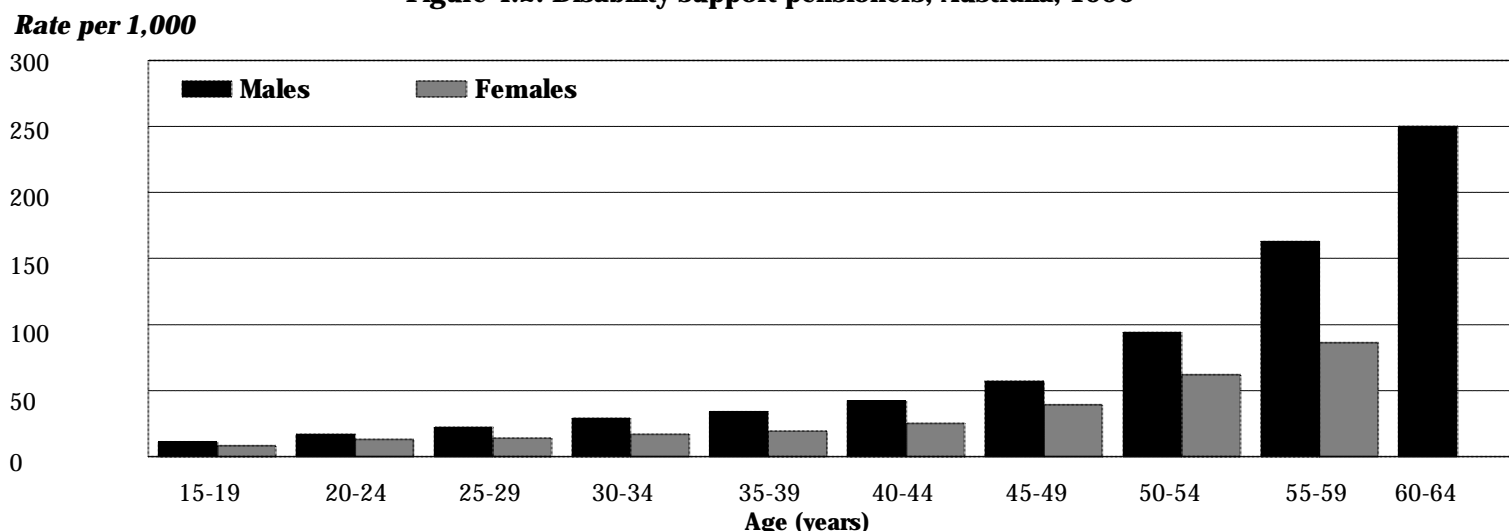


**Source: Calculated on data supplied by DFACS (Age Pension) and DVA (Service Pension (Age))**

Male rates are marginally higher in each age group under 40 years for those receiving the Disability Support Pension, with substantially higher rates at older ages (Figure 4.2). From age

60 years, females eligible for this pension are transferred to the Age Pension. The rates for both males and females grow steadily across the ages, most markedly from around 50 years of age.

**Figure 4.2: Disability support pensioners, Australia, 1996**



**Source: Calculated on data supplied by DFACS (Disability Support Pension) and DVA (Service Pension (Permanently Incapacitated))**

***This page intentionally left blank***

# Disability support pensioners, 30 June 1996

## Capital city comparison

People eligible for a Disability Support Pension, paid by the Department of Family and Community Services (DFACS), must be aged 16 years or over and have not reached age-pensionable age; be permanently blind or have a physical, intellectual or psychiatric impairment level of 20 per cent or more and a continuing inability to work. Details of males under 65 years of age and females under 60 years of age receiving the DVA service pension (permanently incapacitated) have been combined with the Disability Support Pension data: details on people above these ages were included in the data for age pensioners.

The proportion of the population in the capital cities in receipt of the Disability Support Pension has increased considerably since 1989, rising from 2.6 per cent in 1989 to 3.9 per cent in 1996. High levels of unemployment have impacted significantly on the increase in the number of disability support pensioners (Centrelink 1997). This increase was evident in all capital cities, with the largest increases recorded in **Hobart**, **Adelaide**, **Sydney** and **Brisbane**. In both 1989 and 1996, **Hobart** and **Adelaide** had the largest proportions of disability support pensioners, while **Canberra** and **Darwin** had the lowest.

**Table 4.4: Disability support pensioners, capital cities**  
Per cent

	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra <sup>1</sup>	All Capitals
1996	3.8	3.7	4.1	5.1	3.9	5.6	3.1	2.2	3.9
1989	2.3	2.6	2.7	3.5	3.0	3.6	2.1	1.2	2.6

<sup>1</sup>Includes Queanbeyan (C)

Source: See Data sources, Appendix 1.3

In 1996, there were 330,475 disability support pensioners resident in the capital cities and other major urban centres, two thirds of all disability support pensioners in Australia. These areas contain 70.4 per cent of the population.

## Capital Cities

In **Sydney**, **Inner Sydney** (6.1 per cent of males aged from 15 to 64 years and females aged from 15 to 59 years), **Gosford-Wyong** (5.9 per cent), **Central Western Sydney** (5.1 per cent) and **Fairfield-Liverpool** (4.8 per cent) had the highest proportions of disability support pensioners. Low proportions were recorded in the higher socioeconomic status Statistical Subdivisions (SSDs) of **Hornsby-Ku-ring-gai** (1.5 per cent), and **Lower Northern Sydney** and **Northern Beaches** (both 2.1 per cent). The largest numbers of disability support pensioners lived in **Inner Sydney** (11,981 people), **Fairfield-Liverpool** (9,552) and **Central Western Sydney** (8,932). The proportion of disability support pensioners in **Newcastle** (6.7 per cent; 18,609 pensioners) was higher than in any area mapped for **Sydney**, and higher than the proportion in **Wollongong** (4.9 per cent; 7,709).

In **Melbourne**, 6.4 per cent of the eligible population of **Moreland** received a Disability Support Pension, compared with 5.3 per cent in **Northern Middle Melbourne**, 5.0 per cent in **Western Melbourne** and 4.6 per cent in both **Hume** and **Dandenong**. The lowest proportions were in SSDs to the east of the city centre, in **South East Outer Melbourne**, **Eastern Outer Melbourne** and **Eastern Middle Melbourne** (each with 2.6 per cent). There were 12,885 disability support pensioners living in **Western Melbourne**, 8,107 in **Northern Middle Melbourne** and 7,429 in **Inner Middle**. In **Geelong**, there were 4,333 disability support pensioners, representing 4.7 per cent of the eligible population.

The highest proportion of disability support pensioners in **Brisbane**, or any capital city or other major urban centre SSD, was in **Redcliffe**, where they comprised 7.6 per cent of the population. Relatively high proportions were also recorded in **Caboolture** (5.9 per cent) and **Ipswich** (5.6 per cent). **Pine**

**Rivers** and **Beaudesert** had the lowest proportions, with 2.5 per cent and 3.1 per cent respectively. In **Brisbane City** there were 20,084 disability support pensioners, more than four times the number in next ranked **Logan** (4,135) and **Ipswich** (4,117). There were 9,048 disability support pensioners resident in **Gold Coast-Tweed Heads** (4.1 per cent of the eligible population) and 2,901 in **Townsville-Thuringowa** (3.6 per cent).

**Adelaide's** northern and western suburbs housed the highest proportions of disability support pensioners, with 7.0 per cent in **Western** (the second highest rate for any capital city or other major urban centre SSD) and 5.5 per cent in **Northern**. These SSDs also contained the largest numbers of disability support pensioners, with 8,777 and 11,672 respectively. The lowest proportion was in **Eastern**, with 3.9 per cent of its eligible population in receipt of a Disability Support Pension.

In **Perth**, the highest proportions of disability support pensioners were in **South West Metropolitan** (4.3 per cent) and **East Metropolitan** (4.1 per cent), and the lowest were in **Central Metropolitan** and **North Metropolitan** (both 3.6 per cent). There were 8,966 disability support pensioners in **North Metropolitan**, compared with 7,423 in **South East Metropolitan** and 6,988 in **South West Metropolitan**.

There were 6,702 disability support pensioners in **Hobart**, representing 5.6 per cent of the eligible population.

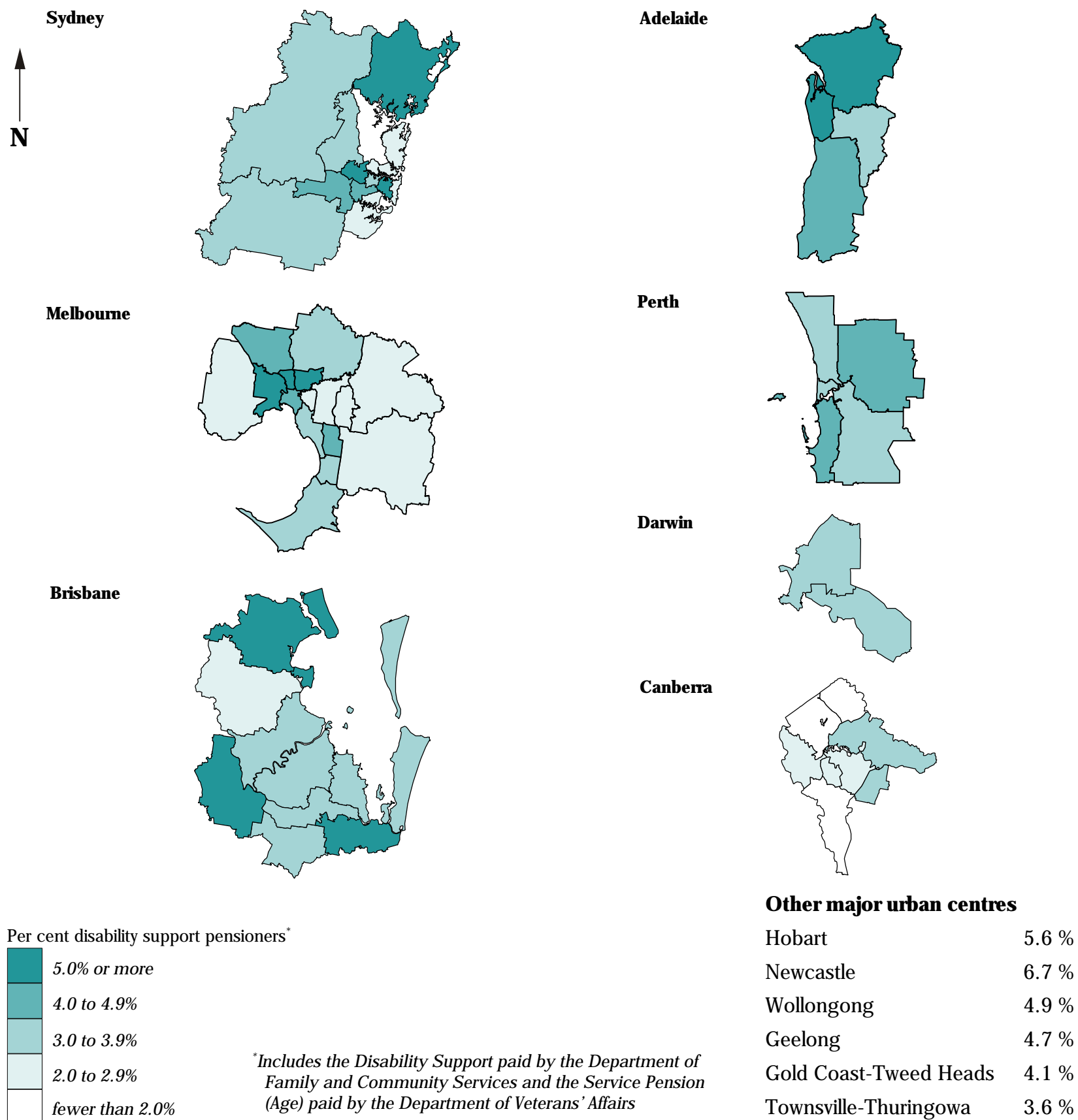
In **Darwin**, the highest proportion of disability support pensioners was in **Palmerston-East Arm** (3.6 per cent, 305 pensioners), with the lowest in **Darwin City** (3.0 per cent, 1,510 pensioners).

The highest proportion of **Canberra** residents in receipt of a Disability Support Pension lived in **North Canberra** (3.7 per cent). **South Canberra** and **Woden Valley** had 2.6 per cent and 2.5 per cent of their populations in receipt of a Disability Support Pension, respectively. The lowest proportion was 0.8 per cent in **Gungahlin-Hall**. Two SSDs had more than 1,000 disability support pensioners: they were **Belconnen** (1,081 people) and **North Canberra** (1,006).



# Map 4.3: Disability support pensioners, major urban centres, 1996

as a percentage of males ages 15 to 64 years and females aged 15 to 59 years in each Statistical Subdivision



Source: See Data sources, Appendix 1.3

Details of map boundaries are in Appendix 1.2  
National Social Health Atlas Project, 1999

# Disability support pensioners, 30 June 1996

## State/Territory comparison

In 1996, the proportions of people in receipt of the Disability Support Pension (see previous text page for details of those included) were generally higher in the non-metropolitan areas than in the capital cities, with the exception of South Australia, Western Australia and Northern Territory. The average for the *Rest of State/Territory* areas was 5.0 per cent, with similar proportions recorded in Queensland (4.6 per cent), Victoria (4.9 per cent) and South Australia (5.0 per cent). The highest proportion was in Tasmania (6.2 per cent) and the lowest in the Northern Territory (2.7 per cent). Comparisons between 1989 and 1996 show an increase in the proportions across all States and Territories, with the largest increases evident in Tasmania, South Australia and New South Wales.

**Table 4.5: Disability support pensioners, State/Territory**  
Per cent

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Total <sup>1</sup>
<b>1996</b>									
Capital city	3.8	3.7	4.1	5.1	3.9	5.6	3.1	2.2 <sup>2</sup>	3.9
Other major urban centres <sup>3</sup>	6.1	4.7	3.9	..	..	..	..	..	5.1
Rest of State/Territory	5.7	4.9	4.6	5.0	3.7	6.2	2.7	— <sup>4</sup>	5.0
Whole of State/Territory	4.5	4.0	4.2	5.1	3.8	6.0	2.8	2.1	4.3
<b>1989</b>									
Rest of State/Territory	3.9	3.3	3.1	3.3	3.1	3.7	2.2	— <sup>4</sup>	3.4

<sup>1</sup>Total for *Whole of State/Territory* includes 'Other Territories' (Jervis Bay, Christmas Island and Cocos Islands)

<sup>2</sup>Includes Queanbeyan (C)

<sup>3</sup>Includes Newcastle and Wollongong (NSW); Geelong (Vic); and Gold Coast-Tweed Heads and Townsville-Thuringowa (Qld)

<sup>4</sup>Data unreliable: included with ACT total

Source: See Data sources, Appendix 1.3

In 1996, there were 162,453 people in receipt of a Disability Support Pension living outside the capital cities and other major urban centres, 33.1 per cent of all such pensioners in Australia.

## Rest of Australia

The highest proportion of disability support pensioners in the non-metropolitan areas of New South Wales (and of any non-metropolitan Statistical Subdivision (SSD) in Australia) was in **Far West** (10.6 per cent of the population of males aged from 15 to 64 years and females from 15 to 59 years). Other SSDs with relatively high proportions were **Tweed Heads** (7.5 per cent), **Hastings** (7.0 per cent), **Clarence** and **Macquarie-Barwon** (both 6.8 per cent), **Lower South Coast** (6.6 per cent) and **Illawarra SD Balance** (6.3 per cent). The lowest proportions were in the adjacent SSDs of **Snowy** (1.7 per cent), **Yarrowlunla** (3.0 per cent) and **Queanbeyan** (3.7 per cent). There were 5,932 disability support pensioners living in **Richmond-Tweed SD Balance**, 5,354 in **Clarence** and 4,998 in **Hastings**.

In Victoria, the SSDs of **North Loddon** and **Shepparton** (both with 6.3 per cent) and **Ballarat** (6.1 per cent) had more than six per cent of their eligible population in receipt of a Disability Support Pension. The lowest proportions were in **East Ovens-Murray** (2.7 per cent), **South Loddon** (2.8 per cent) and **East Barwon** (3.4 per cent). The largest numbers of these pension recipients were resident in **Ballarat** (2,932 people), **Bendigo** (2,516) and **North Goulburn** (2,306).

Relatively high proportions of disability support pensioners were recorded in the Queensland SSDs of **Wide Bay-Burnett SD Balance** (6.8 per cent) and **Bundaberg** (6.4 per cent). High proportions were also recorded in **Toowoomba** (5.6 per cent), and **Moreton SD Balance** and **Darling Downs** (both with 4.9 per cent). The lowest proportions of disability support pensioners were in **Mackay SD Balance** (2.6 per cent) and **Gladstone** (2.9 per cent). There were 6,997 of these pensioners resident in

**Wide Bay-Burnett SD Balance**, 4,373 in **Moreton SD Balance** and 4,140 in **Sunshine Coast**.

In South Australia, the highest proportions of disability support pensioners were in **Yorke** (8.6 per cent) and the second highest of any non-metropolitan SSD), **Pirie** (6.6 per cent), **Fleurieu** and **Murray Mallee** (both with 6.1 per cent) and **Whyalla** (6.0 per cent). The lowest proportions were in **Upper South East** (3.0 per cent) and **Onkaparinga** (3.1 per cent). The largest numbers of these pensioners lived in **Riverland** (1,180 people), **Murray Mallee** (1,175) and **Yorke** (1,105).

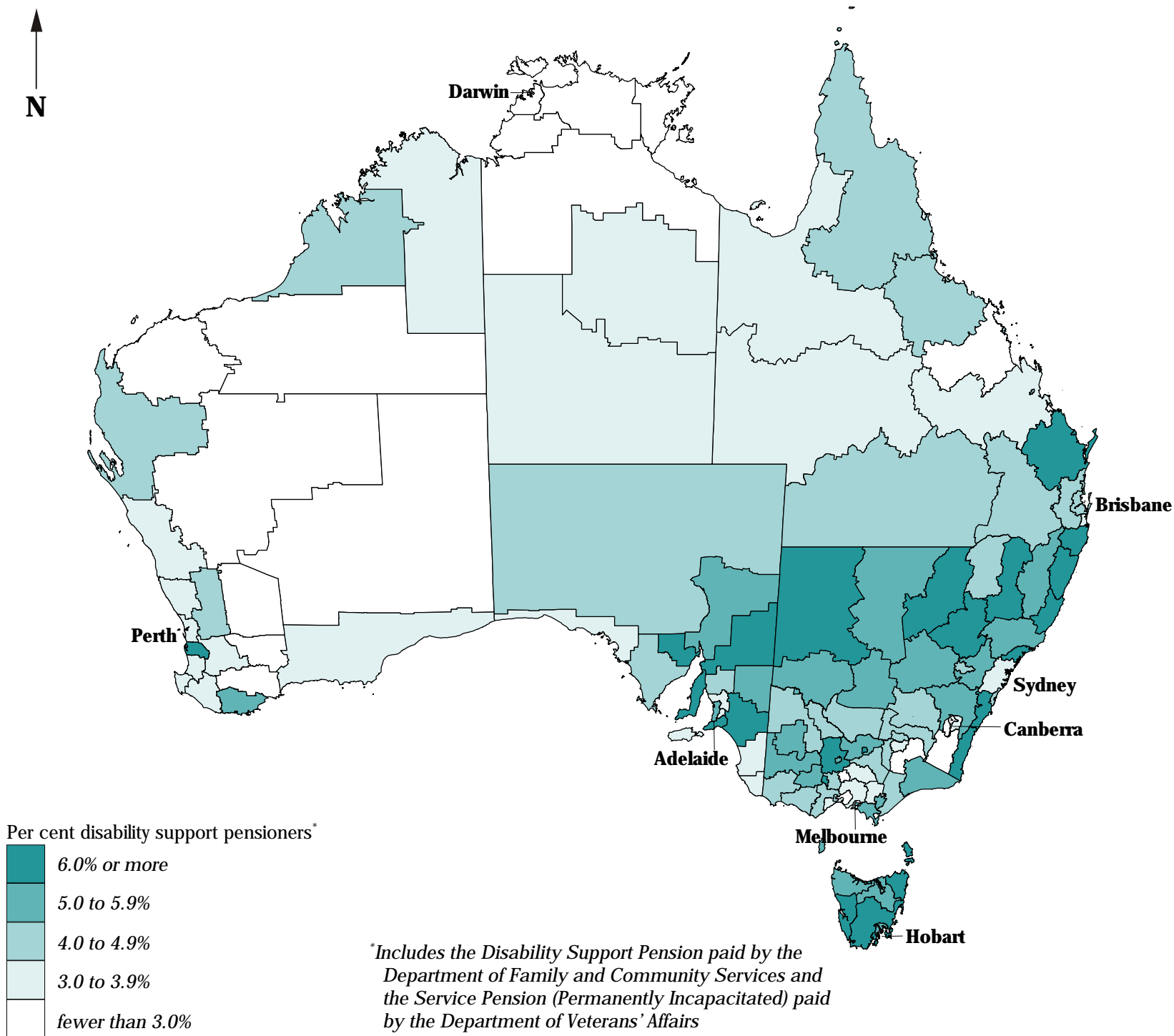
The highest proportion of disability support pensioners in Western Australia was recorded in **Dale** (6.7 per cent), while in **King**, **Avon** and **Gascoyne** the proportions were 5.2, 4.6 and 4.6 per cent respectively. High proportions were also recorded in **Fitzroy** (4.3 per cent) and **Ord** (3.9 per cent). The lowest proportions were in **Fortescue** (1.3 per cent) and **Carnegie** (1.7 per cent). There were more than 1,000 disability support pensioners in **Dale** (2,011 people), **Preston** (1,588), **King** (1,118) and **Greenough River** (1,007).

In Tasmania, more than six per cent of the population received a Disability Support Pension in **Southern** (7.7 per cent), **Burnie-Devonport** (7.3 per cent), **North Eastern** (6.9 per cent) and **Lyell** (6.3 per cent). The lowest proportions in Tasmania were in **Launceston** (5.3 per cent) and **North Western Rural** (5.4 per cent). There were 3,396 disability support pensioners living in **Burnie-Devonport**, 3,182 in **Launceston** and 1,592 in **Southern**.

There were relatively low proportions of the population in the Northern Territory receiving a Disability Support Pension. The highest proportions were in **Barkly** (3.7 per cent) and **Central NT** (3.2 per cent) and the lowest proportions were in **East Arnhem** (1.4 per cent) and **Alligator** (1.5 per cent). There were 842 recipients in **Central NT**, 329 in **Lower Top End NT** and 271 in **Darwin Rural Areas**.

### Map 4.4: Disability support pensioners\*, Australia, 1996

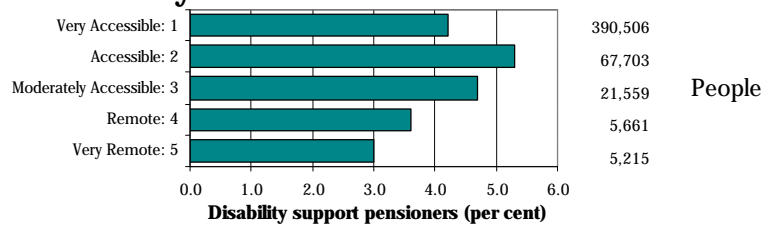
as a percentage of males ages 15 to 64 years and females aged 15 to 59 years in each Statistical Subdivision



Source: See Data sources, Appendix 1.3

Details of map boundaries are in Appendix 1.2

#### Accessibility/Remoteness Index of Australia



Access to services is of particular importance to people with a disability and is reflected in the graph adjacent. The proportion of the eligible population receiving a Disability Support Pension increases from 4.2 per cent in the Very Accessible category to 5.3 per cent in the Accessible category, before dropping away steadily to 3.0 per cent in the Very Remote category.

Source: Calculated on ARIA classification, DHAC National Social Health Atlas Project, 1999





Note: Amended figures are in column/row V18  
Table 8.2: Correlation matrix for SLAs in non-metropolitan areas of Australia

Table with columns labeled V1 through V55. The table contains a dense grid of correlation coefficients. Key features include: 1. A diagonal of 1.00 values. 2. Numerous values in boldface (e.g., V18-V18, V34-V34, V43-V43). 3. Values in boldface italics (e.g., V18-V34, V34-V18, V18-V43, V43-V18, V34-V43, V43-V34). 4. Values in boldface with a grey background (e.g., V18-V18, V34-V34, V43-V43, V18-V34, V34-V18, V18-V43, V43-V18, V34-V43, V43-V34). 5. A bottom section with a grey header 'Figures highlighted thus' and a row of text: 'Note: See over for variable names'.

indicate correlations of substantial significance

those highlighted thus

indicate correlations of meaningful significance between the appropriate variables in the matrix;

Note: See over for variable names

Note: Amended figures are in column/row V18  
**Table 8.2: Correlation matrix for SLAs in non-metropolitan areas of Australia ...cont**

V41	V42	V43	V44	V45	V46	V47	V48	V49	V50	V51	V52	V53	V54	V55		
V1	0.13	0.03	0.22	0.21	0.05	0.19	0.07	0.25	0.13	0.00	-0.03	0.00	0.04	-0.03	V1 Children aged 0 to 4	
V2	-0.03	0.16	-0.06	0.04	0.22	-0.15	0.11	-0.19	-0.02	0.09	0.11	0.34	0.25	0.28	-0.31	V2 People aged 65 and over
V3	0.29	0.26	0.31	0.15	0.08	0.28	0.19	-0.02	0.11	0.20	-0.05	-0.21	-0.28	-0.10	V3 Single parent families	
V4	0.05	0.08	0.10	0.15	0.22	0.07	-0.02	-0.13	-0.13	0.20	-0.14	0.13	0.06	-0.05	V4 Low income families	
V5	-0.06	-0.05	-0.12	-0.22	-0.29	-0.07	0.02	0.11	0.06	-0.15	0.09	-0.14	-0.11	0.00	V5 High income families	
V6	-0.10	-0.19	-0.03	0.02	0.06	-0.04	-0.20	-0.17	-0.27	-0.03	0.06	0.15	0.13	0.27	V6 Managers and administrators, and professionals	
V7	-0.10	0.12	-0.16	0.00	-0.05	-0.18	0.02	0.10	-0.04	0.18	-0.01	0.23	0.15	0.02	V7 Unemployed people	
V8	-0.10	-0.09	-0.10	-0.05	-0.13	-0.08	-0.02	0.10	-0.11	-0.03	0.07	0.05	0.10	0.16	V8 Female labour force participation	
V9	0.13	0.13	0.17	0.22	0.26	0.18	0.06	-0.01	0.30	0.09	0.03	-0.17	-0.15	-0.02	V9 Left school aged 15 or less, or did not go to school	
V10	0.33	0.13	0.42	0.23	0.29	0.42	0.03	-0.27	0.18	0.27	-0.19	-0.39	-0.39	0.11	V10 Aboriginal and Torres Strait Islander people	
V11	-0.07	0.03	-0.12	-0.15	-0.10	-0.11	0.03	0.17	-0.01	-0.14	0.06	0.03	-0.03	-0.10	V11 People born in predominantly non-English speaking countries	
V12	-0.02	0.02	-0.04	-0.08	-0.05	0.00	0.05	0.08	-0.04	0.06	0.04	-0.12	-0.13	-0.14	V12 resident for five years or more	
V13	0.01	0.04	-0.01	0.06	0.05	-0.01	0.09	0.16	0.10	-0.06	0.07	0.00	-0.03	-0.02	V13 resident for less than five years	
V14	0.22	0.24	0.19	0.18	0.15	0.14	0.23	0.19	0.27	0.16	0.08	-0.06	-0.12	-0.09	V14 Proficiency in English	
V15	0.34	0.27	0.41	0.25	0.31	0.38	0.16	-0.11	0.23	0.26	-0.10	-0.31	-0.35	-0.26	V15 Dwellings rented from the State housing authority	
V16	-0.33	-0.25	-0.42	-0.33	-0.33	-0.40	-0.14	0.14	-0.22	-0.23	0.09	0.17	0.21	0.21	V16 Dwellings with no motor vehicle	
V17	-0.11	-0.12	-0.12	0.08	-0.21	-0.16	-0.16	-0.11	0.14	-0.20	-0.08	0.26	0.35	0.12	V17 Index of Relative Socio-Economic Disadvantage	
V18	0.02	0.17	0.01	0.24	0.14	-0.08	0.02	0.04	0.09	0.21	0.04	0.44	0.39	0.13	V18 Age pensioners	
V19	0.19	0.18	0.18	0.34	0.29	0.12	0.09	0.02	0.03	0.39	-0.02	0.07	0.04	-0.08	V19 Disability support pensioners	
V20	0.21	0.16	0.19	0.14	0.14	0.22	0.07	-0.14	-0.02	0.32	-0.19	-0.20	-0.27	-0.26	V20 Female sole parent pensioners	
V21	0.17	0.13	0.13	0.35	0.40	0.11	0.05	-0.04	-0.02	0.38	-0.07	0.07	0.04	-0.07	V21 People receiving an unemployment benefit	
V22	0.31	0.28	0.32	0.39	0.30	0.24	0.11	-0.14	0.21	0.31	-0.10	0.12	0.08	-0.20	V22 Dependent children of selected pensioners and beneficiaries	
V23	-0.16	-0.21	-0.16	-0.39	-0.30	-0.07	-0.08	0.05	-0.17	-0.32	0.05	-0.43	-0.38	-0.07	V23 People reporting their health as fair or poor	
V24	0.18	0.19	0.23	0.25	0.31	0.09	0.01	-0.13	0.13	0.19	-0.11	-0.03	-0.06	-0.21	V24 Physical Component Score	
V25	-0.14	-0.10	-0.16	-0.13	-0.11	-0.15	-0.06	0.11	-0.17	-0.03	0.10	0.11	0.19	0.21	V25 Estimated number of people with a disability	
V26	0.26	0.18	0.29	0.27	0.25	0.42	0.13	0.01	0.27	0.12	0.01	-0.20	-0.19	-0.07	V26 Males	
V27	0.24	0.33	0.29	0.38	0.24	0.47	0.14	-0.08	0.33	0.11	-0.02	-0.31	-0.33	-0.10	V27 Females	
V28	0.35	0.38	0.36	0.37	0.19	0.33	0.43	0.26	0.29	0.05	0.28	0.13	0.11	0.28	V28 Cancer	
V29	0.44	0.23	0.48	0.31	0.25	0.53	0.26	-0.10	0.31	0.12	-0.06	-0.27	-0.29	-0.15	V29 Years of Potential Life Lost	
V30	0.17	0.19	0.27	0.24	0.28	0.27	0.26	0.10	0.38	0.07	0.06	-0.08	-0.05	-0.14	V30 Total Fertility Rate	
V31	0.70	0.39	0.70	0.36	0.31	0.72	0.54	0.18	0.37	0.29	0.21	-0.16	-0.17	-0.16	V31 Public acute hospitals and private hospitals	
V32	0.78	0.49	0.83	0.68	0.64	0.84	0.58	0.28	0.34	0.28	0.16	-0.21	-0.22	-0.16	V32 Public acute hospitals	
V33	0.00	0.10	-0.08	-0.09	0.02	-0.12	0.22	0.13	0.08	0.15	0.26	0.32	0.30	0.15	V33 Private hospitals	
V34	0.81	0.55	0.84	0.69	0.67	0.83	0.67	0.30	0.33	0.32	0.26	-0.15	-0.18	-0.13	V34 Males	
V35	0.80	0.51	0.84	0.66	0.66	0.80	0.62	0.18	0.39	0.38	0.22	-0.17	-0.16	-0.17	V35 Females	
V36	0.54	0.45	0.67	0.29	0.31	0.54	0.71	0.72	0.38	0.25	0.51	-0.02	-0.06	-0.04	V36 Same day	
V37	0.58	0.40	0.67	0.68	0.61	0.61	0.36	0.17	0.15	0.23	0.19	-0.16	-0.17	-0.27	V37 Infectious diseases	
V38	0.23	0.32	0.15	0.14	0.30	0.06	0.38	0.39	0.26	0.19	0.22	0.09	0.07	0.00	V38 Cancer	
V39	0.23	0.11	0.38	0.34	0.35	0.39	0.17	0.15	0.20	0.11	0.16	-0.08	-0.09	-0.31	V39 Psychosis	
V40	0.55	0.39	0.64	0.45	0.48	0.57	0.32	0.13	0.19	0.18	0.22	-0.08	-0.10	-0.27	V40 Neurotic, personality and other mental disorders	
V41	1.00	0.77	0.73	0.56	0.61	0.70	0.57	0.20	0.32	0.34	0.25	-0.14	-0.15	-0.14	V41 Circulatory system diseases	
V42	0.77	1.00	0.43	0.37	0.37	0.39	0.52	0.36	0.27	0.29	0.32	0.03	-0.02	-0.12	V42 Ischaemic heart disease	
V43	0.73	0.43	1.00	0.80	0.81	0.74	0.40	-0.01	0.21	0.22	0.09	-0.16	-0.15	-0.17	V43 Respiratory system diseases: all ages	
V44	0.56	0.37	0.80	1.00	0.65	0.62	0.27	0.04	0.22	0.24	0.12	-0.05	-0.02	-0.11	V44 Respiratory system diseases: 0 to 4 year olds	
V45	0.61	0.37	0.81	0.65	1.00	0.63	0.26	0.14	0.05	0.10	0.19	-0.14	-0.09	-0.25	V45 Bronchitis, emphysema and asthma	
V46	0.70	0.39	0.74	0.62	0.63	1.00	0.50	0.12	0.31	0.32	0.09	-0.26	-0.26	-0.09	V46 Accidents, poisonings and violence	
V47	0.57	0.52	0.40	0.27	0.26	0.50	1.00	0.76	0.50	0.38	0.59	-0.03	-0.09	0.01	V47 All procedures	
V48	0.20	0.36	-0.01	0.04	0.14	0.12	0.76	1.00	0.31	0.23	0.67	0.09	0.02	0.10	V48 Same day procedures	
V49	0.32	0.27	0.21	0.22	0.05	0.31	0.50	0.31	1.00	-0.03	0.33	0.17	0.12	-0.04	V49 Caesarean section	
V50	0.34	0.29	0.22	0.24	0.10	0.32	0.38	0.23	-0.03	1.00	0.26	0.04	0.02	-0.20	V50 Lens insertion	
V51	0.25	0.32	0.09	0.12	0.19	0.09	0.59	0.67	0.33	0.26	1.00	0.15	0.14	0.03	V51 Endoscopies	
V52	-0.14	0.03	-0.16	-0.05	-0.14	-0.26	-0.03	0.09	0.17	0.04	0.15	1.00	0.94	0.32	V52 Males	
V53	-0.15	-0.02	-0.15	-0.02	-0.09	-0.26	-0.09	0.02	0.12	0.02	0.14	0.94	1.00	0.29	V53 Females	
V54	-0.14	-0.12	-0.17	-0.11	-0.25	-0.09	0.01	0.10	-0.04	-0.20	0.03	0.32	0.29	1.00	V54 Immunisation	
V55	0.06	-0.08	0.09	0.18	0.09	0.15	-0.02	-0.08	-0.11	-0.09	0.00	-0.44	-0.43	-0.25	V55 Population per general medical practitioner	
V41	V42	V43	V44	V45	V46	V47	V48	V49	V50	V51	V52	V53	V54	V55		
<p>Figures highlighted thus indicate correlations of meaningful significance between the appropriate variables in the matrix;</p> <p>those highlighted thus indicate correlations of substantial significance</p> <p>Source: Calculated from project data</p>																

***This page intentionally left blank***



**9 Summary: The variables highlighted in table 9.1 have been amended: references to these variables in the text have also been changed but have not been highlighted.**

## Introduction

This chapter presents details of the major changes noted in the data between this and the first edition, as well as some summary measures of the health differentials calculated from the health status and health service utilisation data mapped in Chapters 5 and 6.

## Changes in data rates between editions

The reference period for the data in the first and this second edition varies according to the dataset. In general, the Census data in this edition are ten years on from the first edition (Chapter 3: 1986 Census and 1996 Census); and the income support (Chapter 4: 1989 and 1996) and health status (Chapter 5: 1985-89 and 1992-95) datasets are seven years later. The data for hospital admissions (see *Differences in data treatment between editions*, Chapter 6) and services and facilities are not discussed in this chapter because of difficulties in comparing the available series over time.

Readers should note that some variables are not discussed below because the data were available only for the latest period.

## Changes in socioeconomic status variables

Marked variations were recorded between 1986 and 1996 for a majority of the socioeconomic status variables mapped for Australia (Table 9.1). For the capital cities, the largest increases were for the population of Aboriginal and Torres Strait Islander people (an increase of 79.0 per cent over this ten year period); the occupational grouping of managers and administrators, and professionals (42.2 per cent); low income families (41.1 per cent);

single parent families (39.5 per cent); people born overseas in predominantly non-English speaking countries (an increase of 33.1 per cent for those resident for five years or more, of 26.1 per cent for those resident for less than five years, and of 24.5 per cent for those with poor proficiency in English); and people aged 65 years and over (27.0 per cent). The largest decreases recorded over this ten year period were for the variables for unemployment among 15 to 19 year olds (down by 14.7 per cent) and early school leavers (down by 13.3 per cent).

Variations of this order were also recorded in the non-metropolitan areas of Australia. The major differences from the changes noted for the capital cities were the larger increases in the number of single parent families and the population of people aged 65 years and over; smaller increases for Indigenous people, the occupations of managers and administrators and professionals, low income families and people born overseas in predominantly non-English speaking countries who have been resident for five years or more; and decreases for the remaining two variables for people born overseas in predominantly non-English speaking countries.

Changes over this period for the other major urban centres were relatively consistent with those recorded in the capital cities, although with much larger increases recorded for the population aged from 0 to 4 years, people aged 65 years and over, single parent families and people born in predominantly non-English speaking countries who had been resident for five years or more.

**Table 9.1: Changes in demographic and socioeconomic status variables, by Section of Australia**  
*Per cent change*

Variable	Capital cities	Other major urban centres	Rest of Australia	Australia
<b>1986 to 1996</b>				
0 to 4 year olds	8.6	21.5	1.0	6.4
65 years & over	27.0	57.0	36.6	31.4
Single parent families	39.5	63.6	43.3	42.0
Low income families	41.1	44.5	30.2	36.7
Unemployed people	21.4	24.0	7.0	16.4
Unemployed people aged 15 to 19 years	-14.7	-15.9	-26.1	-19.0
Female labour force participation (20 to 54 years)	8.4	16.9	12.4	10.0
Early school leavers	-13.3	-7.1	-5.0	-10.1
Unskilled & semi-skilled workers	-12.4	-6.8	-4.8	-9.7
Managers & administrators, & professionals	42.2	61.3	9.0	31.8
Aboriginal & Torres Strait Islander people	79.0	80.4	44.4	55.1
People <sup>1</sup> born overseas & resident for less than 5 years	26.1	59.9	-13.0	23.8
People <sup>1</sup> born overseas & resident for 5 years or more	33.1	27.0	11.8	30.3
People <sup>1</sup> born overseas: speaks English not well/not at all	24.5	11.4	-15.2	21.5
Housing authority rented dwellings	20.3	31.7	10.7	18.4
Dwellings without a motor vehicle	10.5	25.9	23.6	14.3
<b>1989 to 1996</b>				
Age pensioners	0.6	20.5	1.3	2.4
Disability support pensioners	56.5	76.1	49.6	55.1
Female sole parent pensioners	42.7	66.9	35.9	42.4
Unemployment beneficiaries	142.9	127.7	85.5	118.5
Dependent children of selected pensioners & beneficiaries	75.3	99.3	50.1	66.7

<sup>1</sup>Includes people who were born in a predominantly non-English speaking country.

Substantial variations were recorded in income support payments to residents of the capital cities for all of the payment types analysed, other than the Age Pension, for which there was a small increase (an increase of 0.6 per cent). The number of recipients for each of the other payment types increased substantially, with the number of unemployment beneficiaries more than doubling (an increase of 142.9 per cent) (Table 9.1). Similar, although smaller increases were recorded in the non-metropolitan areas of Australia for all of these income support payments other than the Age Pension, for which there was a larger increase (1.3 per cent). The increases in the other major urban centres were more in line with those recorded for the capital cities than with those in the non-metropolitan areas.

### Changes in health status variables

As noted in Chapter 5 (see *Background*), death rates in Australia have declined for the majority of causes, with lower rates for all of the major causes of death mapped in the atlas: percentage

changes between the two periods (from 1985 to 1989 and 1992 to 1995) are shown in Table 9.2.

In the capital cities, the largest decreases were recorded for the infant death rate (down by 29.5 per cent); and for deaths of people aged from 15 to 64 years from circulatory system diseases (down by 37.7 per cent), respiratory system diseases (down by 30.9 per cent), lung cancer (down by 24.3 per cent) and accidents, poisonings and violence (down by 22.9 per cent). All causes mortality was 22.6 per cent lower over this period, marginally more so for males than for females. There were reductions in the rates for every category in Table 9.2 for the other major urban centres.

There were also reductions in premature death rates in the non-metropolitan areas for all major causes of death. However the reductions were all lower than those recorded for the capital cities, at around two thirds (65.4 per cent) for all cause mortality.

**Table 9.2: Changes in selected health status variables, by Section of Australia**  
**Per cent change<sup>1</sup> 1985-89 to 1992-95**

Variable	Capital cities	Other major urban centres	Rest of Australia	Australia
<b>Infant deaths</b>	-33.0	-31.9	-26.9	-29.5
<b>Deaths of 15 to 64 year olds</b>				
Males	-26.8	-21.3	-18.0	-23.8
Females	-24.1	-14.0	-14.1	-20.5
Persons, by cause				
Circulatory system diseases	-42.1	-33.5	-29.1	-37.7
All cancers (malignant neoplasms)	-19.2	-7.5	-4.0	-14.2
Lung cancer	-24.3	-18.7	-17.5	-22.1
Respiratory system diseases	-35.3	-28.2	-23.2	-30.9
Accidents, poisonings & violence	-24.1	-17.4	-22.1	-22.9
Other causes	-3.9	-3.7	-5.6	-4.7
All causes	-25.7	-18.4	-16.8	-22.6

<sup>1</sup>'Per cent change' represents the difference (between the reference periods) in death rates: for infants, it is the infant death rate (infant deaths per 1,000 live births); and for deaths of 15 to 64 year olds, it is the rate per 100,000 population produced by indirect age (or age-sex) standardisation

## Summary of findings by socioeconomic status of area of residence

### Background

In order to summarise the extent of health inequalities shown in the maps in the earlier chapters, the health status and health service utilisation data are presented in chart form on the following pages. The data have been re-cast to show the average rate (or standardised ratio or percentage) by socioeconomic status of the Statistical Local Area (SLA) of address in the records studied. To do this, each SLA in the major urban centres was allocated to one of five categories (quintiles) based on its Index of Relative Socio-Economic Disadvantage (IRSD) score (this index is described on page 17). Quintile 1 comprises the twenty per cent of SLAs in these major urban centres with the highest IRSD scores, and Quintile 5 comprises the twenty per cent of 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 infant death rate was calculated for the most advantaged 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, with the rate, standardised ratio or percentage for the

first quintile set to 1 in order to highlight variations from the rates recorded in the most advantaged areas (Figure 9.2). This exercise was repeated for SLAs in the non-metropolitan areas of Australia.

As noted in Chapter 3, the ABS has calculated the IRSD so that low scores indicate greatest disadvantage. This is the reverse of the way in which other data in the atlas has been calculated, where higher rates, standardised ratios etc. indicate poorest health, highest utilisation of health services and greatest disadvantage. In order to present the graph of the IRSD in a form that is visually consistent with the other graphs in this chapter (ie. with the bars increasing in size to the right, and above the base of 1), the scales on the chart in Figure 9.1 have been reversed.

Figure 9.1 shows that the average IRSD score in 1991 for Quintile 1 (comprising the most socioeconomically advantaged SLAs across the capital cities and other major urban centres) was 1105, decreasing for each quintile to a score of 933 in Quintile 5 (the most socioeconomically disadvantaged SLAs). The range of index scores for the non-metropolitan areas of Australia was from 1052 in Quintile 1 to 929 in Quintile 5.