

# ***A Social Health Atlas of Australia: Volume 4, Queensland***

## **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: 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 v-vi
- Rates for females shown in Figure 4.2, page 82
- Correlations, page 347-350
- Table 9.1 and associated text, page 373-374

### **Ch 6: Admission for an endoscopy, Table 6.57, page 296**

The table should read as follows:

**Table 6.57: Admissions<sup>1</sup> with a principal procedure of endoscopy, capital cities, 1995/96**

***Standardised admission ratios***

Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra <sup>2</sup>	All capitals
110**	111**	115**	81**	82**	111**	92**	58**	104**

<sup>1</sup>Includes admissions to public acute hospitals, private hospitals and day surgery facilities, including admissions of same day patients

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

Source: See *Data sources*, Appendix 1.3

Statistical significance: \* significance at 5 per cent; \*\* significance at 1 per cent

### **Ch 8: Correlations, page 347-350**

Correlation matrices affected by Disability Support Pension data.

### **Ch 9: Summary, page 373-374**

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 401**

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

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# Executive summary: Amended text/figures are highlighted

## Introduction

The information in this atlas adds to a convincing body of evidence built up over a number of years in Australia as to 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.

## Background

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 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). Also included is a cluster analysis, providing profiles at the Statistical Local Area (SLA) level of the socioeconomic status, health status and health service utilisation of the population.

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

## Findings

### Correlation analysis

There were correlations of significance at the small area level between the indicators of socioeconomic disadvantage drawn from the 1996 Population Census (Chapter 3) and a number of the health status variables. In **Brisbane**, the strongest of these were with the variables for people reporting their health as fair or poor (as opposed to those reporting their health as being excellent, very good, or good) and the Physical Component Summary (PCS, a measure of physical health) (**Table 8.1**). Similarly strong associations were evident in the correlation analysis with the variables for use of GP services by females and admissions to a public hospital.

There were fewer correlations of significance at the SLA level in the non-metropolitan areas of Queensland than was the case in **Brisbane**. 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 a number of variables are highly correlated with each other: these are the variables for unemployed people, single parent families, Indigenous Australians, people born in non-English speaking countries, people with poor proficiency in English and dwellings without a motor vehicle.

Various sub-sets of these are correlated with measures of health status and use of health services. The strongest correlations with

the measures of socioeconomic disadvantage were with the variables for people reporting their health as fair or poor, and the PCS. Although generally weaker, there was a consistent pattern between socioeconomic disadvantage and the variables for hospital admissions of males and females; and hospital admissions from circulatory and respiratory system diseases.

For the Indigenous population, there were correlations of substantial significance at the SLA level with the variable for years of potential life lost (a summary measure of premature death), single parent families, dwellings without a motor vehicle and admissions for respiratory system diseases.

### Changes in socioeconomic status

Marked variations were recorded between 1986 and 1996 for a majority of the socioeconomic status variables mapped for Queensland (**Table 9.1**). For **Brisbane**, the largest increases were for the population of Aboriginal and Torres Strait Islander people (an increase of 94.4 per cent over this ten year period); the occupational grouping of managers and administrators, and professionals (71.9 per cent); housing authority rented dwellings (67.9 per cent); people born overseas in predominantly non-English speaking countries: an increase of 61.2 per cent for those resident for five years or more, of 55.6 per cent for those resident for less than five years, and of 58.3 per cent for those with poor proficiency in English; single parent families (60.8 per cent); and low income families (52.6 per cent). **The only decreases recorded over this ten year period were for the variables for early school leavers (down by 3.0 per cent) and unemployment among 15 to 19 year olds (down by 8.4 per cent).**

Variations of this order were also recorded in the non-metropolitan areas of Queensland. The major differences from the changes noted for **Brisbane** were the larger increases in the proportion of housing authority rented dwellings and people aged 65 years and over; smaller increases for Indigenous people, the occupations of managers and administrators, and professionals, people born predominantly non-English speaking countries and residents for five years or more, the number of single parent families and low income families; and decreases for the remaining two variables for people born overseas in predominantly non-English speaking countries.

Changes over this period for the major urban centre of **Townsville-Thuringowa** were relatively consistent with those recorded in **Brisbane**. However, there were considerable variations recorded in **Gold Coast-Tweed Heads**, the major differences being for the population aged from 0 to 4 years, people aged 65 years and over, early school leavers, unskilled and semi-skilled workers, the three variables for people born overseas in predominantly non-English speaking countries and housing authority rented dwellings.

Substantial variations were recorded in income support payments to residents of **Brisbane** for all of the payment types analysed, other than the Age Pension, for which there was a small increase (a decrease of 1.9 per cent). **The number of each of the other payment types increased substantially, with the number of unemployment beneficiaries more than doubling (an increase of**

**153.4 per cent) (Table 9.1).** Similar, although smaller, increases were recorded in the non-metropolitan areas of Queensland for all of these income support payments other than the Age Pension for which there was a small decrease (2.6 per cent). The increases in **Townsville-Thuringowa** were in line with those recorded for the non-metropolitan areas of the State and with those in **Brisbane**. Between 1986 and 1996 substantial increases were recorded in all income support payments to residents of **Gold Coast-Tweed Heads**.

### Changes in death rates

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

In **Brisbane**, the largest decreases were recorded for the infant death rate (down by 24.7 per cent) and for deaths of people aged from 15 to 64 years from circulatory system diseases (down by 46.5 per cent), respiratory system diseases (down by 38.4 per cent) and cancer (down by 29.6 per cent). All causes mortality was 29.6 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 in **Townsville-Thuringowa**. However, in **Gold Coast-Tweed Heads**, increases were recorded for premature deaths of females from all causes, and of males and females from cancer.

There were also reductions in rates of premature death in the non-metropolitan areas of Queensland for all major causes of death. However the reductions were less than those recorded for **Brisbane** for all except infant deaths and accidents, poisonings and violence. The reduction for all causes mortality was just over two thirds (69.3 per cent) that recorded for **Brisbane**.

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

Comparisons are made of changes in the health status of the population by socioeconomic status. In the absence of any direct measure of socioeconomic status in the health status data, the socioeconomic status of the SLA of usual residence in the health status records is used. In this analysis socioeconomic status is measured by the Index of Relative Socio-Economic Status (IRSD, see page 19). The SLAs in the major urban centres of **Brisbane**, **Gold Coast-Tweed Heads** and **Townsville-Thuringowa** have been grouped 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

Although there is some variability across the quintiles, the pattern is generally 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) in the most advantaged areas of 76 (24 per cent fewer YPLL than were

expected from the Queensland State rates) to an SR of 127 in the most disadvantaged areas (indicating that there were 27 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 72 in Quintile 1 to 129 in Quintile 5) and deaths of 15 to 64 years olds from lung cancer (84 to 122), circulatory system diseases (68 to 135) and respiratory system diseases (57 to 146).

The main differences in the non-metropolitan areas of Queensland from the gradients evident for **Brisbane** and the other major urban centres are for infant deaths (for which the gradient is reversed) and for premature deaths from lung cancer and the Total Fertility Rate, for which there is no notable gradient.

#### Health service utilisation

Although there is some variability across the quintiles, 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 exceptions include the graphs for admissions to a private hospital, admissions for all cancers, lung cancer and for breast cancer of females aged 40 years and over, and for the surgical procedures of myringotomy, endoscopy and Caesarean section. Others, including the graphs for admissions for psychosis and same day admissions for a surgical procedure, reveal a less consistent pattern (**Figure 9.3**).

In the non-metropolitan areas of Queensland, the main differences from the gradients evident for **Brisbane** and the other major urban centres are for admissions for cancer, psychosis, neurotic, personality or other mental disorders, hysterectomy, endoscopy and Caesarean section. The gradient for general practitioner (GP) services to males and females is the reverse of that in **Brisbane**. This may reflect higher levels of provision of GP services by providers not included in the Medicare data on which this analysis is based (eg. those working in Aboriginal Medical Services and mining companies) (**Figure 9.5**).

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

As noted above, there has been an overall decrease in death rates in Queensland; there are also differentials in death rates by socioeconomic status of area. It is possible to examine the extent of the change in death rates by socioeconomic status of area. As data was not available for non-metropolitan SLAs in the first edition of the atlas, the following comparisons have been limited to **Brisbane**, **Gold Coast-Tweed Heads** and **Townsville-Thuringowa**.

Death rates in **Brisbane** and **Townsville-Thuringowa** declined between 1985-89 and 1992-95 for all of the causes of death studied, both overall and in each quintile of socioeconomic status of area. In **Gold Coast-Tweed Heads**, death rates declined between 1985-89 and 1992-95 for a majority of the causes studied: the exceptions were deaths of 15 to 64 year old females (an increase of 5 per cent) and deaths in the 'other' causes group (for which there was an increase in overall death rates).

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**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

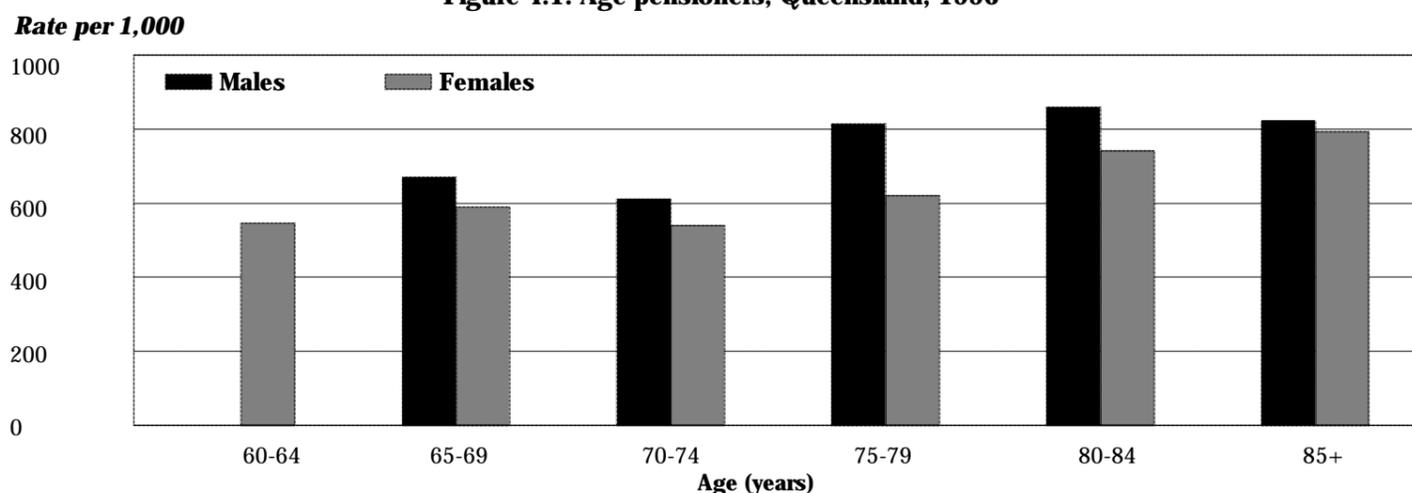
100, this would have concealed the problem and would not have represented the data for the areas as estimated. Percentages in excess of 100 per cent are noted separately in the text. Although the other pension or benefit types analysed only rarely have such high proportions, it is not possible to say 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, Queensland, 1996**

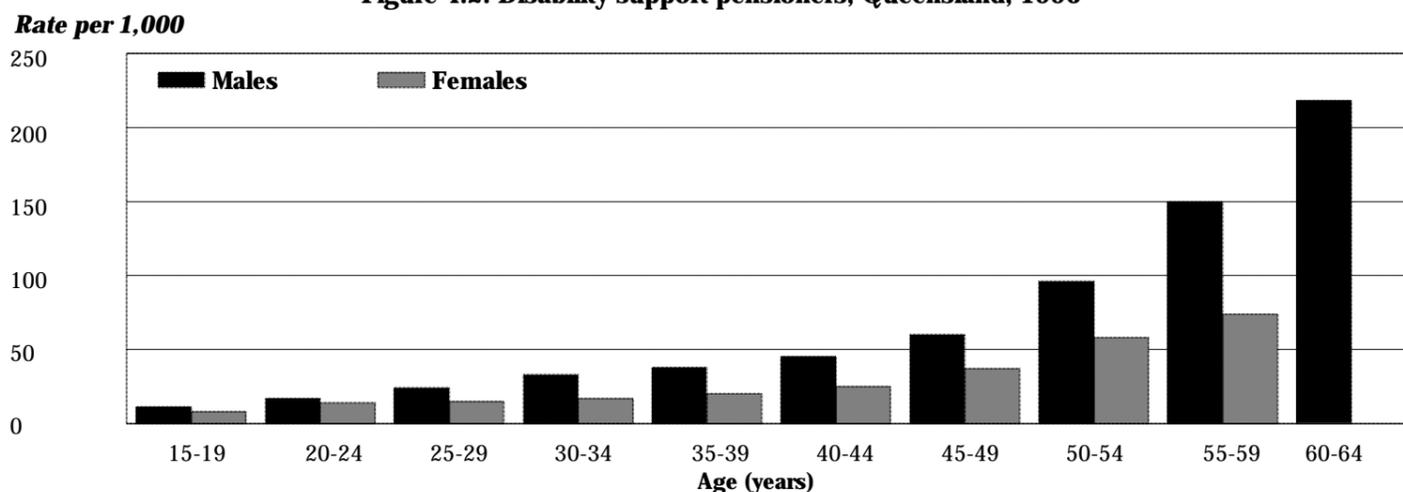


**Source: Calculated on data supplied by DFACS (Age Pension) and DVA (Service Pension (Age))**

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, Queensland, 1996**



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

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# 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**

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

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

Source: See Data sources, Appendix 1.3

## Brisbane

The number of people in **Brisbane** receiving the Disability Support Pension increased substantially from 22,241 people in 1989 to 39,634 people in 1996, up from 2.7 per cent to 4.1 per cent of the eligible population (of males aged from 15 to 64 years and females aged 15 to 59 years).

Proportions were highest in the outer southern and northern areas of Redland Balance (11.1 per cent) and Bribie Island (10.7 per cent) (**Map 4.3**). Other areas recording proportions well above the city average were New Farm (11.4 per cent), Darra-Sumner/Wacol (9.4 per cent), Dutton Park/Woolloongabba (8.3 per cent), West End/South Brisbane/Highgate Hill (8.0 per cent), Rocklea (7.4 per cent), Inala/Durack/Doolandella-Forest Lake/Richlands/Ellen Grove (6.4 per cent), Herston/Newstead (6.2 per cent), Windsor/Lutwyche/Woolloowin (5.9 per cent), Murarrie (5.7 per cent) and Hemmant-Lytton/Wynnum/Wynnum West (5.5 per cent), all of which are scattered along the Brisbane River; the outer southern areas of Berrinba-Karawatha/Kingston (7.7 per cent), Ipswich Central (6.5 per cent) and Loganlea (5.6 per cent); and the far northern areas of Redcliffe (7.6 per cent), Caboolture-East (6.9 per cent), Caboolture-Central (6.6 per cent) and Deception Bay (5.9 per cent).

A number of higher socioeconomic status SLAs, located just north of the Brisbane River, had notably lower percentages, with the lowest being in Anstead/Bellbowrie/Moggill with 0.8 per cent of the population receiving the Disability Support Pension. Similarly low proportions were recorded in St Lucia (0.9 per cent), Jindalee/River Hills (1.2 per cent), and Upper Brookfield/Fig Tree Pocket, Seventeen Mile Rocks, Albany Creek and Moreton Island (each with 1.3 per cent).

The largest numbers of people in receipt of a Disability Support Pension in 1996 were recorded in Ipswich-Central (2,712 people),

Redcliffe (2,142 people), Berrinba-Karawatha/Kingston (1,598 people) and Gold Coast [Part A] (1,345 people).

There were correlations of significance at the small area level with the variables for low income families (0.72), the Indigenous population (0.69), unemployed people (0.67), dwellings without a motor vehicle (0.66) and unskilled and semi-skilled workers (0.50). These results, together with the inverse correlation of substantial significance with the IRSD (-0.72), indicate an association at the small area level between high proportions of disability support pensioners and socioeconomic disadvantage.

## Gold Coast-Tweed Heads

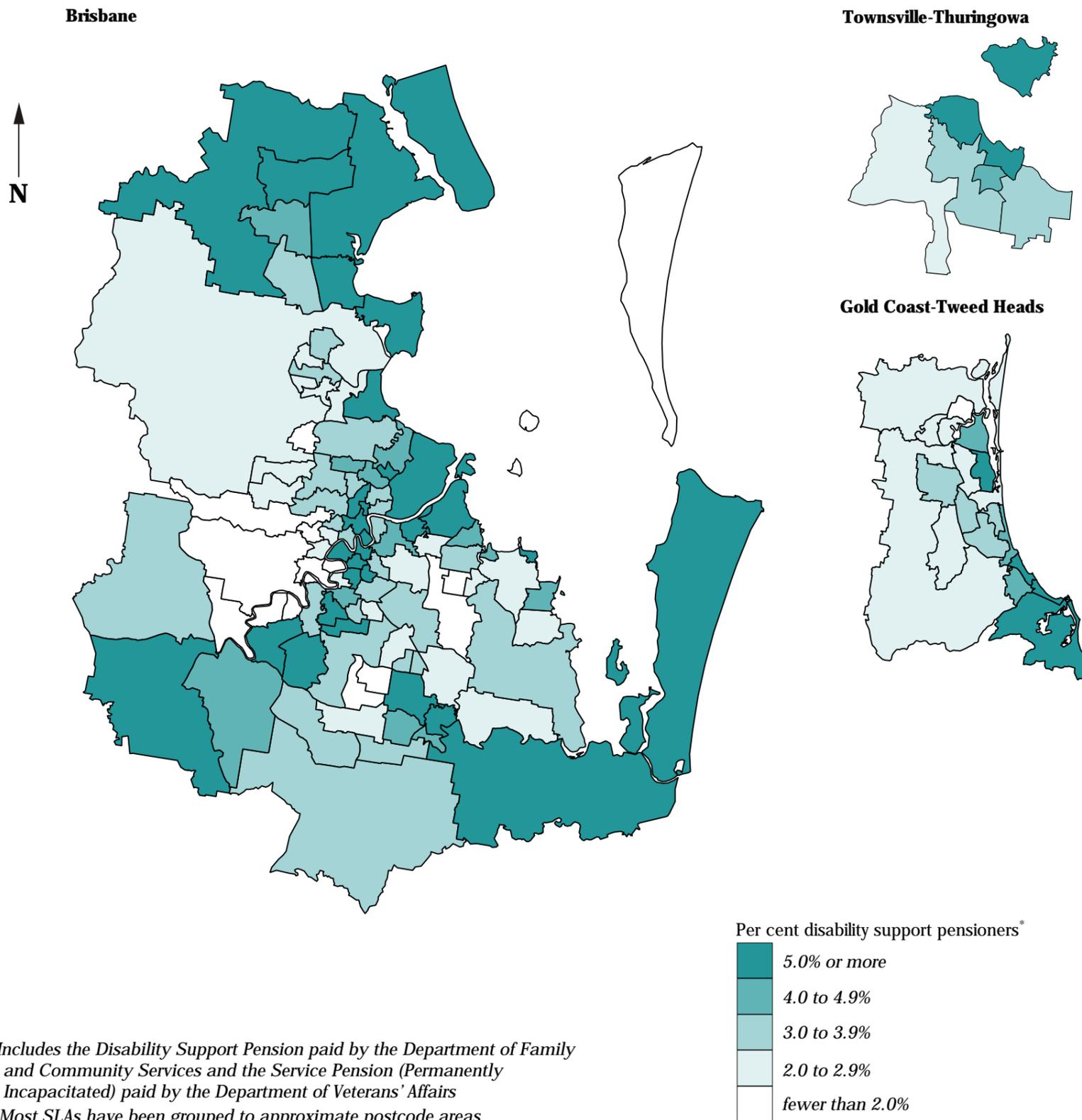
In 1996, there were 9,047 people in receipt of the Disability Support Pension in **Gold Coast-Tweed Heads**, 4.1 per cent of the eligible population. Tweed Heads had the highest proportion of disability support pensioners, with 7.5 per cent of its population in this category. High proportions were also recorded in the combined areas of Coolangatta/Tugun (7.2 per cent), Labrador/Southport (5.9 per cent) and Palm Beach/Currumbin (5.0 per cent). Hope Island and Surfers Paradise/Benowa recorded the lowest proportions of 1.9 per cent and 2.3 per cent respectively.

## Townsville-Thuringowa

In 1996, 3.6 per cent of the eligible population in **Townsville-Thuringowa** were receiving a Disability Support Pension, a total of 2,901 people. Proportions in all five areas were below 6.0 per cent, ranging from 2.7 per cent in Thuringowa [Part A] to 5.5 per cent in Townsville Coastal/Magnetic Island.

# Map 4.3: Disability support pensioners\* Brisbane, Gold Coast-Tweed Heads and Townsville-Thuringowa, 1996

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



\*Includes the Disability Support Pension paid by the Department of Family and Community Services and the Service Pension (Permanently Incapacitated) paid by the Department of Veterans' Affairs

#Most SLAs have been grouped to approximate postcode areas

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

## Rest of State

In 1989, 23,151 people in the non-metropolitan areas of Queensland were receiving a Disability Support Pension (3.1 per cent of the population, aged from 15 to 64 years for males and 15 to 59 years for females). By 1996, the number had risen to 40,034 and the proportion had increased to 4.6 per cent.

As can be seen from **Map 4.4**, areas with high concentrations of disability support pensioners were generally located in the south-east of the State. Proportions of 7.0 per cent or above were recorded in the south-eastern SLAs of Mount Morgan (18.1 per cent), Biggenden (10.3 per cent), Perry (10.1 per cent), Nanango (9.1 per cent), Kolan (8.9 per cent), Esk (8.4 per cent), Tara (8.2 per cent), Hervey Bay (8.0 per cent), Isis and Stanthorpe (both with 7.2 per cent). The only areas outside of the south-eastern region to be mapped in the highest range were the SLAs of Herberton and Paroo (both 6.7 per cent) and Atherton (6.5 per cent).

In total, 31 SLAs were mapped in the middle class interval, ranging from 4.0 per cent in Cloncurry to 4.8 per cent in each of Warwick West, Rockhampton, Murilla, Millmerran and Mackay [Part B].

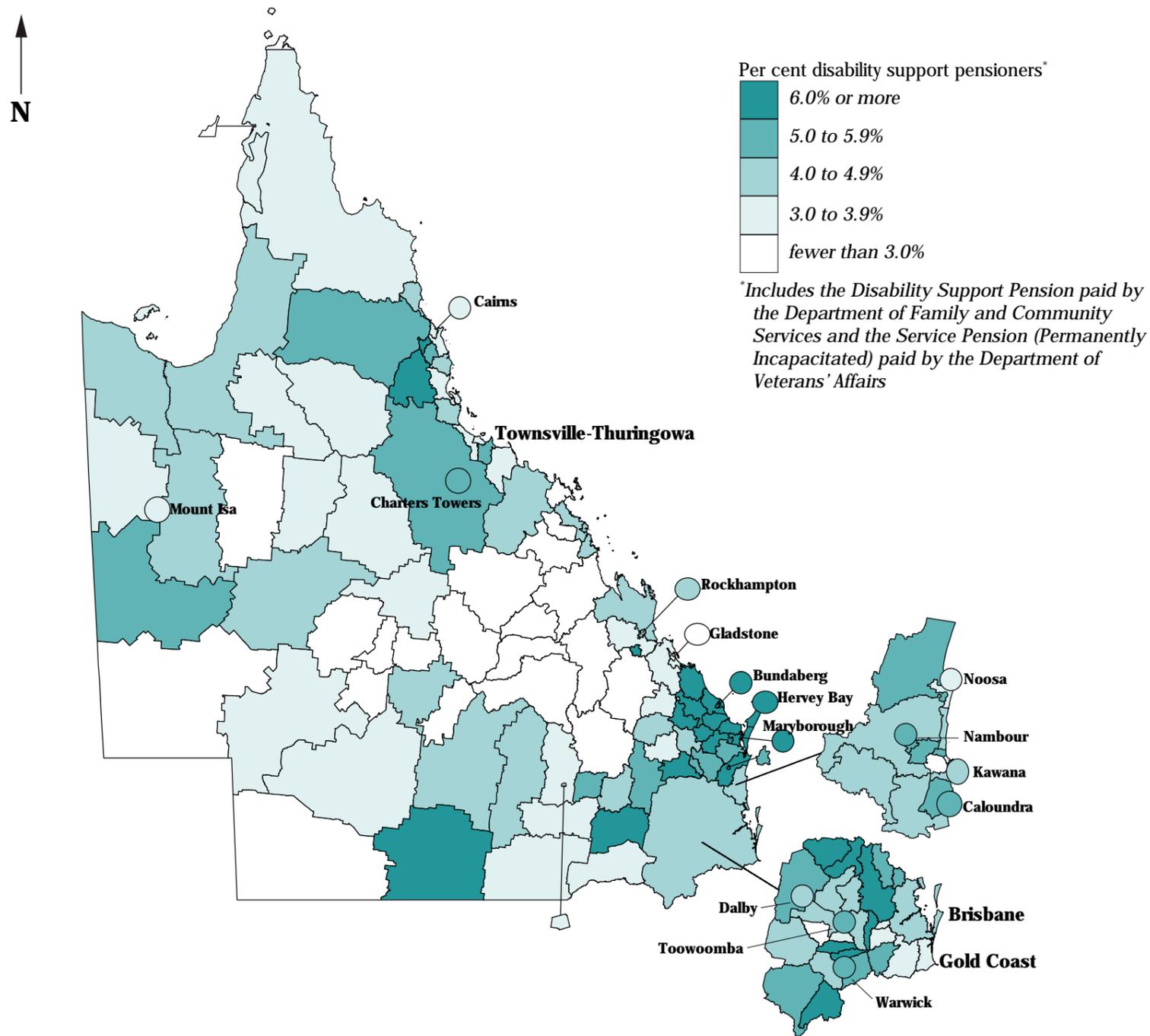
The majority of SLAs with low proportions of people in receipt of a Disability Support Pension were clustered in the middle region of the State close to the coast. These areas included Nebo (0.8 per cent), Mirani (0.9 per cent), Belyando (1.0 per cent), Emerald and Broadsound (both with 1.3 per cent), Duaringa (1.5 per cent) and Peak Downs (1.8 per cent). Also with proportions of below two per cent were the SLAs of Ilfracombe with no disability support pensioners, Isisford (0.4 per cent), Bulloo (0.8 per cent), McKinlay (1.0 per cent) and Weipa (1.3 per cent).

The town of Toowoomba had the largest number of people receiving a Disability Support Pension in 1996, a total of 2,902 people. Relatively large numbers were also recorded in the towns of Cairns (2,469 people), Hervey Bay (1,893 people), Rockhampton (1,800 people), Bundaberg (1,615 people), Maryborough (997 people) and Caloundra (882 people).

There were correlations of meaningful significance at the SLA level with the variables for unemployed people (0.68), low income families (0.66) and people aged 65 years and over (0.58). These results, together with the weak inverse correlation with the IRSD (-0.33), suggest the existence of an association at the SLA level between high proportions of disability support pensioners and socioeconomic disadvantage.

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

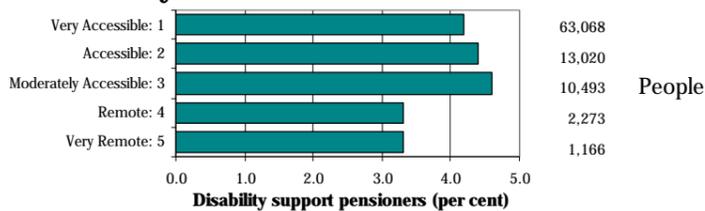
as a percentage of males aged 15 to 64 years and females aged 15 to 59 years in each Statistical Local Area



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 4.6 per cent in the Moderately Accessible category, before dropping away to 3.3 per cent in both the Remote and Very Remote categories.

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





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

	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12	V13	V14	V15	V16	V17	V18	V19	V20	V21	V22	V23	V24	V25	V26	V27	V28	V29	V30	V31	V32	V33	V34	V35	V36	V37	V38	V39	V40	V41	
V1	1.00	-0.60	0.32	-0.10	0.25	-0.11	-0.28	-0.17	0.11	0.56	-0.28	-0.15	-0.11	0.28	0.42	-0.33	0.19	-0.27	0.11	0.26	-0.14	0.06	0.11	-0.18	-0.29	0.40	0.36	0.32	0.31	-0.11	0.32	0.02	-0.21	0.13	0.22	0.02	0.38	0.27	0.20	-0.16	V1	
V2	-0.60	1.00	-0.09	0.44	-0.51	0.14	0.45	0.08	-0.03	-0.35	0.19	0.13	0.15	-0.08	-0.13	0.04	0.13	0.58	0.23	0.00	0.47	0.18	-0.47	0.43	-0.01	-0.23	-0.10	-0.23	-0.22	-0.12	0.25	0.09	-0.18	0.03	-0.22	-0.28	-0.16	0.11	V2			
V3	0.32	-0.09	1.00	0.29	-0.12	-0.49	0.12	-0.38	-0.10	0.81	0.03	0.23	0.00	0.40	0.82	-0.69	0.11	0.10	0.59	0.64	0.17	0.64	-0.44	0.46	-0.57	0.73	0.09	0.47	0.48	0.52	0.18	-0.10	0.43	0.50	0.33	0.58	0.35	0.29	-0.16	V3		
V4	-0.10	0.44	0.29	1.00	-0.76	0.25	0.52	-0.53	0.17	0.24	0.00	-0.07	-0.07	-0.19	-0.32	-0.66	0.38	0.66	0.40	0.44	0.60	0.65	-0.78	0.77	-0.37	0.38	0.05	0.14	0.22	-0.36	-0.09	0.15	0.11	-0.12	0.23	0.16	-0.09	-0.29	V4			
V5	0.25	-0.51	-0.12	-0.76	1.00	-0.41	-0.35	0.18	-0.12	-0.10	0.15	0.16	0.05	0.18	-0.17	0.45	-0.22	-0.50	-0.27	-0.23	-0.67	-0.39	0.58	-0.68	0.12	-0.16	-0.07	-0.06	-0.16	0.37	-0.04	0.07	0.06	-0.21	-0.07	0.08	-0.14	-0.13	0.14	0.19	V5	
V6	-0.11	0.14	-0.49	0.25	-0.41	1.00	-0.18	0.13	0.11	-0.27	-0.30	-0.27	-0.11	-0.41	-0.34	0.13	0.05	0.07	-0.26	-0.27	0.29	-0.35	0.16	0.16	-0.03	0.33	-0.21	-0.16	-0.13	-0.23	-0.22	-0.09	-0.11	-0.27	-0.36	-0.17	-0.08	-0.23	-0.11	V6		
V7	-0.28	0.45	0.12	0.52	-0.35	-0.18	1.00	-0.39	0.08	-0.19	0.35	0.12	0.04	-0.06	-0.10	-0.22	0.25	0.68	0.46	0.36	0.45	0.59	-0.66	0.57	-0.34	-0.06	-0.11	-0.06	-0.21	-0.20	-0.13	0.10	0.04	-0.17	0.09	-0.22	-0.28	-0.20	-0.03	V7		
V8	-0.17	0.08	-0.38	-0.53	0.18	0.13	-0.39	1.00	-0.34	-0.41	-0.07	-0.04	0.05	-0.37	-0.37	0.68	-0.15	-0.42	-0.36	-0.50	-0.23	-0.69	0.55	-0.57	-0.57	0.34	-0.50	-0.28	-0.29	-0.14	0.21	-0.18	-0.32	0.00	-0.29	-0.28	-0.11	0.16	V8			
V9	0.11	-0.03	-0.10	0.17	-0.12	0.11	0.08	-0.34	1.00	-0.07	-0.30	-0.24	-0.11	-0.19	-0.13	-0.29	0.21	0.26	0.01	-0.15	0.06	0.14	-0.15	0.24	0.18	0.05	0.04	-0.08	0.06	-0.13	-0.02	-0.11	-0.17	0.11	-0.13	-0.18	-0.05	-0.03	-0.14	-0.15	V9	
V10	0.56	-0.35	0.81	0.24	-0.10	-0.27	-0.19	-0.41	-0.07	1.00	-0.16	0.01	-0.04	0.36	0.92	-0.78	0.10	-0.08	0.41	0.65	0.11	0.51	-0.27	0.30	-0.58	0.85	0.22	0.68	0.71	-0.43	0.64	0.69	0.26	-0.18	0.47	0.62	0.20	0.75	0.64	0.34	-0.23	V10
V11	-0.28	0.19	0.03	0.00	0.15	-0.30	0.35	-0.07	-0.30	-0.16	1.00	0.31	0.74	0.02	-0.13	0.16	0.05	0.22	0.24	0.19	-0.01	0.20	-0.20	0.10	-0.26	-0.09	-0.18	-0.20	-0.18	0.02	-0.17	-0.22	0.00	0.10	-0.12	-0.14	0.13	-0.24	-0.25	-0.05	0.18	V11
V12	-0.15	0.13	0.23	-0.07	0.16	-0.27	0.12	-0.04	-0.24	0.01	0.31	1.00	0.24	0.24	0.07	0.05	-0.10	0.06	0.21	0.14	-0.01	0.11	-0.09	0.07	-0.08	-0.02	0.01	0.02	-0.02	0.16	0.01	0.06	0.09	0.09	0.00	0.01	0.18	-0.03	-0.09	0.09	0.11	V12
V13	-0.11	0.15	0.00	-0.07	0.05	-0.11	0.04	0.05	-0.11	-0.04	0.74	0.24	1.00	0.15	0.02	0.06	0.07	0.10	0.12	0.02	0.00	0.05	-0.07	0.03	-0.27	-0.03	-0.03	-0.09	-0.04	-0.04	-0.04	0.03	0.07	-0.03	-0.04	0.12	-0.06	-0.08	0.04	0.15	V13	
V14	0.28	-0.08	0.40	-0.19	0.18	-0.41	-0.06	0.05	-0.19	0.36	0.02	0.24	0.15	1.00	0.40	-0.16	-0.16	-0.14	0.29	0.28	-0.04	0.13	-0.01	-0.06	-0.22	0.14	0.12	0.25	0.23	-0.03	0.26	0.21	0.18	0.19	0.24	0.28	0.19	0.13	0.21	0.08	V14	
V15	0.42	-0.13	0.82	0.32	-0.17	-0.34	-0.10	-0.37	-0.13	0.92	-0.13	0.07	0.02	0.40	-0.78	0.17	-0.24	-0.33	0.40	0.62	0.14	0.57	-0.39	0.36	-0.70	0.84	0.12	0.68	0.70	0.65	0.67	0.27	-0.10	0.46	0.62	0.27	0.73	0.61	0.40	-0.16	V15	
V16	-0.33	0.04	-0.69	-0.66	0.45	0.13	-0.22	0.68	-0.29	-0.78	0.16	0.05	0.06	-0.16	-0.78	1.00	-0.24	-0.33	-0.50	-0.64	-0.37	-0.74	0.61	-0.65	0.51	-0.80	-0.22	-0.58	-0.64	-0.53	-0.60	-0.21	0.16	-0.49	-0.51	-0.15	-0.65	-0.55	-0.26	0.23	V16	
V17	0.19	0.13	0.11	0.38	-0.22	0.05	0.25	-0.15	0.21	0.10	0.05	-0.10	0.07	-0.16	0.17	-0.24	1.00	0.43	0.21	0.15	0.20	0.37	-0.45	0.27	-0.41	0.20	-0.17	-0.08	-0.04	-0.10	-0.04	-0.12	-0.26	-0.12	-0.13	-0.19	-0.22	0.05	-0.09	-0.16	-0.20	V17
V18	-0.27	0.58	0.10	0.66	-0.50	0.07	0.68	-0.42	0.26	-0.08	0.22	0.06	0.10	-0.14	0.03	-0.33	0.43	1.00	0.48	0.30	0.63	0.64	-0.80	0.77	-0.22	0.04	-0.03	-0.10	-0.06	-0.10	-0.11	-0.09	-0.01	0.19	-0.03	0.10	-0.04	-0.18	-0.19	-0.16	V18	
V19	0.11	0.23	0.59	0.40	-0.27	-0.26	0.46	-0.36	0.01	0.41	0.24	0.21	0.12	0.29	0.40	-0.50	0.21	0.48	1.00	0.71	0.63	0.67	-0.62	0.58	-0.31	0.37	0.13	0.21	0.26	-0.27	0.16	0.26	0.09	-0.07	0.41	0.24	0.09	0.27	0.07	0.04	-0.09	V19
V20	0.26	0.00	0.64	0.44	-0.23	-0.27	0.36	-0.50	-0.15	0.65	0.19	0.14	0.02	0.28	0.62	-0.64	0.15	0.30	0.71	1.00	0.51	0.66	-0.53	0.51	-0.49	0.57	0.22	0.33	0.38	-0.33	0.30	0.36	0.15	-0.07	0.24	0.36	0.06	0.35	0.23	0.16	-0.13	V20
V21	-0.14	0.47	0.17	0.60	-0.67	0.29	0.45	-0.23	0.06	0.11	-0.01	-0.01	0.00	-0.04	0.14	-0.37	0.20	0.63	0.63	0.51	1.00	0.46	-0.58	0.65	-0.05	0.12	0.16	0.03	0.11	-0.32	0.00	-0.07	-0.04	0.27	0.10	-0.02	0.06	0.00	-0.10	-0.13	V21	
V22	0.06	0.18	0.64	0.65	-0.39	-0.35	0.59	-0.69	0.14	0.51	0.20	0.11	0.05	0.13	0.57	-0.74	0.37	0.64	0.67	0.66	0.46	1.00	-0.92	0.80	-0.54	0.59	-0.02	0.35	0.39	-0.30	0.32	0.35	0.07	-0.17	0.35	0.40	0.19	0.44	0.26	0.07	-0.26	V22
V23	0.11	-0.47	-0.44	-0.78	0.58	0.16	-0.66	0.55	-0.15	-0.21	-0.20	-0.09	-0.07	-0.01	-0.39	0.61	-0.45	-0.80	-0.62	-0.53	-0.58	-0.92	1.00	-0.84	0.47	-0.39	-0.05	-0.19	-0.24	-0.17	-0.19	0.06	0.11	-0.30	-0.21	-0.10	-0.29	0.11	0.06	0.25	V23	
V24	-0.18	0.43	0.46	0.77	-0.68	-0.03	0.57	-0.57	0.24	0.30	0.10	0.07	0.03	-0.06	0.36	-0.65	0.27	0.77	0.58	0.51	0.65	0.80	-0.84	1.00	-0.37	0.42	-0.04	0.12	0.18	-0.28	0.10	0.15	-0.05	-0.05	0.32	0.21	0.12	0.21	0.07	-0.08	-0.23	V24
V25	-0.29	-0.01	-0.57	-0.37	0.12	0.33	-0.06	0.34	0.18	-0.58	-0.26	-0.08	-0.27	-0.22	-0.70	0.51	-0.41	-0.22	-0.31	-0.49	-0.05	-0.54	0.47	-0.37	1.00	-0.67	0.07	-0.29	-0.30	0.20	-0.33	-0.21	-0.04	0.02	-0.19	-0.30	-0.15	-0.39	-0.24	-0.21	0.11	V25
V26	0.40	-0.23	0.73	0.38	-0.16	-0.21	-0.11	-0.50	0.05	0.85	-0.09	-0.02	-0.03	0.14	0.84	-0.80	0.20	0.04	0.37	0.57	0.12	0.59	-0.39	0.42	-0.67	1.00	0.10	0.61	0.64	-0.40	0.60	0.60	0.28	-0.14	0.52	0.60	0.32	0.70	0.58	0.39	-0.15	V26
V27	0.36	-0.10	0.09	0.05	-0.07	0.16	-0.06	-0.23	0.04	0.22	-0.18	0.01	-0.09	0.12	0.12	-0.22	-0.17	-0.03	0.13	0.22	0.16	-0.02	0.05	-0.04	0.07	1.00	0.35	0.35	-0.13	0.34	0.34	0.36	-0.07	0.29	0.26	0.07	0.29	0.35	0.41	0.25	V27	
V28	0.32	-0.23	0.47	0.14	-0.06	-0.22	-0.21	-0.28	-0.08	0.68	-0.20	0.02	-0.04	0.25	0.68	-0.58	-0.08	-0.10	0.21	0.33	0.03	0.35	-0.19	0.12	-0.29	0.61	0.35	0.97	0.97	0.69	0.63	0.03	0.74	0.85	0.58	0.92	0.91	0.72	0.16	V28		
V29	0.31	-0.21	0.48	0.22	-0.16	-0.16	-0.17	-0.29	-0.08	0.71																																



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## 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 Queensland (Table 9.1). For **Brisbane**, the largest increases were for the population of Aboriginal and Torres Strait Islander people (an increase of 94.4 per cent over this ten year period);

the occupational grouping of managers and administrators, and professionals (71.9 per cent); housing authority rented dwellings (67.9 per cent); people born overseas in predominantly non-English speaking countries: an increase of 61.2 per cent for those resident for five years or more, of 55.6 per cent for those resident for less than five years, and of 58.3 per cent for those with poor proficiency in English; single parent families (60.8 per cent); and low income families (52.6 per cent). The only decreases recorded over this ten year period were for the variables for early school leavers (down by 3.0 per cent) and unemployment among 15 to 19 year olds (down by 8.4 per cent).

Variations of this order were also recorded in the non-metropolitan areas of Queensland. The major differences from the changes noted for **Brisbane** were the larger increases in the proportion of housing authority rented dwellings and people aged 65 years and over; smaller increases for Indigenous people, the occupations of managers and administrators, and professionals, people born predominantly non-English speaking countries and residents for five years or more, the number of single parent families and low income families; and decreases for the remaining two variables for people born overseas in predominantly non-English speaking countries.

Changes over this period for the major urban centre of **Townsville-Thuringowa** were relatively consistent with those recorded in **Brisbane**. However, there were considerable variations recorded in **Gold Coast-Tweed Heads**, the major

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

Variable	Brisbane	Other major urban centres			Rest of State	Whole State
		Gold Coast-Tweed Heads	Townsville-Thuringowa	Total		
<b>1986 to 1996</b>						
0 to 4 year olds	21.9	178.0	9.3	89.5	5.5	19.1
65 years & over	35.0	119.0	36.3	101.4	40.1	45.2
Single parent families	60.8	184.3	32.4	119.5	44.7	59.9
Low income families	52.6	54.3	28.3	48.8	34.7	40.4
Unemployed people	26.6	94.6	2.8	64.0	-0.3	18.0
Unemployed people aged 15 to 19 years	-8.4	33.1	-10.4	16.2	-27.1	-14.5
Female labour force participation (20 to 54 years)	13.7	9.7	12.3	10.6	15.4	14.5
Early school leavers	-3.0	29.8	-11.2	17.6	4.6	1.4
Unskilled & semi-skilled workers	5.5	44.5	-12.7	21.3	5.3	5.3
Managers & administrators, & Professionals	71.9	171.9	41.8	116.1	16.0	47.4
Aboriginal & Torres Strait Islander people	94.4	185.3	8.8	41.7	48.4	55.9
People <sup>1</sup> born overseas & resident for less than 5years	55.6	287.7	13.6	179.1	-2.0	50.3
People <sup>1</sup> born overseas & resident for 5 years or more	61.2	228.1	29.4	161.4	22.4	57.1
People <sup>1</sup> born overseas: speaks English not well/not at all	58.3	336.6	3.7	218.9	-7.7	50.0
Housing authority rented dwellings	67.9	353.8	86.0	173.3	113.9	89.6
Dwellings without a motor vehicle	24.1	75.4	20.7	59.9	30.4	30.3
<b>1989 to 1996</b>						
Age pensioners	1.9	106.1	8.7	78.4	-2.6	7.5
Disability support pensioners	78.2	215.2	73.5	163.0	57.1	72.2
Female sole parent pensioners	56.6	302.1	40.2	173.6	39.1	58.7
Unemployment beneficiaries	153.4	642.0	117.4	402.0	92.6	139.4
Dependent children of selected pensioners & beneficiaries	76.7	450.9	65.9	242.5	44.3	68.8

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

differences being for the population aged from 0 to 4 years, people aged 65 years and over, early school leavers, unskilled and semi-skilled workers, the three variables for people born overseas in predominantly non-English speaking countries and housing authority rented dwellings.

Substantial variations were recorded in income support payments to residents of **Brisbane** for all of the payment types analysed, other than the Age Pension, for which there was a small increase (a decrease of 1.9 per cent). The number of each of the other payment types increased substantially, with the number of unemployment beneficiaries more than doubling (an increase of 153.4 per cent) (**Table 9.1**). Similar, although smaller, increases were recorded in the non-metropolitan areas of Queensland for all of these income support payments other than the Age Pension for which there was a small decrease (2.6 per cent). The increases in **Townsville-Thuringowa** were in line with those recorded for the non-metropolitan areas of the State and with those in **Brisbane**. Between 1986 and 1996 substantial increases were recorded in all income support payments to residents of **Gold Coast-Tweed Heads**.

### Changes in health status variables

As noted in Chapter 5 (see *Background*), death rates in Australia have declined for the majority of causes. Queensland is no

exception, 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 **Brisbane**, the largest decreases were recorded for the infant death rate (down by 24.7 per cent) and for deaths of people aged from 15 to 64 years from circulatory system diseases (down by 46.5 per cent), respiratory system diseases (down by 38.4 per cent) and all cancers (down by 29.6 per cent) and lung cancer (down by 24.8 per cent). All causes mortality was 29.6 per cent lower over this period, marginally more so for males than for females.

There were reductions in every category in **Table 9.2** for the major urban centre of **Townsville-Thuringowa**. However, in **Gold Coast-Tweed Heads**, increases were recorded for premature deaths of females from all causes, and of males and females from cancer.

There were also reductions in rates of premature death in the non-metropolitan areas of Queensland for all major causes of death. However the reductions were less than those recorded for **Brisbane** for all except infant deaths and accidents, poisonings and violence. The reduction for all causes mortality was just over two thirds (69.3 per cent) that recorded for **Brisbane**.

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

Variable	Brisbane	Other major urban centres			Rest of State	Whole State
		Gold Coast-Tweed Heads	Townsville-Thuringowa	Total		
<b>Infant deaths</b>	-24.7	-16.9	-20.8	-18.4	-25.6	-23.6
<b>Deaths of 15 to 64 year olds</b>						
Males	-31.4	-8.0	-40.1	-19.3	-22.2	-25.8
Females	-27.0	5.0	-28.7	-5.4	-15.7	-19.7
Persons, by cause						
Circulatory system diseases	-46.5	-19.5	-48.4	-29.2	-32.4	-38.3
All cancers (malignant neoplasms)	-22.1	13.7	-21.8	2.9	-6.1	-13.1
Lung cancer	-24.8	9.8	3.0	6.1	-18.9	-20.2
Respiratory system diseases	-38.4	-17.8	-47.2	-28.5	-35.4	-34.8
Accidents, poisonings & violence	-18.6	-18.6	-37.4	-24.4	-24.5	-21.4
Other causes	-19.1	27.9	-31.3	4.6	-11.9	-13.0
All causes	-29.6	-2.3	-36.3	-13.7	-20.5	-23.6

<sup>1</sup>Per cent change<sup>1</sup> 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 SLA of address in the records studied. To do this, each SLA in the major urban centres (**Brisbane, Gold Coast-Tweed Heads** and **Townsville-Thuringowa**) 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 19). 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 Queensland.