

## 7 Availability of selected health services

### Introduction

The location of services and facilities in relation to the distribution of the population is an important indicator of accessibility. Unfortunately the data currently available as to the location of health, welfare and other services and facilities are limited. This is true even for data at the SLA level: the range of data by actual address location that can be mapped precisely are even more limited.

Greater interest is, however, being shown in establishing databases of services by exact location. Such databases can assist in developing a better understanding of the patterns of provision, access to and use of services and inform policy development and strategic planning processes for the location and delivery of health services. These initiatives are being aided by the use of Geographical Information Systems (GIS) techniques<sup>1</sup>.

In this chapter data are mapped at the SLA level for general medical practitioners (GPs), hospital beds (public acute and private hospitals) and residential aged care facilities (nursing home places and hostel places). The data for GPs are for the 1996/97 financial year and for public acute hospital beds they are for 1995/96; the remaining data are at 30 June 1997.

### Data mapped

#### Population per GP

The spatial distribution of GPs has been illustrated by mapping the population per GP in each area.

Data are of the number of full-time equivalent (FTE) GPs<sup>2</sup> per practice site. Data were available for postcode areas and were converted to SLA.

The rate of population per GP was calculated for each SLA and is mapped over five ranges. In many non-metropolitan SLAs the rate was very high, because the denominator, the FTE number of GPs, was very small. An examination of the distribution of rates across all non-metropolitan areas in Australia revealed that a sensible cut-off would be where the rate of population per GP exceeded 10,000 people per GP. Most of the SLAs with rates of this size had fewer than 0.3 FTE GPs. On the maps, these areas are shown as having 'No GP' (or fewer than 10,000 people per GP) even though they may have a GP practising for one session per week. The other SLAs are mapped across the remaining four ranges.

The GPs included in this analysis exclude GPs working in salaried practice who do not submit accounts to Medicare. Examples

include GPs working for the Royal Flying Doctor Service and the Aboriginal Medical Service, those working in specialist services such as low vision clinics, as well as in a small number of community health centres (see comments on page 305 in relation to GP services not included in the data mapped). If, however, these GPs meet the definition quoted above for work performed in another practice, they will be included as practising from that location.

Users should be cautious not to place too heavy an emphasis on the population per GP in any one SLA, as the location of the principal practice in an SLA may be close to the population of a neighbouring SLA and provide a significant number of services to people in this neighbouring SLA. This is less of a problem for the larger areas (SSDs) mapped in the Australian atlas.

It is not possible to directly compare the data shown here with that in the first edition of the atlas because of the use in this edition of the more accurate FTE measure. In the first edition GPs were defined as the number of medical practitioners who performed (during 1990/91) at least 1,000 GP services (based on selected items in the Commonwealth Medical Benefits Schedule) for which Medicare benefits were paid, and who received more than 50 per cent of fee-charged income from those items (ie. they were charging patients for services appropriate for a GP for more than 50 per cent of the income they derived from Medicare). This was a relatively small number of services and, as such allowed for the inclusion, in the number of GPs, of many (but not all) of the medical practitioners who were practising part-time in medicine.

Despite this change in definition, the data for the earlier period have been shown below to allow users to examine variations in the rates between the States and Territories at each reference date.

#### Hospital beds

The number of beds in public acute hospitals and private hospitals has been mapped per 1,000 population of the area in which the hospital is located. The public hospital data were available at 30 June 1996 and the private hospital data at 30 June 1997.

Questions remain as to the accuracy of the data, even at this broad level of publication, as it has not been used in this way before and has therefore not been subject to scrutiny. Although the public hospitals are referred to as 'acute' hospitals, they treat and care for patients with long term care needs, including for rehabilitation (leading to a return to life outside of a hospital or nursing home) and those who are unlikely to ever leave such care, whether in a hospital or nursing home (see below under *Residential aged care facilities*).

The data for some States is also likely to be more difficult to obtain in the future as the organisational arrangements for the management and delivery of health services changes, with hospital data being available only for areas or networks, and not by each service location. Some data are already supplied at the establishment level, even when there are two or more separately

<sup>1</sup>GIS is an organised collection of computer hardware and software designed to efficiently capture, store, update, manipulate, analyse and display all forms of geographically referenced information.

<sup>2</sup>In computing full-time equivalent GPs, use was made of a threshold of \$71,725 in Schedule fee income in 1995-96. Practitioners with a Schedule fee income above the average, were given a fraction of '1'. All other practitioners were given a proportion of 1, having regard to the Schedule fee income for the practitioner concerned relative to the threshold income of \$71,725.

located campuses operated by the establishment. In these cases the campus location without bed numbers was removed from the file before mapping.

### Residential aged care facilities

Nursing home places and hostel places are mapped per 1,000 population aged 70 years and over, in line with the Commonwealth planning targets for residential care places of 90 places per 1,000 population aged 70 years and over. This target is comprised of 40 nursing home places and 50 hostel places per 1,000 population aged 70 years and over. Data for community aged care packages have not been mapped, as these packages are allocated on a regional basis that does not fit well with the areas mapped.

In many areas (in particular areas away from the capital cities and other major regional centres) of Australia where there are few (or

no) nursing home facilities, with people requiring long term intensive care often cared for in public hospitals (where they are classified as 'long stay nursing home type patients'). Overall, 9.5 per cent of patient days in public acute hospitals in Tasmania were for nursing home type patients, 17.0 per cent of bed days in the non-metropolitan areas, and 0.6 per cent in **Hobart (Table 7.1)**. New South Wales had 12.6 per cent of its bed days used by nursing home type patients, with 9.7 per cent in South Australia and 6.6 per cent in Queensland. South Australia had the highest proportion in the non-metropolitan areas, with 30.8 per cent of bed days used by nursing home type patients; New South Wales had the second highest proportion, with 25.9 per cent.

As the number of beds used by these patients is not available, their details have not been included in the maps.

**Table 7.1: Patient days for nursing home type patients in public acute hospitals, by area, States and Territories, 1997/98**

Location of hospital	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
	<b>Number</b>								
Metropolitan	270,289	32,545	32,166	2,675	3,737	948	2,081	1,171	345,612
Non-metropolitan	442,350	41,602	136,682	21,380	128,382	30,746	..	388	801,530
Total	712,639	74,147	168,848	24,055	132,119	31,694	2,081	1,559	1,147,142
	<b>Per cent: Nursing home type patient bed days as a proportion of all bed days</b>								
Metropolitan	6.9	1.2	2.1	0.3	0.4	0.6	0.8	1.1	3.3
Non-metropolitan	25.9	4.3	13.7	6.4	30.8	17.0	..	0.5	17.1
Total	12.6	2.0	6.6	1.8	9.7	9.5	0.8	0.8	7.5

Source: AIHW, unpublished data

The tables and maps of nursing home and hostel places show each of these variables separately. To assist readers in assessing the provision of residential care places in relation to the Commonwealth planning targets (90 places per 1,000 population aged 70 years and over) they have been combined in **Table 7.2**.

In all capital cities, excluding **Darwin** (72 places per 1,000 population), the number of residential care places per 1,000 population was above the Commonwealth planning target. There were more places per 1,000 population in the capital cities than in the *Rest of State /Territory* areas of Australia in all but the Northern Territory and Victoria (where there were fewer).

**Table 7.2: Nursing home and hostel places per 1,000 population aged 70 years and over, capital cities**

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Total
Capital city	101	91	103	105	102	99	72	96	99
Other major urban centres <sup>2</sup>	84	96	74	..	..	..	..	..	82
Rest of State/Territory	81	94	88	74	75	87	72	.. <sup>3</sup>	85
Whole of State/Territory	93	92	92	97	96	92	72	96	93

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

<sup>2</sup>Includes Newcastle and Wollongong (NSW); Geelong (Vic); and Gold Coast-Tweed Heads and Townsville-Thuringowa (Qld).

<sup>3</sup>Data unreliable: included with ACT total.

Source: See *Data sources*, Appendix 1.3

### Gaps and deficiencies in the data

In addition to the limitations noted above in the *Introduction* as to the small range of data available, the limitations of the choropleth mapping technique should also be kept in mind when reading this chapter.

For example, users should be cautious not to place too much emphasis on the population per GP in any one SLA, as the location of the practice in an SLA may be close to the population of a neighbouring SLA and provide a significant number of services to people in that neighbouring SLA. Other factors also impact on accessibility, including the availability of private and

public transport. However, where a contiguous group of SLAs all have high populations per GP (high relative to the State or Territory average), it is likely that the level of provision is low. Similarly, where regional groupings of SLAs together have relatively low nursing home bed rates, provision of these care places is clearly low (although readers should be aware of the note above as to the use, in some instances, of hospital beds for long term care).

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# Population per general medical practitioner, 1996/97

## Capital city comparison

Details of general medical practitioners (GPs) included in the following analysis, and the way in which the number of GPs has been calculated, are on page 321.

As can be seen from **Table 7.3**, the population per GP was highest in **Darwin** (1,642 people per GP) and **Canberra** (1,467 people per GP), (indicating that there were fewer GPs per head of population practising in these cities) and lowest in **Sydney** (1,118 people per GP) and **Adelaide** (1,145 people per GP).

Although calculated in a different way (see notes on page 321 under *Data mapped*), the 1990/91 figures can be used to examine the differences of rates between the capital cities. The earlier rates show that levels of provision of GPs in **Hobart**, **Brisbane** and **Darwin** have decreased between the periods shown, while levels of provision in Melbourne have moved closer to the *All capitals* average (**Table 7.3**).

**Table 7.3: Population per general medical practitioner, capital cities**

	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra <sup>1</sup>	All capitals
<b>1996/97</b>	<b>1,118</b>	<b>1,181</b>	<b>1,182</b>	<b>1,145</b>	<b>1,259</b>	<b>1,167</b>	<b>1,642</b>	<b>1,467</b>	<b>1,169</b>
<b>1990/91</b>	<b>860</b>	<b>921</b>	<b>834</b>	<b>827</b>	<b>1,015</b>	<b>820</b>	<b>900</b>	<b>1,042</b>	<b>886</b>

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

Source: See *Data sources*, Appendix 1.3

## Hobart

In 1996/97, there were 1,167 people per GP in **Hobart**. Of the total of 162 GPs, 113 were males (69.9 per cent) and 49 were females (30.1 per cent), representing 1,671 people per male GP and 3,873 people per female GP. The overall predominance of male GPs (2.3 male GPs to each female GP) was evident throughout **Hobart**.

The lowest level of provision of GPs was in Brighton, with the rate of 2,134 people per GP (and six GPs) being almost double the average for **Hobart** (**Map 7.1**). Brighton also recorded the highest proportions for most indicators of socioeconomic disadvantage including low income families and single parent families, as well as having the highest proportion of children aged from 0 to 4 years. Other rates in the top range were recorded in Sorell [Part A] (with a rate of 1,704 people per GP and 5 GPs) and in Derwent Valley [Part A] (1,839 and the lowest number of 4 GPs).

Rates between 1,200 and 1,400 people per GP were recorded in Clarence (1,313 people per GP and 36 GPs) and Kingborough [Part A] (1,275 and 19).

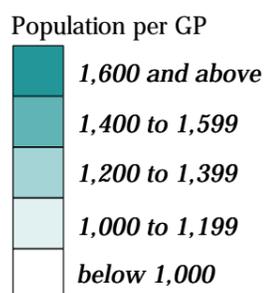
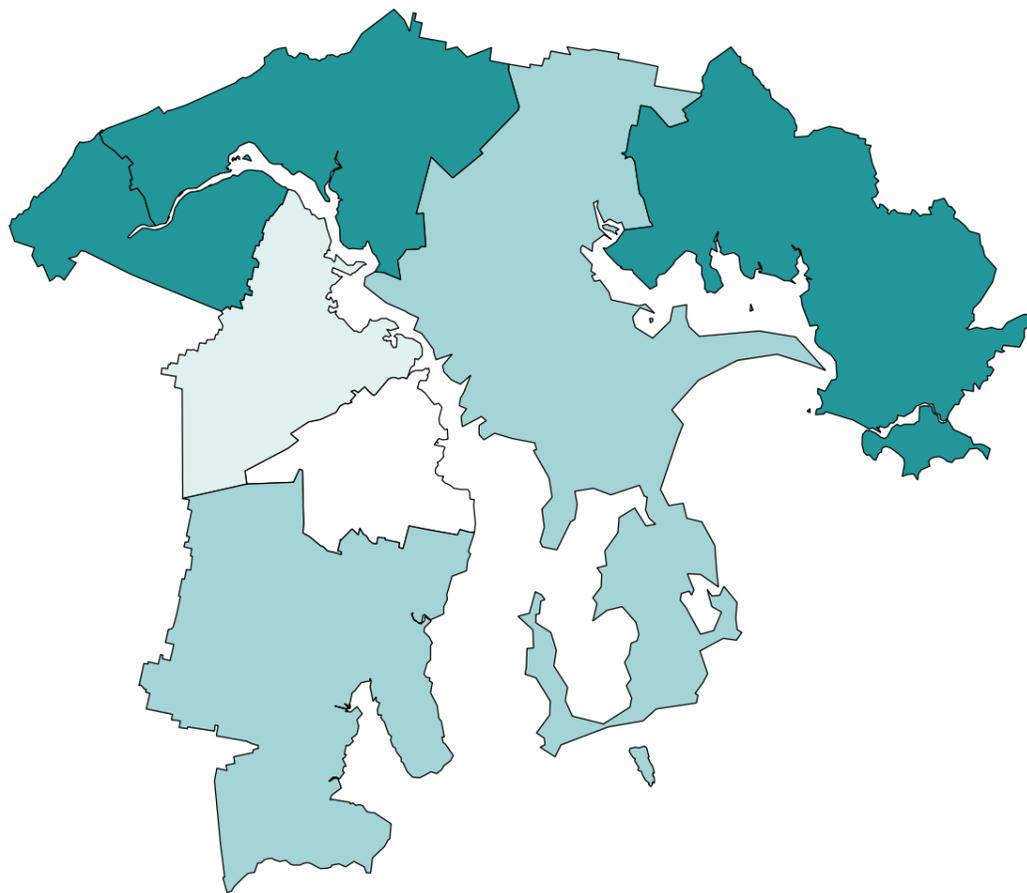
The SLA of Hobart had the lowest rate of population per GP (864 people per GP) while being the location of almost one third (33.1 per cent) of **Hobart's** GPs (54 GPs). The second lowest rate was recorded in Glenorchy, with a rate of 1,129 people per GP and 38 GPs.

There were correlations of substantial significance with the variables for 0 to 4 year old children (0.94), early school leavers (0.85), unskilled workers and semi-skilled (0.82), low income families (0.80) and unemployed people (0.79), and of meaningful significance with single parent families (0.64). Inverse correlations of substantial significance were recorded with the variables for female labour force participation (-0.91), high income families (-0.77) and managers and administrators, and professionals (-0.75). These results, together with the inverse correlation of substantial significance with the IRSD (-0.81), indicate the existence of an association between high rates of population per GP and socioeconomic disadvantage.

## Map 7.1

### Population per general medical practitioner, Hobart, 1996/97

number of people in each Statistical Local Area per general medical practitioner (GP)



Source: See Data Sources, Appendix 1.3

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

# Population per general medical practitioner, 1996/97

## State/Territory comparison

The notes on page 321 as to the GPs and GP type services not covered by this data are of particular relevance to the data for the non-metropolitan areas. The population per GP was higher in the non-metropolitan areas of the States and the Northern Territory than in the capital cities, indicating that there were fewer GPs in these areas (**Table 7.4**). The *Rest of State/Territory* figures ranged from 1,464 people per GP in Tasmania to a very high 3,604 people per GP in the Northern Territory. The rate of population to GPs in Western Australia was also well above the *Rest of State/Territory* average, at 1,968 people per GP.

Although calculated in a different way (see notes on page 321 under *Data mapped*), the 1990/91 figures show that New South Wales, South Australia, Tasmania and the Northern Territory had fewer people per GP in the *Rest of State/Territory* areas than the average for these areas (ie. more GPs) whereas in 1996/97 New South Wales had just above the average and the Northern Territory had a considerably higher rate.

**Table 7.4: Population per general medical practitioner, State/Territory**

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Total
<b>1996/97</b>									
Capital city	1,118	1,181	1,182	1,145	1,259	1,167	1,642	1,467 <sup>1</sup>	1,169
Other major urban centres <sup>2</sup>	1,339	1,337	1,188	..	..	..	..	..	1,278
Rest of State/Territory	1,656	1,559	1,616	1,517	1,968	1,464	3,604	- <sup>3</sup>	1,627
Whole of State/Territory	1,250	1,262	1,335	1,225	1,400	1,325	2,356	1,451	1,290
<b>1990/91</b>									
Rest of State/Territory	942	1,196	1,203	1,145	1,374	1,000	1,133	- <sup>3</sup>	1,147

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

<sup>2</sup>Includes Newcastle and Wollongong (NSW); Geelong (Vic); and Gold Coast-Tweed Heads and Townsville-Thuringowa (Qld)

<sup>3</sup>Data unreliable: included with ACT total

Source: See *Data sources*, Appendix 1.3

## Rest of State

As expected, the population per GP was higher in the non-metropolitan areas of Tasmania (with an estimated rate of 1,464 people per GP) than in **Hobart** (1,167 people per GP). In 1996/97, there were 184 GPs outside of the non-metropolitan areas, slightly more than the number recorded in **Hobart** (162 GPs).

Whereas almost one third (30.1 per cent) of GPs in **Hobart** were females, in the non-metropolitan areas of Tasmania the proportion of female GPs was considerably less at only 19.6 per cent. The predominance of male GPs (with 4.1 male GPs to each female GP) was evident across the non-metropolitan SLAs. The exception was Launceston [Part C] (with an estimated 0.8 full time equivalent (FTE) female GPs and just 0.1 FTE male GPs) and Circular Head, where numbers were almost equal (with an estimated 2.2 female GPs, and 2.0 male GPs).

Burnie [Part B] and George Town [Part B], both in the northern part of the State, had more than 10,000 people per GP (**Map 7.2**).

Relatively high rates were also recorded in Kingborough [Part B], (with 3,627 people per GP and 0.63 FTE GPs), Waratah/Wynyard [Part B] (3,150 and 0.85) and Launceston [Part C] (3,089 and 0.91).

Rates of population per GP between 2,000 and 2,500 were recorded in Northern Midlands [Part B] (2,278 people per GP and two GPs), Kentish (2,070 and three) and Tasman (2,035 and one).

Other SLAs with estimated rates of population per GP that were above the average for non-metropolitan Tasmania included Flinders (1,986 people per GP), Circular Head (1,947), Northern Midlands [Part A] (1,891), Burnie [Part A] (1,891) and Devonport (1,531) in the north of the State and Derwent Valley [Part B] (1,659) and Huon Valley (1,555) in the south.

The lowest rate of population per GP was in George Town [Part A], with 977 people per GP and six GPs. Low rates were also recorded in Sorell [Part B] (1,044 people per GP), Latrobe [Part B] (1,084), Latrobe [Part A] (1,107), Meander Valley [Part A] (1,112) and Launceston (1,193).

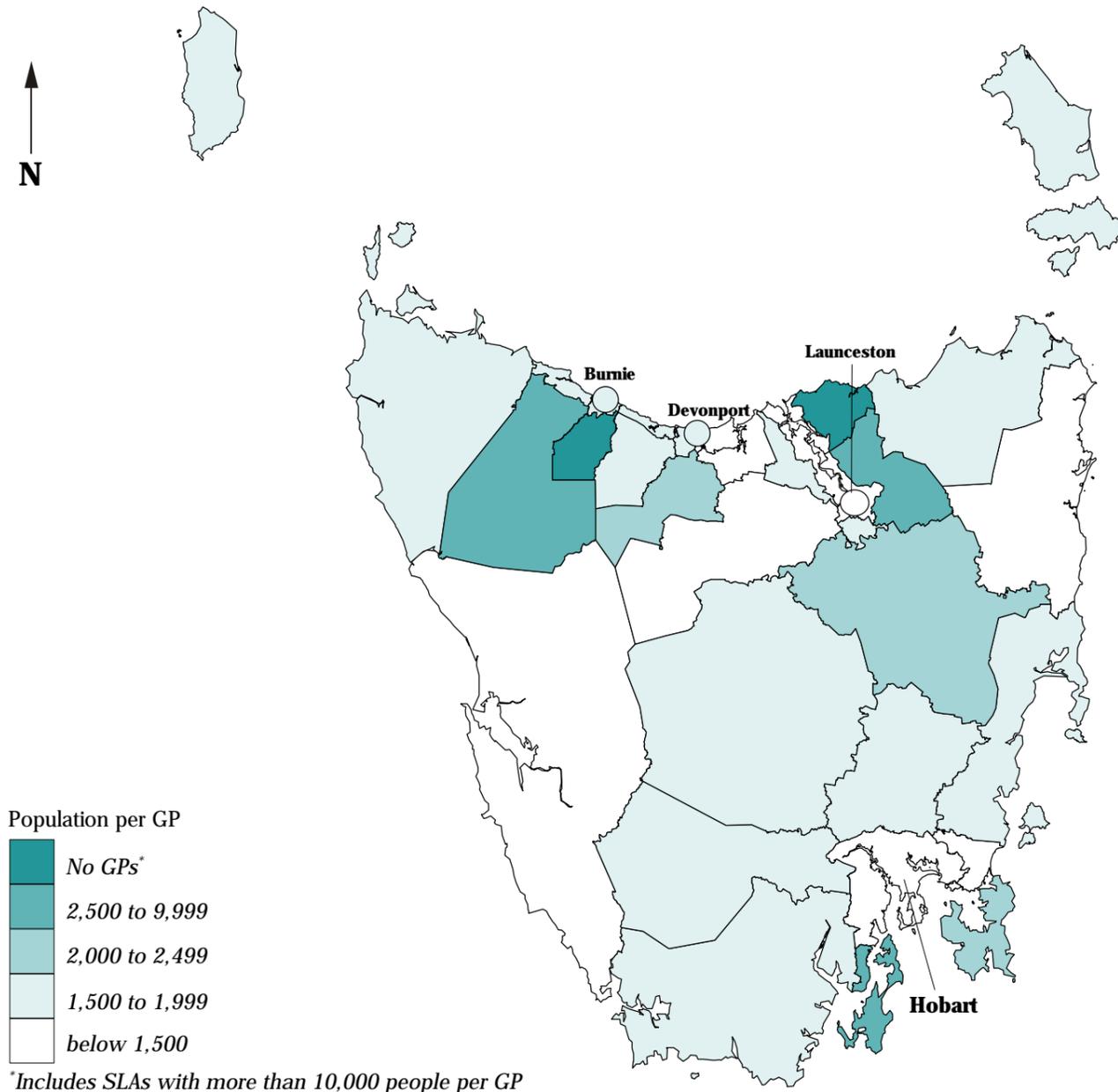
In 1996/97, the largest number of GPs outside of Hobart was an estimated 50 GPs in Launceston. Ten or more GPs were also recorded in Devonport (16 GPs), West Tamar [Part A] (13) and Central Coast [Part A] (10).

There was no consistent evidence in the correlation analysis of an association at the SLA level between high rates of population per GP and socioeconomic status.

## Map 7.2

### Population per general medical practitioner, Tasmania, 1996/97

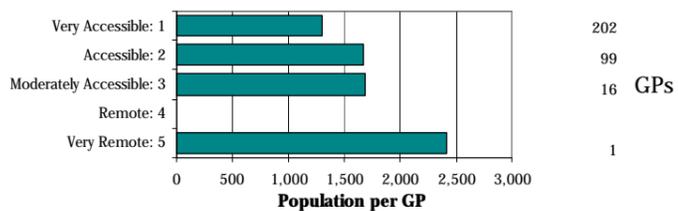
number of people in each Statistical Local Area per general medical practitioner (GP)



Source: See Data Sources, Appendix 1.3

Details of map boundaries are in Appendix 1.2

### Accessibility/Remoteness Index of Australia



There are three distinct levels of population per general medical practitioner (GP) across the ARIA categories. The lowest rate, of 1,297 people per GP, is recorded in the Very Accessible areas (the highest level of provision of GP services), with similar rates in the other two 'accessible' categories, of 1,679 and 1,691 people per GP, respectively. The third level is in the Very Remote areas, with 2,413 people per GP, nearly twice the number of people per GP in the most accessible ARIA category. Although levels of provision of GP services are low in these remote areas, readers should note the cautions on the page opposite as to the limitations of this data.

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

## Public acute hospital beds per 1,000 population, 1995/96

### Capital city comparison

In 1995/96, there were 3.1 beds (average available beds over 1995/96) per 1,000 population in public acute hospitals in the capital cities. There was little variation among the capital cities, with rates varying from 2.7 per 1,000 population in **Canberra** to 4.0 in **Hobart** (Table 7.5).

Over the period from 1989 to 1995/96, the rate of public acute hospital beds decreased in each of the capital cities for which data were available in the first edition of the atlas, with the exception of **Melbourne** (where the rate remained stable at 2.8 public hospital beds per 1,000 population) and **Adelaide** and **Sydney** (both with a small increase, from 3.1 beds to 3.2 per 1,000 population). The largest decline occurred in **Brisbane**, where the rate decreased from 4.1 public hospital beds per 1,000 population in 1989 to 3.4 in 1995/96.

Table 7.5: Public acute hospital beds per 1,000 population, capital cities

	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra <sup>1</sup>	All capitals
1995/96	3.2	2.8	3.4	3.2	3.1	4.0	3.5	2.7	3.1
1989	3.1	2.8	4.1	3.1	3.3	..	..	..	3.2

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

Source: See *Data sources*, Appendix 1.3

### Hobart

In 1995/96, there were 764 public acute hospital beds (average available beds over 1995/96) in three hospitals in **Hobart**, representing 4.0 beds per 1,000 population.

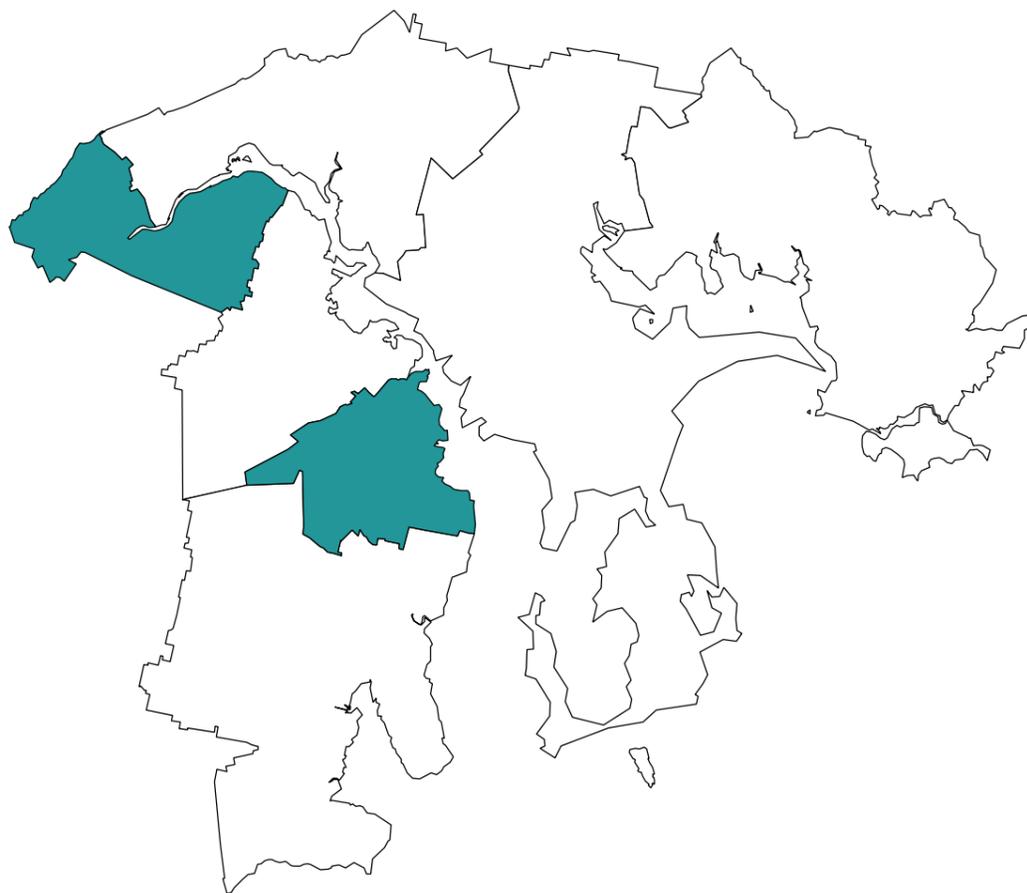
Public acute hospital beds were located in two SLAs in **Hobart**; in the City of Hobart and Derwent Valley [Part A] (**Map 7.3**). The larger number of 541 beds were in the City of Hobart, a rate of 11.7 beds per 1,000 population in two public acute hospitals. There were 223 public acute hospital beds in Derwent Valley [Part A], a rate of 34.1 public acute hospital beds per 1,000 population.

The correlation analysis was not undertaken as there were too many SLAs with no (or small numbers of) beds.

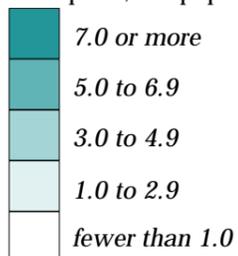
### Map 7.3

## Public acute hospital beds per 1,000 population, Hobart, 1995/96

number of public acute hospital beds\* in each Statistical Local Area per 1,000 population



Beds per 1,000 population\*



\*Beds are average available beds over 1995/1996

Source: See Data Sources, Appendix 1.3

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

## Public acute hospital beds per 1,000 population, 1995/96

### State/Territory comparison

There were more beds (average available beds over 1995/96) per 1,000 population in public acute hospitals in the *Rest of State /Territory* areas of Australia than in the capital cities in all but Tasmania and the Northern Territory (where there were fewer). The average *Rest of State /Territory* rate across Australia was 4.0 public acute hospital beds per 1,000 population, with similar rates recorded in most non-metropolitan areas excluding South Australia, where the rate was higher, at 5.9 beds per 1,000 population. The beds in the non-metropolitan areas include beds used by long stay patients (see page 321).

The non-metropolitan areas of New South Wales, Victoria and Queensland recorded similar rates in both periods as shown in **Table 7.6**. Western Australian recorded a considerable decrease, down from 6.4 public hospital beds per 1,000 population in 1989 to 3.6 public acute hospital beds in 1995/96, with a smaller decrease in South Australia.

**Table 7.6: Public acute hospital beds per 1,000 population, State/Territory**

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Total
<b>1995/96</b>									
Capital city	3.2	2.8	3.4	3.2	3.1	4.0	3.5	2.7 <sup>1</sup>	3.1
Other major urban centres <sup>2</sup>	3.2	3.3	2.2	..	..	..	..	..	2.8
Rest of State/Territory	4.6	3.6	3.7	5.9	3.6	2.6	2.7	— <sup>3</sup>	4.0
Whole of State/Territory	3.6	3.0	3.3	3.9	3.3	3.2	3.0	2.6	3.4
<b>1989</b>									
Rest of State/Territory	4.5	3.9	4.6	6.5	6.4	..	..	..	4.7

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

<sup>2</sup>Includes Newcastle and Wollongong (NSW); Geelong (Vic); and Gold Coast-Tweed Heads and Townsville-Thuringowa (Qld)

<sup>3</sup>Data unreliable: included with ACT total

Source: See *Data sources*, Appendix 1.3

### Rest of State

There were 704 public acute hospital beds (average available beds over 1995/96) in 15 hospitals (with an average of 704 beds per hospital) in the non-metropolitan areas of Tasmania, 2.6 beds per 1,000 population.

Public acute hospitals were located in thirteen SLAs (**Map 7.4**), with no hospitals in the south-eastern and north-western non-metropolitan SLAs.

The highest rates and bed numbers were recorded in Burnie [Part A] (9.3 public acute hospital beds per 1,000 population and 159 beds) and Launceston (6.1 and 361 beds). Rates of above 2.0 were recorded in West Coast (5.9 and 37 beds), Northern Midlands [Part B] (4.0 and 18 beds), Central Highlands (3.9 and 10 beds), Dorset (3.8 and 27 beds), King Island (3.4 and 6 beds), Break O'Day (2.8 and 16 beds), Circular Head (2.0 and 16 beds) and Meander Valley Pt B (2.0 and 20 beds),.

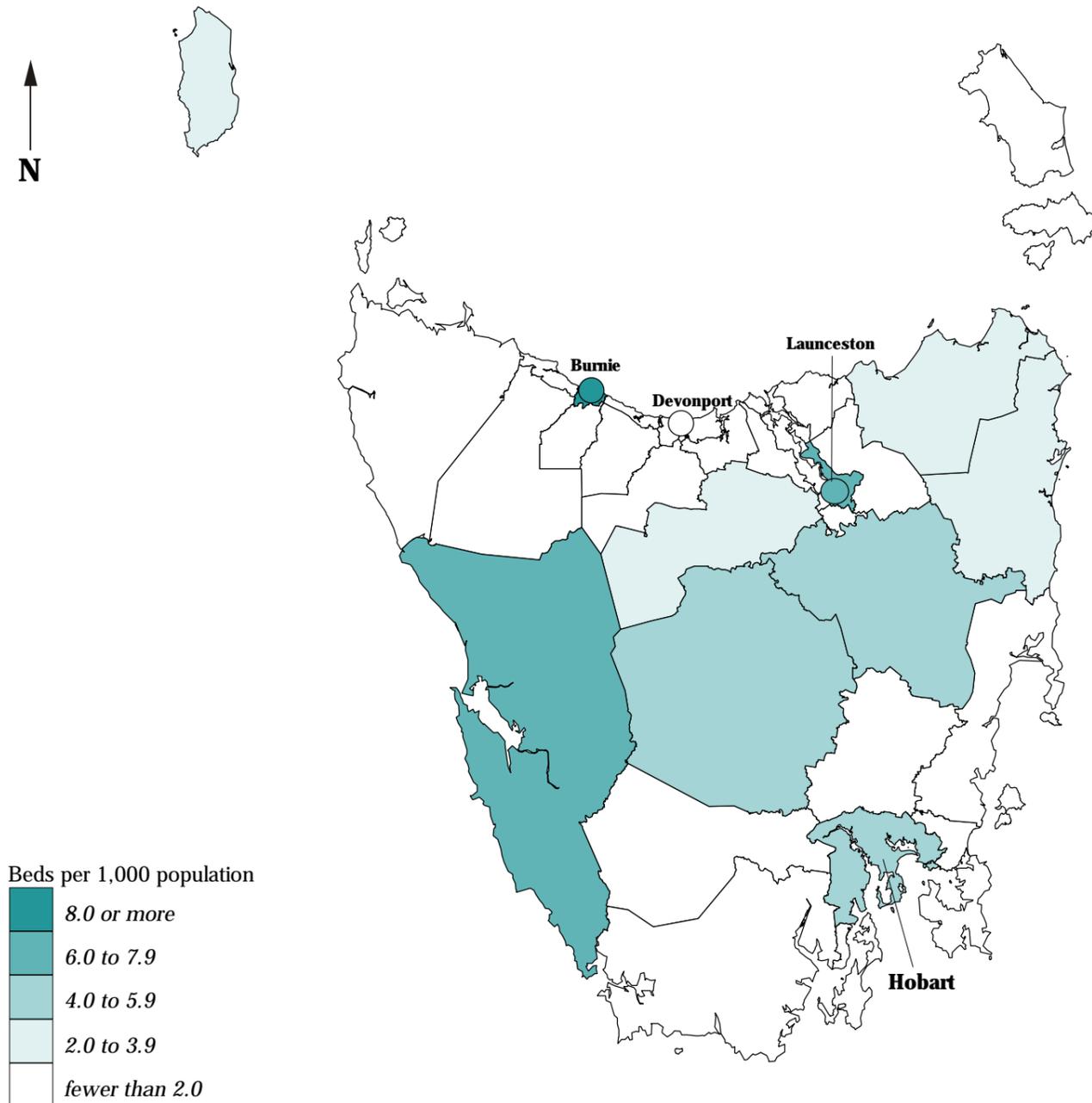
Fewer than two public acute hospital beds per 1,000 population were recorded in West Tamar [Part A] (1.1) and Northern Midlands [Part A] (0.9). The southern-most SLA, Huon Valley, had the lowest rate (0.8 public acute hospital beds per 1,000 population).

The correlation analysis was not undertaken as there were too many SLAs with no (or small numbers of) beds.

## Map 7.4

### Public acute hospital beds per 1,000 population, Tasmania, 1995/96

number of public acute hospital beds\* in each Statistical Local Area per 1,000 population

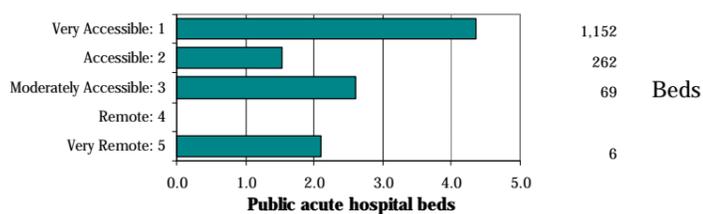


\*Beds are average available beds over 1995/1996

Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

### Accessibility/Remoteness Index of Australia



Beds in public acute hospitals are located throughout Tasmania, with the highest levels of provision in the Very Accessible areas (4.3 public acute beds per 1,000 population), dropping to the lowest level of provision, with 1.5 beds per 1,000 population in the Accessible areas. The Moderately Accessible and Very Remote areas had rates of 2.6 and 2.1 beds per 1,000 population, respectively.

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

## Private hospital beds per 1,000 population, 1997

### Capital city comparison

At 30 June 1997, there were 1.5 private hospital beds per 1,000 population in the capital cities. The majority of capital cities had near average percentages for this variable, with lower rates recorded in both **Canberra** (a rate of 0.5) and **Sydney** (a rate of 1.1). **Adelaide** and **Hobart** recorded the highest rates with 2.0 and 2.1 private hospital beds per 1,000 population, respectively (**Table 7.7**).

The *All capitals* rate increased slightly between the two periods for which data were analysed, rising from 1.4 private hospital beds per 1,000 population in 1989 to 1.5 in 1997.

**Table 7.7: Private hospitals: beds per 1,000 population, capital cities**

	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra <sup>1</sup>	All capitals
<b>1997</b>	<b>1.1</b>	<b>1.7</b>	<b>1.7</b>	<b>2.0</b>	<b>1.7</b>	<b>2.1</b>	<b>1.7</b>	<b>0.5</b>	<b>1.5</b>
<b>1989</b>	<b>1.2</b>	<b>1.6</b>	<b>1.5</b>	<b>1.8</b>	<b>1.5</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>1.4</b>

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

Source: See *Data sources*, Appendix 1.3

### Hobart

At 30 June 1997, there were 2.1 private hospital beds per 1,000 population in **Hobart**, a total of 401 beds in five private hospitals.

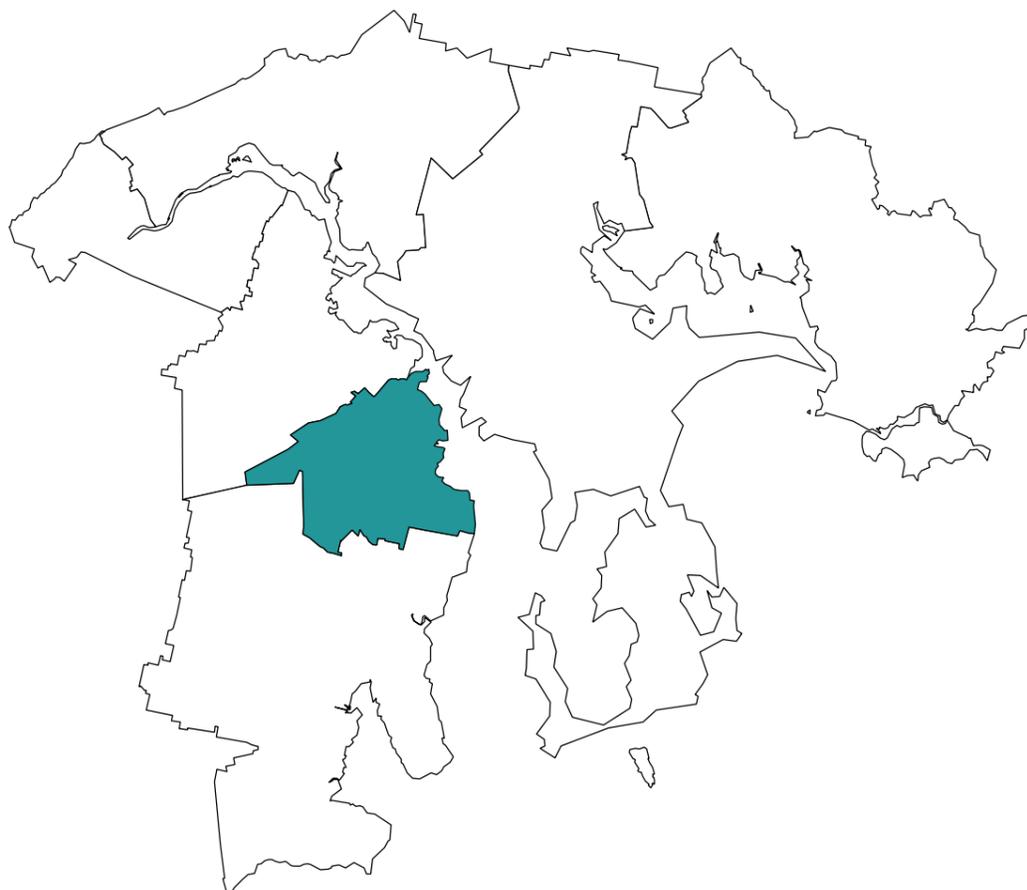
Four of **Hobart's** private hospitals were located in the City of Hobart and accounted for 386 private hospital beds (**Map 7.5**). This area had a rate of 8.3 private hospital beds per 1,000 population. Clarence was the location for the fifth private hospital and had a rate of 0.3 beds per 1,000 population.

The correlation analysis was not undertaken as there were too many SLAs with no (or small numbers of) beds.

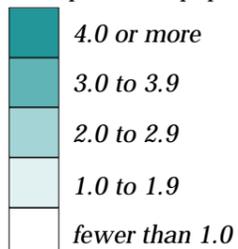
## Map 7.5

### Private hospital beds per 1,000 population, Hobart, 1997

number of private hospital beds in each Statistical Local Area per 1,000 population



Beds per 1,000 population



Source: See Data Sources, Appendix 1.3

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

## Private hospital beds per 1,000 population, 30 June 1997

### State/Territory comparison

In 1997, rates of private hospital beds were higher in the capital cities than in the *Rest of State/Territory* areas, with the exception of the Northern Territory, with no private hospital beds in the non-metropolitan areas (**Table 7.8**). The highest non-metropolitan rate was recorded in Tasmania (1.9 private hospital beds per 1,000 population), while the lowest (excluding the Northern Territory) was recorded in South Australia and Western Australia (both with a rate of 0.4).

Rates of private hospital beds in the *Rest of State/Territory* remained reasonably consistent between 1989 and 1997, with slight decreases occurring in Victoria, Queensland and Western Australia. The rate recorded in New South Wales increased marginally from 0.6 private hospital beds per 1,000 population in 1989 to 0.7 in 1997, while the rate in South Australia remained consistent (0.4 private hospital beds per 1,000 population).

**Table 7.8: Private hospital beds per 1,000 population, State/Territory**

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Total
<b>1997</b>									
Capital city	1.1	1.7	1.7	2.0	1.7	2.1	1.7	0.5 <sup>1</sup>	1.5
Other major urban centres <sup>2</sup>	1.0	1.3	2.0	..	..	..	..	..	1.4
Rest of State/Territory	0.7	0.8	1.2	0.4	0.4	1.9	0.0	.. <sup>3</sup>	0.8
Whole of State/Territory	1.0	1.4	1.6	1.6	1.4	2.0	0.8	0.5	1.3
<b>1989</b>									
Rest of State/Territory	0.6	0.9	1.3	0.4	0.5	..	..	..	0.8

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

<sup>2</sup>Includes Newcastle and Wollongong (NSW); Geelong (Vic); and Gold Coast-Tweed Heads and Townsville-Thuringowa (Qld)

<sup>3</sup>Data unreliable: included with ACT total

Source: See *Data sources*, Appendix 1.3

### Rest of State

There were six private hospitals in the non-metropolitan areas of Tasmania, a total of 525 beds and a rate of 1.9 private hospital beds per 1,000 population.

Launceston had three private hospitals which accounted for well over half (328 beds) of the private hospital beds in non-metropolitan Tasmania. Launceston had a rate of 5.4 private hospital beds per 1,000 population (**Map 7.6**).

The highest rate, 15.3 private hospital beds per 1,000 population, was recorded in Latrobe [Part A] where there was a relatively large number of private hospital beds (110 beds).

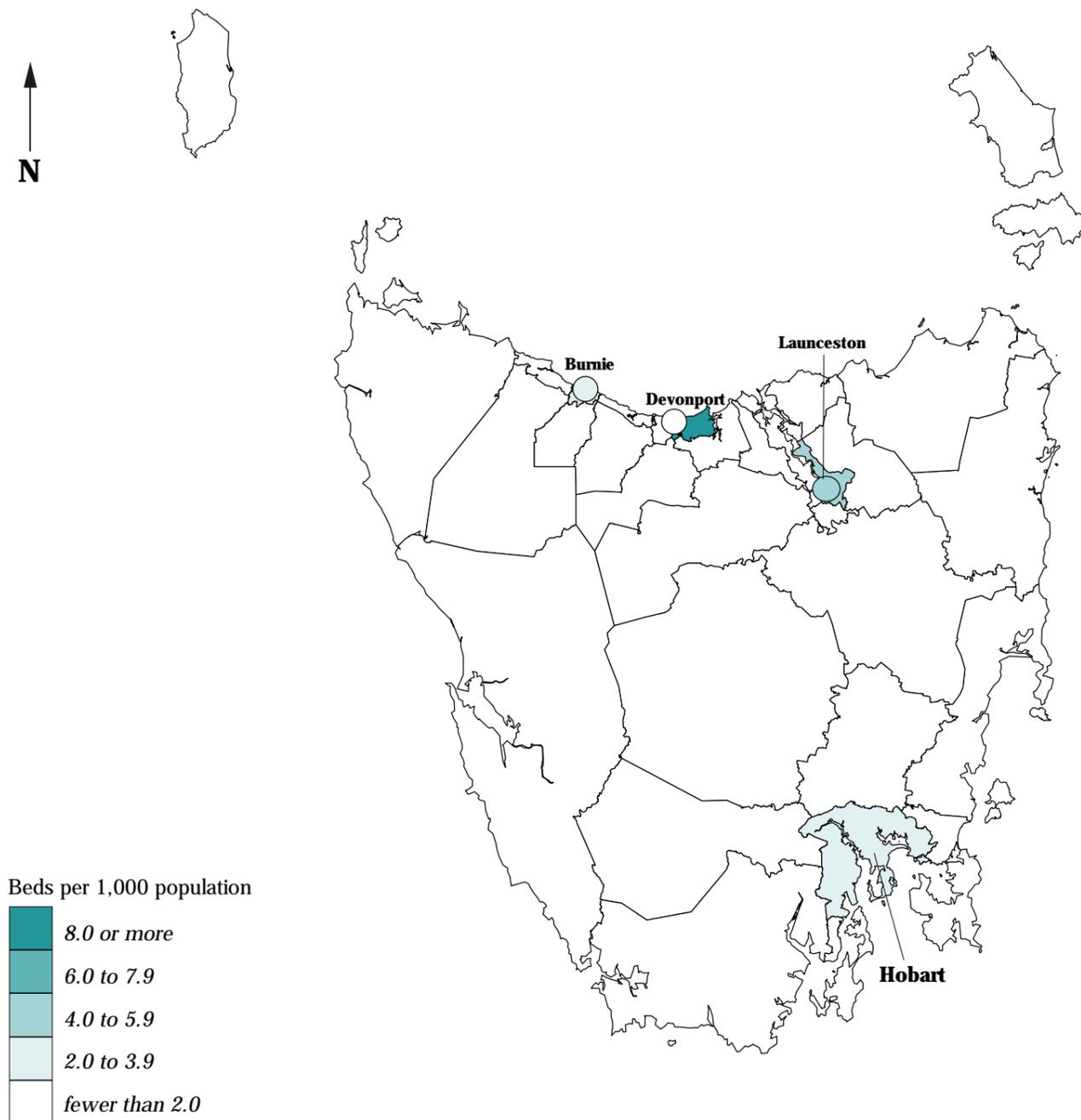
The lowest rates were recorded in Burnie [Part A] (3.4 and 60 beds) and Central Coast [Part A] (1.5 and 27 beds).

The correlation analysis was not undertaken as there were too many SLAs with no (or small numbers of) beds.

## Map 7.6

### Private hospital beds per 1,000 population, Tasmania, 1997

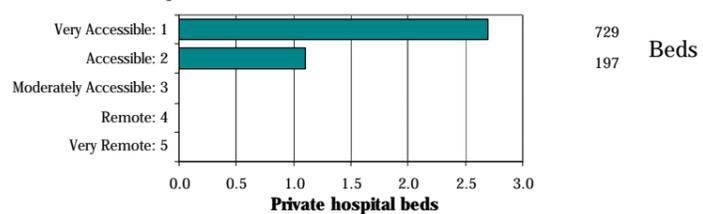
number of private hospital beds in each Statistical Local Area per 1,000 population



Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

### Accessibility/Remoteness Index of Australia



Private hospital beds are only located in the Very Accessible and Accessible ARIA categories, with rates of 2.7 private hospital beds per 1,000 population in the Very Accessible ARIA category and 1.1 private hospital beds per 1,000 population in the Accessible category.

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

## Nursing home places per 1,000 population aged 70 years and over, 1997

### Capital city comparison

There were 56 nursing home places per 1,000 population aged 70 years and over in the capital cities at 30 June 1997. The range of rates was from a high of 65 in **Sydney**, 58 in **Adelaide** and 57 in **Hobart**, to a low of 39 in **Canberra** and 41 in **Darwin** (Table 7.9).

The rates for all of the cities for which data were published in the first edition of the atlas have decreased, some more substantially than others. This is largely a result of moves to meet the target rate of 40 nursing home places per 1,000 population aged 70 years and over. At the same time, the number of hostel places has increased (page 340). The largest decrease was recorded in **Perth**, where the rate decreased from being equivalent to the *All capitals* average in 1992 to 7.1 per cent below in 1997, a drop of 24.6 per cent: the decrease of 23.9 in **Brisbane** was almost as marked.

**Table 7.9: Nursing home places per 1,000 population aged 70 years and over, capital cities**

	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra <sup>1</sup>	All capitals
<b>1997</b>	<b>65</b>	<b>48</b>	<b>54</b>	<b>58</b>	<b>52</b>	<b>57</b>	<b>41</b>	<b>39</b>	<b>56</b>
<b>1992</b>	<b>79</b>	<b>53</b>	<b>71</b>	<b>74</b>	<b>69</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>69</b>

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

Source: See *Data sources*, Appendix 1.3

### Hobart

At 30 June 1997, there were 964 nursing home places (in 21 nursing home facilities) in **Hobart**, representing 57 places per 1,000 population aged 70 years and over.

The highest rate of 95 places per 1,000 population aged 70 years and over was recorded in Brighton, which also had the lowest proportion of people aged 65 years and over in its population. However, the relatively high rate represented just 36 nursing home places (Map 7.7).

Rates above 80 were also recorded on the western side of the Derwent River in Kingborough [Part A] (86) and the City of Hobart (81).

The lowest rates were recorded in Derwent Valley [Part A] (54 nursing home places per 1,000 population aged 70 years and over) and Clarence (44). Glenorchy also recorded a low rate of 36 nursing home places per 1,000 population aged 70 years and over, despite having the second highest population of people in this age group. Sorell [Part A] had no nursing home facilities.

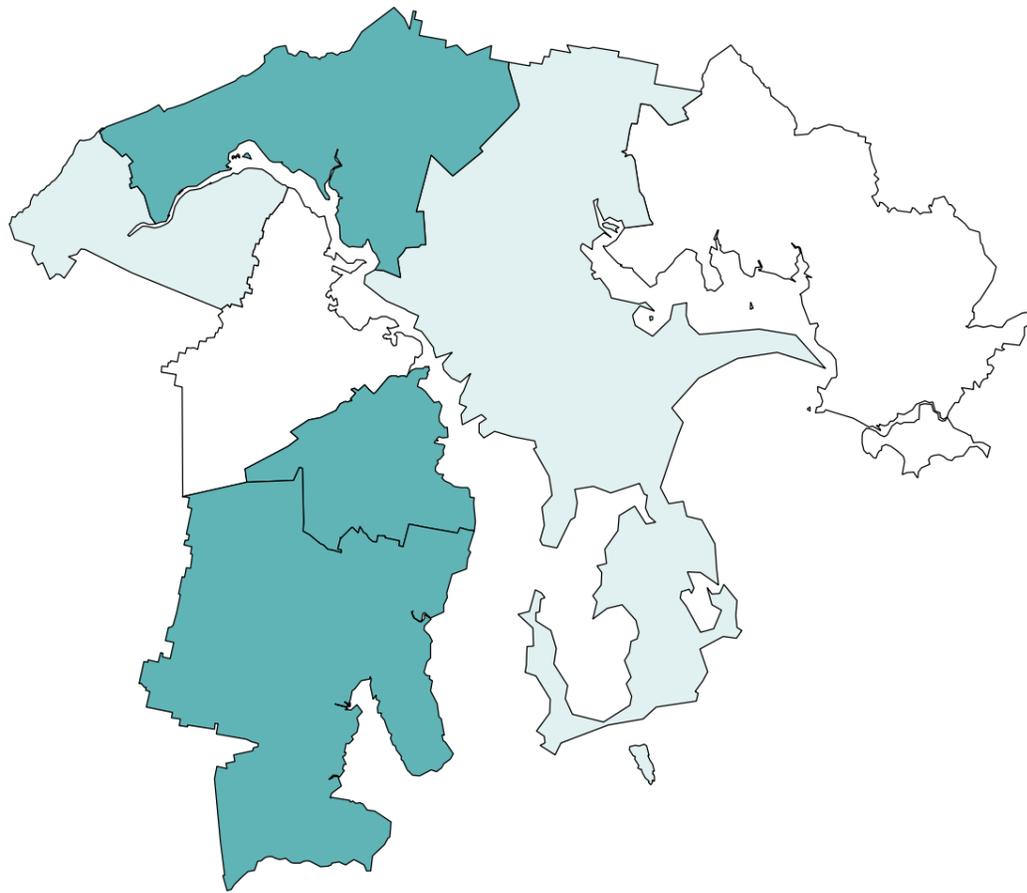
The largest number of nursing home places in **Hobart** in 1997 were in the City of Hobart (403 places and 9 facilities), Clarence (179 and 4), Glenorchy (166 and 4) and Kingborough [Part A] (152 and 2).

The correlation analysis was not undertaken as there were too many SLAs with no (or small numbers of) places.

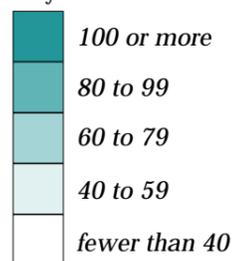
**Map 7.7**

**Nursing home places per 1,000 population aged 70 years and over,  
Hobart, 1997**

number of nursing home places in each Statistical Local Area per 1,000 population aged 70 years and over



Places per 1,000 population aged  
70 years and over



**Source: See Data Sources, Appendix 1.3**

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

# Nursing home places per 1,000 population aged 70 years and over, 1997

## State/Territory comparison

Readers should note the comments on page 321 under the heading *Data mapped* regarding the limitations of this data, especially in regard to the availability, in some instances, of beds in hospitals for long term aged care. Such beds are not included in this data.

There were fewer places per 1,000 population aged 70 years and over in the *Rest of State /Territory* areas of Australia than in the capital cities in all but the Northern Territory (where there were more places) (**Table 7.10**). The highest rates in the *Rest of State /Territory* areas were in Tasmania (49 places per 1,000 population aged 70 years and over) and Victoria (45 places).

Of the States and Territories for which data were published in the first edition of the atlas, South Australia had a very low rate of nursing home places per 1,000 population aged 70 years and over in the *Rest of State /Territory* areas in both periods (a rate of 27 in 1992 and 28 in 1997). In this context it is worthwhile noting that South Australia has the highest proportion of its inpatient bed days in non-metropolitan hospitals used by nursing home type patients (**Table 7.1**, page 322; New South Wales has second highest in the non-metropolitan areas). Western Australia had the only other rate below the *Rest of State /Territory* average for either period.

**Table 7.10: Nursing home places per 1,000 population aged 70 years and over, State/Territory**

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Total
<b>1997</b>									
Capital city	65	48	54	58	52	57	41	39 <sup>1</sup>	56
Other major urban centres <sup>2</sup>	45	55	35	..	..	..	..	..	42
Rest of State/Territory	39	45	40	28	31	49	44	— <sup>3</sup>	40
Whole of State/Territory	55	48	45	50	47	52	42	37	50
<b>1992</b>									
Rest of State/Territory	52	53	52	27	40	..	..	..	50

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

<sup>2</sup>Includes Newcastle and Wollongong (NSW); Geelong (Vic); and Gold Coast-Tweed Heads and Townsville-Thuringowa (Qld)

<sup>3</sup>Data unreliable: included with ACT total

Source: See *Data sources*, Appendix 1.3

## Rest of State

In 1997, there were 49 nursing home places per 1,000 population aged 70 years and over in the non-metropolitan areas of Tasmania: this represented a total of 1,105 places in 34 nursing home facilities. Fourteen non-metropolitan SLAs had no nursing home facilities (**Map 7.8**).

Exceptionally high rates were recorded in Tasman (114 nursing home places per 1,000 population aged 70 years and over but representing just 18 places) and George Town [Part A] (109). Relatively high rates were recorded in Kentish (76), Central Coast [Part A] (68), Launceston (65 places, and the highest number of 10 facilities) and King Island (61 representing just 8 nursing home places).

Above average rates were also recorded in Huon Valley (60), Waratah/Wynyard [Part A] (59), Burnie [Part A] (54) and Flinders (53 representing just 4 places).

The lowest rate, of five nursing home places per 1,000 population aged 70 years and over recorded in Northern Midlands [Part A], represented just 3 nursing home places. A rate of 25 recorded in southern midlands represented nine nursing home places. SLAs with low rates and at least 20 nursing home places included West Tamar [Part A] (29 places per 1,000 population aged 70 years and over), Dorset (31), Meander Valley [Part B] (31) and Devonport (45).

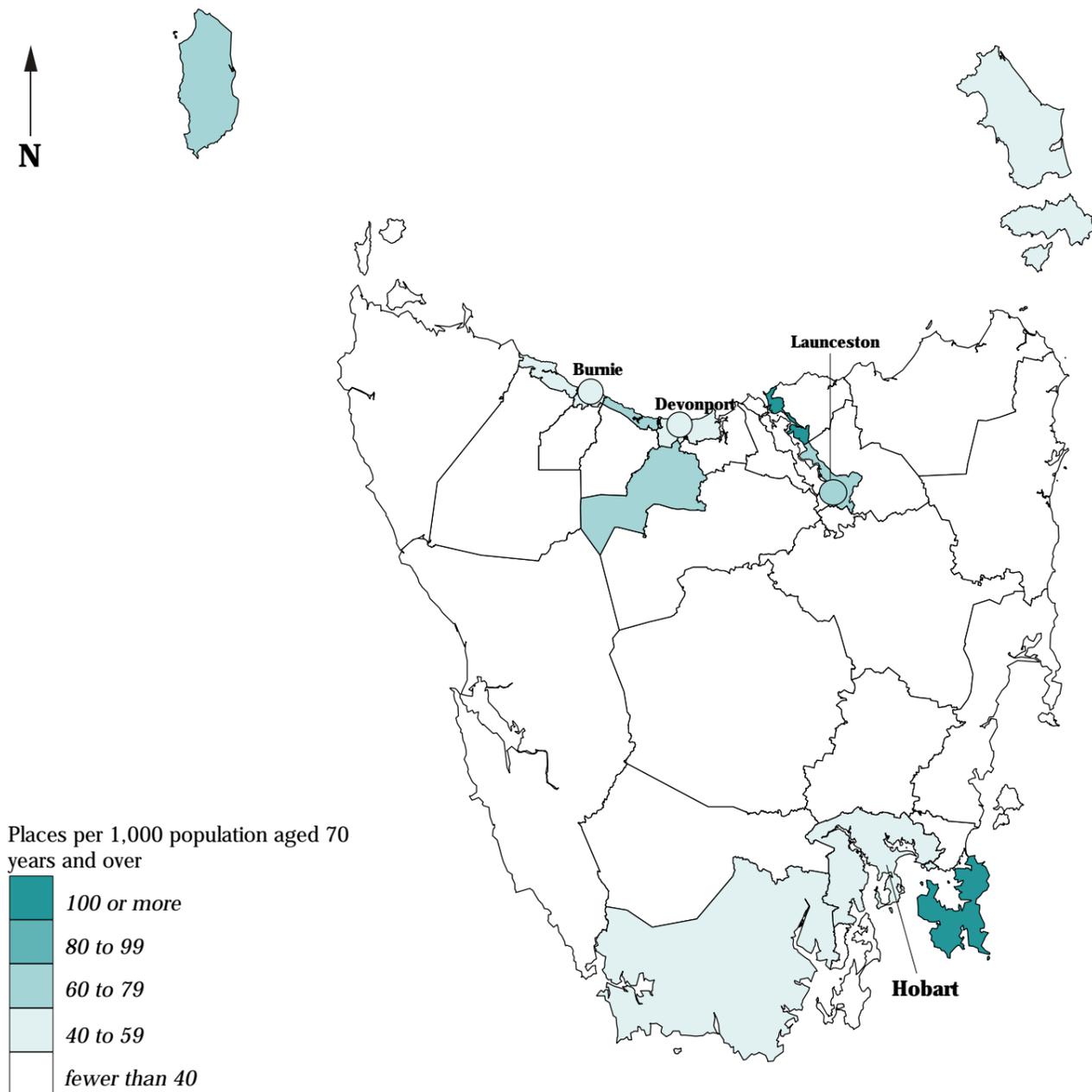
The largest numbers of nursing home places were in Launceston (405 places), Central Coast [Part A] (119), Devonport (105), Burnie [Part A] (81) and Waratah/Wynyard [Part A] (60).

The correlation analysis was not undertaken as there were too many SLAs with no (or small numbers of) places.

### Map 7.8

## Nursing home places per 1,000 population aged 70 years and over, Tasmania, 1997

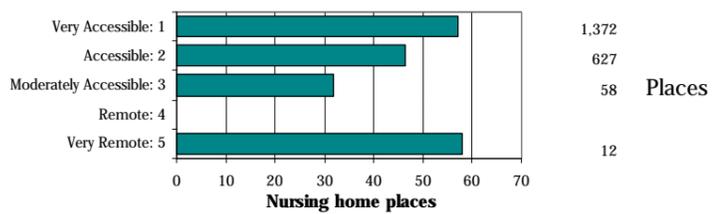
number of nursing home places in each Statistical Local Area per 1,000 population aged 70 years and over



Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

### Accessibility/Remoteness Index of Australia



The provision of nursing home places decreases from 57 places per 1,000 population aged 70 years and over in the Very Accessible ARIA category to rates of 46 and 32 places per 1,000 population aged 70 years and over in the Accessible and Moderately Accessible areas, respectively. There was a higher rate in the Very Remote category, of 58 places per 1,000 population aged 70 years and over, although this represented only 12 nursing home places.

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

## Hostel places per 1,000 population aged 70 years and over, 1997

### Capital city comparison

There were 43 hostel places per 1,000 population aged 70 years and over in the capital cities at 30 June 1997. The range of rates was from a high of 57 places in **Canberra**, 50 in **Perth** and 49 in **Brisbane** to a low of 30 in **Darwin** (Table 7.11).

The rates for all of the cities for which data were published in the first edition of the atlas have increased, some more substantially than others, in all of the capitals other than **Brisbane** (the city with the highest rate in 1992). This is largely a result of moves to meet the target rate of 50 hostel places per 1,000 population aged 70 years and over. At the same time, the number of nursing home places has decreased (page 336). The largest increase was recorded in **Sydney**, where the rate increased from 28 places per 1,000 population aged 70 years and over in 1992 to 36 in 1997, an increase of 22.2 per cent.

Table 7.11: Hostel places per 1,000 population aged 70 years and over, capital cities

	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra <sup>1</sup>	All capitals
1997	36	43	49	47	50	42	30	57	43
1992	28	35	55	43	45	..	..	..	37

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

Source: See *Data sources*, Appendix 1.3

### Hobart

There were 42 hostel places per 1,000 population aged 70 years and over in **Hobart** in 1997, a total of 19 hostel facilities and 712 places.

As with nursing home places, Brighton recorded the highest rate of hostel places, an exceptionally high 185 places per 1,000 population aged 70 years and over (**Map 7.9**). This represented a moderate number of 70 places in one facility located in an SLA with the lowest number of people in this age group (378 people).

Rates above 50 hostel places per 1,000 population aged 70 years and over were also recorded in Sorell [Part A] (59 representing a relatively low number of 32 hostel places) and Clarence (57).

Below average rates were recorded in Glenorchy (35 hostel places), the City of Hobart (33) and Kingborough [Part A] (30). There were no hostel facilities in Derwent Valley [Part A].

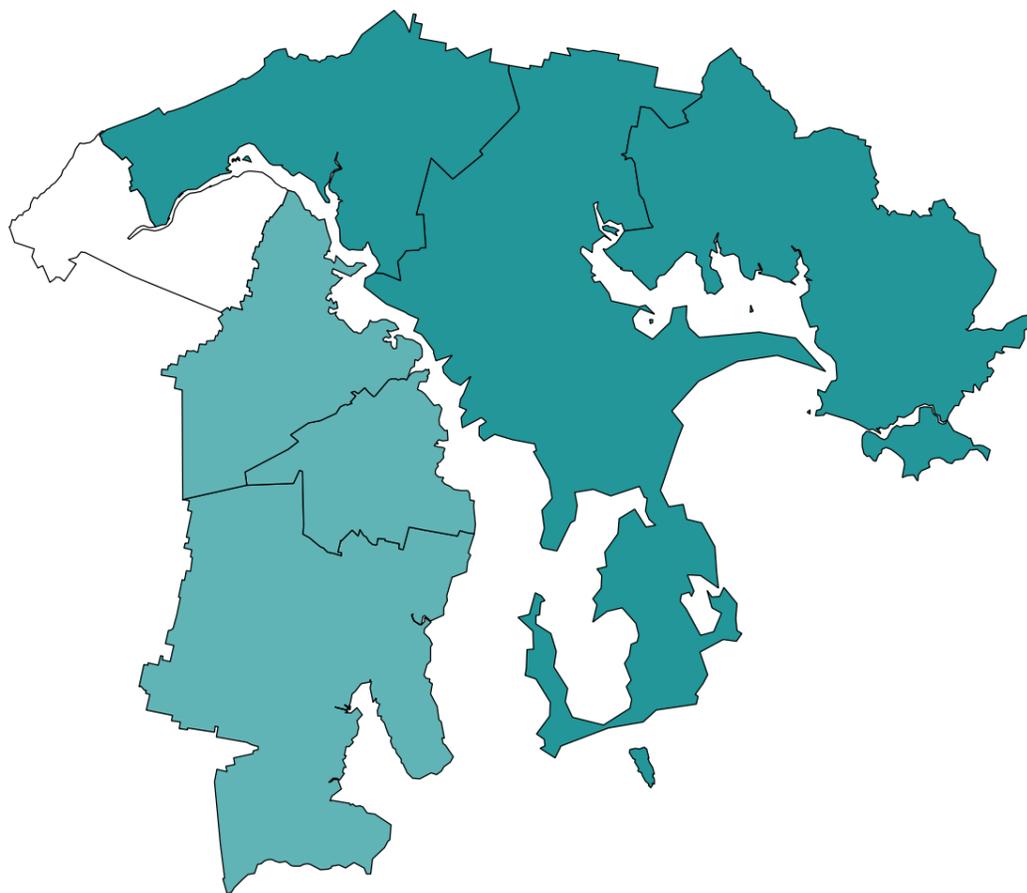
More than 100 hostel places were located in each of the SLAs of Clarence (236 places), the City of Hobart (162) and Glenorchy (159).

The correlation analysis was not undertaken as there were too many SLAs with no (or small numbers of) places.

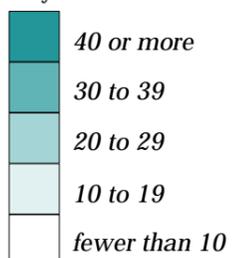
### Map 7.9

## Hostel places per 1,000 population aged 70 years and over, Hobart, 1997

number of hostel places in each Statistical Local Area per 1,000 population aged 70 years and over



Places per 1,000 population aged  
70 years and over



**Source:** See Data Sources, Appendix 1.3

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

## Hostel places per 1,000 population aged 70 years and over, 1997

### State/Territory comparison

There were fewer hostel places per thousand population aged 70 years and over in the *Rest of State /Territory* areas of Australia than in the capital cities in all but New South Wales and Victoria (with more places) and Queensland (with the same number of places) (**Table 7.12**). The highest rates were in Victoria and Queensland and the lowest was in the Northern Territory.

Of the States/Territories for which data were published in the first edition of the atlas, the largest increase in the *Rest of State /Territory* areas was recorded for Victoria. There was a small increase in the rate in New South Wales and a small decrease for Western Australia: the rate in Queensland and South Australia remained the same.

**Table 7.12: Hostel places per 1,000 population aged 70 years and over, State/Territory**

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Total
<b>1997</b>									
Capital city	36	43	49	47	50	42	30	57 <sup>1</sup>	43
Other major urban centres <sup>2</sup>	40	42	39	..	..	..	..	..	40
Rest of State/Territory	42	49	49	46	43	39	28	— <sup>3</sup>	46
Whole of State/Territory	38	45	47	47	48	40	29	60	43
<b>1992</b>									
Rest of State/Territory	39	40	49	46	45	..	..	..	42

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

<sup>2</sup>Includes Newcastle and Wollongong (NSW); Geelong (Vic); and Gold Coast-Tweed Heads and Townsville-Thuringowa (Qld)

<sup>3</sup>Data unreliable: included with ACT total

Source: See *Data sources*, Appendix 1.3

### Rest of State

There were 39 hostel places per 1,000 population aged 70 years and over in the non-metropolitan areas of Tasmania, slightly lower than the rate recorded in **Hobart**. This represented a total of 30 hostel facilities with 877 places. Fifteen SLAs had no hostel facilities. (**Map 7.10**).

More than 60 hostel places per 1,000 population aged 70 and over were located in the northern SLAs of Circular Head (70 hostel places per 1,000 population aged 70 and over), Central Coast [Part A] (67) and George Town [Part A] (60). Rates of 50 and over were also recorded in the north of the State in Waratah/Wynyard [Part A] (59), Flinders (53 representing just four hostel places) and Devonport (50).

Launceston (with 48 hostel places per 1,000 population aged 70 and over), Dorset (46), King Island (46 representing 6 places) and Tasman (44 representing seven places) recorded above average rates.

The lowest rates were recorded in West Tamar [Part A] (a rate of 12 hostel places per 1,000 population aged 70 and over representing 17 places), Kentish (21 and seven places), Glamorgan/Spring Bay (22 and nine places), West Coast (23 and five places). Burnie [Part A] also had a low rate of 32 hostel places per 1,000 population aged 70 years and over.

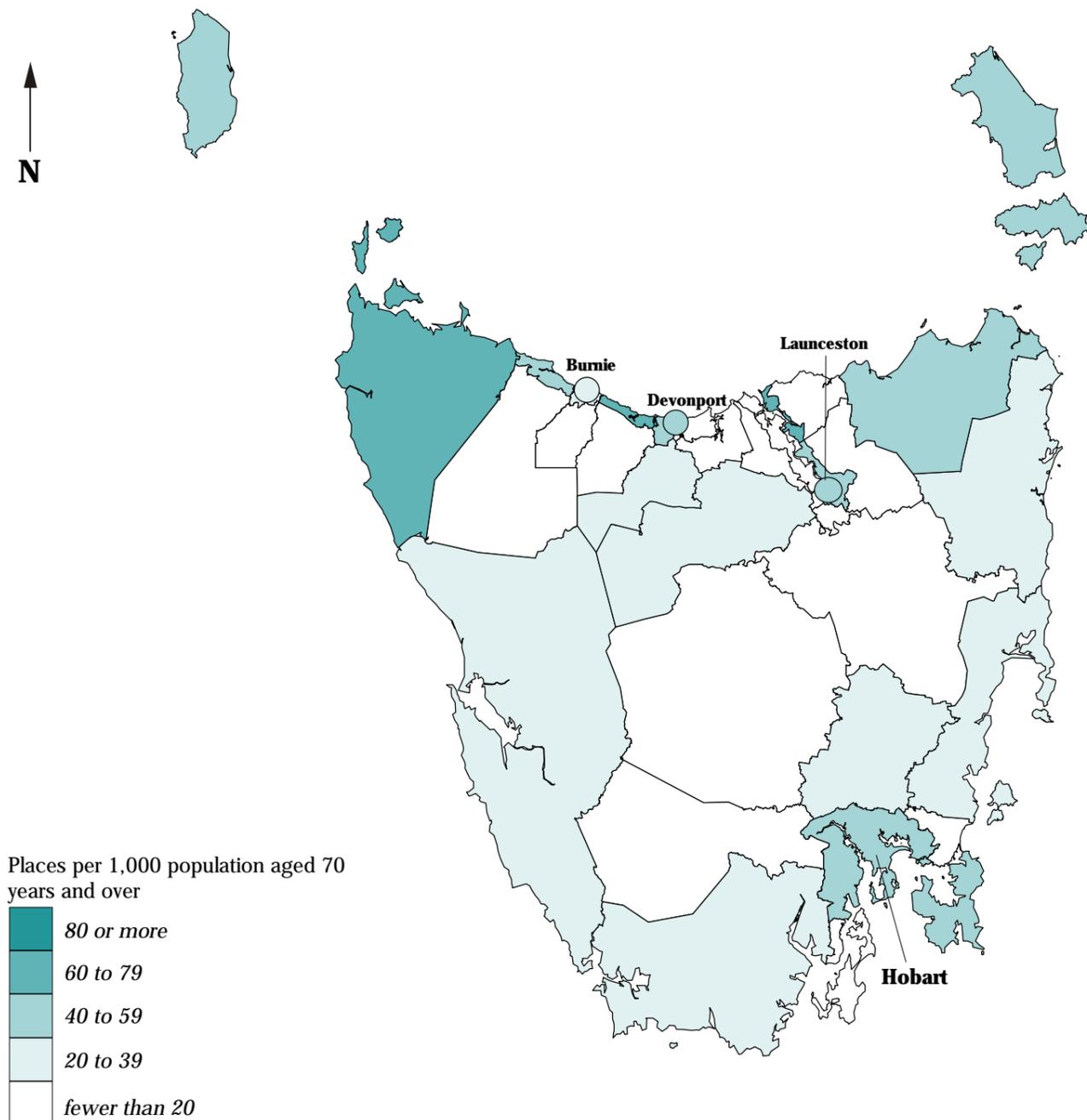
The largest numbers of hostel places were recorded in Launceston (299 places in seven facilities), Central Coast [Part A] (117), Devonport (116) and Waratah/Wynyard [Part A] (60).

The correlation analysis was not undertaken as there were too many SLAs with no (or small numbers of) places.

**Map 7.10**

**Hostel places per 1,000 population aged 70 years and over, Tasmania, 1997**

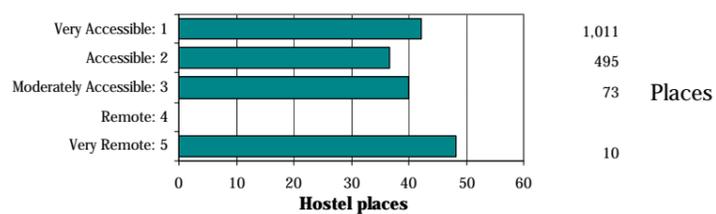
number of hostel places in each Statistical Local Area per 1,000 population aged 70 years and over



Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

**Accessibility/Remoteness Index of Australia**



The provision of aged care hostel places varies across the ARIA categories from the lowest rate of 37 hostel places per 1,000 population aged 70 years and over in the Accessible category to the highest rates of provision in the Very Remote (with 10 hostel places) and Very Accessible areas, with 48 and 42 hostel places per 1,000 population aged 70 years and over, respectively.

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

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