### 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 SSD 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 SSD, except for **Brisbane**, **Gold Coast-Tweed Heads**, **Townsville-Thuringowa**, **Darwin** and **Canberra-Queanbeyan**, for which postcode data were mapped.

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 311 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.

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

<sup>&</sup>lt;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>&</sup>lt;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.

#### 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 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, people requiring long term intensive care are often cared for in public hospitals (where they are classified as 'long stay nursing home type patients'). Overall, 12.6 per cent of patient days in public acute hospitals in New South Wales were for nursing home type patients, 25.9 per cent of bed days in the non-metropolitan areas, and 6.9 per cent in **Sydney** (**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 9.5 per cent in Tasmania. 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	g home type j	patients in j	public acute hospitals	s, by area	, States and	Territories,	1997/98
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Location of hospital	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total		
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		
Per cent: Nursing home type patient bed days as a proportion of all bed days											
Metropolitan	6.9	1.2	$2.\bar{1}$	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** (71.6 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, 1997

	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	_3	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

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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 325. 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 325 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
1996/97	1,118	1,181	1,182	1,145	1,259	1,167	1,642	1,465	1,328
1990/91	860	921	834	827	1,015	820	900	1,042	886
<sup>1</sup> Includes Q	ueanbeyan (C	C)							

Source: See Data sources, Appendix 1.3

In 1996/97, there were 1,179 people per GP in the capital city and other major urban centre SSDs. Of the total of 10,515 GPs, 7,713 were males (73.4 per cent) and 2,781 were females (26.5 per cent), a rate of 1,607 people per male GP and 4,457 people per female GP. There were 0.36 female GPs for every male GP in the capital cities and other major urban centres.

# Capital Cities

In Sydney, there were more than 1,400 people per GP in **Outer** South Western Sydney (1,435 people per GP and 145 GPs), with relatively high rates in **Outer Western Sydney** (1,338; 218), Hornsby-Ku-ring-gai (1,264; 185), Northern Beaches (1,264; 185) and **Blacktown-Baulkham Hills** (1,246; 281). The lowest rate was in Inner Sydney (817 people per GP and 322 GPs), with slightly higher rates in *Eastern Suburbs* (946; 240) and Lower Northern Sydney (979; 270). There were similar rates in both Newcastle (1,366 people per GP and 328 GPs) and Wollongong (1,293; 190), although there were considerably more GPs located in Newcastle.

The highest rates of population per GP in **Melbourne** were in the outer SSDs and were accompanied by relatively low numbers of GPs. There were relatively high rates in Yarra Ranges (1,686 people per GP and 77 GPs) and Melton-Wyndham (1,648; 68 GPs). Slightly lower rates were recorded in South Eastern Outer Melbourne (1,567 people per GP and 117 GPs), Northern Outer Melbourne (1,540; 101 GPs), and Hume (1,443; 80). The lowest rate was in *Inner Melbourne* (748 people per GP and 299 GPs), **Dandenong** (924; 136) and **Moreland** 976: 133). In **Geelong**, there were 1,337 people per GP, and 109 GPs.

The highest rate of population per GP in Brisbane was in Beaudesert, where there were 1,817 people for each of the 13 locally practising GPs. High rates were also recorded in Gold Coast Part A (1,491 people per GP and 27 GPs), Pine Rivers (1,446; 71 GPs), and **Caboolture** (1,361; 69). The lowest rates were in Brisbane City (1,090 people per GP and 732 GPs) and Redcliffe (1,118; 43). In Gold Coast-Tweed Heads, there were 316 GPs and 1,150 people per GP, while in Townsville-**Thuringowa** there were 92 GPs and 1,324 people per GP.

In Adelaide, the highest rates of population per GP were in Northern (1,383 people per GP and 235 GPs) and Southern (1,295; 234) and the lowest in *Eastern* (821; 259).

There were more than 1,400 people per GP in East Metropolitan (1,465 people per GP and 139 GPs) and South East Metropolitan (1,431; 201) in Perth, with the lowest rate in Central Metropolitan (823; 140).

In **Hobart**, there were a relatively low 1,167 people per GP, with 162 GPs.

The Darwin SSD of Palmerston-East Arm had 1,892 people per GP and seven GPs. In **Darwin City**, the rate was lower and the number of GPs considerably higher (1,603 people per GP and 44 GPs).

In Canberra, the highest rate of population to GPs in any capital city or other major urban centre was in Gungahlin-Hall SSD with 2,173 people per GP (and six GPs). Lower levels were recorded in Weston Creek-Stromlo (1,824; 13) and Belconnen (1,743; 47). The lowest rates were in **South Canberra** (1,062) people per GP and 21 GPs) and North Canberra (999; 39).

# Map 7.1: Population per general medical practitioner, major urban centres, 1996/97

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



The notes on page 325 as to the GPs and GP type services not covered by this data are of particular relevance to the data for the nonmetropolitan 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 325 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.

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Total
1996/97			-						
Capital city	1,286	1,375	1,298	1,269	1,415	1,243	1,912	$1,547^{1}$	1,329
Other major urban centres <sup>2</sup>	1,450	1,412	1,356						1,411
Rest of State/Territory	1,766	1,671	1,766	1,584	2,238	1,593	3,976	_3	1,753
Whole of State/Territory	1,406	1,440	1,472	1,340	1,577	1,427	2,689	1,536	1,446
1990/91									
Rest of State/Territory	942	1,196	1,203	1,145	1,374	1,000	1,133	_3	1,147

Table 7.4: Po	pulation per gen	eral medical p	ractitioner. S	State/Territory
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<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

There were 1,627 people per GP outside the capital cities and other major urban centres, with 3,233 GPs practising in these areas in 1996/97. Overall, 26.5 per cent of all GPs in urban SSDs were female, with a lower proportion of 19.2 per cent in non-metropolitan areas.

## **Rest of Australia**

In New South Wales, the most highly elevated rates of population per GP were recorded in *Murray-Darling* (2,576 people per GP and four GPs) and *Snowy* (2,470; 12). Relatively high rates were also recorded in *Far West* (2,179 people per GP and 11 GPs) and *Upper Murray* (2,054; 10), *Central Murray* (2,044; 15), *Central Murrumbidgee* (2,016; 51). The lowest rates were in SSDs located in the coastal areas of the State, in *Tweed Heads* (1,158 people per GP and 35 GPs), *Richmond-Tweed SD Balance* (1,363; 118), *Hastings* (1,459; 87), *Hunter SD Balance* (1,582; 57) and *Clarence* (1,585; 85).

In the non-metropolitan areas of Victoria, there were more than 2,000 people per GP in **West Central Highlands** (2,228 people per GP and eight GPs) and **North Loddon** (2,070; 23). Relatively high rates were also recorded in **West Barwon** (1,912 people per GP and 18 GPs), **Mildura** (1,731; 23), **South Loddon** (1,695; 19) and **South West Goulburn** (1,689; 22). The lowest rates were in **Ballarat** (1,321 people per GP and 58 GPs), **North Wimmera** (1,355; 11), **South Gippsland** (1,406; 31) and **West Gippsland** (1,410; 21)..

There were 3,659 people per GP, and ten GPs, in **North West** SSD in Queensland. This rate was considerably higher than the rate in next ranked *Fitzroy SD Balance* (2,358 people per GP and 33 GPs), *Mackay SD Balance* (2,313; 27), *Central West* (2,308; 6) and *Gladstone* (2,215; 17). The lowest rates were

recorded in *Sunshine Coast* (1,068 people per GP and 153 GPs), *Toowoomba* (1,115; 75) and *Mackay* (1,283; 47).

The highest rate of population per GP in South Australia was in *Far North*, where there were 3,063 people per GP and four GPs. High rates were also recorded in *Kangaroo Island* (1,907people per GP and two GPs) and *Whyalla* (1,801; 13). The lowest rates were recorded in SSDs closer to Adelaide – in *Fleurieu* (1,073 people per GP and 25 GPs), *Yorke* (1,130; 21) and *Onkaparinga* (1,270; 22).

In Western Australia, there were extremely high rates in **Ord** (9,125 people per GP and 1.3 FTE GPs), **Gascoyne** (6,164; and 2.4) and **Carnegie**(5,217; 1.4). Users should again be mindful of the cautions on page 327 in relation to the coverage of this data. There were more than 3,000 people per GP in both **Fitzroy** (3,973 people per GP and 5.2 GPs) and **De Grey** (3,508; 6). The lowest rates were recorded in the State's south-west, in **Vasse** (1,228 people per GP and 21 GPs), **Pallinup** (1,730; 7), **Dale** (1,460; 35) and **Hotham** (1,665; 8).

The highest rates of population per GP in Tasmania were in *North Western Rural* (2,156 people per GP and 11 GPs) and *Central North* (1,868; 11), with the lowest rates in *Launceston* (1,221 people per GP and 78 GPs) and *Lyell* (1,252; 5).

The highest rates of population per GP in Australia were recorded in **Daly** (17,588 people per GP) and **Bathurst-Melville** (12,628 people per GP). Between them, these two SSDs had 0.4 FTE GPs. Rates in the other Northern Territory SSDs were above 3,000 people per GP, with the lowest in **Alligator** (3,012 people per GP and two GPs) and **Central NT** (3,188; 12).

# Map 7.2: Population per general medical practitioner, Australia, 1996/97

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



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

#### Accessibility/Remoteness Index of Australia



The rate of population per general medical practitioner (GP) rises steadily across the ARIA categories, from 1,217 people per GP in the Very Accessible areas to 2,066 people per GP in the Remote areas. The rate then increases even more substantially, to 3,342 people per GP in the Very Remote areas, more than two and a half times the number in ARIA category 1. Although levels of provision of GP services are low in the most remote areas, readers should note the cautions (in the introduction) as to the limitations of this data.

Source: Calculated on ARIA classification, DHAC

National Social Health Atlas Project, 1999

Details of map boundaries are in Appendix 1.2

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 bed	s per 1,000 population, o	capital cities
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	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 Q	ueanbeyan (	C)							

Source: See Data sources, Appendix 1.3

There were 37,806 public acute hospital beds (average available beds over 1995/96), and 191 public hospitals, in the capital cities (3.1 beds per 1,000 population) and other major urban centres (2.8), a total of 3.0 beds per 1,000 population.

# **Capital Cities**

In **Sydney**, the highest rate of public acute hospital beds per 1,000 population, and the largest number of beds, were recorded in *Inner Sydney* (7.4 public acute hospital beds per 1,000 population; 1,941 beds), *Central Western Sydney* (6.0; 1,619), *Lower Northern Sydney* (5.9; 1,554) and *Eastern Suburbs* (4.7; 1,068). The lowest rates were in *Blacktown-Baulkham Hills* (1.4 public acute hospital beds per 1,000 population) and *Outer South Western Sydney* (1.5), while the lowest number of beds were in *Outer South Western Sydney* (307) and *Northern Beaches* (382). There were public acute hospital beds in every Sydney SSD. In Newcastle, there were 3.5 public acute hospital beds per 1,000 population (1,583 beds) and 2.5 public acute hospital beds per 1,000 population in Wollongong (621 beds).

**Inner Melbourne** (with 15.9 public acute hospital beds per 1,000 population; 3,561 beds) and **Northern Middle Melbourne** (6.2; 1,450) had the highest rates and numbers of public acute hospital beds in **Melbourne**. Relatively high rates were also recorded in **Frankston** (4.2 public acute hospital beds per 1,000 population), **Southern Melbourne** (3.1) and **Greater Dandenong** (3.0), while relatively large numbers of beds were recorded in **Southern Melbourne** (1,119 public acute hospital beds), **Western Melbourne** (683) and **Eastern Middle Melbourne** (452). The lowest rates and bed numbers were in **South Eastern Outer Melbourne** (0.1; 21) and **Yarra Ranges** (0.2; 21). There were no public acute hospital beds in five SSDs. In **Geelong**, there were 478 public acute hospital beds, a rate of 3.3 beds per 1,000 population.

The highest rates in **Brisbane** were in *Redcliffe* (5.9 public acute hospital beds per 1,000 population), *Brisbane City* (5.0) and *Ipswich* (2.7), with the lowest rate in *Redland* (0.4). There were 4,003 public acute hospital beds in *Brisbane City*, 310 in *Ipswich* and 281 in *Redcliffe*, with the lowest number located in

**Redland** (40). There were three SSDs without any public hospital acute beds. **Townsville-Thuringowa** had 3.4 public acute hospital beds per 1,000 population and 412 beds, compared with a rate of 1.8 public acute hospital beds per 1,000 population, and 665 beds, in **Gold Coast-Tweed Heads**.

The highest rates and numbers of public acute hospital beds per 1,000 population In **Adelaide** were in **Eastern** (which includes the City of Adelaide, 4.7 public acute hospital beds per 1,000 population and 995 beds) and **Southern** (2.7; 810). The lowest rate was in **Northern** (1.3 public acute hospital beds per 1,000 population) and the lowest number of beds was in **Western** (413 public acute hospital beds).

In **Perth**, the highest rates and numbers of public acute hospital beds per 1,000 population were in *Central Metropolitan* (19.1 public acute hospital beds per 1,000 population and 2,210 public acute hospital beds), *South East Metropolitan* (2.3; 653) and *South West Metropolitan* (2.1; 542). The lowest rate was in *North Metropolitan* (0.7 public acute hospital beds per 1,000 population) and the lowest number of beds was in *East Metropolitan* (160 public acute hospital beds).

In **Hobart**, there were 764 public acute hospital beds, a rate of 4.0 public acute hospital beds per 1,000 population.

**Darwin's** 290 public acute hospital beds were all located in **Darwin City** SSD, and represented a rate of 4.1 public acute hospital beds per 1,000 population.

In **Canberra**, public acute hospital beds were located in only three SSDs – *Woden Valley* (18.7 public acute hospital beds per 1,000 population; 587 beds), *Belconnen* (2.2; 182) and *North Canberra* (0.3; 11).

# Map 7.3: Public acute hospital beds per 1,000 population, major urban centres, 1995/1996<sup>\*</sup>

number of public acute hospital beds<sup>\*</sup> in each Statistical Subdivision per 1,000 population



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 327).

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.

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Total
1995/96									
Capital city	3.2	2.8	3.4	3.2	3.1	4.0	3.5	$2.7^{1}$	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	_3	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

There were 21,418 public acute hospital beds (average available beds over 1995/96), and 522 public hospitals, in the non-metropolitan areas of Australia, a total of 4.0 beds per 1,000 population.

## **Rest of Australia**

The highest rates of public acute hospital beds per 1,000 population in the non-metropolitan areas of New South Wales were in *Central Tablelands* (11.1 beds per 1,000 population), *Macquarie-Barwon* (10.0), *Upper Darling* (9.7) and *Albury* and *Upper Murray* (both 8.0). The lowest rates were reported for *Illawarra SD Balance* (2.0), *Hastings* (2.6) and *Hunter SD Balance* and *Snowy* (both 2.8). There were more than 500 beds in each of *Richmond-Tweed SD Balance* (563), *Northerm Slopes* (537) and *Bathurst-Orange* (520), while the lowest bed numbers were in *Murray-Darling* (42) and *Queanbeyan* (80).

Victoria's highest public acute hospital bed rates were in **West Ovens-Murray** (6.7 public acute hospital beds per 1,000 population), **North Wimmera** (6.0), **Shepparton** (5.6) and **Glenelg** (5.2). In contrast, the lowest rates were recorded for **East Barwon** (0.5), **South Loddon** (1.0) and **East Central Highlands** (2.0). There were more than 300 beds in **Bendigo** (349) and **Ballarat** (334), as well as 270 in **Hopkins** and 249 in **La Trobe Valley**. The lowest numbers of beds were recorded in **East Barwon** (22 beds) and **South Loddon** (33 beds).

In Queensland, the highest levels of provision of public acute hospital beds were in *Central West* (9.3 public acute hospital beds per 1,000 population), *Toowoomba* (9.1), *South West* (7.7) and *North West* (5.4). The lowest rates were in *Moreton SD Balance* (1.3) and *Mackay SD Balance* (2.0). The largest number of public acute hospital beds was in *Toowoomba*, with 757 beds. Elsewhere, there were 551 located in *Wide Bay-Burnett SD Balance*, 531 in *Far North SD Balance* and 388 in

*Cairns*. The lowest bed numbers were 123 and 128 in *Central West* and *Mackay SD Balance*.

There were 10.4 public acute hospital beds per 1,000 population in *Lower North* SSD in South Australia. Relatively high rates were also recorded in *Lincoln* (9.8) and *Pirie* (9.5). The lowest rates were in *Onkaparinga* (1.8 public acute hospital beds per 1,000 population) and *Fleurieu* (3.1) SSDs. The largest numbers of beds were in *Lincoln* (252 beds) and *Pirie* (244). The lowest bed numbers were in *Kangaroo Island* (30) and *Far North* (43).

In Western Australia, there were 7.2 beds per 1,000 population in *Hotham*, 6.4 in *King*, 5.8 in *Lakes* and 5.5 in each of *Blackwood* and *De Grey*. The lowest rates were in *Carnegie* (1.1) and *Fortescue* (1.6). There were more than 150 beds in each of *Preston* (247), *King* (229) and *Lefroy* (160), with the lowest bed numbers in *Carnegie* (8) and *Moore* (26).

*Lyell* (5.9 beds per 1,000 population), *Launceston* (4.0) and *North Eastern* (3.2) had the highest public acute hospital bed rates in Tasmania. The lowest rate was in *Southern* (0.6). There were 385 beds in *Launceston* and 159 in *Burnie-Devonport. Southern*, with 20 beds, had the lowest number of beds.

Public acute hospital beds were located in only four SSDs in the Northern Territory. The highest rates were in *Central NT* (4.4 public acute hospital beds per 1,000 population) and *Lower Top End NT* (3.2), with the lowest rate in *East Arnhem* (2.5). There were 170 beds located in *Central NT* and 60 in *Lower Top End NT*.

# Map 7.4: Public acute hospital beds per 1,000 population, Australia, 1995/1996<sup>\*</sup>

number of public acute hospital beds<sup>\*</sup> in each Statistical Subdivision per 1,000 population



#### Accessibility/Remoteness Index of Australia



Beds in public acute hospitals are located throughout Australia, with increasing levels of provision with increasing remoteness. Rates vary from 3.2 average available beds per 1,000 population in the Very Accessible ARIA category, to 5.6 beds per 1,000 in the Remote category, with a marginally lower 5.5 beds per 1,000 population in the Very Remote category. The largest number of beds (and the widest range of services) is, however, in the most accessible areas.

Source: Calculated on ARIA classification, DHAC

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.

	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra <sup>1</sup>	All capitals
1997	1.1	1.7	1.7	2.0	1.7	2.1	1.7	0.5	1.5
1989	1.2	1.6	1.5	1.8	1.5	••	••	••	1.4
IL	0 (	<b>C</b> )							

<sup>1</sup>Includes Queanbeyan (C) Source: See *Data sources*, Appendix 1.3

There were 19,561 private hospital beds at 30 June 1997, and 241 private hospitals, in the capital cities and other major urban centres, 1.5 private hospital beds per 1,000 population.

#### **Capital Cities**

In Sydney, the highest level of provision of private hospital beds was in *Lower Northern Sydney* Statistical Subdivision (SSD) (2.8 private hospital beds per 1,000 population). There were 2.5 private hospital beds per 1,000 population in *Inner Western Sydney*, 2.0 in *Hornsby-Ku-ring-gai* and 1.8 in *Inner Sydney*. The lowest rates were in *Canterbury-Bankstown* and *Outer South Western Sydney* (each with 0.2 private hospital beds per 1,000 population). The largest numbers of private hospital beds were in *Lower Northern Sydney* (with 782 beds), *Hornsby-Kuring-gai* (500), *Inner Sydney* (496) and *St George-Sutherland* (453). Private hospital beds were located in each of the SSDs in Sydney. There were 1.1 private hospital beds per 1,000 population in Newcastle (518 private hospital beds) and 0.7 private hospital beds per 1,000 in Wollongong (187 beds).

Inner Melbourne (8.3 private hospital beds per 1,000 population; 1,917 private hospital beds) and Southern Melbourne (2.5; 946) recorded the highest bed rates and bed numbers in Melbourne. Relatively high rates were also recorded in *Moreland* (2.0 private hospital beds per 1,000 population), Boroondara (1.9) and Mornington Peninsula (1.8), while relatively high numbers of beds were recorded in *Eastern Middle* Melbourne (628 private hospital beds), Boroondara (290) and Moreland (268). The lowest rates were in Western Melbourne (with 0.2 private hospital beds per 1,000 population), *Hume* and South Eastern Outer Melbourne (both with 0.3). The lowest bed numbers were recorded in Hume (32 private hospital beds) and South Eastern Outer Melbourne (66). There were no private hospital beds in *Melton-Wyndham*. In Geelong, there were 203 private hospital beds, a rate of 1.3 private hospital beds per 1,000 population.

The highest bed rates in **Brisbane** were recorded for **Brisbane** *City* (2.9 private hospital beds per 1,000 population), *Redcliffe* (1.7) and *Ipswich* (0.9), with the lowest rate in *Pine Rivers* (0.6). There were 2,431 private hospital beds in *Brisbane City*, 102 in *Ipswich* and 86 in *Redcliffe*, with the lowest number located in *Pine Rivers* (60). There were five SSDs without any private hospital beds. **Townsville-Thuringowa** had 1.8 private hospital beds per 1,000 population and 224 private hospital beds, compared with 2.0 private hospital beds per 1,000 population, and 743 beds, in **Gold Coast-Tweed Heads**.

In **Adelaide**, the highest bed rates were in *Eastern* (6.0 private hospital beds per 1,000 population) and *Western* (1.7), with the lowest rate in *Northern* (0.5). The largest numbers of private hospital beds were in *Eastern* (1,316 private hospital beds), and *Western* (358), with the lowest number in *Northern* (166).

The highest rate and number of private hospital beds in **Perth** was in *Central Metropolitan* (8.5 private hospital beds per 1,000 population and 1,009 beds). High rates were also recorded in *South West Metropolitan* (1.7) and *North Metropolitan* (1.3), and high numbers in *North Metropolitan* (521 private hospital beds) and *South West Metropolitan* (452). The lowest bed rates were in *East Metropolitan* and *South East Metropolitan* (both with 0.5 beds per 1,000 population) and the lowest number of private hospital beds was in *East Metropolitan* (112 beds).

In **Hobart**, there were 401 private hospital beds, a rate of 2.1 beds per 1,000 population.

**Darwin's** 142 private hospital beds were all located in *Darwin City* SSD, and represented a rate of 2.0 private hospital beds per 1,000 population.

In **Canberra**, private hospital beds were located in only **South Canberra** (with 5.1 private hospital beds per 1,000 population; 119 beds) and **Belconnen** (0.6; 50).

# Map 7.5: Private hospital beds per 1,000 population, major urban centres, 1997

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



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).

	· ·									
	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Total	
1997			-							
Capital city	1.1	1.7	1.7	2.0	1.7	2.1	1.7	$0.5^{1}$	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	_3	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	

Table 7.8: Private ho	spital beds p	er 1,000 pop	pulation,	State/Territory
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<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

In the non-metropolitan areas of Australia, there 88 private hospitals with 4,534 beds, 0.9 private hospital beds per 1,000 population.

# **Rest of Australia**

The highest levels of provision of private hospital beds in New South Wales were in *Hastings* (2.2 private hospital beds per 1,000 population), *Albury* (1.6) and *Bathurst-Orange* and *Illawarra SD Balance* (both 1.3) Statistical Subdivisions (SSDs). The lowest rates were recorded for *Lachlan* (0.1 private hospital beds per 1,000 population) and *Hunter SD Balance* (0.5). There were more than 150 private hospital beds in each of *Hastings* (284 beds), *Illawarra SD Balance* (152) and *Richmond-Tweed SD Balance* (151). Over half (56 per cent) of the SSDs in New South Wales had no private hospital beds.

Victoria's highest private hospital bed rates were recorded in **Ballarat** and **West Mallee** (both with 2.8 private hospital beds per 1,000 population) and **North Wimmera** (2.1). In contrast, very low rates were recorded in **South Wimmera** and **North Goulburn** (both with 0.1 private hospital beds per 1,000 population) and **North Loddon** (0.2). There were 224 private hospital beds in **Ballarat** and 132 in **Bendigo**, with lower numbers in **Hopkins** (75) and **Shepparton** (60). No private hospital beds were recorded in the SSDs of **East Barwon**, **West Barwon**, **Glenelg**, **South West Goulburn** and **East Gippsland Shire**.

In Queensland, there were more than 3.0 private hospital beds per 1,000 population in **Rockhampton** (4.6), **Toowoomba** (3.5) and **Mackay** (3.2). The lowest rate was 0.2 private hospital beds per 1,000 population in each of **Fitzroy SD Balance** and **Central West**. The largest numbers of beds were located in **Toowoomba** (with 306 private hospital beds), **Rockhampton** (295), **Sunshine Coast** (232) and **Mackay** (197). Over one third (35.3 per cent) of the SSDs in Queensland had no private hospital beds.

The highest rates in South Australia were in *Upper South East* (1.7 private hospital beds per 1,000 population) and *Yorke* (1.3) SSDs. The lowest rate was 0.3 private hospital beds per 1,000 population in each of *Fleurieu* and *Riverland*. There were 32 private hospital beds in *Upper South East* and 31 beds in *Yorke*. More than half (56.3 per cent) of the SSDs in South Australia had no private hospital beds.

In Western Australia, private hospitals were located in only three SSDs – *Preston* (1.8 private hospital beds per 1,000 population; 125 private hospital beds), *Greenough River* (1.7; 74) and *King* (0.1; 5).

*Launceston* (3.3 private hospital beds per 1,000 population; 328 private hospital beds) and *Burnie-Devonport* (2.5; 197) were the only SSDs in the non-metropolitan areas of Tasmania in which private hospitals were located.

There were no private hospitals located in the non-metropolitan Statistical Subdivisions of the Northern Territory.

# Map 7.6: Private hospital beds per 1,000 population, Australia, 1997

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



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

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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 346). 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	s per 1,000	population aged	70 years and	over, capital cities
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	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra <sup>1</sup>	All capitals
1997	65	<b>48</b>	54	58	52	57	41	39	56
1992	79	53	71	74	69	••	••		69
<sup>1</sup> Includes Q	ueanbeyan (	C)							

Source: See Data sources, Appendix 1.3

At 30 June 1997, there were 56,117 places in 1,042 nursing home facilities in the capital cities (56 nursing home places per 1,000 population aged 70 years and over) and other major urban centres (42 places), a total of 54 nursing home places per 1,000 population aged 70 years and over.

# **Capital Cities**

In Sydney, there were 139 nursing home places per 1,000 population aged 70 years and over in *Inner Western Sydney*, more than three times the planning target rate of 40 places. There were also high rates in *Central Western Sydney* (76), *Inner Sydney* (74) and *Fairfield-Liverpool* (72). The lowest rates were in *Gosford-Wyong* (40) and *Canterbury-Bankstown* (51). There were 2,312 nursing home places in *St George-Sutherland*, 2,254 in *Inner Western Sydney* and 1,844 in *Lower Northern Sydney*. The lowest number of places was in *Outer South Western Sydney* (585 nursing home places). In Newcastle there were nursing home 2,106 places (48 places per 1,000 population aged 70 years and over), compared with 797 in Wollongong (39).

There were more than 50 nursing home places per 1,000 people aged 70 years and over in **Boroondara** (79 nursing home places per 1,000 population aged 70 years and over), **Inner Melbourne** (65), **Eastern Outer Melbourne** and **Northern Outer Melbourne** (both 56) and **Southern Melbourne** (51) in **Melbourne**. The lowest rates were in **Hume** (24) and **Frankston** (33). The largest numbers of nursing home places were in **Southern Melbourne** (2,165 places), **Boroondara** (1,355), **Western Melbourne** (1,231) and **Inner Melbourne** (1,224). In **Geelong**, there were 766 places, a rate of 55 nursing home places per 1,000 people aged 70 years and over.

The highest rate of provision of nursing home places in **Brisbane** was in **Brisbane City**, 64 nursing home places per 1,000 people aged 70 years and over. Relatively high rates were also recorded in **Redcliffe** and **Ipswich** (both with 52). The lowest rate was in **Redland** (17 nursing home places per 1,000 people aged 70 years and over), while there were no nursing homes located in **Beaudesert**. In **Brisbane City**, there were 4,813 nursing home places, substantially more than in the next ranked SSDs of **Redcliffe** (348 nursing home places) and **Ipswich** (346). The

lowest number of places was in *Pine Rivers* (87nursing home places). There were 1,440 nursing home places in **Gold Coast-Tweed Heads** (32 nursing home places per 1,000 people aged 70 years and over), and 398 places in **Townsville-Thuringowa** (53).

In **Adelaide**, there were 78 nursing home places per 1,000 people aged 70 years and over in **Eastern**, considerably higher than in next ranked **Western** (52) and bottom ranked **Northern** (48). There were 2,014 nursing home places in **Eastern**, 1,582 in **Southern** and, 1,024, the lowest number, in **Northern**.

Each of **South East Metropolitan** (with 72 nursing home places per 1,000 people aged 70 years and over) and **Central Metropolitan** (71) in **Perth** had high rates of nursing home places per 1,000 people aged 70 years and over. The lowest rates were recorded in **North Metropolitan** (37 nursing home places per 1,000 people aged 70 years and over) and **South West Metropolitan** (42). There were 1,545 nursing home places located in **South East Metropolitan** SSD, 989 in **Central Metropolitan** and 930 in **North Metropolitan**. The lowest number of nursing home places was in **East Metropolitan** (557 places).

In **Hobart**, there were 21 nursing home facilities providing 964 nursing home places, a rate of 57 places per 1,000 population aged 70 years and over.

In **Palmerston-East Arm**, there were 155 nursing home places per 1,000 people aged 70 years and over (a total of 40 nursing home places), compared with 27 nursing home places per 1,000 people aged 70 years and over in **Darwin City** (56 nursing home places).

The highest rate of provision of nursing home places in **Canberra** was in **South Canberra** (78 places per 1,000 population aged 70 years and over). Relatively high rates were also recorded in **Weston Creek-Stromlo** (46) and **Belconnen** (44). The lowest rate was in **Woden Valley** (22) and there were no nursing homes located in **Tuggeranong** and **Gungahlin-Hall**. There were 193 and 134 places in **South Canberra** and **Belconnen**, respectively. **Woden Valley**, with 52 beds, recorded the lowest number of nursing home places.

# Map 7.7: Nursing home places per 1,000 population aged 70 years and over, major urban centres, 1997

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



National Social Health Atlas Project, 1999

Readers should note the comments on page 327 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) and Victoria (45 places). 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 328; 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
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	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Total
1997									
Capital city	65	48	54	58	52	57	41	$39^{1}$	56
Other major urban centres <sup>2</sup>	45	55	35						42
Rest of State/Territory	39	45	40	28	31	49	44	_3	40
Whole of State/Territory	55	48	45	50	47	52	42	37	50
1992									
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

In 1997, there were 17,684 places in 422 nursing home facilities in the non-metropolitan areas of Australia, 40 nursing home places per 1,000 population aged 70 years and over.

# Rest of Australia

In New South Wales, the highest rates of provision were in **Bathurst-Orange** (69 nursing home places per 1,000 population aged 70 years and over), **Queanbeyan** (62), **North Central Plain** and **Southern Tablelands** (both with 52), **Lachlan** and **Central Murrumbidgee** (both with 51). The lowest rates were recorded in **Upper Murray** (13) and **Central Tablelands** (16). Three Statistical Subdivisions (SSDs) had no nursing homes. The largest numbers of nursing home places were located in **Richmond-Tweed SD Balance** (659 nursing home places), **Hastings** (519) and **Clarence** (464).

The highest rates and numbers of nursing home places in Victoria were in **Ballarat** (81 nursing home places per 1,000 people aged 70 years and over; 582 places) and **Bendigo** (64; 448). High rates were also recorded in **North Wimmera** (60), **West Ovens-Murray** (54), **Glenelg** (50) and **Hopkins** (49). The lowest rates were in **East Ovens-Murray** (13 nursing home places per 1,000 people aged 70 years and over) and **East Central Highlands** (28). The largest numbers of nursing home places were in **North Goulburn** (285), **Hopkins** (282), **North Loddon** (203) and **South Gippsland** (202).

Rates in the non-metropolitan areas of Queensland were highest in the SSDs of **Toowoomba** (66 nursing home places per 1,000 population aged 70 years and over), **Mackay** (63), **Rockhampton** (60), **Bundaberg** (52) and **Gladstone** (50). The lowest rates were recorded in **Mackay SD Balance** (11) and *Moreton SD Balance* (19). The largest numbers of nursing home places were in *Sunshine Coast* (769 nursing home places), *Wide Bay-Burnett SD Balance* (591) and *Toowoomba* (546).

In South Australia, the highest rates of provision of nursing home places were in **Yorke** (43 nursing home places per 1,000 population aged 70 years and over), **Riverland** and **Lower South East** (both with 37), **Fleurieu** (36) and **Barossa** (35). The lowest rates were in **Upper South East** and **Pirie** (both 12). There were 141 nursing home places located in **Yorke**, 138 in **Fleurieu** and 120 in **Lower South East**. Three SSDs had no nursing home facilities.

High rates were recorded in the Western Australian SSDs of *Lefroy* (89 nursing home places per 1,000 people aged 70 years and over), *De Grey* (72), *Hotham* (67) and *Fitzroy* (61). The lowest rate was in *Avon* (22 places per 1,000 population. *Preston* (with 192 places), *Dale* (138), *King* (108) and *Lefroy* (107) had the largest numbers of nursing home places. There were no nursing home facilities in eight SSDs.

In Tasmania, the highest rates and numbers were in *Launceston* (55 nursing home places per 1,000 population aged 70 years and over; 488 nursing home places) and *Burnie-Devonport* (55; 397), with lower rates in *Southern* and *North Western Rural* (both with 41). The lowest rate was in *Central North*, 19 places per 1,000 people and the smallest number of places (28 places).

Nursing homes were located in only three SSDs in the Northern Territory – **Barkly** (70 nursing home places per 1,000 people aged 70 years and over; 15 beds), **Central NT** (69; 80) and **Lower Top End NT** (37; 19).

# Map 7.8: Nursing home places per 1,000 population aged 70 years and over, Australia, 1997

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



1.848<br/>327<br/>308PlacesARIA category to 26 places per 1,000 population aged 70 years and<br/>over in the Remote category. The Very Remote category has a<br/>higher rate , of 31 places per 1,000 population aged 70 years and<br/>over.

Remote: 4

0.0

10.0

20.0

30.0

Nursing home places

40.0

50.0

60.0

Very Remote: 5

Source: Calculated on ARIA classification, DHAC

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 342). 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 pc	opulation ag	ed 70 y	years and over,	capital cities
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	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra <sup>1</sup>	All capitals
1997	36	43	<b>49</b>	47	50	42	30	57	43
1992	28	35	55	43	45	••	••	••	37
<sup>1</sup> Includes Queanbevan (C)									

Source: See Data sources, Appendix 1.3

At 30 June 1997, there were 43,601 places in 882 aged care hostel facilities in the capital cities (43 places per 1,000 population aged 70 years and over) and other major urban centres (40 places), a total of 42 places per 1,000 population aged 70 years and over.

# **Capital Cities**

In Sydney, there were 88 hostel places per 1,000 population aged 70 years and over in **Blacktown-Baulkham Hills**, with high rates in **Outer South Western Sydney** (47), **Northern Beaches** (46) and **Inner Sydney** (41). The lowest rates were in **Canterbury-Bankstown** (24) and **Gosford-Wyong** (25). There were 1,366 hostels places in **Blacktown-Baulkham Hills**, 1,122 in **Lower Northern Sydney** and 1,014 in **Northern Beaches**. The lowest number of places was in **Outer South Western Sydney** (390). There were 1,726 places in **Newcastle** (39 per 1,000 population aged 70 years and over), with 829 places in **Wollongong** (40).

There were more than 50 hostel places per 1,000 people aged 70 years and over in the **Melbourne** SSDs of **Inner Melbourne** (70), **Eastern Outer Melbourne** (69), **Boroondara** (67), **Frankston** (63), **Melton-Wyndham** (56) and **Northern Outer Melbourne** (50). The lowest rates were in **South Eastern Outer Melbourne** (21) and **Moreland** (26). The largest numbers of hostel places were in **Southern Melbourne** (1,596), **Inner Melbourne** (1,309), **Eastern Middle Melbourne** (1,199) and **Boroondara** (1,146). In **Geelong**, there were 584 hostel places, 42 per 1,000 people aged 70 years and over.

The highest rates of hostel places in **Brisbane** were in **Ipswich** (65 places per 1,000 people aged 70 years and over), **Gold Coast Part A** (56) and **Pine Rivers** (52). The lowest rate was in **Redcliffe** (36), while there were no hostels located in **Beaudesert**. In **Brisbane City**, there were 3,709 hostel places, substantially more than in the next ranked SSDs of **Ipswich** (432) and **Redland** (299). There were 1,655 hostel places in **Gold Coast-Tweed Heads** (a rate of 37 places per 1,000 population aged 70 years and over), and 417 places in **Townsville-Thuringowa** (55).

In **Adelaide**, there were 74 hostel places per 1,000 population aged 70 years and over in **Eastern**, considerably higher than in next ranked **Southern** (44) and bottom ranked **Northern** (32). There were 1,916 places in **Eastern**, 1,351 in **Southern** and 678 in **Northern**.

The highest rates in **Perth** were in **North Metropolitan** (a rate of 56 hostel places per 1,000 population aged 70 years and over), **South East Metropolitan** (51) and **Central Metropolitan** (50). The lowest rate was in **East Metropolitan** (42). There were 1,407 places located in **North Metropolitan**, 1,094 in **South East Metropolitan** and 882 in **South West Metropolitan**. The lowest number of places was in **East Metropolitan** (528).

In **Hobart**, there were 19 aged hostel facilities providing 712 places, a rate of 42 hostel places per 1,000 population aged 70 years and over.

In **Darwin**, there were two hostels in **Darwin City**, providing 71 places, a rate of 34 hostel places per 1,000 people aged 70 years and over.

The highest rate of hostel places in **Canberra** was in **Woden Valley** (98 places per 1,000 people aged 70 years and over). This was almost twice the target rate (although **Woden Valley** had just over half the target rate of nursing home places) and the highest SSD rate in any capital city or major urban centres in Australia. Relatively high rates also occurred in **Weston Creek**-**Stromlo** (82) and **South Canberra** (62). The lowest rate was in **Belconnen** (50). There were 229 places and 183 places in **Woden Valley** and **North Canberra**, respectively. **Weston Creek-Stromlo**, with 108 places, had the lowest number of hostel places. There were no aged care hostels located in the SSDs of **Tuggeranong** or **Gungahlin-Hall**.

# Map 7.9: Hostel places per 1,000 population aged 70 years and over, major urban centres, 1997

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



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.

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Total
1997									
Capital city	36	43	49	47	50	42	30	$57^{1}$	43
Other major urban centres <sup>2</sup>	40	42	39				••		40
Rest of State/Territory	42	49	49	46	43	39	28	_3	46
Whole of State/Territory	38	45	47	47	48	40	29	60	43
1992									
Rest of State/Territory	39	40	49	46	45				42
V									

Table	7.12:	Hostel	nlaces	ner 1	.000	nonulation	aged 70	vears and	over	State/Territor	v
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<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

In 1997, there were 20,430 places in 637 aged care hostels in the non-metropolitan areas of Australia, 46 aged care hostel places per 1,000 population aged 70 years and over.

# **Rest of Australia**

In New South Wales, there were more than 50 hostel places per 1,000 people aged 70 years and over in seven SSDs – Upper Darling (81 places), Southern Tablelands (65), Macquarie-Barwon (55), Lachlan (55), Central Macquarie (55), Bathurst-Orange (53) and Central Murrumbidgee (50). The lowest rates were recorded in Queanbeyan (37) and Lower South Coast (30). The largest number of aged care hostel places were located in Richmond-Tweed SD Balance (629 places), Hastings (625) and Clarence (554), while no hostel places were located in Yarrowlumla.

The highest level of provision of hostel places in Victoria was in **North Wimmera** (71 places per 1,000 eligible population). High rates were also recorded in **Wodonga** (66 hostel places), **Glenelg** (65), **West Mallee** (65), **East Central Highlands** (62) and **South Wimmera** (60). The lowest rates were in **West Barwon** (17) and **East Gippsland** (25 hostel places). The largest numbers of hostel places were in **North Goulburn** (404 places), **Ballarat** (388), **Bendigo** (325) and **Hopkins** (289). The lowest number of places was in **East Ovens-Murray** (40 hostel places).

Rates of above 60 hostel places per 1,000 population aged 70 years and over were recorded in four SSDs in non-metropolitan Queensland – *North West* (73 places), *Rockhampton* (64) and *Darling Downs SD Balance* and *South West* (both 60). The lowest rates were recorded in *Gladstone* (26 hostel places per 1,000 population aged 70 years and over) and *Mackay SD Balance* (33). The largest numbers of places were located in

**Sunshine Coast** (886 hostel places), **Wide Bay-Burnett SD Balance** (776) and **Darling Downs SD Balance** (516), with the lowest numbers in **Gladstone** (42).

In South Australia, the highest levels of provision of hostel places were in *Flinders Ranges* (73 places per 1,000 people aged 70 years or more), and there were high rates in *Lower North* (59), *Yorke* (56) and *Onkaparinga* and *Pirie* (both 54). The lowest rates were in *Fleurieu* (23) and *Upper South East* (38). There were 183 hostel places located in *Yorke*, 147 in *Lower South East* and 143 in *Riverland*. There were no hostels in two Statistical Subdivisions (SSDs).

In Western Australian, the SSDS of **Pallinup** (78 hostel places per 1,000 population aged 70 years and over), **Campion** (76), **Lefroy** (58) and **Lakes** (55) had the highest rates of provision. The lowest rates were in **Gascoyne** (10 hostel places) and **Fortescue** (13). More than 100 hostel places were located in **Preston** (207 places), **Dale** (183), **King** (133), **Greenough River** (125) and **Vasse** (112).

In Tasmania, the highest level of provision of hostel places were in **Burnie-Devonport** (47 places) and **North Eastern** (42), with lower rates in **North Western Rural** (38) and **Launceston** (38). The lowest rate was 22 places per 1,000 population aged 70 years and over in **Central North**. The largest numbers of hostel places were in **Burnie-Devonport** (340 places) and **Launceston** (338). The lowest number of places was in **Lyell** (5 places).

Hostels were located in only three SSDs in the non-metropolitan areas of the Northern Territory – *Lower Top End NT* (70 places per 1,000 population aged 70 years and over; 36 places), *Central NT* (31; 36) and *Barkly* (9; 2).

# Map 7.10: Hostel places per 1,000 population aged 70 years and over, Australia, 1997

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



Source: See Data Sources, Appendix 1.3

#### Accessibility/Remoteness Index of Australia



The provision of aged care hostel places is almost the reverse of that for nursing home places, and much more like the distribution of public acute hospital beds. The rate of provision increases from 43 places per 1,000 population aged 70 years and over in the Very Accessible ARIA category to 50 places and 49 places per 1,000 population aged 70 years and over in the Moderately Accessible and Remote categories, respectively. The lowest level of provision is in the Very Remote areas, with 38 places per 1,000 population aged 70 years and over.

Source: Calculated on ARIA classification, DHAC

National Social Health Atlas Project, 1999

Details of map boundaries are in Appendix 1.2

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