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 or postcode 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[1].

In this chapter data are mapped at the postcode 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 equivalents (FTE) GPs[2] per practice site. Data were available for postcodes and was converted from postcode to SLA for the non-metropolitan areas of the Nortnern Territory. In **Darwin** the postcode data were mapped.

The rate of population per GP was calculated for each area 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 areas 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 301 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 area, as the location of the principal practice in an area may be close to the population of a neighbouring area and provide a significant number of services to people in that neighbouring area.

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 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 jurisdictions 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

[1]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.

[2]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.

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.

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, 0.8 per cent of patient days in public acute hospitals in the Northern Territory were for nursing home type patients, 0.5 per cent of bed days in the non-metropolitan areas, and 1.1 per cent in **Darwin** (**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 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
					Number				
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	2.1	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 overall provision of residential care places in relation to the Commonwealth planning targets (90 places per 1,000 population aged 70 years and over) the separate datasets have been combined and are shown 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 [2]	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

[1]Includes Queanbeyan (C).
[2]Includes Newcastle and Wollongong (NSW); Geelong (Vic); and Gold Coast-Tweed Heads and Townsville-Thuringowa (Qld).
[3]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.

As noted, users should be cautious not to place too much emphasis on the population per GP in any one SLA or postcode area, as the location of the practice in the area may be close to the population of a neighbouring area and provide a significant number of services to people in that neighbouring area.

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 areas 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 317.

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 317 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 [1]	All capitals
1996/97	**1,118**	**1,181**	**1,182**	**1,145**	**1,259**	**1,167**	**1,642**	**1,467**	**1,169**
1990/91	**860**	**921**	**834**	**827**	**1,015**	**820**	**900**	**1,042**	**886**

[1]Includes Queanbeyan (C)
Source: See *Data sources*, Appendix 1.3

Darwin

In 1996/97 there were 1,642 people per GP in **Darwin**. Of the total of 51 GPs, 35 were males (69.4 per cent) and 16 were females (30.6 per cent), a rate 2,367 people per male GP and 5,364 people per female GP. In contrast to the overall predominance of male GPs in **Darwin**, (2.3 male GPs to each female GP), it was estimated (using the technique described on page 317) that only the postcode area of Darwin: North East had more female than male GPs (a rate of 1.3 female to male GPs).

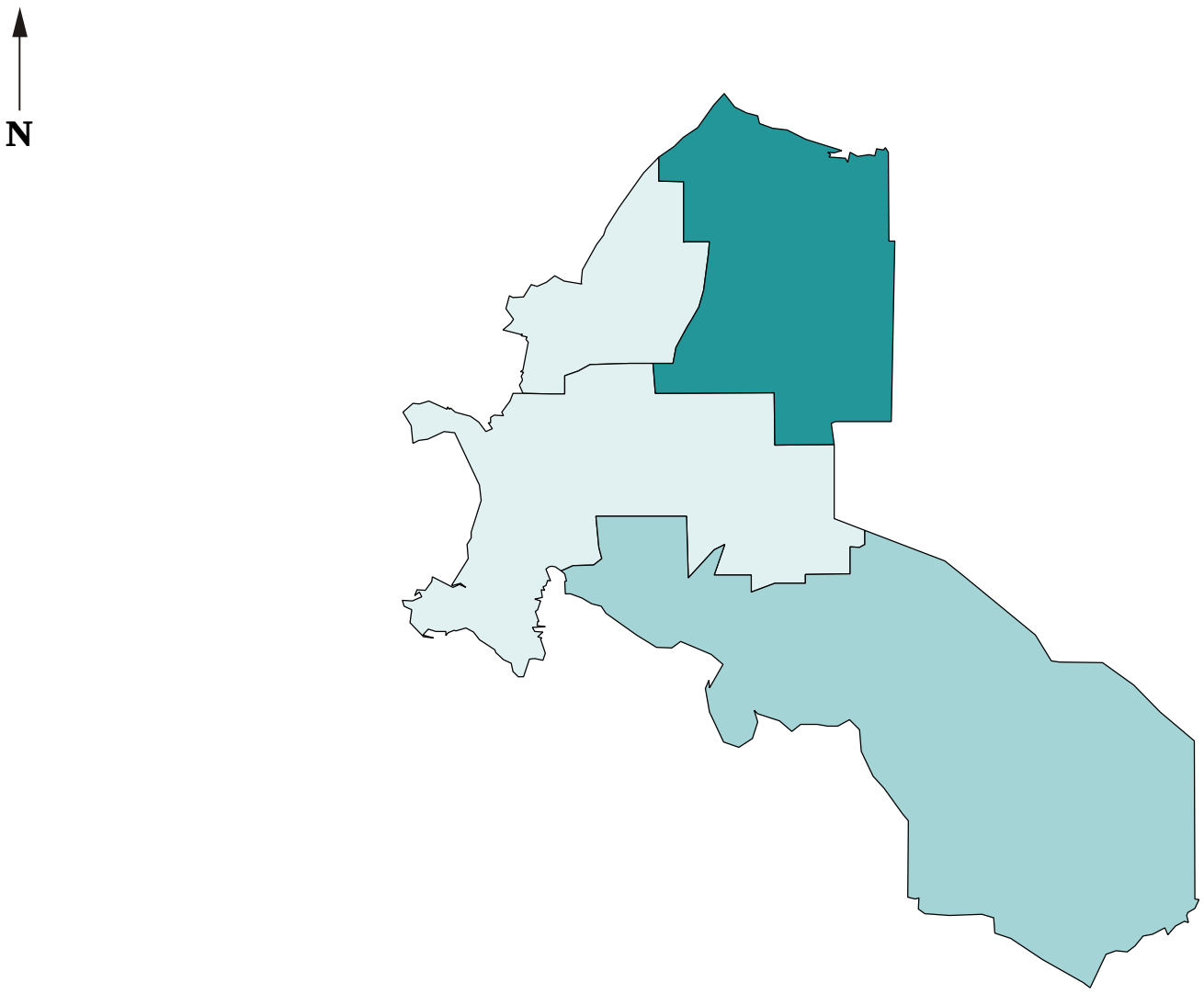
Postcodes (aggregates of suburbs)

Darwin: North East had by far the highest number of people per GP (a rate of 4,451 people per GP and an estimated five GPs) (**Map 7.1**). As mentioned above, this area also had a higher rate of female to male GPs. The next highest rate, of 1,892 people per GP, was recorded in the developing suburbs of Palmerston, with seven GPs.

The lowest rates were recorded in Darwin: North West (1,173 people per GP and 24 GPs) and the inner city and older suburbs of Darwin: South West (1,361 and 15).

Map 7.1
Population per general medical practitioner, Darwin, 1996/97

number of people in each area* per general medical practitioner (GP)



Population per GP

- *2500 and above*
- *2000 to 2499*
- *1500 to 1999*
- *1000 to 1499*
- *below 1000*

Source: See Data sources, Appendix 1.3

**SLAs have been grouped to approximate postcode areas*

Details of map boundaries are in Appendix 1.2

Population per general medical practitioner, 1996/97

State/Territory comparison

The notes on page 317 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 317 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
1996/97									
Capital city	1,118	1,181	1,182	1,145	1,259	1,167	1,642	1,467[1]	1,169
Other major urban centres[2]	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	–[3]	1,627
Whole of State/Territory	1,250	1,262	1,335	1,225	1,400	1,325	2,356	1,451	1,290
1990/91									
Rest of State/Territory	942	1,196	1,203	1,145	1,374	1,000	1,133	–[3]	1,147

[1]Includes Queanbeyan (C)
[2]Includes Newcastle and Wollongong (NSW); Geelong (Vic); and Gold Coast-Tweed Heads and Townsville-Thuringowa (Qld)
[3]Data unreliable: included with ACT total
Source: See *Data sources*, Appendix 1.3

Rest of Territory

As expected, the population per GP was considerably higher in the non-metropolitan areas of the Northern Territory (3,604 people per GP) than in **Darwin** (1,642 people per GP). In 1996/97, there were 29 GPs outside of **Darwin**. Over two thirds (70.1 per cent) of GPs in rural areas were males, compared to less than one third (29.8 per cent) females. Close to one half (43.5 per cent) of the non-metropolitan SLAs in the Northern Territory had either fewer than 0.5 FTE GPs, or no GP; these were generally the more isolated rural areas as opposed to towns. It should be reiterated, however, that the needs of people in the isolated areas would, to some degree, be provided for by the Royal Flying Doctor Service and the Aboriginal Medical Service. In contrast to the overall predominance of male GPs in the non-metropolitan areas (2.4 male GPs to each female GP), it was estimated (using the technique described on page 317) that Bathurst-Melville, Cox-Finniss, Daly and West Arnhem had slightly more female than male GPs (a rate of 0.8 male to female GPs) as did Groote Eylandt with a rate of 0.4 male to female GPs.

Five SLAs recorded rates of over 10,000 people per GP (indicating the lowest number of GPs, or no GP); they were Daly, West Arnhem, Petermann, Bathurst-Melville and Cox-Finniss (**Map 7.2**).

Rates of between 5,000 and 9,999 people per GP were recorded in the SLAs of Victoria (8,981 people per GP and 0.31 full time equivalent (FTE) GPs), Sandover Balance (8,474 and 0.29), Tanami (8,224 and 0.8), Groote Eylandt (6,683 and 0.38) and East Arnhem-Balance (5,454 and one).

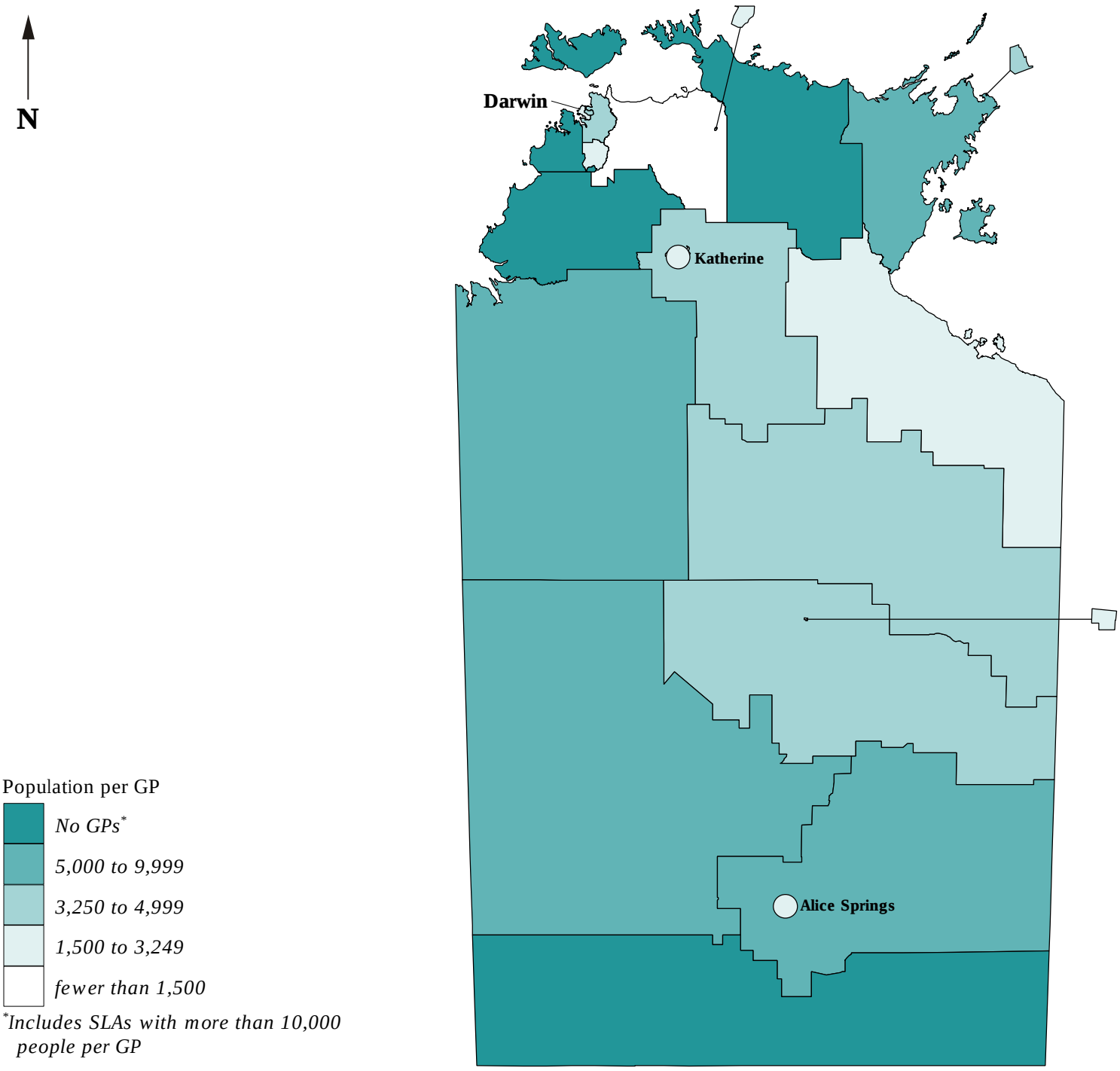
The lowest rate of population per GP, 1.351 people per GP, was recorded in South Alligator which had two GPs. Rates below 3,250 people per GP were also recorded in Jabiru (1,506 people per GP), Coomalie (1,512), the towns of Alice Springs (2,410), Katherine (2,557) and Tennant Creek (3,069) and Gulf (3,226.

The largest numbers of GPs estimated were in Alice Springs (11 GPs), Katherine (four), Litchfield [Part B] (three) and Tennant Creek, East Arnhem-Balance and Jabiru (all with one GP).

The correlation analysis revealed a positive association at the SLA level with indicators of socioeconomic disadvantage: the strongest of these were with the variables for dwellings without a motor vehicle (0.61), the Indigenous population (0.56) and unemployed people (0.50). These results, together with the inverse correlation with the IRSD (-0.49), indicate an association between high rates of population per GP and socioeconomic disadvantage. There was a inverse correlation of substantial significance with the variable for children who were fully immunised at the age of twelve months (-0.72).

Map 7.2
Population per general medical practitioner, Northern Territory, 1996/97

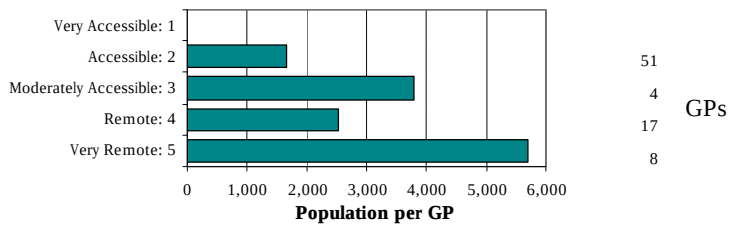
number of people in each Statistical Local Area per general medical practitioner (GP)



Source: See Data sources, Appendix 1.3

Details of map boundaries are in Appendix 1.2

Accessibility/Remoteness Index of Australia



The rate of population per general medical practitioner (GP) is lowest in areas in the Accessible ARIA category (areas in **Darwin**, with 1,658 people per GP), and second lowest in the Remote category (areas in the towns of Alice Springs, Jabiru and Katherine, and the SLAs of Daly and South Alligator located relatively near **Darwin**, with 2,520 people per GP). The highest rates are in the Very Remote areas (5,696 people per GP) and Moderately Accessible areas (3,793 people per GP). Although levels of provision of GP services are low in these areas, readers should note the cautions on the page opposite as to the limitations of this data.

Source: Calculated on ARIA classification, DHAC

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 was 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.

Darwin

In 1995/96, there were 290 public acute hospital beds (average available beds during 1995/96) in **Darwin**, representing 3.5 beds per 1,000 population. These beds were all in the one hospital, located in the SLA of Tiwi (**Map 7.3**).

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 317)

The non-metropolitan areas of New South Wales, Victoria and Queensland recorded similar rates in both periods as shown in **Table 7.5**. 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 7.5: Public acute hospitals: beds per 1,000 population, State/Territory

	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[2]	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
1989									
Rest of State/Territory	4.5	3.9	4.6	6.5	6.4	..	..	..	4.7

[1]Includes Queanbeyan (C)
[2]Includes Newcastle and Wollongong (NSW); Geelong (Vic); and Gold Coast-Tweed Heads and Townsville-Thuringowa (Qld)
[3]Data unreliable: included with ACT total
Source: See *Data sources*, Appendix 1.3

Rest of Territory

There were 2.7 public acute hospital beds per 1,000 population in the non-metropolitan areas of the Northern Territory in 1995/96, a total of four hospitals with an average of 290 available beds (**Map 7.4**).

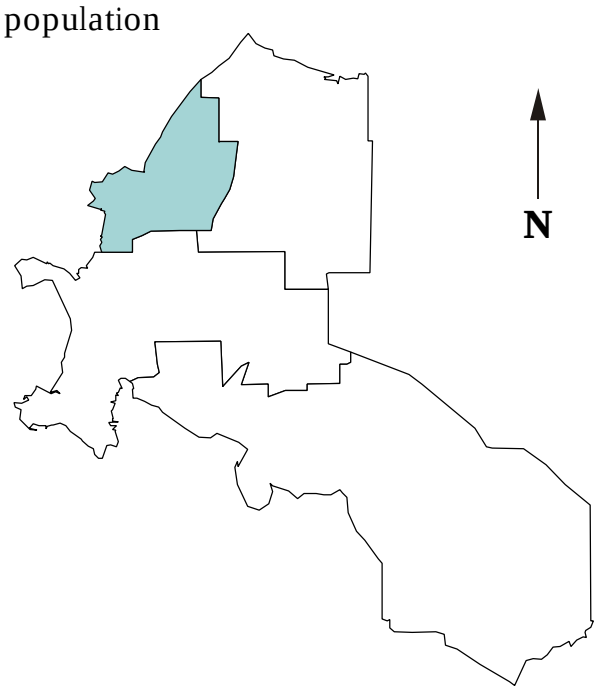
Alice Springs had the highest rate, with 61 public acute hospital beds per 1,000 population, with 170 beds located in the suburb of Stuart.

Considerably lower rates were recorded in Nhulunbuy (eight hospital beds per 1,000 population and 30 available beds), Katherine (six and 60 beds) and Tennant Creek (five and 20 beds).

The correlation analysis was not undertaken as there were too many SLAs with small numbers of cases.

Map 7.3: Public acute hospital beds per 1,000 population, Darwin, 1995/96

number of public acute hospital beds* in each area# per 1,000 population



Beds per 1,000 population*

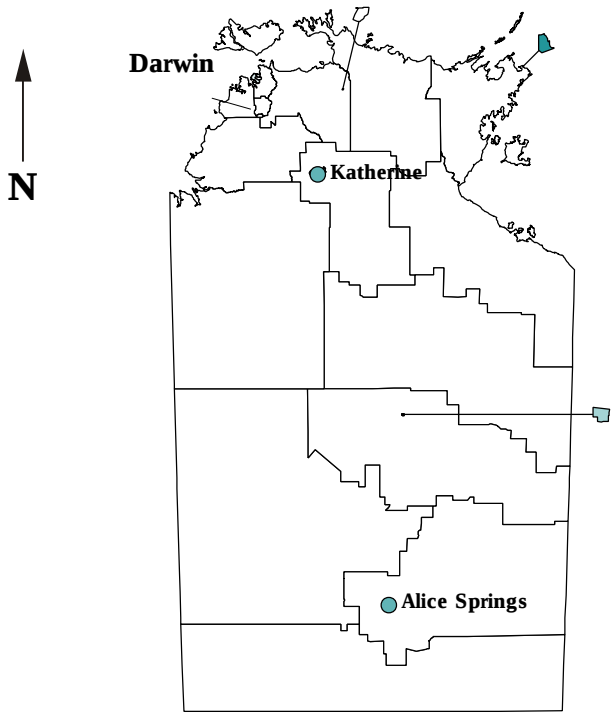
- *20.0 or more*
- *15.0 to 19.9*
- *10.0 to 14.9*
- *5.0 to 9.9*
- *fewer than 5.0*

**Beds are average available beds over 1995/1996*

#*SLAs have been grouped to approximate postcode areas*

Map 7.4:
Public acute hospital beds per 1,000 population, Northern Territory, 1995/96

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



Beds per 1,000 population*

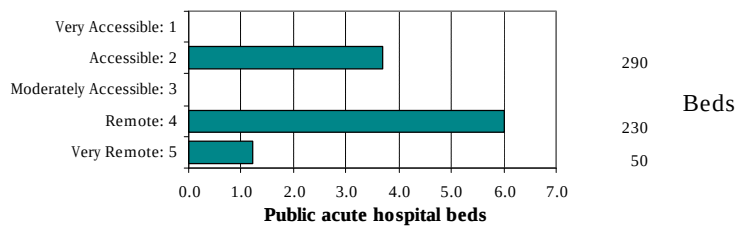
- *8.0 or more*
- *6.0 to 7.9*
- *4.0 to 5.9*
- *2.0 to 3.9*
- *fewer than 2.0*

**Beds are average available beds over 1995/1996*

Source: See Data sources, Appendix 1.3

Details of map boundaries are in Appendix 1.2

Accessibility/Remoteness Index of Australia



Beds in public acute hospitals are located in the Accessible, Remote and Very Remote areas of the Northern Territory, with the highest rate of 6.0 beds per 1,000 population in the Remote areas covering Alice Springs, Jabiru and Katherine, and the SLAs of Daly and South Alligator located relatively near **Darwin**. There were 3.7 beds per 1,000 population in the Accessible areas (290 beds) and 1.2 beds per 1,000 population in the Very Remote areas (50 beds).

Source: Calculated on ARIA classification, DHAC

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 7.6**).

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

Darwin

In 1997, there were 1.7 private hospital beds per 1,000 population in **Darwin**. This represented a total of 142 beds in the one private hospital located in Tiwi.

There is no map for this variable.

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 7.6**). 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 7.6: Private hospitals: beds per 1,000 population, State/Territory

	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[2]	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
1989									
Rest of State/Territory	0.6	0.9	1.3	0.4	0.5	..	..	..	0.8

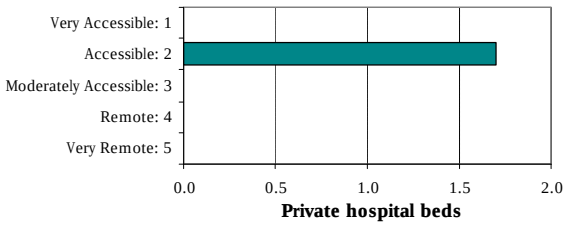
[1]Includes Queanbeyan (C)
[2]Includes Newcastle and Wollongong (NSW); Geelong (Vic); and Gold Coast-Tweed Heads and Townsville-Thuringowa (Qld)
[3]Data unreliable: included with ACT total
Source: See *Data sources*, Appendix 1.3

Rest of Territory

There were no private hospital facilities in the non-metropolitan areas of the Northern Territory.

There is no map for this variable.

Accessibility/Remoteness Index of Australia



142 Beds

There was one private hospital with 142 beds, a rate of 1.7 beds per 1,000 population, in the Accessible ARIA category.

Source: Calculated on ARIA classification, DHAC

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 7.7**). The rates for all of the cities for which data was 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 328). 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.

Darwin

At 30 June 1997, there were 96 nursing home places (in three nursing homes) in **Darwin**, representing 41 places per 1,000 population aged 70 years and over.

Postcodes (aggregates of suburbs)

There was one nursing home facility in each of Palmerston (with 40 places, representing 155 places per 1,000 population), Darwin: South West (44 places, representing 56 places per 1,000 population) and Darwin: North West (12 places, representing 15 places per 1,000 population) (**Map 7.5**).

State/Territory comparison

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 7.7**). 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 was 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 318; 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 7.7: Nursing home places per 1,000 population aged 70 years and over, State/Territory

	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[2]	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

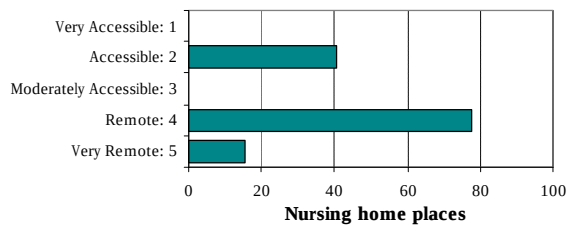
[1]Includes Queanbeyan (C)
[2]Includes Newcastle and Wollongong (NSW); Geelong (Vic); and Gold Coast-Tweed Heads and Townsville-Thuringowa (Qld)
[3]Data unreliable: included with ACT total
Source: See *Data sources*, Appendix 1.3

Rest of Territory

In 1997, there were 44 nursing home places per 1,000 population aged 70 years and over in the non-metropolitan areas of the Northern Territory: this represented a total of 114 places in 4 nursing home facilities.

Two nursing home facilities with a total of 80 places (98 places per 1,000 population) were located in Alice Springs; one in the suburb of Ross and one in Stuart. The nursing home facilities in Katherine and Tennant Creek had 19 (65 places per 1,000 population) and 15 (128 places per 1,000 population) places respectively. There is no map for this variable.

Accessibility/Remoteness Index of Australia



The highest number of nursing home places and the highest rate is in the Remote areas, with 99 nursing home places, 78 places per 1,000 population aged 70 years and over. There were slightly fewer places (96 places) in the Accessible areas, with a much lower rate of 41 nursing home places per 1,000 population aged 70 years and over. The Very Remote areas had the smallest number and lowest rate, with 15 nursing home places, 16 places per 1,000 population aged 70 years and over.

Source: Calculated on ARIA classification, DHAC

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 7.8**).

The rates for all of the cities for which data was 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 327). 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.

Darwin

There were 30 hostel places per 1,000 population aged 70 years and over in **Darwin** in 1997, a total of 2 hostel facilities and 71 places.

Postcodes (aggregates of suburbs)

One hostel, with 66 places per 1,000 population (52 places), was located in Darwin: South West and the other in Darwin: North West (24 places per 1,000 population, 19 places) (**Map 7.6**).

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 7.8**). The highest rates were in Victoria and Queensland and the lowest was in the Northern Territory.

Of the States/Territories for which data was 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 7.8: Hostel places per 1,000 population aged 70 years and over, State/Territory

	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[2]	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

[1]Includes Queanbeyan (C)
[2]Includes Newcastle and Wollongong (NSW); Geelong (Vic); and Gold Coast-Tweed Heads and Townsville-Thuringowa (Qld)
[3]Data unreliable: included with ACT total
Source: See *Data sources*, Appendix 1.3

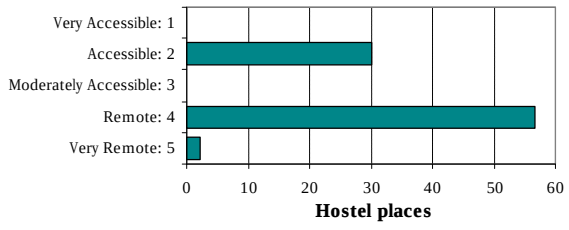
Rest of Territory

There were 28 hostel places per 1,000 population aged 70 years and over recorded in the non-metropolitan areas of the Northern Territory. This represented a total of 5 hostel facilities with 74 places.

Two hostel facilities with a total of 44 places per 1,000 population (36 places) were located in Alice Springs: one in the suburb of Ross and the other in Stuart. The town of Katherine also had two hostel facilities with a total of 123 places per 1,000 population (36 places). The town of Tennant Creek had one facility with just 2 places (17 places per 1,000 population).

There is no map for this variable.

Accessibility/Remoteness Index of Australia



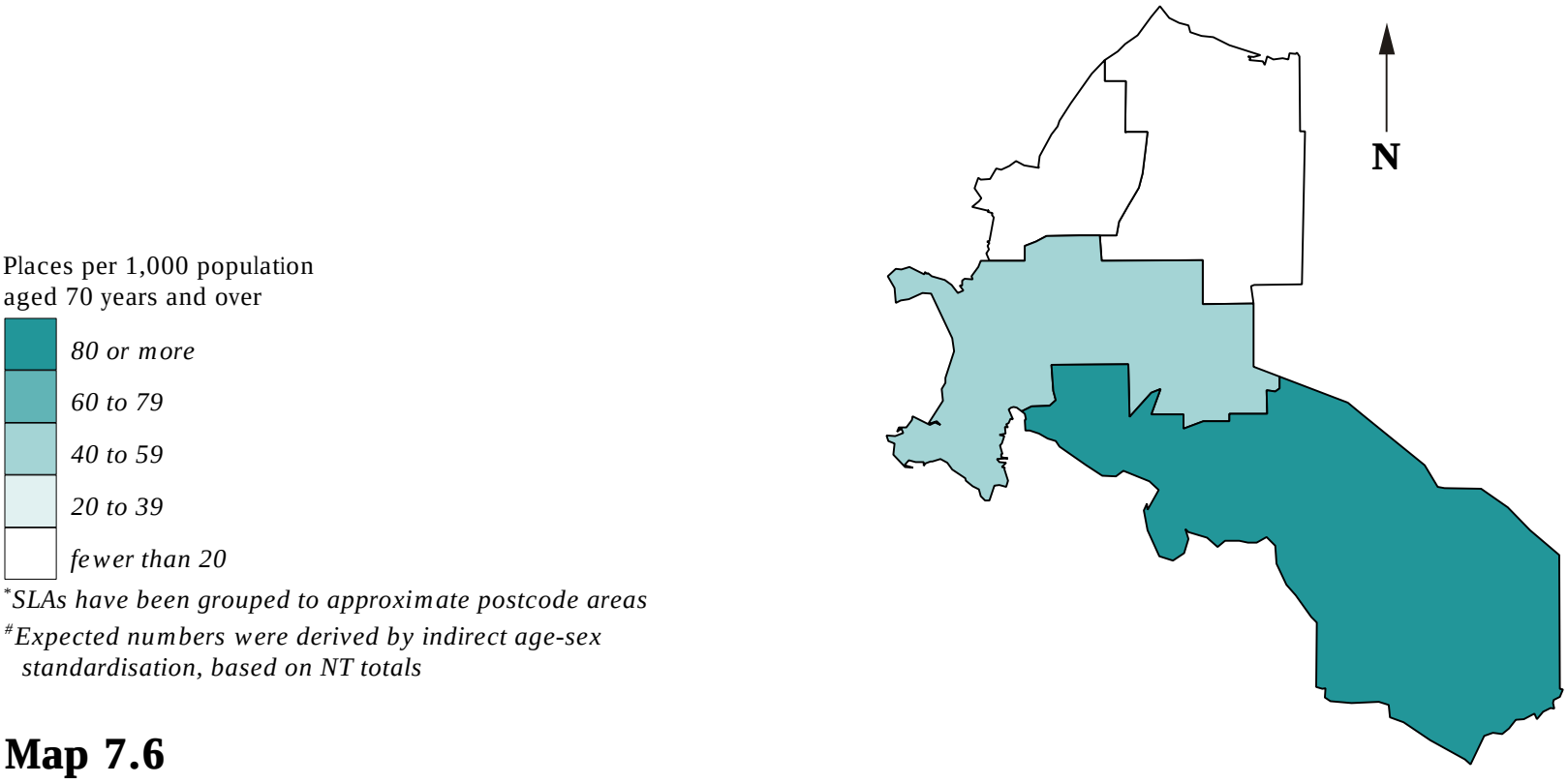
	Places
71	
0	
72	
2	

As for nursing homes (above), the highest number of hostel places and the highest rate is in the Remote areas, with 72 hostel places, 57 places per 1,000 population aged 70 years and over. There was similar number of places (71 places) in the Accessible areas, with a much lower rate of 30 hostel places per 1,000 population aged 70 years and over. The Very Remote areas had the smallest number and lowest rate, with just 2 hostel places, 2.1 places per 1,000 population aged 70 years and over.

Source: Calculated on ARIA classification, DHAC

Map 7.5
Nursing home places per 1,000 population aged 70 years and over,Darwin, 1996

Standardised Ratio: number of admissions in each area* compared with the number expected#

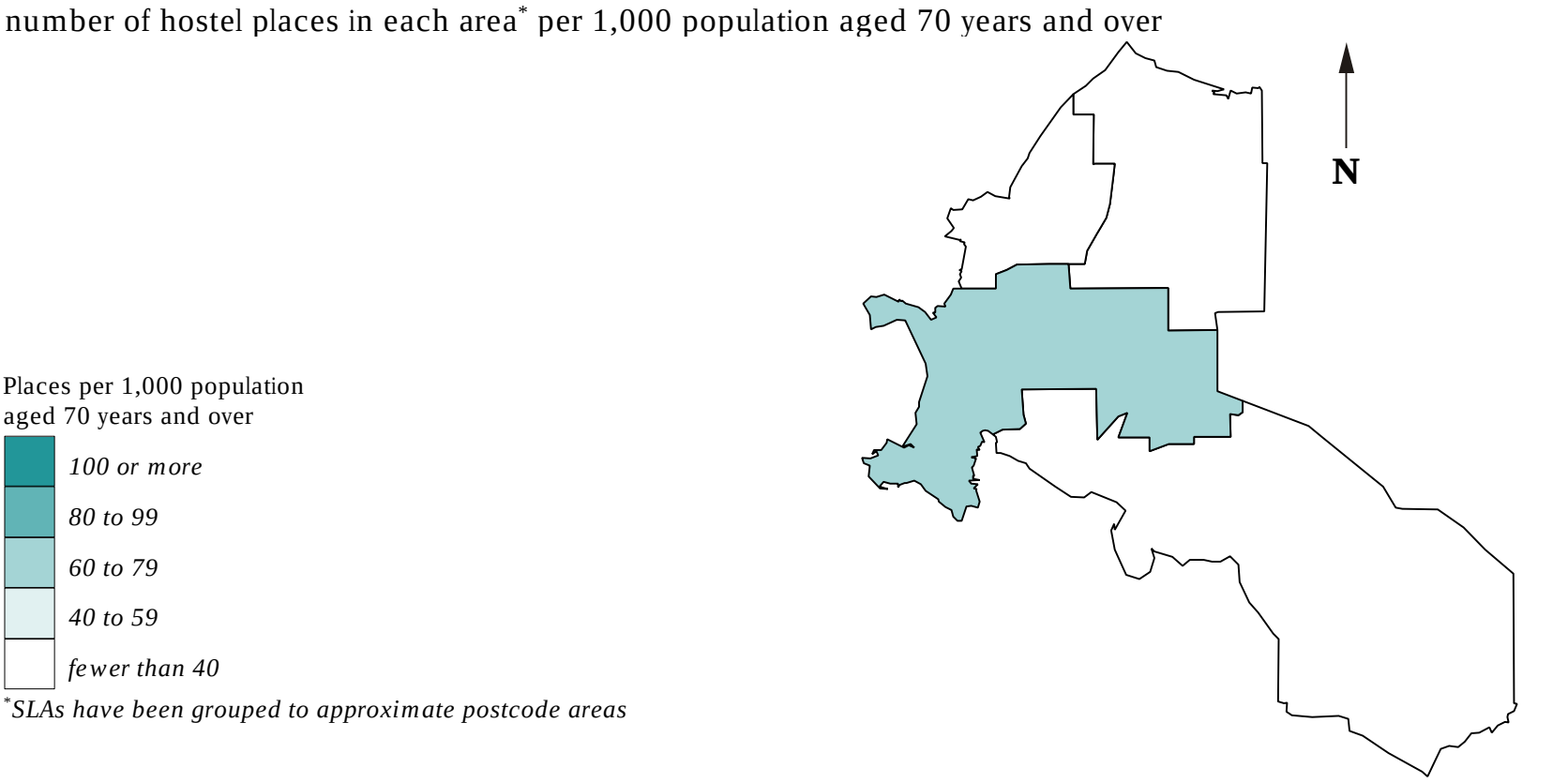


*SLAs have been grouped to approximate postcode areas

#Expected numbers were derived by indirect age-sex standardisation, based on NT totals

Map 7.6
Hostel places per 1,000 population aged 70 years and over, Northern Territory,1997

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



*SLAs have been grouped to approximate postcode areas

Source: See Data sources, Appendix 1.3

Details of map boundaries are in Appendix 1.2

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