

Patterns of employment

Nurses can be employed in many different clinical areas at a variety of establishments or premises (work settings), both in the public and private sectors. This chapter describes their pattern of employment across these workplaces.

Additional information is given separately in respect of hospital employment, as this is the largest employment category for nursing staff.

Main area of clinical nursing

Of the 197,211 *registered* and *enrolled* nurses employed as clinicians, the largest proportions were employed in the areas of medical and surgical practice (31.3%), geriatrics and gerontology (17.9%), obstetrics, gynaecology and midwifery (7.2%), operating theatre nursing (7.1%), psychiatry and mental health (6.2%), intensive care (4.8%) and community nursing (4.2%) (Table 15). However, these proportions varied across the States and Territories according to their different population profiles and resultant priorities for health care.

For example, in the Australian Capital Territory and the Northern Territory, which have younger populations than the rest of Australia, the proportions of nurse clinicians employed in geriatrics and gerontology (9.5% and 6.8%, respectively) were lower than the national proportion while in Victoria the proportion was higher (23.6%). In contrast, the proportions employed in obstetrics, gynaecology and midwifery in the two Territories (11.0% and 10.8% respectively) were much higher than nationally, while in the Northern Territory, a substantially higher proportion of clinicians were employed in community nursing (11.9%), reflecting the relatively high proportions of Indigenous people living in remote areas (Table 15).

Each of these areas of nursing requires different types and levels of skills, and this is demonstrated in their individual mix of *registered* and *enrolled* nurses.

Medical and surgical practice

In 1997, there were 61,760 nurses working mainly in medical or surgical nursing or both fields, fewer than there were in 1994 (67,991). In 1997, most (88.9%) were employed in public or private hospitals, over half (53.2%) worked part-time, the large majority (94.8%) were female, most (69.6%) were employed in the public sector and three quarters (75.8%) were *registered* nurses. With an average age of 37.6 years, they tended to be slightly younger than nurses as a whole (40.3 years).

Reflecting the concentration of hospitals in relatively populous regions, two thirds of all *registered* and *enrolled* nurses in this area of nursing (65.7%) worked mainly in capital cities or metropolitan areas, 17.1% worked in large or small rural centres, 13.6% worked in other rural areas and the remaining 3.6% worked in remote centres or other remote areas (Table 60).

Geriatrics and gerontology

In 1997, a total of 35,294 nurses were employed in geriatric and gerontology nursing, 6,040 fewer than in 1994. Although their numbers decreased, the proportion who were *registered* nurses practising in this area increased from 54.8% in 1994 to 58.4% in 1997.

In 1997, most (81.1%) were employed in nursing homes and a further 10.9% in hospitals, less than one third (28.3%) worked full-time, the overwhelming majority (95.9%) were female, just over half (54.3%) were employed in the public sector and a smaller proportion than average (58.4%) were *registered* nurses. Their average age was 43.5 years, older than nurses in general and in marked contrast to those working in medical and surgical practice (Table 59).

Almost a third of all *enrolled* nurses who were employed in nursing (31.6%) were employed in geriatrics and gerontology – more than in any other single area of clinical practice (Table 31). This may be related to the relatively wide range of general skills required to care for aged persons, who may not necessarily display acute or serious symptoms most of the time.

Midwifery, obstetrics and gynaecology

In 1997, there were 14,192 nurses employed in these disciplines, a decrease of 614 from 1994. Over the same period, there was a decrease in the number of births in Australia (from 258,300 to 253,700, according to ABS figures). Of this workforce, 89.0% were employed in hospitals, well under half (37.5%) worked full-time, nearly all (99.0%) were females, around three quarters (75.4%) worked in the public sector and 96.4% were *registered* nurses. Their average age (40.2 years) was much the same as the nursing workforce in general.

As for other health areas, most nurses in these disciplines (74.8%) were working in capital cities and other metropolitan areas. Another 16.1% were working in large or small rural centres, 6.6% in other rural areas and 2.5% in remote centres and other remote areas (Table 62).

Psychiatry and mental health

In 1997, there were 12,294 nurses working mainly in psychiatric and mental health nursing, a slight increase over the 11,352 in 1994. Of these, 71.1% worked in hospitals and 11.5% in community health centres, the majority (72.3%) were working full-time, a relatively high proportion (33.9%) was male, 89% worked in the public sector and 82.3% were *registered* nurses. Their average age was 40.7 years.

In line with nurses in general, three quarters (75.2%) worked in capital cities and other metropolitan centres. However, in contrast to other fields of nursing, a relatively large proportion (14.5%) worked in large rural centres, with smaller proportions than average in small rural centres (5.2%), other rural areas (4.4%) and remote centres and other remote areas (0.7%) (Table 61).

Operating theatre nursing

In 1997, there were 13,975 nurses working mainly in operating theatre nursing, an increase from 12,837 in 1994. In 1997, most (91.5%) worked in hospitals and 6.1% in day procedure centres, over half (53.9%) worked full-time, 6.4% were male, 59.5% were in the public sector and 84.4% were *registered* nurses. Their average age was 38.4 years (Table 63).

Over three quarters (77.1%) worked in capital cities and other metropolitan areas. As was the case for Psychiatry and mental health workers, however, a relatively large proportion were in large or small rural centres (17.3%) and relatively small proportions in other rural areas (4.7%), and remote centres and other remote areas (0.9%).

Intensive care nursing

In 1997, there were 9,472 nurses working mainly in intensive care nursing, a 4.9% increase since 1994. Nearly all (96.8%) worked in hospitals – this is to be expected, as most intensive care units are located there. Over half (53.1%) worked full-time, a relatively large proportion (12.1%) was male, 20.2% were in the private sector and nearly all (97.8%) were *registered*

nurses. Intensive care nurses had an average age of 34.9 years in 1997, the youngest of all areas of nursing.

Again, because most were working in hospitals, a very large proportion (84.9%) were located in capital cities and other metropolitan centres, and correspondingly much smaller proportions in large and small rural centres (13.2%), other rural areas (1.2%) and remote centres and other remote areas (0.8%) (Table 64).

Community/district/domiciliary nursing

There were 8,295 nurses employed in these disciplines in 1997, a decrease of 1,389 since 1994. Because, as their name implies, these workers aim to be more accessible to people in communities, around half (49.9%) were in public community health centres, and another 16.3% in public hospitals. Over half (53.7%) worked part-time, only a small proportion (4.4%) was male and 89.3% were *registered* nurses. Their average age was 41.8 years.

Because of the nature of their work, they were more evenly dispersed across the geographical regions than other nurses. Only 58.8% worked in capital cities and other metropolitan centres, and another 16.6% were located in large and small rural centres. However, a relatively very large proportion (18.1%) worked in other rural areas – these serviced the 13.3% of the population living there. The remaining 6.4% were in remote centres and other remote areas.

Work setting of main job

Table 3: Employed registered and enrolled nurses work setting of main job, Australia, 1994 to 1997

Work setting of main job	1994	1995	1996	1997	1994	1995	1996	1997
Public and Private sector						(per cent)		
Acute/psychiatric hospitals	131,774	132,429	132,060	137,680	58.5	60.0	60.5	62.0
Nursing homes	40,275	35,969	33,954	35,867	17.9	16.3	15.6	16.1
Community health centres	9,595	10,206	10,425	12,053	4.3	4.6	4.8	5.4
Other	43,467	42,062	41,734	36,611	19.3	19.1	19.1	16.5
Total	225,110	220,666	218,173	222,211	100.0	100.0	100.0	100.0

Acute Care Hospitals

Acute care hospitals are the main employers of nurses in Australia, employing 62.0% of the nursing workforce. Of the 137,680 nurse clinicians employed in acute care hospitals in 1997, 114,234 (83.0%) were *registered* nurses and 23,446 (17.0%) were *enrolled* nurses. The number of nurses employed in acute care hospitals has increased from 131,774 (58.5%) in 1994 to 137,680 (62.0%) in 1997 (Table 3).

There were 106,078 nurses employed in public acute care hospitals in 1997, accounting for nearly half (47.7%) of all nurses. This represented an increase of 1,840 since 1994, the net result of an increase of 6,777 (16.8%) in part-time employees and a decrease of 4,937 (7.7%) in full-time employees (Table 52).

Most nurses employed in public hospitals (81.9%) were *registered* nurses. There was a higher proportion of males (8.9%) compared with employed male *registered* nurses generally (8.0%), and a lower proportion located in a capital city (60.0% compared with 62.7%). They were also relatively young, with an average age of 37.0 years compared with 40.3 years for all employed nurses.

There were 31,602 nurses employed in private hospitals in 1997, 14.8% more than in 1994. They accounted for 14.2% of all nurses and 23.0% of those employed in hospitals (Table 53). Most (86.7%) were *registered* nurses, and 4.9% were males.

In private hospitals, 69.0% of nurses worked in medical/surgical and operating theatre, compared with 51.1% in public hospitals. Approximately 11% of nurses in both public and private hospitals worked in obstetrics, gynaecology and midwifery.

Nursing homes

Between 1994 and 1997, the number of nurses employed in nursing homes decreased by 10.9% from 40,275 to 35,867, with decreases in both the private and public sectors (of 13.2% and 8.7%, respectively). In 1997 there were 17,645 nurses employed in public nursing homes, and 18,222 employed in private nursing homes.

This fall in nurse employment in nursing homes over this period was accompanied by a redistribution of nurses from *enrolled* to *registered* nurses. The percentage of *registered* nurses employed in public nursing homes increased from 48.3% to 54.7% and in private nursing homes from 63.2% to 67.4%.

In both public and private nursing homes, by far the largest proportions (92.0% and 94.0%, respectively) worked in geriatrics and gerontology.

Community health centres

In 1997, there were 12,564 nurses employed in community health centres, an increase of 18.4% on the number employed in 1994. The proportion of all nurses working in community health centres also increased during this time from 4.3% to 5.7%. The majority (91.7%) were *registered* nurses, their average age was 42.9 years, higher than for all employed nurses (40.3 years), and a larger proportion (58.0%) worked full time than for all employed nurses (48.2%) (Table 56).

The increase in nurses employed in community health centres may in part be due to the increasing throughput of hospitals together with the decreasing length of stays in hospitals between 1994 and 1997. The increasing use of same day procedures during this period may also have had an impact on the requirement for community health centre nurses.

Of nurses employed in community health centres 45.4% worked in community nursing, 14.1% in psychiatric/mental health nursing, 9.4% in child health and 7.8% in district/domiciliary nursing.

Just over a half (51.5%) worked in capital cities, 7.6% in other metropolitan areas, 17.2% in large and small rural centres, 17.4% in other rural areas and 6.3% in remote centres and other remote areas. The population distribution is higher in capital cities (63.7% in 1997) and lower in all other areas. Community health centres, generally publicly funded, may be more important outside of cities as a first point of contact for health service, and are more viable to fund and administer than large hospitals in areas of low population. This would explain why the distribution of nurses working in community health centres is somewhat skewed to rural and remote regions.

Private medical rooms

In 1997, there were 6,815 nurses employed in private medical rooms, a 7.5% increase since 1994. All except 54 nurses were female, their average age was 42.6 years, 71.2% worked part-time and 78.8% were *registered* nurses. Most (79.7%) were clinicians, and the largest proportions worked in private medical or independent practice (38.4%) or in medical and surgical areas (31.9%).

Of nurses employed in private medical rooms 62.4% worked in capital cities, 6.5% in other metropolitan areas and 31.1% in rural and remote centres/areas. As for community health centres, private medical rooms provide an important service for those living in the smaller population centres (outside of capital cities and other metropolitan areas).

Sector of employment

The public sector employed 69.2% of *registered* nurses. This proportion varied from 84.8% in the Northern Territory to 61.1% in South Australia.

Of *registered* nurses employed in the public sector, 71.4% worked in acute care hospitals, 9.1% worked in community health centres and 7.9% worked in nursing homes. In the private sector, 50.5% worked in acute care hospitals, 22.7% in nursing homes and 9.9% in private medical rooms.

Registered nurses employed in the public sector worked an average of 33.0 hours per week compared with 29.5 hours for those in the private sector. Average hours worked across both public and private sectors varied across work setting, from 39.1 hours in mental health services, down to 25.1 hours in private medical rooms and 25.6 hours in private employment agencies (Table 28).

The public sector employed 69.4% of *enrolled* nurses. This proportion varied from 75.7% in New South Wales to 54.4% in Tasmania. Of *enrolled* nurses employed in the public sector, 59.9% worked in acute and psychiatric hospitals and a further 24.9% worked in nursing homes. In the private sector, 41.9% worked in nursing homes, 29.8% worked in acute and psychiatric hospitals and 10.2% worked in private medical rooms. On average, employed *enrolled* nurses worked shorter hours in both the public (30.7 hours per week) and private sectors (28.3 hours per week) than employed *registered* nurses, although the variation across work settings was wider – from 40.3 hours per week in mental health service in the private sector to 21.3 hours per week in private tertiary education institutions (Tables 35 and 36).

FTE nursing staff in hospitals, 1998–99

Raw counts of the number of people employed in any occupational group do not, by themselves, give an accurate indication of the labour supply in that occupation, because some people work much shorter hours than others. This is especially true in occupations such as nursing, in which there is a high proportion of part-time workers (often the case in ‘traditionally’ female occupations). For this reason, it is more appropriate to assess the supply of labour through numbers of full-time equivalent (FTE) nurses, which have been adjusted for the number of hours worked. Using full-time equivalent numbers of workers also allows meaningful comparisons to be made between segments of an occupation or between occupational groups.

To establish whether changes in the number of FTE staff result in relative shortfall or over-supply against demand, they should be considered against changes in the workload of nurses. In hospitals, their workload is a function of the number of occupied beds, patient throughput (the number of patients treated, counted as they separate from hospital) and the average length of time spent in hospital. Some of the indicators include FTE staffing numbers per bed, per 100,000 separations and per 1,000 patient days. However, these do not allow for variations in the types of conditions treated, nor in patient demographics.

The annual Australian public hospitals data collection by the Australian Institute of Health and Welfare includes full-time equivalent staffing numbers in nursing and various other categories. Data relating to private hospitals are from the ABS publication *Private Hospitals 1998–99* (ABS Cat. no. 4390.0).

Between 1995–96 and 1998–99, there was a marginal increase in the number of FTE nursing staff from 104,203 to 104,735, an increase of 0.5%. This was accompanied by an overall increase of 11.3% in the number of separations, a small increase of 0.04% in the number of patient bed days and and (excluding private free-standing day hospitals) a decrease of

Table 4: Full-time equivalent nursing staff, by setting, 1995–96 to 1998–99

Setting	1995–96	1996–97	1997–98	1998–99
Public acute and psychiatric hospitals	80,570	77,390	78,239	78,319
Private acute and psychiatric hospitals	23,136	24,193	24,567	25,670
Private free-standing day hospitals	497	571	696	746
Total	104,203	102,154	103,502	104,735

Source: AIHW, Australian hospital statistics annual publications & ABS, Private Hospitals, Cat. No. 4390.0.

between 8.5% and 10.5% in the average length of stay. However, these overall figures also mask differences between hospitals in the public and private sectors.

Public hospitals

During the period from 1995–96 to 1998–99, there was a decline in overall FTE staffing of 4.9%, including a 2.8% decline in nurse staffing from 80,570 FTE nurses to 78,319 FTE nurses, and a 53.3% decline of other personal care staff. The average number of available beds also dropped, from 59,720 to 53,885 (a decrease of 9.8%), resulting in an increase from 1.35 to 1.45 FTE nursing staff per available bed.

Other changes over the same period included:

- a 7.4% increase in separations and an 8.5% decrease in patient average stay days;
- a decrease of 1.7% in occupied bed days per 1,000 patients;
- a 10.5% increase in the number of separations per FTE nurse and a 1.1% increase in occupied bed days per FTE nurse; and
- sharp increases of 130.0% in separations and 110.5% in occupied bed days per FTE for other personal care staff (Table 49).

In 1998–99 there were 4.8 FTE nursing staff per 1,000 patient days in public hospitals.

Staffing per bed, per 100,000 separations and per 1,000 patient days varied significantly among the States and Territories in 1998–99. For example, in 1998–99 the number of FTE nurses per 1,000 patient days ranged from 6.3 in the ACT to 3.8 in Tasmania (Table 47).

Private hospitals

In private acute and psychiatric hospitals, there was a 10.1% increase in overall FTE staffing between 1995–96 and 1998–99, comprising an increase of 11.0% in FTE nursing staff from 23,136 to 25,670 and an increase of 8.9% for other staff (Table 50). This was in marked contrast to trends in patient statistics and staffing levels in public hospitals.

However, in 1998–99 the staffing level of 15.2 FTE nursing staff per 1,000 patient separations and 4.2 FTE nursing staff per 1,000 patient days in private hospitals was substantially lower than those for public hospitals (20.3 FTE per 1,000 separations and 4.8 FTE per 1,000 days) (Table 48). These differences are largely associated with wide differences in the nursing care requirements of the patients they treated. Detailed statistics on the demographic characteristics of patients, and their diagnosis and medical procedure in public and private hospitals are presented in *Australian Hospital Statistics 1998–99* (AIHW 2000).

Other changes in patient statistics and staffing in private acute and psychiatric hospitals in Australia over that period included the following:

- a 16.0% increase in separations and a 3.4% increase in patient bed days;
- a decrease of 10.5% in patient average stay days;

- an increase of 4.5% in separations per FTE nurse and a decline of 6.8% in patient days per FTE nurse.

Private free-standing day hospitals

Free-standing day hospitals are those that provide facilities for investigation and treatment for acute conditions on a day-only basis and are approved by the Commonwealth for the purposes of basic table health insurance benefits. Compared with public hospitals and other private hospitals, private free-standing day hospitals are quite small, and few statistics are available. In total, they comprised only 1,319 FTE staff in 1998-99, servicing 302,100 patients (i.e., separations). However, these numbers have been increasing rapidly over the last few years. Between 1995-96 and 1998-99, total FTE staff in private free-standing day hospitals increased by 48.2% (comprising a 50.1% increase in FTE nurses and a 45.8% increase in other staff), and the number of patient separations increased by 44.7%. Over the same period, separations per FTE nursing staff decreased by 3.5% (Table 51).

Geographic distribution of the nursing workforce, 1997

This chapter presents 1997 survey data on the characteristics of employed *registered* and *enrolled nurses* by geographical location using the Rural, Remote and Metropolitan Areas Classification (Department of Primary Industries and Energy and the Department of Health and Family Services 1994).

Of the 222,211 employed *registered* and *enrolled* nurses in 1997, 62.7% worked in a capital city, 6.9% in other metropolitan centres, 27.4% in rural areas, and the remaining 3.0% in remote areas. This distribution was almost the same as that of the overall population.

The number of *registered* nurses in capital cities grew, both in number (from 110,131 to 116,052) and proportion (from 63.9% to 66.0%) between 1994 and 1997. During the same period the number of *enrolled* nurses declined from 26,317 to 23,311. In other metropolitan centres there was a decrease in both numbers and percentage for *registered* 13,966 (8.1%) to 11,930 (6.8%) and *enrolled* nurses 4,495 (8.5%) to 3,455 (7.5%). Large rural centres experienced a similar decrease in both *registered* and *enrolled* nurses, whilst the remaining rural and remote centres maintained fairly constant numbers over the period.

Table 5: Registered and Enrolled Nurses by geographic location 1994 and 1997

	Capital City	Other Metropolitan	Large Rural Centre	Small Rural Centre	Other Rural Area	Remote Centre	Other Remote Area	Total
1994								
Registered Nurse	110,131	13,966	16,830	11,719	15,738	1,648	2,403	172,434
Enrolled Nurse	26,317	4,495	5,473	5,118	9,456	658	1,159	52,676
Total	136,448	18,461	22,303	16,837	25,194	2,306	3,562	225,110
1997								
Registered Nurse	116,052	11,930	14,912	12,220	16,030	1,936	2,857	175,937
Enrolled Nurse	23,311	3,455	4,265	4,784	8,600	752	1,107	46,274
Total	139,363	15,385	19,177	17,004	24,630	2,688	3,964	222,211
(per cent)								
1994								
Registered Nurse	63.9	8.1	9.8	6.8	9.1	1.0	1.4	100.0
Enrolled Nurse	50.0	8.5	10.4	9.7	18.0	1.3	2.2	100.0
Total	60.6	8.2	9.9	7.5	11.2	1.0	1.6	100.0
1997								
Registered Nurse	66.0	6.8	8.5	6.9	9.1	1.1	1.6	100.0
Enrolled Nurse	50.4	7.5	9.2	10.3	18.6	1.6	2.4	100.0
Total	62.7	6.9	8.6	7.7	11.1	1.2	1.8	100.0

There was noticeable variation in the composition of the workforce between capital cities and other areas. For example *registered* nurses made up 83.3% of all nurses in capital cities, compared with around 78% in other metropolitan areas and large rural centres, and 71.9% in small rural centres. Somewhat counter-intuitively, *registered* nurses made up higher proportions of all nurses in remote centres and other remote areas (both around 72) than they did in other rural areas (65.1%) (Table 6).

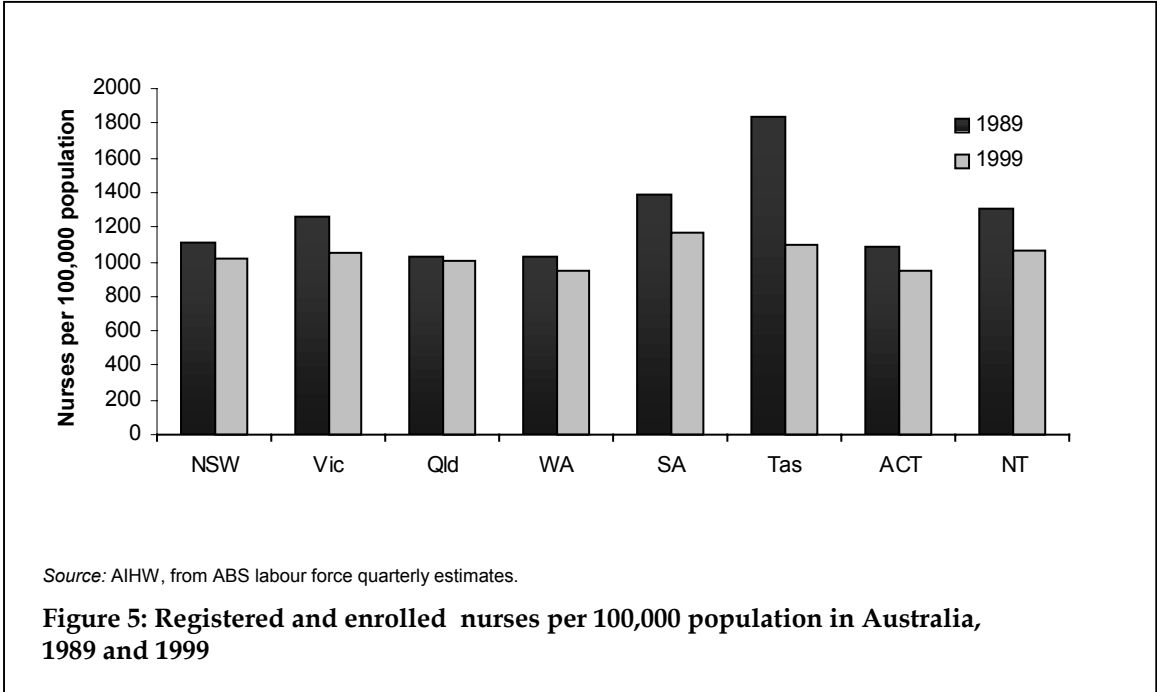
In 1997 *enrolled* nurses were much more likely to work (42.2%) in rural and remote areas in their main job than *registered* nurses (27.3%).

Table 6: Registered and enrolled nurses – Workforce Composition 1997

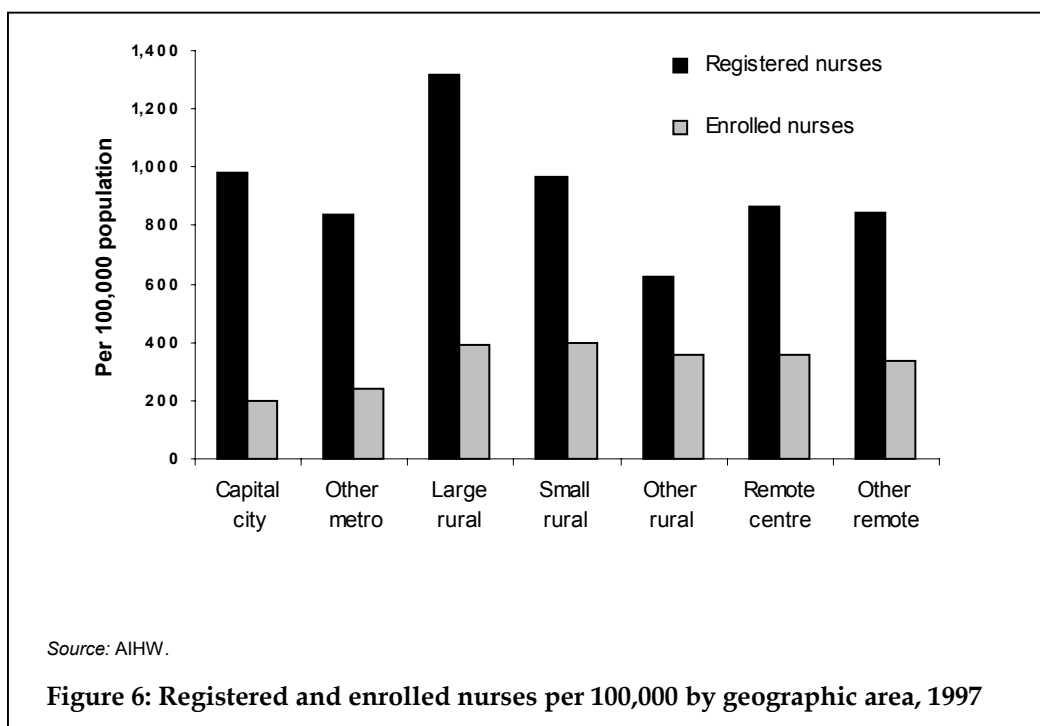
	Capital Cities	Other Metropolitan	Large Rural Centres	Small Rural Centres	Other Rural Areas	Remote centres	Other Remote Areas	Total
	Per cent							
Registered Nurses	83.3	77.5	77.8	71.9	65.1	72.0	72.1	79.2
Enrolled Nurses	16.7	22.5	22.2	28.1	34.9	28.0	27.9	20.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Nurses per 100,000 population

Differences in the number of employed nurses per 100,000 of the population between the States and Territories have narrowed over the decade to 1999, ranging from 980 per 1,000 in Queensland to 1,294 in the Northern Territory.



Differences were more marked between metropolitan and non-metropolitan areas, particularly for *registered* nurses. In 1997, nurse employment per 100,000 population in large rural centres (1,734), small rural centres (1,410) and remote centres (1,214) exceeded that for capital cities (1,12). However, around 30% of nurses in rural and remote areas except for large rural centres were *enrolled* nurses, compared with 16.7% in capital cities.



Demographics

Male distribution

Male nurses comprised 7.7% of the national nursing workforce. Of these, 65.4% were employed in capital cities, 7.9% in other metropolitan centres, 10.4% in large rural centres, 0.8% in remote centres and 1.5% in other remote areas. This did not vary greatly from the overall distribution of nurses of 66.0%, 6.8%, 8.5%, 1.1% and 1.6% in each of those areas, respectively.

Age

There was no obvious pattern, either between the States and Territories, or across the geographical areas, in the average age of all employed nurses. However, there were some differences between *registered* and *enrolled* nurses across the geographic locations. For example, the average age of employed *registered* nurses ranged from 43.2 years in other rural areas down to 39.3 years in remote centres (Table 43), while that for employed *enrolled* nurses ranged from 40.0 years in other rural areas and capital cities down to 37.7 years in remote centres (Table 44).

Hours worked

Employed *registered* nurses worked an average of 31.8 hours per week. Apart from remote centres and other remote areas (where average hours worked was highest, at 35.1 per week), the hours worked by nurses decreased with the size of the location (from 32.2 hours per week in capital cities to 29.6 in other rural areas) (Table 45). The proportion of employed *registered* nurses working less than 35 hours per week ranged from 60.0% in 'Other rural areas' down to 37.4% in remote areas.

For employed *enrolled* nurses, average weekly hours were 29.9, and varied from 31.5 in remote areas down to 28.7 hours in 'Other rural areas', and the proportion working less than 35 hours ranged from 65.5% in 'Other rural areas' to 57.1% in 'Other metropolitan centres' (Table 46).