## NATIONAL HEALTH LABOUR FORCE SERIES Number 29

# **Nursing labour force 2002**

Australian Institute of Health and Welfare Canberra

AIHW cat. no. HWL 29

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ISSN 1327-4309

ISBN 1740243307

#### Suggested citation

Australian Institute of Health and Welfare 2003. Nursing labour force 2002. AIHW cat. no. HWL 29. Canberra: AIHW (Health Labour Force Series no. 29).

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Published by Australian Institute of Health and Welfare Printed by Elect Printing

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## Symbols and other usages

Throughout this publication, data may not add to the totals shown due to the estimation process for non-response. Rounding of estimates may result in numbers not adding up to totals in some tables. Percentages may not add to 100.0 due to rounding.

Italics within a table denote a subtotal.

- Nil or rounded to zero.
- .. Not applicable.
- n.a. Not available.
- n.p. Not publishable.

### **Abbreviations**

ABS Australian Bureau of Statistics

AHMAC Australian Health Ministers' Advisory Council

FTE Full-time equivalent

### **Acknowledgments**

This publication was prepared by Serge Chrisopoulos and Brad Waters, with the guidance of Pam Lee and Glenice Taylor of the Labour Force and Rural Health Unit and Kathy Southgate of the Data Management Unit of the Australian Institute of Health and Welfare.

We thank each state and territory nursing board and health authority that provided data used in this publication and the Australian Bureau of Statistics for population Census data.

Most importantly, we also thank the nurses who took the time to complete the survey. Without their cooperation, it would not be possible to maintain this collection, which is used to inform the community about the crucial nursing profession, and to form the basis of planning and policy decisions.

## Main findings

- Excluding multiple registrations, there were 260,075 registered and enrolled nurses in 2001.
- This represents a 1.2% increase in the number of nurses since 1999, but only a 0.4% increase since 1995, as the numbers dipped in the intervening years. Since 1995:
  - the number of nurses actually employed in nursing increased by 3.4%, from 220,666 to 228,230
  - the number of employed registered nurses increased by 6.7%, from 171,774 to 183,225
  - the number of employed enrolled nurses decreased by 8.0%, from 48,892 to 45,005.
- Nursing remained a predominantly female occupation, although the number and proportion of male nurses increased slightly. Between 1995 and 2001 the number of male nurses increased from 16,096 to 19,085, and their proportion from 7.3% to 8.4%. Similar increases occurred for the male proportions of both registered and enrolled nurses.
- The ageing of the employed nursing labour force continued, with the average age increasing from 39.3 years in 1995 to 42.2 years in 2001.
- At the national level, the proportion of nurses working part-time stabilised between 1999 (53.8%) and 2001 (53.7%), but was higher than in 1995 (48.8%). The corresponding average weekly hours worked decreased from 32.4 hours in 1995 to 30.2 hours in 1999 and 30.5 hours in 2001.
- The overall decrease in average hours worked since 1995 was associated with a decrease in the level of nursing supply, from 1,127 full-time equivalent (FTE) nurses per 100,000 population in 1995 to 1,024 FTE nurses per 100,000 population in both 1999 and 2001.
- There was a decrease in FTE nurses per 100,000 population between 1995 and 2001 in all jurisdictions except the Australian Capital Territory.
- Across geographic regions, the level of supply ranged from 886 FTE nurses per 100,000 population in Remote areas to 954 in Inner regional areas.

## Composition

#### Size of the nursing labour force

The renewal of nurse registration and enrolments, conducted by state and territory registration boards, identified a total of 275,321 nurses in 2002 (up from 267,535 in 1995). This comprised 222,123 registered nurses and 53,198 enrolled nurses. While there was an overall increase in the total number of registrations and enrolments between 1995 and 2002, the composition has changed. The number of nurse registrations increased from 207,910 in 1995, to 222,123 in 2002, while the number of enrolled nurses decreased from 59,625 in 1995 to 51,970 in 2001, followed by an increase to 53,198 in 2002 (Table 1).

Table 1: Nurse registrations and enrolments, 1995 to 2002

	1995	1996	1997	1998	1999	2000	2001	2002
Registered nurses	207,910	207,038	209,525	210,702	212,026	213,669	215,605	222,123
Enrolled nurses	59,625	56,410	54,592	54,136	53,050	52,266	51,970	53,198
Total registrations/ enrolments	267,535	263,448	264,117	264,838	265,076	265,935	267,575	275,321

Source: State and territory nurse registration boards.

The remainder of this report focuses on the results of the Nursing Labour Force Survey conducted in 2001.

Excluding multiple registrations (nurses who were registered or enrolled in more than one jurisdiction), the total number of nurses identified in 2001 by the Nursing Labour Force Survey was 260,075, comprising 209,109 registered nurses and 50,966 enrolled nurses (Figure 1).

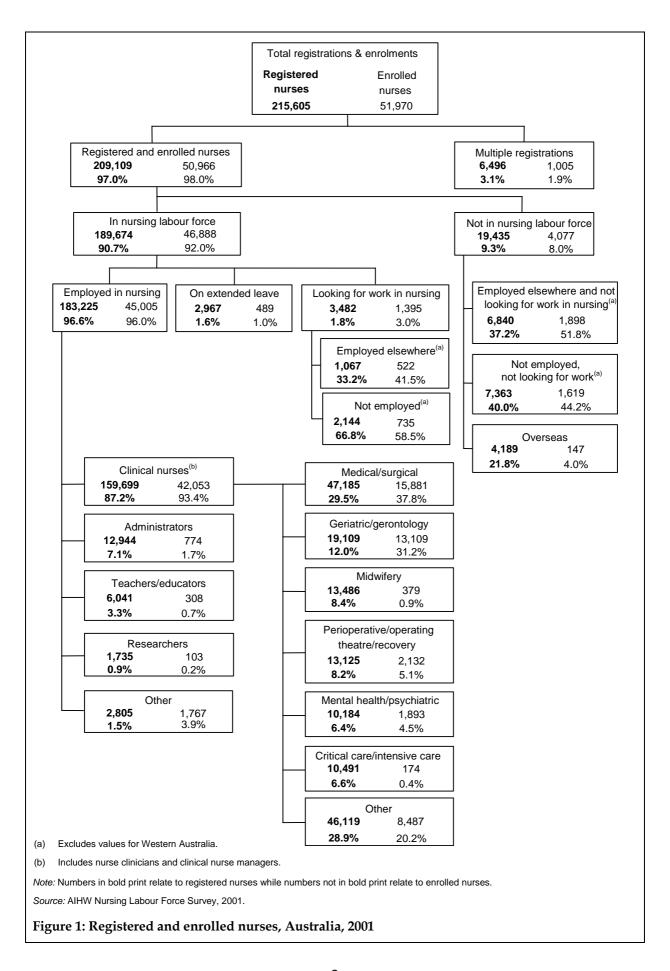
The majority of nurses (91.0% or 236,562) were in the nursing labour force. The remaining 9.0% (23,512) were either employed elsewhere and not looking for work in nursing (8,738), not employed and not looking for work in nursing (8,982), or overseas (4,336) (Table A.1).

Of those in the nursing labour force, 1.5% (3,456) were on extended leave for a period greater than 3 months, and 2.1% (4,877) were looking for work in nursing. The remaining 96.5% (228,230) were employed in nursing, comprising 88.4% (201,753) clinicians, 6.0% (13,719) administrators, 2.8% (6,349) teachers/educators and 0.8% (1,837) researchers (Table A.1).

#### Registered nurses

Allowing for multiple registrations, there were 209,109 registered nurses in 2001, of whom 189,674 (90.7%) were in the nursing labour force. Of the 19,435 (9.3%) nurses not in the nursing labour force, 6,840 were employed elsewhere and not looking for work in nursing, 7,363 were not employed and not looking for work in nursing, and 4,189 were overseas (Figure 1).

Of registered nurses in the nursing labour force, 2,967 (1.6%) were on extended leave for a period greater than 3 months and 3,482 (1.8%) were looking for work in nursing. The remaining 183,225 (96.6%) were actively employed in nursing, representing a 6.7% increase in the number of employed registered nurses from 1995 (Table 2).



The majority of employed registered nurses (87.2%) were clinical nurses (including nurse clinicians and clinical nurse managers), of whom the largest proportions were medical/surgical nurses (29.5%) and geriatric/gerontology nurses (12.0%). The remaining group of employed nurses consisted of administrators (7.1%), teachers/educators (3.3%) and researchers (0.9%) (Figure 1).

Table 2: Employed registered and enrolled nurses, 1995 to 2001

	1995	1997	1999	2001	% change (1995–01)
Registered nurses	171,774	175,937	179,177	183,225	6.7
Enrolled nurses	48,892	46,274	45,418	45,005	-8.0
All employed nurses	220,666	222,211	224,594	228,230	3.4

Source: AIHW Nursing Labour Force Survey, 1995, 1997, 1999 and 2001.

#### **Enrolled nurses**

Excluding multiple registrations, there were 50,966 enrolled nurses in 2001, of whom 46,888 (92.0%) were in the nursing labour force. Of the 4,077 (8.0%) nurses not in the nursing labour force, 1,898 were employed elsewhere and not looking for work in nursing, 1,619 were not employed and not looking for work in nursing, and 147 were overseas (Figure 1).

Of enrolled nurses in the nursing labour force, 489 (1.0%) were on extended leave for a period greater than 3 months and 1,395 (3.0%) were looking for work in nursing. The remaining 45,005 (96.0%) were actively employed in nursing, representing an 8.0% decrease in the number of employed enrolled nurses from 1995 (Table 2).

Enrolled nurses were less likely than registered nurses to perform administrative or academic roles, and were correspondingly more likely to be clinicians. The majority of employed enrolled nurses (93.4%) were clinical nurses (including nurse clinicians and clinical nurse managers) who mainly comprised medical/surgical nurses (37.8%) and geriatric/gerontology nurses (31.2%). The remaining employed nurses were administrators (1.7%), teachers/educators (0.7%) and researchers (0.2%) (Figure 1).

#### Age

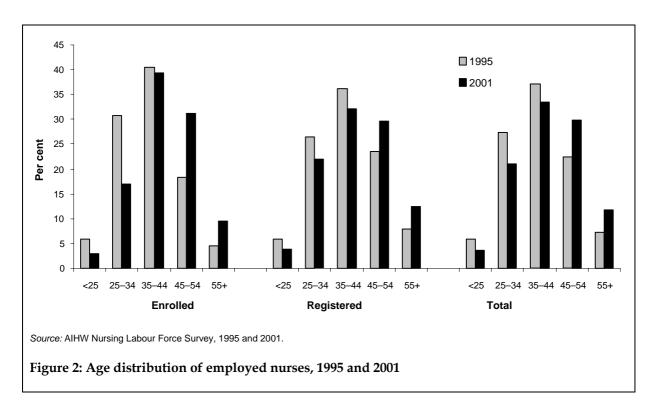
The average age for all employed nurses was 42.2 years in 2001, an increase from 39.3 years in 1995. The proportion of nurses aged less than 35 years decreased from 33.3% in 1995 to 24.7% in 2001, with the proportion of those aged 45 years or greater increasing from 29.5% to 41.7% over the same period. The ageing of the employed nursing labour force was more pronounced for enrolled nurses than for registered nurses (Table 3).

Table 3: Employed registered and enrolled nurses: age distribution and average age, 1995 and 2001

		1995		2001			
	Proportion aged under 35 years	Proportion aged 45 years and over	Average age	Proportion aged under 35 years	Proportion aged 45 years and over	Average age	
	(per cent)	(per cent)	(years)	(per cent)	(per cent)	(years)	
Enrolled nurses	36.7	22.8	37.9	19.9	40.7	42.5	
Registered nurses	32.4	31.4	39.6	25.9	42.0	42.1	
All nurses	33.3	29.5	39.3	24.7	41.7	42.2	

Source: AIHW Nursing Labour Force Survey, 1995 and 2001.

Between 1995 and 2001, the proportion of enrolled nurses aged between 25 and 34 years decreased from 31.0% to 16.9%, compared to 26.5% and 22.0% for registered nurses. This was associated with an increase in the proportion aged between 45 and 54 years, increasing from 18.0% to 31.3% for enrolled nurses and from 23.4% to 29.6% for registered nurses (Figure 2).



#### Sex

Nursing remained a predominantly female occupation. Nevertheless, the number and proportion of male nurses have been increasing. Between 1995 and 2001 the number of male nurses increased from 16,097 to 19,085, and their proportion from 7.3% to 8.4%. Similar increases occurred in the proportions of males for both registered and enrolled nurses (Table 4).

Table 4: Registered and enrolled nurses by sex, 1995 and 2001

	1995					
	Registered	Enrolled	All nurses	Registered	Enrolled	All nurses
Males	13.124	2,973	16.097	15,819	3,266	19,085
Females	158,651	45,919	204,570	167,405	41,739	209,144
Persons	171,775	48,892	220,667	183,225	45,005	228,230
Proportion male	7.6	6.1	7.3	8.6	7.3	8.4

Source: AIHW Nursing Labour Force Survey, 1995 and 2001.

## **Nursing supply**

For the purposes of workforce planning, the supply of nursing is a function of the number of nurses and the number of hours they worked. Several indicators are used to assess supply. These include a population-standardised headcount, average hours worked, proportion working part-time and population-standardised full-time equivalents. This section provides a national comparison of these indicators for the period 1995 to 2001.

When making comparisons of the supply of nurses across time, the usefulness of raw counts of the number of people employed in nursing is limited because changes in population numbers are not taken into account. For example, between 1995 and 2001, there was a 3.4% increase in the number of employed nurses (Table A.1), but there was also a 7.4% increase in the Australian population (Table A.4).

A population-standardised headcount, such as the number of nurses per 100,000 population (the nursing rate), may, therefore, be more valid than a raw count. This measure shows that while there was an increase in the number of nurses, taking into account the population growth, there was an overall decrease in the rate of nurses from 1,221 nurses per 100,000 population in 1995 to 1,176 in 2001 (Table A.4).

#### Hours worked

The average weekly hours worked by all nurses decreased from 32.4 hours in 1995 to 30.2 hours in 1999, and then remained fairly stable at 30.5 hours in 2001. For registered nurses, average weekly hours decreased from 32.7 hours in 1995 to 30.8 hours in 2001, and for enrolled nurses, from 31.1 hours to 29.4 hours (Table 5).

The overall decrease in average weekly hours was associated with an increase in the proportion of nurses working part-time, from 48.8% in 1995 to 53.7% in 2001. Over the same period, the proportion of registered nurses working part-time increased from 46.8% in 1995 to 52.0% in 2001 and the proportion of enrolled nurses increased from 55.9% to 60.9% (Table 5).

Table 5: Proportion of nurses working part-time<sup>(a)</sup> and average hours worked per week, 1995 to 2001

	1995	1997	1999	2001
		Registered nurs	ses	
% working part-time	46.8	49.7	51.7	52.0
Average hours worked per week	32.7	31.8	30.6	30.8
		es		
% working part-time	55.9	60.0	61.9	60.9
Average hours worked per week	31.1	29.9	28.9	29.4
		All employed nu	rses	
% working part-time	48.8	51.8	53.8	53.7
Average hours worked per week	32.4	31.4	30.2	30.5

<sup>(</sup>a) Working less than 35 hours per week.

Source: AIHW Nursing Labour Force Survey, 1995, 1997, 1999 and 2001.

The increase in part-time employment occurred in all age groups. Nurses aged less than 25 years were least likely to work part-time, with a quarter (24.9%) part-time in 2001. This compares with around a fifth (19.8%) part-time in 1995. Nurses aged over 65 years were most likely to work part-time, with approximately two-thirds part-time in 1995 (64.1%) and in 2001 (68.0%) (Table A.2).

#### Full-time equivalent nurses per 100,000 population

The full-time equivalent (FTE) measure of supply is based on the total hours worked by all nurses, divided by 35 hours (the standard of 35 hours being chosen because it is consistent with the Australian Bureau of Statistics (ABS) cut-off for part-time work). That is, FTE measures how many 35-hour week workloads are being worked by nurses. This provides a measure of the supply of nursing because it takes into account both nurses working more than 35 hours per week and those working part-time. By defining supply in terms of FTE per 100,000 population, meaningful comparisons across jurisdictions, geographic regions and time can be made.

Nursing supply decreased from 1,127 FTE nurses per 100,000 population in 1995 to 1,024 nurses per 100,000 population in 2001 (Table A.4). Figure 3 shows that the decrease in nursing supply occurred up to 1999, and supply stabilised in 2001. A comparison between the number of nurses per 100,000 population and the FTE nurses per 100,000 population highlights the effect of the decrease in average weekly hours worked. The implication is that with an increasing proportion of nurses working part-time, more are required to provide the same level of supply.

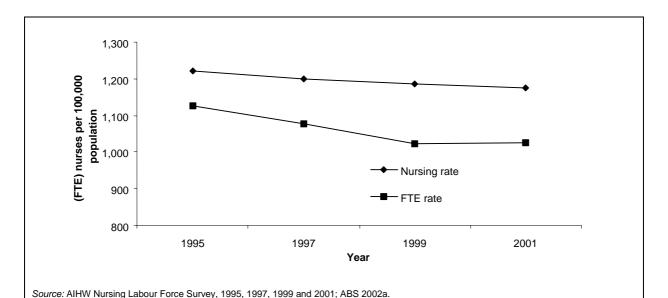


Figure 3: Employed registered and enrolled nurses and full-time equivalent (FTE) nurses per 100,000 population, 1995 to 2001

### State and territory comparisons

This section presents the characteristics of the employed registered and enrolled nursing workforces across jurisdictions. These include the total number of nurses, their age and sex distribution and the total hours they worked.

There was an overall increase of 3.4% in the number of employed nurses, from 220,667 in 1995 to 228,230 in 2001. All jurisdictions recorded increases in nurse numbers except Victoria and Tasmania (Table 6).

The number of employed registered nurses increased by 6.7% from 171,774 in 1995 to 183,225 in 2001. Tasmania was the only jurisdiction to record a decrease (down by 9.3%). For enrolled nurses there was an overall decrease of 8.0% from 48,893 in 1995 to 45,005 in 2001. The decline occurred in all jurisdictions except New South Wales, the Australian Capital Territory and Northern Territory (Table 6).

Table 6: Employed registered and enrolled nurses, states and territories, 1995 and 2001

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
					1995				
Registered nurses	55,173	46,496	28,381	16,125	15,849	5,392	2,788	1,570	171,774
Enrolled nurses	12,372	17,446	6,688	5,310	5,132	1,119	550	276	48,893
Total	67,545	63,942	35,069	21,435	20,981	6,511	3,338	1,846	220,667
Nurses per 100,000 population	1,102	1,415	1,074	1,236	1,428	1,375	1,095	1,040	1,221
					2001				
Registered nurses	58,537	48,623	32,805	17,364	16,174	4,889	3,055	1,776	183,225
Enrolled nurses	12,369	15,182	6,491	4,249	4,897	811	696	311	45,005
Total	70,906	63,805	39,297	21,613	21,071	5,700	3,751	2,087	228,230
Nurses per 100,000 population	1,078	1,328	1,083	1,137	1,394	1,208	1,175	1,055	1,176
			Percen	tage chang	ge between	1995 and 2	2001		
Registered nurses	6.1	4.6	15.6	7.7	2.1	-9.3	9.6	13.1	6.7
Enrolled nurses	_	-13.0	-2.9	-20.0	-4.6	-27.6	26.6	12.6	-8.0
Total	5.0	-0.2	12.1	8.0	0.4	-12.5	12.4	13.1	3.4

Source: AIHW Nursing Labour Force Survey, 1995 and 2001; ABS 2002a.

The nursing rate decreased from 1,221 nurses per 100,000 population in 1995 to 1,176 in 2001, highlighting that the growth in the population exceeded the growth in the number of employed nurses. Among the states and territories, only Queensland, the Australian Capital Territory and the Northern Territory recorded an increase in the nursing rate (Table 6).

#### Hours worked

In 2001 the average hours worked by all employed nurses was 30.5 hours per week, a slight decrease from 32.4 hours in 1995. Decreases were recorded in all jurisdictions except Tasmania, where there was an increase from 31.2 hours in 1995 to 34.7 hours per week in 2001. The increase in Tasmania was associated with a substantial decrease in the proportion of nurses working part-time, from 57.2% to 43.2% over the same period. This was in contrast to most other jurisdictions. With the exception of Tasmania and the Australian Capital Territory, the proportion working part-time grew in each jurisdiction. At the national level the proportion increased from 48.8% in 1995 to 53.7% in 2001 (Table 7).

Registered nurses in 2001 worked an average of 30.8 hours per week nationally, which was down from 32.7 hours per week in 1995. Across the states and territories, the average hours

worked by employed registered nurses decreased in all jurisdictions except Tasmania where there was an increase from 31.4 to 34.8 hours per week (Table 7).

Enrolled nurses worked an average of 29.4 hours per week in 2001, a decrease from 31.1 hours in 1995. While registered nurses in the two territories decreased their average weekly hours between 1995 and 2001, enrolled nurses in these two jurisdictions joined Tasmania in increasing their average weekly hours worked (Table 7).

Table 7: Employed registered and enrolled nurses: average hours worked and the proportion of nurses working part-time, states and territories, 1995 and 2001

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
				1995					
Average hours worked									
Registered nurses	32.8	32.4	32.5	34.4	31.2	31.4	32.7	38.1	32.7
Enrolled nurses	32.9	30.9	31.0	31.9	27.7	29.6	31.6	32.7	31.1
Total	32.9	32.0	32.2	33.9	30.4	31.2	32.6	37.4	32.4
% part-time	43.1	54.6	44.8	48.4	54.6	57.2	54.6	27.4	48.8
				2001					
Average hours worked									
Registered nurses	31.9	30.3	31.4	29.0	27.7	34.8	31.1	34.5	30.8
Enrolled nurses	31.1	28.6	30.1	27.9	26.4	33.4	32.2	33.3	29.4
Total	31.8	29.9	31.2	28.8	27.4	34.7	31.3	34.3	30.5
% part-time	46.7	58.8	51.8	56.7	66.6	43.2	53.0	34.0	53.7

Source: AIHW Nursing Labour Force Survey, 1995 and 2001.

#### Full-time equivalent nurses per 100,000 population

In 2001, the national nursing supply was 1,024 FTE nurses per 100,000 population, a decrease from 1,127 in 1995 (Table A.4). A decrease in the nursing supply occurred in all jurisdictions except the Australian Capital Territory where the supply increased from 1,020 to 1,050 FTE per 100,000 population (Figure 4, Table A.4).

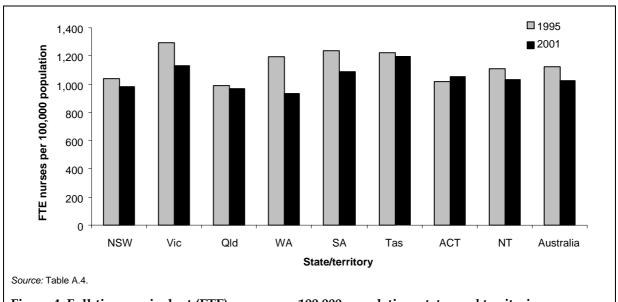


Figure 4: Full-time equivalent (FTE) nurses per 100,000 population, states and territories, 1995 and 2001

### Regional distribution comparisons

There were an estimated 19.4 million resident Australians in 2001 (ABS 2002a) and approximately 228,230 nurses providing services to this population. Monitoring the geographic distributions of these nurses and the services they provide is important for planning for equitable access to health care.

This section presents the characteristics of the employed nurses by geographic location of their main work setting using the Remoteness Area Structure of the Australian Standard Geographic Classification (ASGC) (see 'Geographic classification' in the Glossary).

Across geographic regions, the distribution of nurses closely matched that of the general population in 2001. For example, of all employed nurses in Australia in 2001, two-thirds (65.8%) were located in Major cities in their main job, and this aligns with the general population living in Major cities (66.3%) (Table 8).

While the overall distribution of nurses conformed to that of the population, registered nurses were more likely to work in Major cities than enrolled nurses. For example, over two-thirds (68.5%) of registered nurses worked in major cities, compared with just over half (54.6%) of enrolled nurses. Conversely, enrolled nurses were more likely to work in regional and remote areas (Table 8).

Between 1995 and 2001 there was a slight movement in the geographic distribution of nurses, with the proportion of nurses in Inner regional areas decreasing slightly (from 22.0% to 21.5%) and a corresponding increase in the proportion of nurses in Major cities (from 65.0% to 65.8%). This movement towards Major cities is partly reflected in an increased rate of nurses per 100,000 population in this region (from 1,039 in 1995 to 1,059 nurses per 100,000 population in 2001). With the exception of Inner regional areas (decreasing from 1,134 to 1,109), the nursing rate increased across the remaining geographical regions (Table 8).

Table 8: Employed registered and enrolled nurses by geographic location of main job(a), 1995 and 2001

		Inner	Outer			
	Major city	regional	regional	Remote	Very remote	Australia
			1995			
		Distrib	ution (per cent	)		
Registered nurses	67.9	20.6	9.1	1.5	0.8	100.0
Enrolled nurses	54.5	27.1	14.8	2.6	1.0	100.0
Total	65.0	22.0	10.4	1.8	0.9	100.0
	Nur	sing rate (num	ber per 100,000	population)	1	
Total nurses	1,039	1,134	1,017	1,029	954	1,221
Population	66.0	20.5	10.7	1.8	0.9	100.0
			2001			
		Distrib	ution (per cent	)		
Registered nurses	68.5	20.2	9.1	1.4	0.8	100.0
Enrolled nurses	54.6	27.0	15.1	2.4	0.9	100.0
Total	65.8	21.5	10.3	1.6	0.8	100.0
	Nur	sing rate (num	ber per 100,000	population)	)	
Total nurses	1,059	1,109	1,056	1,034	959	1,176
Population	66.3	20.7	10.4	1.7	0.9	100.0

<sup>(</sup>a) Regional figures exclude 21,003 nurses who did not provide information on the location of their main job. Source: AlHW Nursing Labour Force Survey, 1995 and 2001; ABS 2002a.

#### Hours worked

Between 1995 and 2001 the decrease in average weekly hours worked, already noted in the state and territory comparisons, was reflected across all geographic regions, with decreases occurring for both registered and enrolled nurses (Table 9).

In 2001, nurses in Very remote regions continued to work more hours than those in other regions, despite a decrease from 37.0 hours per week in 1995 to 33.3 hours in 2001. The decrease in the weekly hours worked by nurses across all regions is linked to the increase in the proportion of part-time workers between 1995 and 2001. The proportion of nurses working part-time rose nationally from 48.2% in 1995 to 53.7% in 2001, with increases occurring across all geographic regions (Table 9).

Table 9: Employed registered and enrolled nurses: average hours worked and proportion working part-time, geographic region, 1995 and 2001

	Major city	Inner regional	Outer regional	Remote	Very remote	Not stated	Australia
			1995				
Average hours worked							
Registered nurses	32.9	31.6	32.1	32.6	37.5	33.1	32.7
Enrolled nurses	31.5	30.6	30.6	30.2	35.3	31.3	31.1
Total	32.7	31.3	31.7	31.9	37.0	32.7	32.3
% part-time	46.3	53.1	52.0	48.2	29.0	48.1	48.2
			2001				
Average hours worked							
Registered nurses	30.9	30.5	30.6	31.0	33.8	30.8	30.8
Enrolled nurses	29.8	28.8	29.0	27.8	31.6	28.9	29.4
Total	30.7	30.1	30.1	30.0	33.3	30.5	30.5
% part-time	52.2	58.2	56.1	50.5	32.5	53.6	53.7

Source: AIHW Nursing Labour Force Survey, 1995 and 2001.

#### Full-time equivalent nurses per 100,000 population

The decrease in average weekly hours and the associated increase in the proportion of nurses working part-time across geographic regions had the effect of reducing the overall level of supply of nursing across regions. For example, in Very remote regions the supply of nursing decreased from 1,008 FTE nurses per 100,000 population in 1995 to 913 in 2001 (Table 10).

Table 10: All employed and full-time equivalent (FTE) nurses per 100,000 population, geographic region<sup>(a)</sup>, 1995 and 2001

	Major city	Inner regional	Outer regional	Remote	Very remote	Australia						
Nurses per 100,000 population												
1995	1,039	1,134	1,017	1,029	954	1,221						
2001	1,059	1,109	1,056	1,034	959	1,176						
		FTE nurse	es per 100,000 pop	ulation								
1995	971	1,014	921	937	1,008	1,127						
2001	929	954	908	886	913	1,024						

<sup>(</sup>a) Regional figures exclude 21,003 nurses who did not provide information on the location of their main job. Source: AIHW Nursing Labour Force Survey, 1995 and 2001; ABS 2002a.

### Features of employed nurses

Nursing is a very broad profession. Nurses perform several roles in many different areas of practice at a variety of different locations (work settings), both in the public and private sectors. This section provides an overview of their pattern of employment across these roles, their clinical area of nursing and work settings. Comparisons have been made with 1997, rather than 1995, because of changes in the categories used for clinical area of nursing and work setting that were introduced in the 1997 nursing survey.

### **Nursing role**

In 2001, the majority of employed nurses (201,753) worked as clinical nurses (nurse clinicians and clinical nurse managers), representing a 2.3% increase between 1997 and 2001. Increases were also recorded for nurse administrators (up 14.9%), teachers/educators (23.1%) and researchers (56.7%). However, part of these increases may be related to an improvement in the identification of nursing roles, reflected in a corresponding decrease in the 'Other' category (down by 32.1%) (Table 11).

Nurse administrators tended to be older, with an average age of 46.2 years, compared with 42.2 years for all employed nurses. They also worked the greatest number of hours per week (35.8 hours) and had the lowest proportion of nurses working part-time (23.0%). The higher working hours corresponded with a higher proportion of males in this role (12.4%, compared with 8.4% of all nurses) who tended to work, on average, more hours per week than female nurses (38.2 hours, compared with 35.4 hours) (Tables 11 and 12).

Table 11: Employed registered and enrolled nurses: nurse roles by selected characteristics, 2001

Clinical role/ clinical area of nursing	Number	% change in number between 1997 and 2001	Average age (years)	% Male	% Registered	Average weekly hours worked	% Part- time
Clinical nurse <sup>(a)</sup>	201,753	2.3	41.8	8.1	79.2	30.1	56.2
Nurse administrator	13,719	14.9	46.2	12.4	94.4	35.8	23.0
Teacher/educator	6,349	23.1	43.8	9.8	95.2	32.3	40.9
Researcher	1,837	56.7	42.3	7.4	94.4	31.5	46.3
Other	4,571	-32.1	45.3	6.3	61.4	29.6	55.7
All nurses	228,230	2.7	42.2	8.4	80.3	30.5	53.7

<sup>(</sup>a) Includes nurse clinicians and clinical nurse managers.

Source: AIHW Nursing Labour Force Survey, 1997 and 2001.

Table 12: Employed registered and enrolled nurses: average weekly hours by sex and nursing role, 2001

Sex	Clinical nurse	Nurse administrator	Teacher/ educator	Researcher	Other	All nurses					
Average weekly hours worked											
Male	35.9	38.2	36.9	36.3	35.1	36.1					
Female	29.6	35.4	31.8	31.1	29.2	30.0					
Persons	30.1	35.8	32.3	31.5	29.6	30.5					

Source: AIHW Nursing Labour Force Survey, 2001.

### Clinical area of nursing

In 2001 nearly a third (31.3%) of all employed clinical nurses worked in medical/surgical nursing, followed by 16.0% working in geriatrics/gerontology, 7.6% in perioperative/operating theatre/recovery, 6.9% in midwifery and 6.0% in mental health.

Overall there was a 2.3% increase in the number of clinical nurses between 1997 and 2001. Areas with noticeable increases included perioperative nursing (up 9.2%), casualty/accident and emergency (22.7%), school children's health (45.1%), critical/intensive care (12.6%) and child and family health (12.4%). The areas that decreased in size included occupational health (down 36.4%) and geriatrics/gerontology (8.7%) (Table 13).

The average age of all employed clinical nurses in 2001 was 41.8 years. Nurses working in child and family health, geriatric/gerontology and school children's health tended to be older, with average ages of 47.0, 46.7 and 46.3 years, respectively. In contrast, nurses working in critical care/intensive care, paediatric nursing, casualty/accident and emergency, coronary care/surgery, respiratory medicine and oncology tended to be younger, with average ages of 37.0, 37.7, 37.8, 37.9, 38.3 and 38.5 years, respectively (Table 13).

Although most nurses are female, there are some areas of nursing with larger than average proportions of males. These clinical areas were mental health/psychiatric (32.4% male), developmental disability (25.6%), and casualty/emergency (13.5%). Roles in which male nurses were least likely to work were midwifery (0.9% male), child and family health (1.1%) and paediatric nursing (3.4%) (Table 13).

The average working week for all employed clinical nurses in 2001 was 30.1 hours. Nurses working in mental health/psychiatric nursing worked, on average, the highest weekly hours (34.4 hours), followed closely by Aboriginal health (34.2 hours) and developmental disability (33.4 hours). The relatively high average hours worked by nurses in these areas corresponded with relatively low proportions working part-time, with 32.6% of nurses in Aboriginal health working part-time, 33.1% in mental health and 35.3% in developmental disability—these were the lowest three. These clinical areas were also associated with a higher proportion of males, representing 13.3%, 32.4% and 25.6%, respectively, of nurses working in these clinical areas (Table 13).

Across geographic regions, the majority of clinical nurses (65.1%) worked in Major cities. In contrast, 1.7% worked in Remote regions and 0.8% in Very remote regions. The geographic distribution of nurses in specific clinical areas corresponds with the level of technology required in each specialty. For example, clinical areas such as respiratory medicine, oncology and coronary care require a high level of resources usually only found in larger cities. This corresponds with higher than average proportions of nurses in these areas working in Major cities (87.6%, 84.4% and 83.7% respectively) (Table A.5).

In contrast, clinical areas that use less technological equipment, such as Aboriginal health, community nursing and occupational health, tend to have a greater proportion of nurses working in more remote areas. For example, 44.0% of nurses working in Aboriginal health, 12.7% of nurses in occupational health and 10.1% of generalist nurses (no one principal area) worked in either Remote or Very remote regions (Table A.5). Nurses in these clinical areas tend to be the first line of contact for health services in remote areas.

Table 13: Employed clinical nurses by clinical area of work: selected characteristics, 2001

		Change between	Average			Average weekly	
Clinical role/clinical area of nursing	Number	1997 and 2001 (%)	age (years)	% Male	% Registered	hours worked	% Part-time
Mixed medical and surgical	26,430	-9.8	40.7	5.9	69.8	28.5	63.6
Medical	20,462	19.9	41.8	5.8	73.8	30.5	54.1
Surgical	16,175	5.0	38.7	6.0	84.2	30.9	52.5
Coronary care or surgery <sup>(a)</sup>	4,669	n.a.	37.9	10.2	91.9	32.0	47.9
Geriatric/gerontology	32,218	-8.7	46.7	4.5	59.3	28.1	69.4
Oncology <sup>(a)</sup>	3,685	n.a.	38.5	7.0	89.8	32.1	47.7
Perioperative/operating theatre/recovery	15,256	9.2	40.6	7.2	86.0	31.3	50.0
Rehabilitation <sup>(a)</sup>	4,867	n.a.	43.4	8.0	60.3	30.9	56.1
Renal <sup>(a)</sup>	2,045	n.a.	39.0	6.8	92.6	32.1	46.5
Respiratory medicine/asthma <sup>(a)</sup>	769	n.a.	38.3	9.5	85.5	32.6	43.5
Critical care/intensive care	10,665	12.6	37.0	12.4	98.4	31.7	49.8
Casualty/accident/emergency	7,531	22.7	37.8	13.5	93.5	31.7	50.5
Midwifery	13,865	-2.3	41.9	0.9	97.3	27.9	68.2
Mental health/psychiatric	12,077	-1.8	43.7	32.4	84.3	34.4	33.1
Community nursing	8,564	3.2	43.8	5.3	88.1	29.3	55.6
Developmental disability	2,510	-1.0	43.5	25.6	72.6	33.4	35.3
Occupational health	623	-36.4	44.2	10.9	92.0	31.7	47.0
Paediatric	4,548	0.6	37.7	3.4	89.4	29.7	57.0
Aboriginal health <sup>(a)</sup>	325	n.a.	44.1	13.3	86.4	34.2	32.6
Child and family health	3,067	12.4	47.0	1.1	96.1	29.6	55.4
School children's health	974	45.1	46.3	7.5	92.2	30.5	49.9
No one principal area	2,929	-9.4	41.4	7.7	73.0	28.7	59.7
Other	7,499	-31.2	43.3	8.6	76.2	30.1	53.7
Total	201,753	2.3	41.8	8.1	79.2	30.1	56.2

<sup>(</sup>a) These categories were not available in the 1997 questionnaire in all jurisdictions.

Source: AIHW Nursing Labour Force Survey, 1997 and 2001.

### Work setting

Nearly two-thirds (63.7%) of all employed nurses worked in acute care/psychiatric hospitals in 2001. Compared to all employed nurses, those working in hospitals tended to be younger, (with an average age of 40.3 years, compared with 42.2 years overall); to be registered nurses (83.3%, compared with 80.3% overall); and to work longer hours (31.0 hours per week on average, compared with 30.5 hours) (Table 14).

Nursing homes and aged care accommodation accounted for 14.6% of all nurses — the second largest proportion. Nurses working in these settings tended to be older than nurses in other work settings, with an average age of 47.4 years in aged care accommodation and 47.2 years in nursing homes. They worked shorter hours, with 61.7% of nurses in aged care accommodation and 66.0% of nurses in nursing homes working part-time. Average weekly hours for these nurses were 29.1 and 28.7 hours, respectively (Table 14).

Of the remaining work settings, community health services accounted for 6.6% of all employed nurses, while 2.1% worked in doctors rooms/medical practices, 1.9% in developmental disability centres and 1.5% in day procedure centres.

Nurses working in the defence forces were on average younger than their colleagues in other settings (37.4 years, compared with 42.2 years for all employed) and had the lowest proportion of registered nurses (57.0%, compared with 80.3% for all employed). Also, the defence forces had the second highest proportion of male nurses (27.2%), after mental health services (37.8%) (Table 14).

Other work settings where there was a higher proportion of males included corrective services (22.8%), Aboriginal health services (21.5%), developmental disability services (18.2%) and the mining, industry or commercial sector (14.5%). The proportions of males were lowest in doctors rooms/medical practices (1.0%) and day procedure centres (3.7%) (Table 14).

Nurses in work settings with higher male proportions also tended to work more hours per week. Nurses in mental health services worked, on average, the most hours (35.6 hours) and just a quarter were part-time workers (25.7%). Similarly, a quarter of Aboriginal health service nurses worked part-time (25.3%), averaging 34.6 hours per week. In contrast, nearly three-quarters of nurses employed in doctors rooms/medical practices worked part-time (73.4%), and nurses in this setting had the shortest working week (25.2 hours) (Table 14).

Across geographic regions, work settings with the highest proportions of nurses working in Major cities or Inner regional centres were hospices, employment agencies and day procedure units (95.1%, 95.0% and 93.9% respectively), reflecting the tendency for these establishments to be sited in larger population centres. In comparison, 23.3% of nurses employed in Aboriginal health services and 28.2% of nurses in Remote area services worked in Remote or Very remote regions (Table A.6).

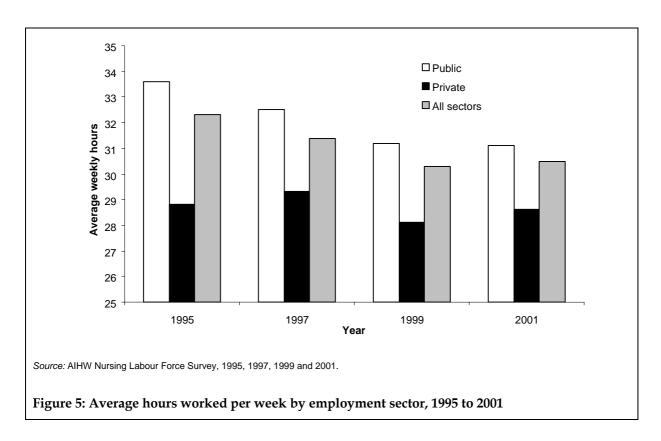
Table 14: Employed registered and enrolled nurses by main work setting: selected characteristics, 2001

Work setting	Number	% of total	Average age (years)	% Male	% Registered	Average weekly hours worked	% Part- time
Acute care/psychiatric hospital	145,301	63.7	40.3	8.5	83.3	31.0	52.2
Day procedure centre	3,469	1.5	43.9	3.7	76.4	28.3	63.4
Aged care accommodation	5,451	2.4	47.4	4.8	59.0	29.1	61.7
Nursing home	27,730	12.2	47.2	4.7	63.1	28.7	66.0
Hospice	1,066	0.5	46.2	5.6	78.0	29.6	62.8
Community health service	15,039	6.6	44.9	7.9	89.9	31.1	47.4
Aboriginal health service	679	0.3	45.1	21.5	85.0	34.6	25.3
Mental health service	2,922	1.3	43.5	37.8	83.3	35.6	25.7
Development disability service	4,370	1.9	43.9	18.2	72.5	30.8	47.6
Defence forces	508	0.2	37.4	27.2	57.0	34.5	32.8
School	915	0.4	46.3	4.8	86.9	29.8	51.8
Tertiary education institution	2,187	1.0	46.7	10.8	96.6	31.8	39.6
Corrective services	872	0.4	45.3	22.8	93.5	34.9	33.8
Doctors rooms/medical practice	4,844	2.1	44.7	1.0	82.8	25.2	73.4
Nursing in private practice	1,719	0.8	45.6	4.9	80.8	26.1	67.9
Employment agency	1,732	0.8	40.6	11.3	70.8	25.9	69.3
Mining, industry or commercial sector	903	0.4	43.3	14.5	94.1	32.3	40.4
Remote area service	1,119	0.5	44.3	11.9	81.3	31.9	42.5
Other	7,404	3.2	44.3	7.0	80.1	31.0	47.5
Total	228,230	100.0	42.2	8.4	80.3	30.5	53.7

Source: Nursing Labour Force Survey, 1995 and 2001.

### **Sector of employment**

The national decrease in nurses' hours between 1995 and 2001 was a feature of the public sector, where there was a consistent decline over this period, from 33.6 hours a week to 31.1 hours (Figure 5). This contrasts with the private sector, where nurses' hours fluctuated, rising from 28.8 hours in 1995 to 29.3 in 1997, before falling in 1999, and again rising in 2001 to 28.6 hours. The average weekly hours worked by public sector nurses were above the national average in each of the years from 1995 to 2001, whereas those worked by private sector nurses were below the national average.



### **Additional tables**

Table A.1: Registered and enrolled nurses: professional employment status, nursing role, 1995 to 2001

Francisco de estado de est	4005	4007	4000	2004	% change
Employment status/nursing role	1995	1997	1999	2001	1995–2001
Employed in nursing					
Clinical nurse <sup>(a)</sup>	195,692	197,211	200,048	201,753	3.1
Administrator	10,027	11,940	12,499	13,719	36.8
Teacher/educator	4,717	5,158	5,928	6,349	34.6
Researcher	884	1,173	1,729	1,837	107.9
Other	9,347	6,729	4,390	4,571	-51.1
Employed in nursing	220,666	222,211	224,595	228,230	3.4
On extended leave	2,594	3,149	3,458	3,455	33.2
Looking for work in nursing					
Employed elsewhere <sup>(b)</sup>	2,447	2,188	2,025	1,590	-35.0
Not employed <sup>(b)</sup>	5,456	4,344	3,905	2,879	-47.2
Total	7,902	6,532	5,929	4,877	-38.3
Nursing labour force	231,163	231,892	233,982	236,562	2.3
Overseas	3,675	3,939	4,088	4,336	18.0
Not looking for work in nursing					
Employed elsewhere <sup>(b)</sup>	10,501	8,732	8,869	8,737	-16.8
Not employed <sup>(b)</sup>	13,820	10,989	9,998	8,982	-35.0
Total	24,321	19,721	18,868	19,176	-21.2
Not in nursing labour force	27,996	23,659	22,956	23,513	-16.0
Total registered and enrolled nurses	259,159	255,551	256,938	260,075	0.4
Multiple registrations and enrolments	8,376	8,531	8,138	7,501	-10.4
Total registrations and enrolments	267,535	264,082	265,076	267,576	<u> </u>

<sup>(</sup>a) Includes nurse clinicians and clinical nurse managers.

Source: AIHW Nursing Labour Force Survey, 1995, 1997, 1999 and 2001.

Table A.2: All employed nurses: average hours worked and proportion working part-time by age group, 1995 to 2001

			Age (yea	rs)			
	<25	25–34	35–44	45–54	55–64	65+	Total
			1995				
Average hours	39.5	32.6	30.8	33.1	31.7	27.0	32.4
% part-time	19.8	44.9	55.4	47.2	50.4	64.1	48.8
			1997				
Average hours	37.4	31.8	29.8	32.5	31.1	26.4	31.4
% part-time	23.0	47.5	58.5	49.5	53.4	66.1	31.4
			1999				
Average hours	35.6	30.9	28.5	31.4	30.2	25.9	30.2
% part-time	25.5	47.9	61.7	51.8	55.8	66.7	53.8
			2001				
Average hours	35.9	31.3	28.8	31.6	30.2	26.1	30.5
% part-time	24.9	47.7	61.1	51.9	56.2	68.0	53.7

Source: AIHW Nursing Labour Force Survey, 1995, 1997, 1999 and 2001.

<sup>(</sup>b) Excludes Western Australia.

Table A.3: Employed registered and enrolled nurses: hours worked per week and total number of nurses by age, 2001

		Hours w	orked per week		-	Fotal number
Age	<25	25–34	35–44	45+	Total	of nurses
		Enro	olled nurses			
<25	30.6	24.6	42.4	2.5	100.0	1,361
25-34	38.8	21.0	37.2	3.1	100.0	7,591
35–44	40.1	25.5	31.7	2.7	100.0	17,736
45–54	27.6	29.9	39.6	2.9	100.0	14,083
55+	29.7	27.1	40.4	2.9	100.0	4,234
Total	34.7	26.2	36.2	2.8	100.0	45,005
		Regis	tered nurses			
<25	6.9	12.5	77.9	2.8	100.0	7,152
25-34	27.7	17.9	51.3	3.2	100.0	40,367
35-44	39.1	20.7	37.4	2.8	100.0	58,821
45–54	26.5	24.0	46.4	3.2	100.0	54,221
55+	33.9	23.2	40.9	2.0	100.0	22,665
Total	30.9	21.0	45.1	2.9	100.0	183,225
		All em	ployed nurses			
<25	10.5	14.3	72.4	2.7	100.0	8,512
25–34	29.4	18.3	49.1	3.2	100.0	47,958
35–44	39.3	21.8	36.1	2.8	100.0	76,556
45–54	26.7	25.1	45.0	3.1	100.0	68,304
55+	33.3	23.8	40.8	2.1	100.0	26,899
Total	31.7	22.0	43.4	2.9	100.0	228,230

Source: AIHW Nursing Labour Force Survey, 2001.

Table A.4: Employed nurses per 100,000 population, states and territories, 1995 to 2001

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia			
	1995											
Nurses per 100,000	1,102	1,415	1,074	1,236	1,428	1,375	1,095	1,040	1,221			
FTE nurses per 100,000	1,036	1,294	988	1,197	1,240	1,225	1,020	1,114	1,127			
Population ('000s)	6,127.0	4,517.4	3,265,1	1,733.8	1,469.4	473.7	304.8	177.6	18,068.7			
				199	97							
Nurses per 100,000	1,115	1,341	1,084	1,210	1,382	1,270	1,095	1,189	1,200			
FTE nurses per 100,000	1,025	1,157	982	1,123	1,192	1,088	1,004	1,294	1,077			
Population ('000s)	6,277.0	4,597.2	3,394.71	1,795.0	1,481.4	473.6	309.0	186.9	18,517.6			
				199	99							
Nurses per 100,000	1,096	1,311	1,073	1,231	1,386	1,161	1,134	1,439	1,187			
FTE nurses per 100,000	986	1,098	954	1,066	1,045	982	998	1,414	1,024			
Population ('000s)	6,411.4	4,686.4	3,501.4	1,849.7	1,497.8	471.4	312.3	192.7	18,925.9			
				200	)1							
Nurses per 100,000	1,078	1,328	1,083	1,137	1,394	1,208	1,175	1,055	1,176			
FTE nurses per 100,000	980	1,134	965	935	1,091	1,198	1,050	1,034	1,024			
Population ('000s)	6,575.2	4,804.7	3,628.9	1,901.2	1,511.7	471.8	319.3	197.8	19,413.2			

Source: AIHW Nursing Labour Force Survey, 1995, 1997, 1999 and 2001; ABS 2002a.

Table A.5: Registered and enrolled nurses employed as clinical nurses<sup>(a)</sup>: area of clinical nursing, geographic distribution of their main job, 2001

		Ge	ographic regi	on of main jo	b		
Area of clinical nursing	Major city	Inner regional	Outer regional	Remote	Very remote	Australia	Total <sup>(b)</sup>
			(per ce	ent) <sup>(c)</sup>			(number)
Mixed medical and surgical	54.5	24.4	16.3	3.1	1.7	100.0	26,430
Medical	60.4	24.6	12.4	2.0	0.6	100.0	20,462
Surgical	75.0	17.9	6.3	0.5	0.3	100.0	16,175
Coronary care or surgery	83.7	11.1	4.7	0.3	0.2	100.0	4,669
Geriatric/gerontology	57.1	28.3	13.0	1.2	0.4	100.0	32,218
Oncology	84.4	11.8	3.4	0.2	0.2	100.0	3,685
Perioperative/operating theatre/recovery	74.7	17.2	7.1	0.7	0.3	100.0	15,256
Rehabilitation	76.7	19.1	4.0	0.1	0.1	100.0	4,867
Renal	75.0	13.4	9.3	1.9	0.4	100.0	2,045
Respiratory medicine/asthma	87.6	7.5	4.9	_	_	100.0	769
Critical care/intensive care	78.7	14.6	6.0	0.4	0.3	100.0	10,665
Casualty/accident/emergency	63.4	22.5	10.3	2.5	1.2	100.0	7,531
Midwifery	68.9	19.6	9.3	1.5	0.7	100.0	13,865
Mental health/psychiatric	70.2	23.7	5.1	0.7	0.3	100.0	12,077
Community nursing	53.7	24.8	16.6	3.1	1.8	100.0	8,564
Developmental disability	69.4	27.3	2.8	0.4	0.1	100.0	2,510
Occupational health	57.8	18.8	10.7	7.5	5.2	100.0	623
Paediatric	73.0	18.3	6.3	1.6	0.7	100.0	4,548
Aboriginal health	18.3	11.7	26.0	10.0	34.0	100.0	325
Child and family health	65.0	20.1	11.7	2.1	1.0	100.0	3,067
School children's health	66.2	21.0	9.4	2.1	1.3	100.0	974
No one principal area	39.6	29.0	21.3	7.0	3.1	100.0	2,929
Other	61.6	20.4	12.8	3.2	2.0	100.0	7,499
Total	65.1	21.9	10.5	1.7	8.0	100.0	201,753

<sup>(</sup>a) Includes nurse clinicians and clinical nurse managers.

Source: AIHW Nursing Labour Force Survey, 2001.

<sup>(</sup>b) All employed clinical nurses (including those that did not provide information on the geographic location of their main job).

<sup>(</sup>c) Excludes 19,088 nurses who did not provide information on the geographic location of their main job.

Table A.6: Employed registered and enrolled nurses: work setting and geographic distribution of their main job, 2001

		Geo	graphic reg	ion of main	job		
Work setting of main job	Major city	Inner regional	Outer regional	Remote	Very remote	Australia	Total <sup>(a)</sup>
			(per c	ent) <sup>(b)</sup>			(number)
Acute care hospital	67.7	20.0	9.9	1.7	0.7	100.0	145,301
Day procedure centre	77.5	16.4	5.3	0.6	0.2	100.0	3,469
Aged accommodation	58.8	27.7	11.7	1.2	0.6	100.0	5,451
Nursing home	60.5	27.4	11.1	0.7	0.2	100.0	27,730
Hospice	80.2	14.9	4.3	0.6	0.0	100.0	1,066
Community health service	55.9	25.4	14.5	2.5	1.7	100.0	15,039
Aboriginal health service	46.7	12.1	17.9	9.8	13.5	100.0	679
Mental health service	62.8	28.6	7.5	0.8	0.3	100.0	2,922
Development disability service	69.8	26.3	3.9	0.1	0.0	100.0	4,370
Defence forces	56.2	29.2	13.8	0.8	0.0	100.0	508
School	64.7	21.6	11.5	1.6	0.5	100.0	915
Tertiary education institution	72.4	19.4	6.8	1.2	0.2	100.0	2,187
Corrective services	58.1	27.1	10.9	2.9	1.0	100.0	872
Doctors rooms/medical practice	60.7	23.8	13.4	1.6	0.5	100.0	4,844
Nursing in private practice	68.0	21.6	9.6	0.7	0.1	100.0	1,719
Employment agency	88.1	6.9	4.3	0.4	0.3	100.0	1,732
Mining, industry or commercial sector	67.4	15.6	7.4	6.0	3.6	100.0	903
Remote area service	38.2	11.4	22.2	11.2	17.0	100.0	1,119
Other	68.3	18.5	10.3	1.8	1.1	100.0	7,404
Total	65.8	21.5	10.3	1.6	0.8	100.0	228,230

<sup>(</sup>a) All employed nurses (including those that did not provide information on the geographic location of their main job).

Source: AIHW Nursing Labour Force Survey, 2001.

Table A.7: Employed registered and enrolled nurses: work setting of main job, average hours worked and sector of employment, 1995 to 2001

Characteristics	1995	1997	1999	2001
Public sector				
Proportion registered	78.4	79.1	79.9	80.0
Average hours worked (per week)	33.6	32.5	31.2	31.1
Private sector				
Proportion registered	76.7	79.3	79.6	81.2
Average hours worked (per week)	28.8	29.3	28.1	28.6

Source: AIHW Nursing Labour Force Survey, 1995, 1997, 1999 and 2001.

<sup>(</sup>b) Excludes 21,003 nurses who did not provide information on the geographic location of their main job.

Table A.8: Employed registered and enrolled nurses: characteristics, 1995 to 2001

Characteristics	1995	1997	1999	2001	Change 1995–01
					(per cent)
Average age	39.3	40.3	41.6	42.2	
Average hours worked (per week)	32.3	31.4	30.3	30.5	
Proportion registered	77.8	79.2	79.8	80.3	
Sex					
Male	16,097	17,003	17,835	19,085	18.6
Female	204,570	205,208	206,759	209,144	2.2
Geographic location					
Major city	123,904	127,111	136,990	136,256	10.0
Inner regional	42,028	43,842	43,375	44,635	6.2
Outer regional	19,735	20,082	21,586	21,270	7.8
Remote	3,353	3,409	3,735	3,353	_
Very remote	1,634	1,729	1,708	1,713	4.8
Not stated	30,012	26,038	17,202	21,003	-30.0
Field of nursing					
Clinician <sup>(a)</sup>	195,692	197,211	200,049	201,753	3.1
Administrator	10,026	11,940	12,499	13,718	36.8
Teacher/educator	4,717	5,158	5,928	6,349	34.6
Researcher	884	1,173	1,729	1,837	107.9
Other	9,347	6,728	4,389	4,571	-51.1
Work setting of main job					
Acute/psychiatric hospital	132,429	137,680	144,582	145,301	9.8
Nursing home <sup>(b)</sup>	38,551	37,652	34,492	33,182	-28.0
Community	10,206	12,053	14,364	15,039	47.7
Private medical rooms	6,665	6,815	6,416	4,844	-27.2
Other	32,815	28,011	24,740	29,863	7.0
Area of clinical nursing (clinicians only)					
Medical/surgical	66,426	61,759	59,861	63,067	-5.1
Operating theatres	12,936	13,975	14,535	15,256	17.9
Midwifery/obstetrics/gynaecology	16,658	15,856	14,291	13,865	-16.8
Gerontology/geriatric	38,662	35,293	33,335	32,218	-16.7
Psychiatric/mental health	11,248	12,293	12,173	12,077	7.4
Other	39,720	47,406	55,896	65,271	64.3
Nurses per 100,000 population	1,221	1,200	1,187	1,176	
Total	220,667	222,211	224,594	228,230	3.4

<sup>(</sup>a) Includes clinicians and clinical nurse managers.

Source: AIHW Nursing Labour Force Survey, 1997 and 2001; ABS 2002a.

<sup>(</sup>b) Includes aged care accommodation.

## **Explanatory notes**

#### Method

The labour force data in this publication were obtained from the 2001 Nursing Labour Force Survey administered by each state and territory nurses' registration board on behalf of the AIHW. Each registration board conducts an annual renewal of registrations, and a survey questionnaire is sent to all nurses as part of the registration renewal process. Each state and territory health authority then forwards a computer file of the survey data to the AIHW for aggregation into a national data set.

#### Scope and coverage

The scope of the Nursing Labour Force Survey is all nurses registered or enrolled with the nurses' board or nursing council in each state and territory, and eligible to practise. The coverage may exclude nurses who registered for the first time during the current year. These nurses may not be required to renew their registration at the standard renewal date if the initial registration in that state or territory had occurred during the preceding 12 months.

#### Response rate

The responses to the AIHW Nursing Labour Force Survey represented 77.1% of the total number of nursing registrations and enrolments in all states and territories as at 30 June 2001 (Table A.9).

Table A.9: Nursing Labour Force Survey: estimated survey response rate, states and territories, 2001

_	NSW	Vic	Qld	WA	SA	Tas	ACT	NT <sup>(a)</sup>	Total
2001 response rate	71.2	78.7	93.5	64.8	81.5	73.2	76.4	57.5	77.1

<sup>(</sup>a) The low response rate for the Northern Territory is mainly due to the transient nature of the nursing labour force. According to the 2000/2001 Nursing Board Annual Report, approximately one-third of all nurses do not re-register each year, primarily because they no longer practise in this jurisdiction.

Source: Nursing Labour Force Survey, 2001.

The overall response rate can only be estimated, and not determined with complete accuracy. It is known that at least some nurses who were registered in more than one state or territory completed a questionnaire in just one state or territory. It is not known how often this occurred because it is not possible to match survey records between states and territories.

In addition, the technique used to produce estimates for the survey as a whole was modified in 2001. The new procedures required changes which tightened the definitions of 'responding' and 'non-responding' to the survey which, in turn, have lowered the estimated response rate for 2001. Calculated using the previous method, the estimated national response rate would have been 87.5%.

#### Collection timing

The labour force survey is conducted by the nurses' registration board in each state and territory in conjunction with the annual renewal of licences to practise. Therefore, the timing of the survey depends on the licence renewal procedure that operates in each jurisdiction. As the renewal of registration in New South Wales is due on the anniversary of initial registration, the survey is conducted throughout the calendar year. South Australia has four renewal periods each year, with about a quarter of nurses registered in each period. The remaining states and territories have annual renewals due by a fixed date. The collection period in each state and territory is shown schematically in Table A.10.

2001 Nov Dec State/territory 2000 2000 Jun Jul Aug Nov Dec **New South Wales** Victoria Queensland Western Australia South Australia Tasmania **Australian Capital Territory** Northern Territory

Table A.10: Nursing Labour Force Survey: collection period, states and territories, 2001

Source: State and territory registration boards

#### Notes on the AIHW labour force estimates

The figures produced from the Nursing Labour Force Survey are estimates only. Not all nurses who were sent a questionnaire responded to the survey. Estimates of the whole nursing population are based on survey data from renewals that have been weighted to match the available registration information. In 2001, complete registration data (comprising total registrations/enrolments by age and sex) were available for four jurisdictions (New South Wales, Queensland, South Australia and Tasmania). For Victoria, weighting was based on division of nursing and sex data from registrations and age data from respondents, whereas Western Australia, the Australian Capital Territory and the Northern Territory were based entirely on the total numbers of registrations/enrolments and respondents' characteristics.

Additional estimation has been made for survey respondents for whom age, sex and labour force status were not known, either because some survey questions were incomplete or because nurses' board registration data were incomplete or not provided. Where registration data were not available, it was assumed in the estimation that survey non-respondents in each state/territory had the same characteristics as respondents. This process may overestimate the numbers of nurses in the labour force in each state and territory if non-respondents are more likely to be those with multiple registration or those not in the nursing labour force. This survey error will be greater in the two territories, which have a higher proportion of nurses registered in other jurisdictions, and lower proportions of nurses practising solely in the territories.

Rounding of estimates may result in numbers not adding up to totals in some tables.

## **Glossary**

#### **Employed nurse**

A nurse who worked mainly or solely in a particular state or territory. Nurses registered in more than one state or territory are assigned to the jurisdiction in which they mainly worked (i.e. worked the most hours).

#### **Enrolled nurse**

A nurse who is on the roll maintained by the state or territory nurses' board or nursing council to practise nursing in that state or territory. The minimum educational requirement for an enrolled nurse is a 1-year diploma from a higher education institution or equivalent from a recognised hospital-based program. It is necessary for a nurse to have practised for a specified minimum period in the past 5 years to maintain enrolment. Enrolled nurses include mothercraft and dental nurses where the educational course requirements may be greater than 1 year but less than a 3-year degree course or equivalent.

#### Geographic classification

There are several classifications used to differentiate between various regions in Australia. The two main ones used in health labour force planning are the Rural, Remote and Metropolitan Areas (RRMA) classification and the Australian Standard Geographical Classification (ASGC). The Remoteness Area Structure of the ASGC, produced by the Australian Bureau of Statistics (ABS), has been used in this publication to present regional data for nurses. Prior to 2001, the RRMA classification was used. A brief explanation of the classifications is provided below (AIHW in press).

The RRMA classification allocates each Statistical Local Area (SLA) in capital cities and metropolitan centres with a population equal to or greater than 100,000 to the Metropolitan zone and to the RRMA classes of Capital city and Other metropolitan centre respectively. All other SLAs are allocated to either the Rural or Remote zone based on the SLA's score on an index of remoteness.

The Remoteness Area Structure of the ASGC is based on the Accessibility/Remoteness Index of Australia (ARIA+), where the remoteness index value of a point is based on the physical road distance to the nearest town or service in each of five population size classes based on the 2001 Census of Population and Housing. These classes are:

- Major cities of Australia
- Inner regional Australia
- Outer regional Australia
- Remote Australia
- Very remote Australia.

#### Hours worked

The total number of hours worked per week is self-reported by nurses and relates to the usual number of hours worked per week in all nursing-related jobs over the 4 weeks before the survey.

Hours worked exclude time spent on travel between work locations (except travel to call-outs) and unpaid professional and/or voluntary activities. In the editing of survey responses, maximum hours worked per week were limited to 99 hours per week.

In this publication the Australian Bureau of Statistics definition has been used for the cut-off for full-time and part-time work:

- full-time: 35 hours or more per week
- part-time: less than 35 hours per week.

#### **Nursing labour force**

The nursing labour force (registered and enrolled nurses) in each state and territory includes nurses currently employed in nursing and nurses who are not employed in nursing but are looking for work in nursing.

Registered and enrolled nurses who, at the time of the survey, were on maternity or other extended leave for more than 3 months are employed, and thus part of the nursing labour force. However, in most cross-classified tables for employed nurses, those on extended leave have not been included.

#### Nursing role

A description of the job function within the field of nursing of a person with nursing qualifications. The occupations are:

*Nurse clinician*: A registered or enrolled nurse who is mainly involved in the care and treatment of patients, including nursing diagnosis and preventive action.

Clinician nurse manager: A registered or enrolled nurse who manages a hospital nursing care unit or other sub-unit of a hospital, nursing home or health care facility, or supervises nursing staff for a particular unit or shift.

Clinical nurse: A person who is either a nurse clinician or a clinician nurse manager.

Administrator: A person mainly employed in nursing administration.

*Teacher/educator:* A person who teaches or trains persons in nursing for their initial qualification or in advanced skills after initial qualification.

Researcher: A person engaged in nursing research.

*Other*: A job function in nursing which is not one of the above – for example, industrial relations or public health activities in nursing.

#### Registered nurse

A nurse who is on the register maintained by the state or territory nurses board or nursing council to practise nursing in that state or territory. The minimum educational requirement for a registered nurse is a 3-year degree from a tertiary education institution or equivalent from a recognised hospital-based program. To maintain registration, it is necessary for a nurse to have practised for a specified minimum period in the field of nursing in the preceding 5 years.

### References

ABS (Australian Bureau of Statistics) 2002a. Australian demographic statistics Cat. no. 3101.0. Canberra: ABS.

ABS (Australian Bureau of Statistics) 2002b. Australian standard geographical classification. Cat. no. 1216.0. Canberra: ABS.

AIHW (Australian Institute of Health and Welfare) (in press). Rural, regional and remote health: a guide to remoteness classifications and their application to 2001 Statistical Local Area boundaries. Canberra: AIHW.