



# Nursing and midwifery labour force, South Australia, 2004

# bulletin

## Introduction

Concerns about the current and future capacity of the nursing workforce have led to a number of national reviews, including *The National Review of Nursing Education* (DEST 2002) and the Senate Community Affairs Committee Inquiry into Nursing (SCAC 2002). Data show an overall increase in nurse numbers over the decade to 2003 (AIHW 2003), but despite this, the pattern of increase in part-time work, combined with population growth, had the net effect of reducing nursing supply per head of population.

Over that decade, South Australia has seen its nursing supply levels shift from being well above the national rate to almost the same, before rising again. Although the South Australian nursing supply declined at a quicker rate than nationally, data show it has also recovered sooner, experiencing its lowest point in 1999, while the lowest point for national supply occurred in 2001. Nursing supply in South Australia continued to grow more quickly than national supply and was again well above the national rate by 2003.

In 2002, the (then) South Australian Department of Human Services developed a Strategic Directions Plan which focused on the recruitment and retention of nurses and midwives in that State. Data in this report provide a base profile of nurses and midwives. The report was commissioned and funded by the South Australian Department of Health to assist with policy strategies and with the evaluation of its Strategic Directions Plan. The report focuses on changes in nurses' work patterns over time, particularly in hours worked and areas of clinical work.

Where appropriate, comparisons have been made with data drawn from earlier Nursing and Midwifery Labour Force Surveys. To view the full range of information available, please visit the Institute's web site at: <http://www.aihw.gov.au/publications/html>.

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## Overview

This overview summarises the detailed nursing and midwifery labour force survey data presented in this publication. It aims to integrate, at a broad level, the main analyses and findings.

Nurses and midwives have contributed to the information in this report, but for ease of discussion, throughout this report the term 'nurse' includes midwife.

## Context

During the mid to late 1990s, there was a noticeable trend in the nursing labour force towards part-time work. Increases in nurse numbers did not keep pace, and this led to a period of steady decline in nursing supply, relative to the population. From 2001, the average hours worked by nurses began to increase at a time when the population growth in South Australia was comparatively small. This enabled supply to strengthen earlier than it did nationally.

## Findings

The report begins by examining the characteristics of the 25,359 nurses registered in South Australia in 2004. The first issue addressed is whether there are differences between the 23,099 nurses who were employed in nursing in South Australia and the 2,260 who were not. Data show that citizenship and country of initial qualifications did not affect whether or not they were employed in nursing. Nurses in 2004 were older, on average (by 2.9 years), than in 1997; however, age was not a large factor in whether they were employed. Location of residence showed small differences between registered and enrolled nurses, but little difference in their labour force status. Possession of post-registration qualifications had some relationship with employment. Employed nurses in South Australia were more likely to hold post-registration qualifications than were nurses not employed in nursing.

The report then focuses on the actual supply of nurses in 2004 and changes over the previous few years, followed by an analysis of changes in working patterns of those delivering nursing care. Over the period 1997 to 1999, despite a small increase in the number of nurses working in nursing (the nurse workforce), there was a reduction in South Australia's nursing supply. This is because, at the same time, the number of nurses working part-time increased, reducing their contribution to nursing supply. In 2001 there was a reversal of this trend, and by 2004 the level of nursing supply had grown by nearly a third from that of 1999. This reversal was underpinned by the smaller growth in the South Australian general population (3.6%) than in the nurse workforce (12.9%).

Finally, the distribution of nurses' post-registration qualifications across areas of nursing is explored. For workforce planning, nurses' qualifications and their utility in nursing is valuable information for gauging skill supply across the different areas of nursing. In 2004, 40.7% (9,408) of employed nurses held post-registration qualifications, but only around half (55.1%) of those nurses worked in an area of nursing activity directly corresponding to their qualification field. Further, of the post-registration qualifications collectively available in the nurse workforce, the proportion directly matching the qualification holder's work area varied across nursing areas. For example, nearly all nurses working directly in midwifery held midwifery qualifications but there were considerably more holders of midwifery qualifications who were not working in midwifery; and the reverse was the case in some other areas of activity.

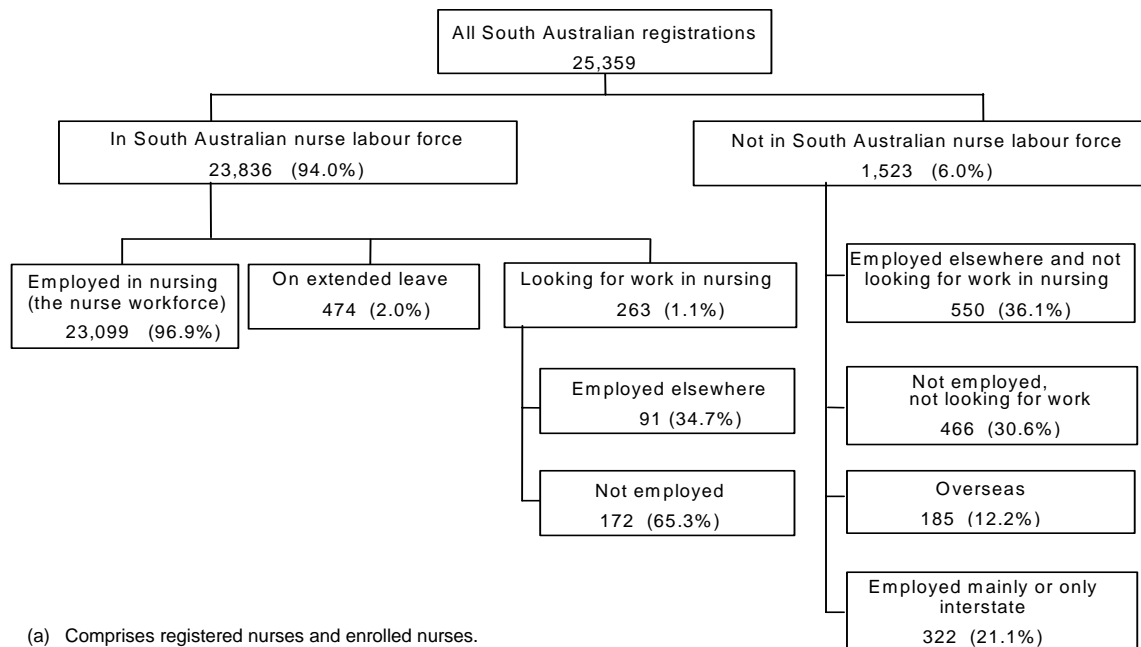
All of these comparisons provide useful information to address specific shortages in the nurse workforce.

# All nurse registrations

## Size

There were 25,359 nurse registrations in South Australia in 2004, and the majority (94.0% or 23,836) were in the South Australian nurse labour force (Figure 1). Of these, 23,099 (96.9%) were employed in nursing, 474 (2.0%) were on extended leave for 3 months or more and 263 (1.1%) were looking for work in nursing. Of nurses registered in South Australia who were not in the South Australian nurse labour force (1,523 nurses), just over one in three (36.1% or 550) were employed in other occupations and not looking for work in nursing, just under one in three (30.6% or 466) were not employed and not looking for work, and around one in five (21.1% or 322) were employed in nursing but mainly or only working interstate.

Figure 1: All nurse registrations<sup>(a)</sup> in South Australia, 2004



(a) Comprises registered nurses and enrolled nurses.

Source: Nursing and Midwifery Labour Force Survey, South Australia, 2004.

The 23,099 nurses working in nursing in South Australia (the nurse workforce) in 2004 was a 5.6% increase from 2003 (21,883), representing the largest percentage increase over the 1997 to 2004 period (Table A1). This rise is calculated over a one-year period, whereas the earlier changes are calculated at two-year intervals. The earlier periods show steady, small increases from 1997 to 1999 (up 1.4%) and 1999 to 2001 (up 1.5%), followed by the first more substantial jump in 2003 (up 3.9% from 2001).

The number of nurses looking for work in nursing in 2004 (263) was an increase of 6.0% from 2003 (248), which was the lowest level over the period. Overall, from 1997 to 2004, the number of nurses looking for work dropped by 31.0%, most of this occurring between 1999 and 2001 (down from 361 to 252).

Over the period 1997 to 2004, the South Australian nursing labour force increased by 11.5% (from 21,384 to 23,836), while the general population in South Australia increased by 3.6% (from 1,481,357 to 1,534,250 people) (ABS 2004).

Nurses who were not employed in nursing and not looking for work in nursing, were quite stable in number from 1997 to 2001, ranging from 599 to 610. However by 2003, this group had more than doubled to 1,304 nurses, the highest over the period from 1997 to 2004. This was followed by a decrease to 1,016 nurses in 2004, resulting in an overall rise of 69.7% from 1997.

## Labour force status

### Demographics

This section summarises selected characteristics of registered and enrolled nurses and looks at whether they were working in nursing.

In 2004, age did not appear to be a large factor in whether or not nurses were employed, although those not looking for work tended to be older, on average, and those on extended leave or overseas tended to be younger – the differentials being greater for registered nurses. Figures show that registered nurses employed in nursing were, on average, younger (42.9 years) than their enrolled colleagues (43.6 years), and registered nurses looking for work in nursing were slightly younger on average (42.7 years and 43.0 years, respectively) (Table 1). Employed registered nurses were more likely to be male (10.1% male compared with 6.3% for enrolled nurses) whereas nurses looking for work showed little difference in the proportions who were male. (5.0% for registered and 5.1% for enrolled).

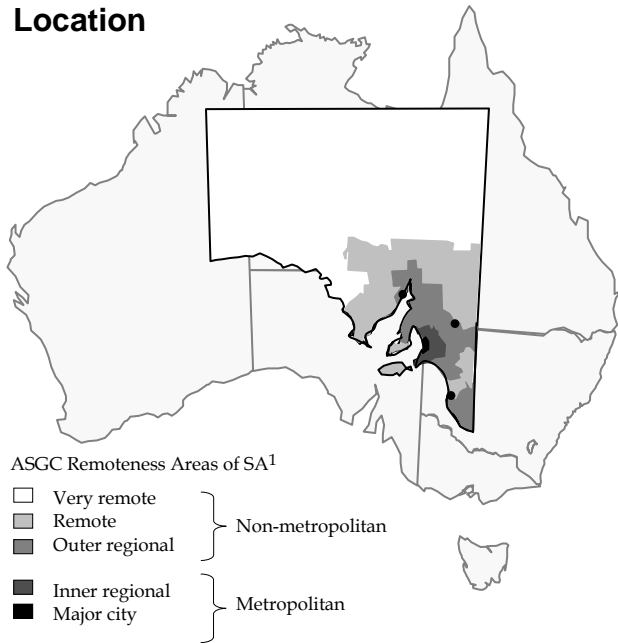
Characteristics of citizenship and country of initial qualifications also had little influence on labour force status (Table A2). The proportions of employed Australian citizen nurses were 93.3% for registered nurses and 93.8% for enrolled nurses and the proportions for those who were not employed in nursing were 91.8% and 94.4%, respectively. The proportions of employed nurses who obtained their initial qualification in Australia were 89.6% for registered nurses and 96.5% for enrolled nurses and, of those who were not employed in nursing, the proportions were 89.1% and 96.9%, respectively.

**Table 1: Nurse registrations: labour force status, average age and proportion male, 2004**

	Registered nurses			Enrolled nurses			All nurses		
	Number	Average age	% male	Number	Average age	% male	Number	Average age	% male
Employed in nursing, mainly or only in South Australia	17,427	42.9	10.1	5,673	43.6	6.3	23,099	43.1	9.1
On extended leave	397	36.7	3.0	77	38.6	8.4	474	37.0	3.9
Looking for work in nursing	184	42.7	5.0	79	43.0	5.1	263	42.8	5.0
Overseas	175	38.0	14.8	10	42.3	—	185	38.2	13.9
Not looking for work in nursing	687	45.4	6.6	329	44.0	4.5	1,016	44.9	5.9
Employed mainly or only interstate	273	43.4	11.0	49	44.4	5.8	322	43.6	10.2
<b>Total nurse registrations</b>	<b>19,142</b>	<b>42.8</b>	<b>9.8</b>	<b>6,217</b>	<b>43.6</b>	<b>6.2</b>	<b>25,359</b>	<b>43.0</b>	<b>8.9</b>

Source: Nursing and Midwifery Labour Force Survey, South Australia, 2004.

## Location



In 2004, most nurses (84.6%) with registration in South Australia reported residing in metropolitan areas (Table 2)<sup>1</sup>. This aligned with the proportion of the South Australian population living in metropolitan areas (84.6%)<sup>2</sup>.

The metropolitan/non-metropolitan distribution of nurses was different when registered nurses were compared with enrolled nurses. Registered nurses were more likely to live in metropolitan areas (87.2%) than their enrolled colleagues (76.6%).

The picture was similar for registered nurses employed only or mainly in South Australia, those looking for work in nursing and those not looking for work in nursing (between 84.6% and 87.9% residing in metropolitan areas). For enrolled nurses, around three-quarters (77.2%) of those employed only or mainly in South Australia and a slightly higher proportion (80.4%) of those looking for work in nursing lived in metropolitan areas, whereas for those not looking for work in nursing, around two-thirds (68.2%) lived in metropolitan areas.

**Table 2: Nurse registrations: labour force status and location<sup>(a)</sup> of residential address, 2004**

	Registered nurses		Enrolled nurses		Total			
	Metropolitan area	Non-metropolitan area	Metropolitan area	Non-metropolitan area	Metropolitan area	Non-metropolitan area	Overseas <sup>(b)</sup>	Not stated <sup>(c)</sup>
Employed in nursing, only or mainly in South Australia	15,207	2,098	4,352	1,285	19,559	3,384	—	156
On extended leave	314	80	60	16	374	95	1	3
Looking for work in nursing	153	26	63	15	216	42	3	3
Overseas	68	3	2	2	69	5	96	15
Not looking for work in nursing	570	104	224	104	794	208	6	8
Employed only or mainly interstate	166	104	24	25	190	129	—	3
<b>Total nurse registrations</b>	<b>16,478</b>	<b>2,415</b>	<b>4,725</b>	<b>1,447</b>	<b>21,203</b>	<b>3,862</b>	<b>106</b>	<b>188</b>

(a) See 'Geographic classification' in the Glossary.

(b) Percentage calculations in the text exclude nurses with an overseas address.

(c) Comprises nurses who did not provide their location.

Source: Nursing and Midwifery Labour Force Survey, South Australia, 2004.

<sup>1</sup> Metropolitan/non-metropolitan relate to the Australian Bureau of Statistics' ASGC Remoteness Areas. See 'Geographic classification' in the Glossary.

<sup>2</sup> Figures are based on ABS preliminary population estimates for 2004 and are subject to revision.

## Qualifications

In 2004, employed nurses in South Australia were more likely to hold post-registration qualifications (40.7%, or 9,408) than nurses who were not employed in nursing (36.5%, or 707) (Table 3). Of those employed, almost half of registered nurses (46.8%, or 8,156) held post-registration qualifications compared with around one in five (22.1%, or 1,252) enrolled nurses. The proportions were lower but differences between the two groups were similar for those not employed in nursing, with 42.8% of registered and 17.9% of enrolled nurses holding such qualifications. With a total of 2,429 qualifications,<sup>3</sup> Critical care/emergency predominated for working nurses, followed by Midwifery qualifications (2,294). For nurses not working, qualifications in the fields of Critical care/emergency and Midwifery again predominated (178 and 182 qualifications, respectively). Qualifications in Disability and Rehabilitation were less common, irrespective of whether or not nurses were employed in nursing.

Enrolled nurses' qualifications were distributed differently from the overall pattern. They were more likely to be in the fields of Medical/surgical and Aged care (270 and 216, respectively for qualification holders employed in nursing; and 20 and 23, respectively, for qualification holders not employed in nursing).

**Table 3: Nurse registrations: post-registration qualifications, 2004<sup>(a)</sup>**

Field of qualification	Employed in nursing			Not employed in nursing <sup>(b)</sup>		
	Registered nurses	Enrolled nurses	Total	Registered nurses	Enrolled nurses	Total
<i>Nurses without post-registration qualifications</i>	9,270	4,421	13,691	825	406	1,231
<i>Nurses with post-registration qualifications</i>	8,156	1,252	9,408	618	89	707
<b>Total nurses</b>	<b>17,427</b>	<b>5,673</b>	<b>23,099</b>	<b>1,443</b>	<b>495</b>	<b>1,938</b>
<b>Qualifications held<sup>(c)</sup></b>						
Critical care/emergency	2,319	110	2,429	175	3	178
Perioperative	715	87	802	56	4	61
Medical/surgical, incl. gynaecology	1,581	270	1,851	88	20	109
Midwifery	2,242	52	2,294	182	—	182
Paediatric and child health	792	49	841	73	4	77
Community health	895	101	996	55	6	61
Mental health	862	178	1,040	59	13	71
Aged care	699	216	915	41	23	64
Disability	61	15	76	4	—	4
Rehabilitation	120	75	195	5	7	12
Management/administration	827	61	887	63	8	71
Education	292	47	339	35	7	41
Generic and other courses	2,487	630	3,117	204	29	233

(a) Includes hospital-based certificates and tertiary qualifications in nurse management and clinical nursing. In 2003, the scope of qualifications/courses changed to exclude in-service/continuing education sessions, refresher/re-entry courses or those less than 6 months' duration.

(b) Includes nurses on extended leave, overseas, nurses working but not in nursing and nurses not working. Excludes nurses working interstate.

(c) Qualifications total more than the number of nurses because nurses can hold more than one qualification.

Source: Nursing and Midwifery Labour Force Survey, South Australia, 2004.

<sup>3</sup> Qualifications total more than the number of nurses because nurses can hold more than one qualification.

# The nurse workforce

The supply of nurses is a cornerstone of health workforce planning. Nursing supply in South Australia shows changes in average hours worked directly affecting supply over the period from 1997 to 2004. The nursing supply has increased in recent years, in part as a result of an increase in average hours worked by nurses but also because the South Australian population has grown at a slower rate than the number of employed nurses.

This section presents information on employed nurses (the nurse workforce), their characteristics and how the pattern of their work affects overall supply.

## Overall nursing supply

Because a high proportion of nurses work part-time and the proportion doing so can vary from year to year, the use of the population-standardised head-count is limited as an indicator of nurse supply. It is more appropriate to assess the supply of labour through full-time equivalent (FTE) nurse numbers, which have been adjusted for the number of hours worked.

The concept of a full-time equivalent depends on what may reasonably be regarded as a full-time job. FTE calculations in this publication are based on the standard full-time working week for nurses in South Australia of 38 hours per week. The FTE (supply) in this report is based on the total hours worked, divided by 38 hours for all nurses.

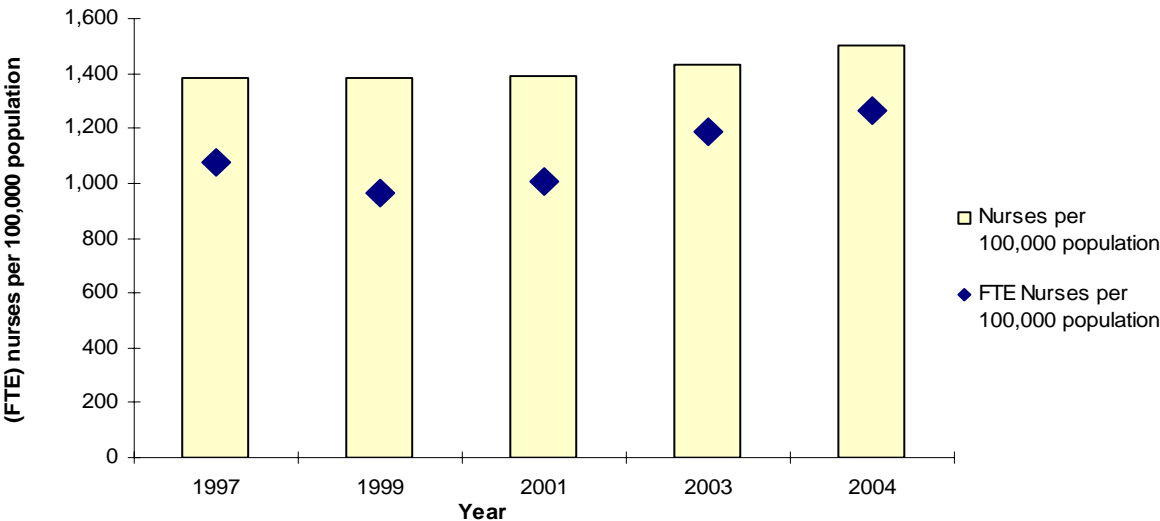
For example, a nurse working 68 hours per week represents 1.8 FTE, and one working 19 hours represents 0.5 FTE.

This method provides a measure of the actual supply of nursing by taking into account nurses working part-time, those regularly working more than 38 hours per week as well as nurses who, due to difficulties filling rosters, work additional shifts to maintain the same level of service.

FTE (supply) measures how many 38-hour week workloads are being worked by nurses.

A feature of the nurse workforce is a lower FTE per 100,000 population of nursing supply than the rate of nurses in the population. This is because the hours they work per week (31.9 in 2004) average less than 38 (Table 5).

**Figure 2: Employed nurses: nurse rate and full-time equivalent (FTE) rate<sup>(a)</sup> in South Australia, 1997 to 2004**



(a) Calculations of FTE are based on a 38-hour week.

Source: Nursing Labour Force Survey, South Australia, 1997 to 2001; Nursing and Midwifery Labour Force Survey, South Australia, 2003 and 2004.

The measure of supply also hinges on population size, and for this reason FTE per 100,000 population (the FTE rate) is used to compare supply over time or between areas, as well as the number of nurses per 100,000 population (the nurse rate). On this basis, the South Australian FTE rate in 2004 was 1,264 FTE per 100,000 population and the nurse rate was 1,506 per 100,000, both of which show an overall rise from the level in 1997 (1,076 FTE and 1,382 nurses per 100,000 population) (Figure 2). Between those years, however, there was a dip in both the nurse rate and the FTE rate and in 1999 and 2001, the gap between the two measures was wider, as proportions of part-time nurses (those working less than 38 hours per week) rose.

## Work patterns

### Demographics

**Table 4: Employed nurses: average hours worked per week,<sup>(a)</sup> proportion working part-time<sup>(b)</sup> and average age, by sex and division, 1997 to 2004**

	1997	1999	2001	2003	2004
<b>Registered nurses</b>					
<b>Males</b>					
Average hours	37.2	32.7	34.0	38.0	38.5
% part-time	22.2	41.8	38.7	27.8	30.4
Average age	39.5	40.1	41.9	42.6	42.9
<b>Females</b>					
Average hours	29.5	26.5	27.1	31.3	31.6
% part-time	62.4	72.2	72.8	62.5	61.7
Average age	40.5	40.9	42.4	42.5	42.9
<b>Enrolled nurses</b>					
<b>Males</b>					
Average hours	34.8	29.4	33.0	35.3	35.9
% part-time	41.3	60.6	50.5	47.5	44.8
Average age	37.7	39.6	41.3	41.9	41.7
<b>Females</b>					
Average hours	27.0	24.4	26.1	29.3	30.1
% part-time	77.9	84.0	82.4	74.5	71.9
Average age	39.6	41.0	43.1	43.2	43.7
<b>Total nurses</b>					
<b>Males</b>					
Average hours	36.8	32.2	33.8	37.5	38.1
% part-time	25.0	44.5	40.5	30.9	32.8
Average age	39.2	40.1	41.8	42.5	42.7
<b>Females</b>					
Average hours	28.9	26.0	26.9	30.8	31.2
% part-time	66.2	75.0	75.1	65.4	64.2
Average age	40.3	40.9	42.5	42.7	43.1

(a) Based on the total number of hours worked per week self-reported by responding nurses. See Glossary for more information on hours.

(b) Less than 38 hours per week.

Source: Nursing Labour Force Survey, South Australia, 1997 to 2001; Nursing and Midwifery Labour Force Survey, South Australia, 2003 and 2004.

In 2004, the average total weekly hours worked by both males (38.1) and females (31.2) were higher than average hours in 1997 (36.8 and 28.9 hours, respectively). Again, there was a dip over the period, with the lowest level in 1999 (32.2 and 26.0 hours, respectively) (Table 4).

Consistent with this, the pattern of both male and female part-time nurses over time shows an inverse trend. Although the majority of males work full-time, in 1997 a quarter of males (25.0%) worked part-time. By 1999 this had peaked at 44.5% and in 2004 had fallen to a third (32.8%). Two-thirds (66.2%) of females worked part-time in 1997 and this peaked at three-quarters in 1999 and 2001 (75.0% and 75.1%, respectively), a rise of almost 9 percentage points. A drop followed and by 2004 around two-thirds (64.2%) of females were part-time (Table 4).

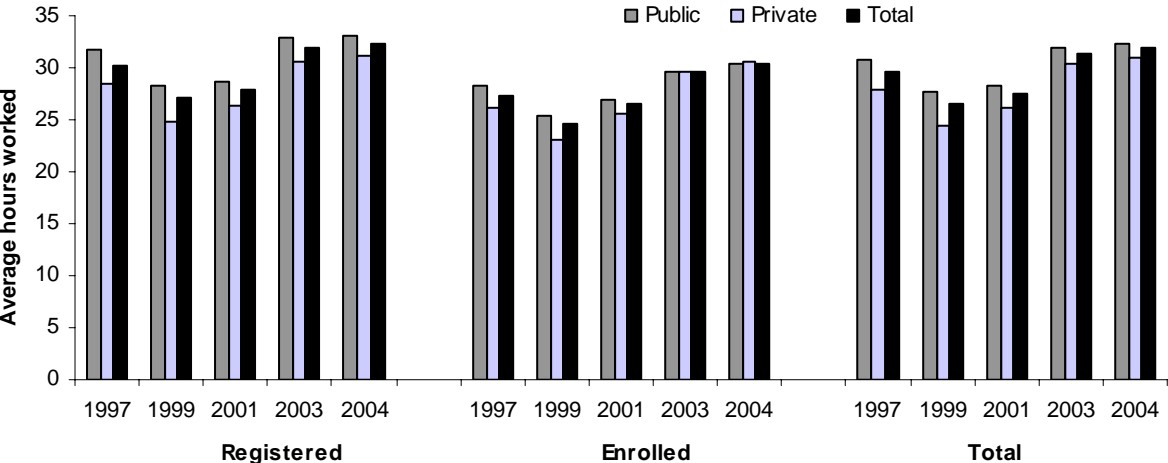
Overall, in 1997, just under two-thirds of all nurses (62.7%) were part-time and by 1999 this had reached almost three-quarters (72.3%). This increase was most evident for nurses working less than 15 hours a week, whose proportion increased by almost six percentage points from 1997 (7.0%) to 1999 (12.7%). At the same time, the proportion who worked 15–24 hours per week increased by 4.8 percentage points (29.2% in 1997 and 34.0% in 1999) (Table A3).<sup>4</sup> After the peak in 1999, there was a decline in the number of part-time nurses with a sharp drop evident from 2001 to 2003 (71.9% to 62.3%, respectively). In 2004, the proportion of part-time nurses remained steady at 61.4%.

Between 1997 and 2004, the South Australian nurse workforce aged by 2.9 years. Most of this rise occurred between 1999 and 2001 when their average age rose by 1.6 years. With females comprising 90% of the nurse workforce, this pattern was reflected in their age trend (a rise of 2.8 years overall and a jump of 1.6 years in their average age between 1999 and 2001). Males were younger than females, on average, but overall between 1997 and 2004, males aged by 3.5 years, closing the gap between their average age and that of females (Table 4).

### Sector of employment and work setting

Sector of employment relates to whether the facility in which nurses work is public or private, and work setting of nurses refers to the type of facility in which they work.

Figure 3: Employed nurses: average hours worked per week and employment sector, 1997 to 2004



Source: Nursing Labour Force Survey, South Australia, 1997 to 2001; Nursing and Midwifery Labour Force Survey, South Australia, 2003 and 2004.

<sup>4</sup> Not all nurses provided the number of hours worked, and those nurses who did not are excluded from the percentage calculations.

## Sector of employment

In 2004, nurses in the public sector worked, on average, 1.4 hours per week more than their colleagues in the private sector (32.4 hours compared with 31.0 hours) (Figure 3). This held true for registered nurses, who worked an average of 1.8 hours more per week in the public sector than the private sector (33.0 hours compared with 31.2 hours), whereas for enrolled nurses there was little difference (30.4 and 30.5 hours per week, respectively).

Between 1997 and 2004, nurses employed in the private sector experienced a larger rise in their average weekly hours than their colleagues in the public sector (up by 3.1 hours and 1.6 hours, respectively). This pattern was evident in the hours worked by both registered and enrolled nurses, with increases in weekly hours of 2.8 hours and 1.3 hours, respectively. For enrolled nurses, average hours worked in the private sector rose by 4.4 hours and in the public sector, by 2.1 hours.

## Work setting

Across work settings in 2004, the weekly hours worked by nurses in Tertiary education institutions (37.5 hours) and Developmental disability services (36.9 hours) were, on average, higher than those of their colleagues working in other settings (Table 5). Furthermore, nurses employed in these two work settings were more likely to work 45 hours or more per week (22.6% and 15.1%, respectively) and, correspondingly, less likely to work part-time (35.1% and 33.2%, respectively). The picture in 1997 was similar, in that nurses in these two work settings tended to work more hours. On the other hand, the proportion working 45 hours or more in Tertiary education institutions had changed little (23.1%) and the proportion working 45 hours or more in Developmental disability services was considerably lower (4.0%). Also, nurses working in Developmental disability services showed the largest increase in part-time workers (from 25.6% in 1997, up by 7.6 percentage points in 2004).

**Table 5: Employed nurses: main job work setting, selected aspects of hours worked, 1997 and 2004**

Work setting	1997			2004		
	Average weekly hours	% working 45 hours or more per week	% part-time	Average weekly hours	% working 45 hours or more per week	% part-time
Hospital (incl. psychiatric)	30.4	3.1	58.3	31.8	7.8	61.5
Mental health facility <sup>(a)</sup>	..	..	..	35.4	14.1	43.7
Day procedure centre	27.9	0.8	66.7	29.8	6.1	67.1
Hospice	27.1	—	88.4	30.5	5.2	75.7
Community health centre/ domiciliary care	30.3	3.2	53.3	31.6	7.7	57.2
Doctors' rooms/medical practice	25.0	2.4	79.5	27.2	4.9	77.2
Residential aged care	27.3	2.8	79.3	32.0	12.3	65.7
Developmental disability service	35.3	4.0	25.6	36.9	15.1	33.2
School	27.2	9.2	77.1	32.6	14.4	59.9
Tertiary education institution	38.5	23.1	31.6	37.5	22.6	35.1
Remote area service/ multipurpose service <sup>(a) (b)</sup>	..	..	..	31.5	9.6	64.8
Other	28.7	4.7	64.3	34.4	13.7	45.9
<b>Total</b>	<b>29.6</b>	<b>3.5</b>	<b>62.7</b>	<b>31.9</b>	<b>9.1</b>	<b>61.4</b>

(a) This category was not separately available on the 1997 questionnaire.

(b) Includes rural/remote health and Indigenous health.

Source: Nursing Labour Force Survey, South Australia, 1997; Nursing and Midwifery Labour Force Survey, South Australia, 2004.

Across settings, generally the proportions of nurses working 45 hours or more rose in 2004 to at least double the levels in 1997. The two exceptions were Tertiary education institutions, where the proportion remained stable, and Schools, where the proportion did not quite double (rose from 9.2% to 14.4%). The largest increases from 1997 to 2004 were experienced by nurses in Development disability services, up 11.1 percentage points (from 4.0% to 15.1%) and in Residential aged care facilities, up 9.5 percentage points (from 2.8% to 12.3%), followed by nurses in Day procedure centres, up 5.3 percentage points (from 0.8% to 6.1%).

Although the overall proportion of part-time nurses declined from 1997 to 2004, there was variation across work settings. Schools, Residential aged care facilities, Hospices and Doctors' rooms conformed to the picture, where the proportions working part-time fell by 17.2, 13.6, 12.7 and 2.3 percentage points, respectively. Conversely, Developmental disability services, Community health services, Tertiary education institutions and Hospitals were against the state trend, with proportions increasing by 7.6, 3.9, 3.5 and 3.3 percentage points, respectively. The proportion of part-time nurses in Day procedure centres remained stable.

## **Distribution across areas of activity**

Nursing encompasses a wide range of work settings and nurses perform a wide variety of roles across different areas of practice. In this publication, the area of nursing in which nurses primarily work is referred to as their area of activity. This section gives an overview of their characteristics and employment patterns across these roles and their areas of activity.

### **Overview in 2004**

In 2004, the majority of employed nurses (84.8%, or 19,582) were Nurse clinicians<sup>5</sup>, that is, they worked in a clinical role, followed by Nurse administrators (4.9% or 1,141) and Nurse clinician managers (3.8%, or 871) (Table 6). Nurse administrators tended to be older, with an average age of 46.7 years, compared with 43.1 years for all employed nurses. They also tended to work more than average hours (40.0 per week compared with 31.9 for all nurses), followed closely by Nurse clinician managers (39.3 hours per week).

Of employed Nurse clinicians, nearly a third (31.2%) worked in Medical/surgical nursing, followed by 14.9% in Aged care, 10.0% in Critical care and 9.0% in Community health. Just over one in three (35.6%) nurses employed in Community health and one in five (22.6%) Aged care nurses worked in non-metropolitan areas, compared with 15.0% of all nurse clinicians.

Nurse clinicians working in the areas of Mental health, Disability and Aged care tended to be older, with average ages of 47.4, 47.1 and 46.7 years, respectively. In contrast, nurses tended to be younger in the areas of Critical care/emergency (37.9 years) and Medical/surgical nursing (40.3 years).

Nurse clinicians employed in Management/administration worked, on average, the longest weeks (39.3 hours), followed by nurses in Mental health facilities (36.0 hours) and nurses in Disability areas (34.7 hours). The relatively long working weeks of these nurses corresponded with low proportions working part-time (29.6%, 39.6% and 41.6%, respectively, compared with 66.1% for all nurse clinicians) and, with the exception of Management/ administration, also corresponded with high proportions of males. The proportions of male nurses in mental health facilities (31.6%) and in disability areas (35.7%) were high, compared with management/administration (9.5%) and nurse clinicians overall (8.5%).

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<sup>5</sup> Defined in the Nursing and Midwifery Labour Force Survey as a nurse/midwife working in a clinical role, i.e., is mainly involved in the care and treatment of patients, including nursing diagnosis and preventive action.

**Table 6: Employed nurses: nurse role by area of activity of work, selected characteristics, 2004**

<b>Nurse role/Main area of activity</b>	<b>Number</b>	<b>Average age</b>	<b>% male</b>	<b>Average weekly hours worked</b>	<b>% part-time</b>	<b>% working 45 hours or more per week</b>	<b>% in non-metropolitan areas<sup>(a)</sup></b>
<i>Clinical nursing role</i>	19,582	42.7	8.5	30.9	66.1	7.0	15.0
Critical care/emergency	1,965	37.9	14.2	32.6	61.0	7.4	5.5
Perioperative	1,517	41.6	7.3	31.3	62.4	8.1	8.6
Medical/surgical nursing (incl. gynaecology)	6,105	40.3	7.3	30.5	67.2	5.6	12.1
Midwifery	1,195	43.5	1.0	28.1	79.9	3.8	11.5
Paediatric and child health	575	42.6	3.1	30.4	66.8	5.7	11.9
Community health	1,759	44.2	5.7	29.4	68.4	5.6	35.6
Mental health	1,005	47.4	31.6	36.0	39.6	14.2	5.0
Aged care	2,927	46.7	5.0	30.2	72.7	7.8	22.6
Disability	129	47.1	35.7	34.7	41.6	12.3	4.5
Rehabilitation	427	45.4	11.3	31.5	67.2	6.0	1.2
Management/administration	122	45.4	9.5	39.3	29.6	22.8	13.7
Education	8	43.8	—	28.4	51.4	—	—
Research	43	43.4	3.0	28.4	74.3	7.2	12.0
Other	1,806	45.0	7.0	30.8	67.2	7.8	23.9
<i>Other nursing role</i>	3,517	45.0	12.6	37.3	35.3	21.1	14.0
Manager of nurse clinicians	871	44.5	14.9	39.3	28.7	21.6	12.0
Supervision/support for students/new nurses	220	41.2	8.4	34.7	46.0	12.4	12.1
Nurse administrator	1,141	46.7	12.9	40.0	25.1	28.7	18.9
Nurse educator	405	45.7	16.8	36.0	40.7	20.9	12.9
Researcher	238	43.2	10.7	33.6	48.0	14.3	2.5
Other	643	44.2	8.3	33.0	50.8	12.1	13.6
<b>Total nurses</b>	<b>23,099</b>	<b>43.1</b>	<b>9.1</b>	<b>31.9</b>	<b>61.4</b>	<b>9.1</b>	<b>14.8</b>

(a) Based on the Australian Bureau of Statistics' ASGC Remoteness Areas. See 'Geographic location' in the Glossary.

Source: Nursing and Midwifery Labour Force Survey, South Australia, 2004.

## Working hours

The average hours worked by nurse clinicians (Table 6) primarily relate to patient care. When nurses in non-clinical roles nominate a principal clinical area of work, their hours can be factored into the total worked by all nurses in each clinical area (Table 7).

There was a decline in average weekly hours from 29.6 in 1997 to 26.5 in 1999, then a slight rise to 27.5 in 2001, a jump to 31.4 in 2003, followed by levelling out to 31.9 in 2004 (Table 7).

Across clinical areas, average hours varied. Again there was a general pattern of decreases in all areas between 1997 and 1999 and subsequent rises, returning to just above 1997 levels by 2003. In 2004, average hours generally stabilised. Two exceptions were nurses working in Aged care and in Management/administration. The weekly hours for nurses in both those areas jumped in 2003 to well above 1997 levels, and then levelled to an overall increase of 4.1 and 6.6 hours, respectively, from 1997 to 2004. This compares with 2.3 hours for all nurses. In 2004, nurses working in Management/administration worked the most hours, (39.7 hours, on average), while nurses working in Community health worked the fewest (30.2 hours, on average).

**Table 7: Employed nurses: average weekly hours worked by main area of activity, 1997 to 2004**

Main area of activity	1997	1999	2001	2003	2004
Critical care/emergency	32.4	28.2	28.7	32.3	33.1
Perioperative	30.6	27.1	27.6	31.3	31.6
Medical/surgical nursing (incl. gynaecology)	29.3	26.4	27.0	30.3	30.8
Midwifery	28.5	24.7	25.6	28.0	28.5
Paediatric and child health	30.3	26.8	28.1	31.0	30.9
Community health	28.7	24.9	25.7	29.9	30.2
Mental health	35.3	30.1	32.2	36.0	36.3
Aged care	27.5	25.0	26.4	31.1	31.6
Disability	32.2	30.1	32.7	34.2	36.8
Rehabilitation <sup>(a)</sup>	..	..	29.1	32.1	32.3
Management/ administration	33.1	31.8	31.4	39.1	39.7
Education <sup>(b)</sup>	..	28.4	30.6	38.6	37.7
Research <sup>(b)</sup>	..	23.4	26.8	33.3	32.8
Other	28.1	26.4	28.4	31.2	31.5
<b>Total</b>	<b>29.6</b>	<b>26.5</b>	<b>27.5</b>	<b>31.4</b>	<b>31.9</b>

(a) The area of activity category of "Rehabilitation" was not collected separately in 1997 and 1999.

(b) The area of activity categories of "Education" and "Research" were not collected separately in 1997.

Source: Nursing Labour Force Survey, South Australia, 1997 to 2001; Nursing and Midwifery Labour Force Survey, South Australia, 2003 and 2004.

## Qualifications and area of activity

For workforce planning purposes, nurses' qualifications and the level to which they are utilised in their nursing work is important information for gauging skill supply across the different areas of nursing.

The area of nursing in which nurses primarily work is referred to as their area of activity. The following data present the relationship between nurses' area of activity and the field of their qualification(s) using a 'one-to-one' concordance<sup>6</sup> between the two (see box).

This section presents data on:

1. the number of post-registration qualifications, by study field, and whether qualifications were being utilised in the corresponding area of activity; and
2. the number of nurses with post-registration qualifications in each area of activity, and whether this and the qualification field corresponded.

The number of qualifications held is an approximation of 'skill availability' in a specific nursing area because nurses with multiple post-registration qualifications in different study fields can be counted against more than one area of activity, although they can only work in one.

Also, some individual qualifications can relate to multiple areas of activity and the 'one-to-one' concordance does not show this.

## Qualifications

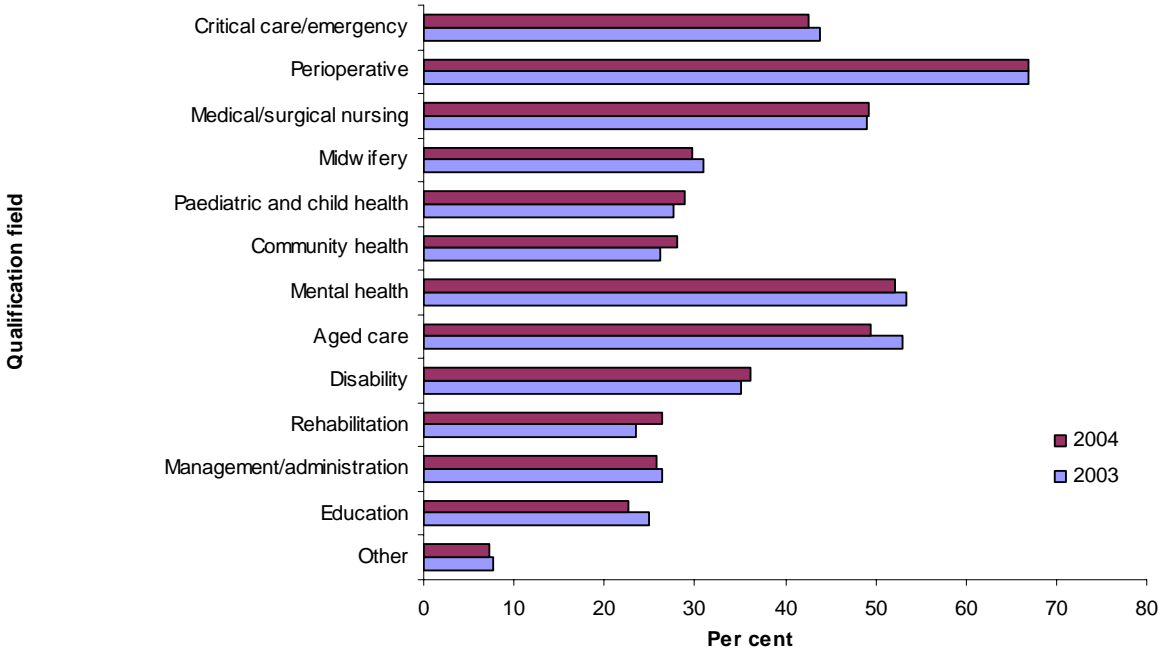
This segment focuses on the qualifications held by employed nurses.

In 2004, 9,408 nurses collectively held 15,782 post-registration qualifications and in 2003, the numbers were 9,080 nurses and 15,615 qualifications (Table A4). Across fields in 2004, qualifications in Critical care/emergency (2,429) and Midwifery (2,294) were most commonly held. However, those qualifications were less likely to be used in a corresponding area of activity than several other less widely held qualifications. In the fields of Perioperative care (66.9%) and Mental health (52.3%), for example, qualifications were more likely to be utilised in a corresponding area of activity than were qualifications in Critical care/emergency (42.7%) or Midwifery (29.7%).

<sup>6</sup> See 'Area of activity' in the Glossary.

Between 2003 and 2004, the largest changes in the utility of qualifications in a corresponding work area were in Rehabilitation, the proportion increasing by 2.9 percentage points, and Aged care, the proportion decreasing by 3.5 percentage points (Table A4). The number of qualifications held in Rehabilitation in 2004 was less than in 2003 (down from 211 to 195) and in 2004, around a quarter (26.4%) were used in a corresponding area of work activity. Qualifications held in Aged care also decreased over the period (from 929 to 915) but in 2004, around half were being utilised in a corresponding area of work activity. In contrast, qualifications in Perioperative grew slightly in number and in both 2003 and 2004, two out of three (66.9%) were being utilised in a corresponding area of activity (Table A4 and Figure 4).

**Figure 4: Post-registration qualifications held: field of qualification, per cent of qualifications held by nurses working in a directly corresponding<sup>(a)</sup> area of activity, 2003 and 2004<sup>(b)</sup>**



(a) A 'corresponding' area of activity is defined as a current main area of activity in the same field in which a post-graduate qualification is held. Nurses who undertook mental health or midwifery undergraduate courses are included.

(b) Time series shows 2003 and 2004 data because the scope change to qualifications introduced for the 2003 survey prevents comparisons with earlier years.

Source: Nursing and Midwifery Labour Force Survey, South Australia, 2003 and 2004.

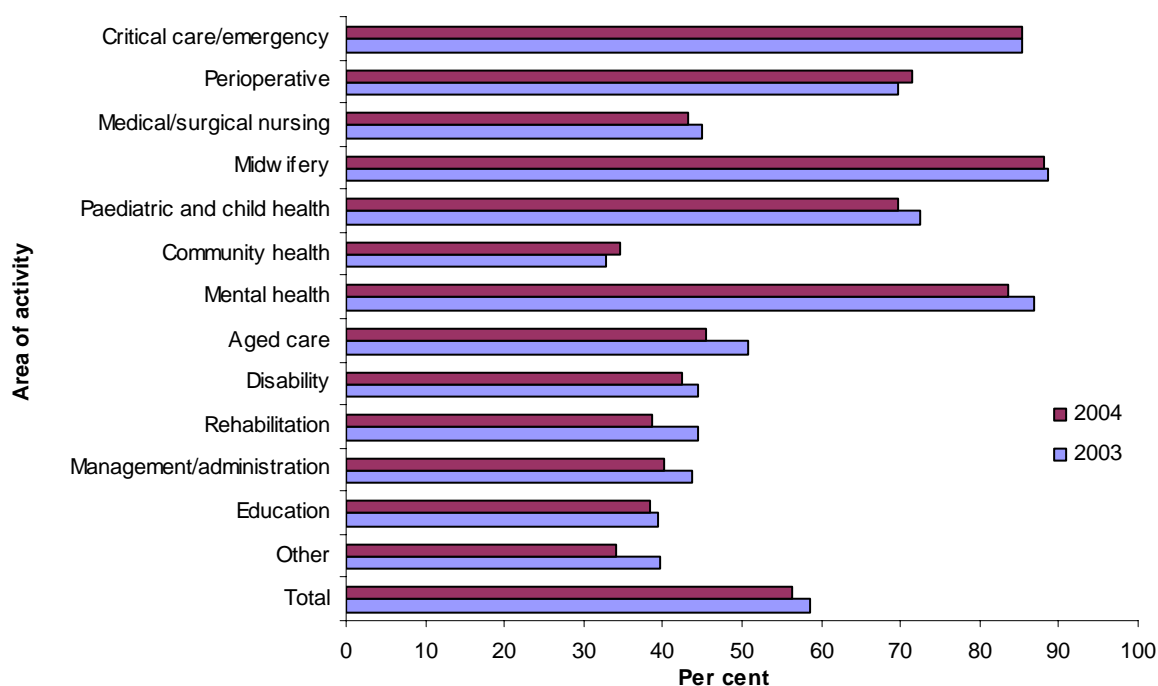
**Area of activity**

This segment focuses on nurses in each area of activity with post-registration qualifications and provides another dimension of the picture.

In 2004, 40.7% (9,408) of employed nurses held post-registration qualifications, a slight decline from the 2003 proportion (41.5%, or 9,080) (Table A5). Of nurses with post-registration qualifications, there was a decrease in the proportion whose area of nursing activity corresponded to the field of their qualifications (58.5% in 2003 and 56.3% in 2004).

Between 2003 and 2004, most nursing areas experienced decreases in the proportion of nurses with qualifications in a corresponding field. Across the specific areas, the largest decrease was in Rehabilitation (by 5.8 percentage points), followed by Aged care (by 5.2 percentage points). Increases were experienced in the nursing areas of Community health and Perioperative care (both by 1.8 percentage points).

**Figure 5: Nurses with post-registration qualifications: area of activity, per cent of nurses holding a qualification in a directly corresponding<sup>(a)</sup> field, 2003 and 2004<sup>(b)</sup>**



(a) A 'corresponding' area of activity is defined as a current main area of activity in the same field in which a post-registration qualification is held. Nurses who undertook mental health or midwifery undergraduate courses are included.

(b) This figure shows 2003 and 2004 data because the scope change to qualifications introduced for the 2003 survey prevents comparisons with earlier years.

Source: Nursing and Midwifery Labour Force Survey, South Australia, 2003 and 2004.

In both 2003 and 2004, nurses with qualifications and working in the areas of Midwifery, Critical care/emergency and Mental health were more likely than nurses in other areas to hold qualifications in a field corresponding to their work area. Over the two years, the proportions in Midwifery (88.5% and 88.2%, respectively) and Critical care/emergency (85.3% in both years) were stable, while the proportion in mental health declined (86.8% to 83.7%, respectively).

In 2004, although most nurses working in Midwifery had corresponding qualifications, under a third (29.7%) of the 2,294 Midwifery qualifications collectively available were being used in Midwifery areas (Figure 5, Tables A4 and A5).

Of nurses with qualifications and working in Medical/surgical areas, 43.1% held post-registration qualifications in the field whereas, of the Medical/surgical qualifications collectively available, just half (49.3%) were being utilised in Medical/surgical areas. Further, over two-thirds of nurses working in Paediatric and child health (69.8%) held corresponding post-registration qualifications, while a somewhat smaller proportion (28.8%) of qualifications collectively held in this field were being utilised in Paediatric and child health nursing.

Overall, in most areas of nursing practice, there were more nurses holding a related post-registration qualification than were practising that same field

## Additional tables

Table A1: Nurse registrations: labour force status, 1997 to 2004

	1997	1999	2001	2003	2004	% change 1997–04
<i>In the South Australian nurse labour force</i>	21,384	21,490	21,692	22,687	23,836	11.5
Employed in nursing, only/mainly in South Australia	20,466	20,760	21,071	21,883	23,099	12.9
On extended leave	537	370	369	556	474	-11.7
Looking for work in nursing	381	361	252	248	263	-31.0
<i>Not in the South Australian nurse labour force</i>	1,007	849	1,046	1,843	1,523	51.2
Overseas	100	97	153	174	185	84.5
Not looking for work in nursing	599	581	610	1,304	1,016	69.7
Employed mainly or solely interstate	308	171	284	365	322	4.4
<b>Total registrations</b>	<b>22,391</b>	<b>22,339</b>	<b>22,738</b>	<b>24,530</b>	<b>25,359</b>	<b>13.3</b>

Source: Nursing Labour Force Survey, South Australia, 1997 to 2001; Nursing and Midwifery Labour Force Survey, South Australia, 2003 and 2004.

Table A2: Nurse registrations: selected characteristics, 2004

Characteristics	Employed in nursing in South Australia			Not employed in nursing in South Australia <sup>(a)</sup>		
	Registered	Enrolled	Total	Registered	Enrolled	Total
<b>Citizenship</b>						
Australian citizen	16,142	5,260	21,402	1,559	512	2,071
<i>Not Australian citizen</i>	1,167	349	1,516	140	30	170
Permanent resident	1,047	342	1,389	93	27	119
Not permanent resident	120	7	128	47	3	50
Not stated	118	63	181	17	3	19
<b>Country of initial qualification</b>						
Australia	12,279	4,016	16,295	1,258	384	1,642
New Zealand	144	31	175	17	n.p.	18
Oceania	8	—	8	n.p.	—	n.p.
UK/Ireland	802	91	893	74	8	83
Europe	146	5	152	21	—	21
Middle East/Nth Africa	9	n.p.	10	n.p.	—	n.p.
Asia	175	9	183	22	—	22
Nth America	47	4	51	5	3	8
Other	94	3	97	11	—	11
Not stated	3,723	1,511	5,234	303	148	451
<b>Total</b>	<b>17,427</b>	<b>5,673</b>	<b>23,099</b>	<b>1,715</b>	<b>544</b>	<b>2,260</b>

(a) Comprises nurses on extended leave, overseas, working but not in nursing, nurses not working and those working mainly or only interstate.

Source: Nursing and Midwifery Labour Force Survey, South Australia, 2004.

Table A3: Employed nurses: weekly hours worked, 1997 to 2004

Year	Hours worked per week							Total
	Less than 15	15–24	25–37	38–44	45–54	55 or more	Not stated	
1997	1,314	5,483	4,969	6,345	493	160	1,703	20,466
1999	2,420	6,488	4,879	5,163	107	18	1,684	20,760
2001	2,219	6,458	6,180	5,539	228	34	413	21,071
2003	1,169	5,100	6,701	6,168	1,379	312	1,055	21,883
2004	1,186	5,348	7,144	6,575	1,488	551	807	23,099

Source: Nursing Labour Force Survey, South Australia, 1997 to 2001; Nursing and Midwifery Labour Force Survey, South Australia, 2003 and 2004.

**Table A4: Post-registration qualifications held: qualification field and per cent within each field held by nurses working in corresponding<sup>(a)</sup> area of activity, 1997 to 2004**

	1997		1999		2001		2003 <sup>(b)</sup>		2004 <sup>(b)</sup>	
	% working in corresponding area of activity	Total number	% working in corresponding area of activity	Total number	% working in corresponding area of activity	Total number	% working in corresponding area of activity	Total number	% working in corresponding area of activity	Total number
<i>Nurses without post-registration or enrolment qualifications</i>		12,479		10,148		9,628		12,803		13,691
<i>Nurses with post-registration or enrolment qualifications</i>	48.8	7,987	50.6	10,611	52.5	11,443	58.5	9,080	56.3	9,408
<b>Total employed nurses</b>		20,466		20,760		21,071		21,883		23,099
<b>Total qualifications<sup>(c)</sup></b>		10,923		15,274		16,865		15,615		15,782
Critical care/emergency	43.0	1,298	45.6	1,948	42.7	2,200	43.8	2,297	42.7	2,429
Perioperative	73.5	489	68.7	705	66.5	752	66.9	790	66.9	802
Medical/surgical nursing (incl. gynaecology)	50.6	594	51.6	1,005	49.3	1,244	49.0	1,874	49.3	1,851
Midwifery	41.5	2,178	31.3	3,723	28.2	3,869	30.9	2,291	29.7	2,294
Paediatric and child health	47.4	551	40.6	749	37.3	810	27.7	887	28.8	841
Community health	26.5	386	28.4	420	24.9	458	26.3	958	28.1	996
Mental health	54.1	1,001	59.2	1,271	59.9	1,486	53.5	1,032	52.3	1,040
Aged care	57.9	1,154	60.5	1,272	59.1	1,249	53.0	929	49.5	915
Disability	34.5	93	52.8	118	46.2	119	35.1	63	36.2	76
Rehabilitation <sup>(d)</sup>	..	..	..	..	..	..	23.5	211	26.4	195
Management/administration	11.2	673	15.1	801	9.5	963	26.5	840	25.8	887
Education <sup>(e)</sup>	..	278	9.0	323	2.1	407	24.8	309	22.7	339
Other	4.2	2,227	5.3	2,940	20.2	3,308	7.7	3,134	7.2	3,117

(a) A 'corresponding' area of activity is defined as a current main area of activity in the same field in which a post-registration qualification is held. See 'Area of activity' in the Glossary for the groupings and concordance. Nurses who undertook mental health or midwifery undergraduate courses are included.

(b) With the narrower scope in 2003 and 2004, this includes only post-registration study of more than 6 months' duration. Includes hospital-based certificates and tertiary qualifications in nurse management and clinical nursing.

(c) Qualifications total more than the number of nurses because nurses can hold more than one qualification.

(d) 'Rehabilitation' was not separately available as an area of activity category in 1997 and 1999, or a qualification category in 1997, 1999 and 2001.

(e) The area of activity category of 'Education' was not available separately in 1997.

Source: Nursing Labour Force Survey, South Australia, 1997 to 2001; Nursing and Midwifery Labour Force Survey, South Australia, 2003 and 2004.

**Table A5: Employed nurses: main area of activity and whether held corresponding qualifications, 1997 to 2004**

Main area of activity	1997				1999			
	With corresponding qualifications <sup>(a)</sup>	With non-corresponding qualifications <sup>(b)</sup>	No post-registration/enrolment qualifications <sup>(c)</sup>	Total number	With corresponding qualifications <sup>(a)</sup>	With non-corresponding qualifications <sup>(b)</sup>	No post-registration/enrolment qualifications <sup>(c)</sup>	Total number
Critical care/emergency	558	241	670	1,469	888	241	641	1,770
Perioperative	359	256	851	1,467	484	321	575	1,380
Medical/surgical nursing (incl. gynaecology)	300	1,497	5,055	6,852	519	1,951	4,211	6,681
Midwifery	904	205	410	1,520	1,166	113	203	1,482
Paediatric and child health	261	183	429	873	304	179	325	808
Community health	102	513	1,106	1,722	119	755	953	1,827
Mental health	542	233	496	1,271	753	222	524	1,498
Aged care	668	638	2,771	4,077	770	841	1,961	3,572
Disability	32	83	142	257	62	49	184	295
Rehabilitation <sup>(e)</sup>	..	..	..	..	..	..	..	..
Management/administration	76	35	85	196	121	167	96	384
Education <sup>(f)</sup>	..	..	..	..	29	71	30	130
Research <sup>(g)</sup>	..	..	..	..	..	65	21	86
Other	94	207	464	764	156	267	425	847
<b>Total nurses</b>	<b>3,897</b>	<b>4,091</b>	<b>12,479</b>	<b>20,466</b>	<b>5,370</b>	<b>5,241</b>	<b>10,148</b>	<b>20,760</b>

(Continued)

**Table A5 (continued): Employed nurses: area of activity and whether held corresponding qualifications, 1997 to 2004**

Main area of activity	2001				2003 <sup>(d)</sup>				2004 <sup>(d)</sup>			
	With corresponding qualifications <sup>(a)</sup>	With non-corresponding qualifications <sup>(b)</sup>	No post-registration/enrolment qualifications <sup>(c)</sup>	Total number	With corresponding qualifications <sup>(a)</sup>	With non-corresponding qualifications <sup>(b)</sup>	No post-registration/enrolment qualifications <sup>(c)</sup>	Total number	With corresponding qualifications <sup>(a)</sup>	With non-corresponding qualifications <sup>(b)</sup>	No post-registration/enrolment qualifications <sup>(c)</sup>	Total number
Critical care/emergency	939	228	550	1,716	1,006	173	835	2,014	1,037	178	932	2,147
Perioperative	500	291	577	1,368	529	231	771	1,531	536	215	859	1,610
Medical/surgical nursing (incl. gynaecology)	614	1,881	3,907	6,402	918	1,123	4,278	6,319	912	1,204	4,456	6,572
Midwifery	1,093	65	114	1,271	708	92	500	1,300	681	91	523	1,295
Paediatric and child health	302	136	256	695	245	93	238	576	242	105	280	627
Community health	114	796	858	1,768	252	516	1,137	1,905	280	528	1,223	2,031
Mental health	889	151	276	1,316	552	84	524	1,159	544	106	472	1,122
Aged care	738	851	1,826	3,415	492	478	2,389	3,359	453	541	2,522	3,515
Disability	55	40	120	215	22	28	128	177	27	37	120	184
Rehabilitation <sup>(e)</sup>	..	93	95	188	50	62	329	441	51	82	337	470
Management/admin.	91	51	60	202	222	287	310	820	229	340	327	897
Education <sup>(f)</sup>	9	17	20	45	77	118	92	287	77	124	116	316
Research <sup>(g)</sup>	..	10	8	18	..	116	58	174	..	127	84	211
Other	669	821	961	2,450	240	367	1,212	1,819	225	435	1,441	2,101
<b>Total nurses</b>	<b>6,013</b>	<b>5,431</b>	<b>9,628</b>	<b>21,071</b>	<b>5,313</b>	<b>3,767</b>	<b>12,803</b>	<b>21,883</b>	<b>5,294</b>	<b>4,114</b>	<b>13,691</b>	<b>23,099</b>

(a) A 'corresponding' field of qualification is defined as a post-registration qualification in the current main area of work activity. See 'Area of activity' in the Glossary for the groupings and concordance. Nurses who undertook mental health or midwifery undergraduate courses are included.

(b) 'Without corresponding qualifications' refers to nurses with a postgraduate qualification but not one that is directly relevant to their current main area of work activity.

(c) 'No post-registration qualification' refers to nurses with no post-registration qualifications at all.

(d) Includes only post-registration qualifications of more than 6 months' duration. Includes hospital-based certificates and tertiary qualifications in nurse management and clinical nursing.

(e) 'Rehabilitation' was not available as an area of activity category in 1997 and 1999, or a qualification category in 1997, 1999 and 2001..

(f) The area of activity category of 'Education' was not available separately in 1997.

(g) The area of activity category of 'Research' was not available separately in 1997. There is also no specific qualification of 'Research' and as such, is not an option on the questionnaires.

Source: Nursing Labour Force Survey, South Australia, 1997 to 2001; Nursing and Midwifery Labour Force Survey, South Australia, 2003 and 2004.

# Explanatory notes

## Method

The labour force data in this publication were obtained from the South Australian component of the nursing and midwifery labour force surveys conducted by each state and territory nurses/midwifery registration board on behalf of the AIHW. A survey questionnaire is sent to all nurses and midwives as part of the registration renewal process.

## Scope and coverage

The Nursing and Midwifery Labour Force Survey, South Australia, covers all nurses and midwives registered with the Nurses Board of South Australia and eligible to practise. The coverage may exclude nurses/midwives who registered for the first time during the current year.

## Response rate

Based on the total registrations in South Australia, the response rate to the survey was 71.2%. However, complete data were not available for all responding nurses/midwives because not all survey questions were completed. The overall response rate can only be estimated, not measured with complete accuracy. It is known that some nurses/midwives who were registered in more than one state/territory completed a questionnaire in just one state/territory. It is not known how often this occurs because survey records cannot be matched across states/territories.

## Labour force estimates

The figures produced from the Nursing and Midwifery Labour Force Survey are estimates of the whole nurse population of active registrations. Estimates of characteristics other than age and sex are based on the assumption that survey non-respondents had the same labour force characteristics as respondents. Age and sex data were available from the Nurses Board of South Australia, whereas missing survey data were estimated based on the distribution of survey responses. In 2001, a new survey estimation method was introduced to improve processing. For consistency across surveys, data for surveys prior to this have been revised using the new method and, as a result, pre-2001 figures shown in this report are different from estimates published in the past.

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

## Break in series

In 2003 there were substantial changes to the survey questionnaire. The main changes were:

- a large expansion of the categories of work activity;
- a narrower scope to the definition of post-registration qualifications;
- an expansion of the categories for field of post-registration qualifications; and
- an increase in the information relating to hours worked.

As result of this break in series, estimates are not directly comparable over time.

# Glossary

## Area of activity of nursing and corresponding field of study

For the purposes of analyses contained within this publication, main area of activity and field of study have been classified into corresponding groups. The table below (Table A.6) illustrates these groupings based on the survey coding frames introduced in 2003. Surveys prior to 2003 contained slightly different categories for main area of activity and field of study; however, these categories have been revised to concord with the groupings in Table A.6.

Table A.6: Grouping of main area of activity and qualification field from 2004 survey

Groupings of main area of activity/field of study	Main area of activity	Field of study	Groupings of main area of activity/field of study	Main area of activity	Field of study
Critical care/emergency	32, 34–41	2, 4–9, 24	Mental health	60–64	31–34
Perioperative	23–26	1, 10	Aged care	57–59	53–55
Medical/surgical nursing (incl. gynaecology)	1–22, 33, 44, 45, 70, 74	3, 11–15, 16–21, 59, 67	Disability	65	56, 57
Midwifery	27–31	28–30	Rehabilitation	66, 67	58
Paediatric and child health	43, 46–49	22, 23, 25–27, 45, 49	Management/administration	71, 72, 75, 77	46, 60–63
Community health	42, 50–56, 68, 69, 79	35–44, 47, 48, 50–52	Education	73	64–66
			Research	78	
			Other	76, 80, 81	68, 69

### Main area of activity

1 Cardiology	18 Plastics	35 Emergency	50 Community health	67 General rehab/disability
2 Endocrinology	19 Surgical nursing	36 High dependency	51 Health promotion	68 Alcohol & other substance abuse
3 Gastroenterology	20 Urology	37 Intensive care	52 Indigenous health	69 Health ed./disease management
4 Medical nursing	21 Vascular	38 Neonatal intensive care	53 Medical practice nurse	70 Infection control
5 Neurology	22 General surgical	39 Paediatric critical care	54 Public health	71 Informatics
6 Oncology/haematology	23 Anaesthetic	40 Retrieval	55 Sexual health	72 Management
7 Palliative care	24 Perioperative	41 General critical care	56 General comm. health	73 Nurse education
8 Renal medicine	25 Recovery	42 Family planning	57 Aged care	74 Nurse practitioner
9 Respiratory	26 General perioperative	43 Family, youth & child health	58 Gerontology	75 Occupational health and safety
10 General medical nursing	27 Antenatal	44 Infertility & assisted reproduction	59 General aged care	76 Policy
11 Burns	28 Labour	45 Men's health	60 Adult mental health	77 Quality management
12 Cardiothoracics (surgical)	29 Postnatal	46 Paediatric and child health	61 Child and adolescent mental health	78 Research
13 Ear, nose & throat	30 Maternal and child health	47 School health	62 Forensic	79 Rural and remote health
14 Gastro-intestinal nursing	31 General midwifery	48 Women's health	63 Psychogeriatric	80 No one area of practice
15 Neurosurgical	32 Cardiac/coronary care	49 General family & child health	64 General mental health	81 Other
16 Ophthalmology	33 Cardiothoracic (critical care)		65 Disability	
17 Orthopaedic	34 Critical care		66 Rehabilitation	

### Field of study

1 Anaesthetic & recovery	18 Orthopaedic	32 Community psychiatric	43 Health education	57 Other disability
2 Cardiac	19 Renal/nephrology	33 Mental health/psychiatric nursing practice	44 Health promotion	58 Rehabilitation
3 Cardiothoracic	20 Surgical nursing	34 Rural and remote mental health	45 Infertility & associated reproduction	59 Respiratory
4 Critical care	21 Wound management	35 Indigenous health	46 Occupational health & safety	60 Applied management
5 Emergency/trauma	22 Family, child, & adolescent health	36 Alcohol & other drug studies	47 Public health	61 Health services management
6 High acuity (ward care)	23 Lactation & infant feeding	37 Asthma education	48 Rural & remote health	62 Nursing administration
7 Intensive care	24 Neonatology/neonatal	38 Clinical forensic nursing	49 School health	63 Nursing leadership
8 Neonatal intensive care	25 Paediatric & child health	39 Community health	50 Sexual health	64 Clinical education
9 Paediatric critical care	26 Parenting education	40 Correctional nursing	51 Substance abuse	65 Clinical teaching
10 Perioperative	27 Women's health	41 Corrections health & forensic nursing	52 Transcultural nursing	66 Nurse education
11 Neuroscience (incl. spinal injury)	28 Midwifery	42 Diabetes education and management	53 Aged care	67 Nurse practitioner
12 Acute/clinical care	29 Midwifery continuity of care		54 Continence	68 Bachelor of App. Science/ Health Science/ Nursing (Post Registration)
13 Burns and plastics	30 Midwifery practice in risk-associated pregnancies		55 Gerontology	69 Other
14 Gastroenterology	31 Child & adolescent mental health		56 Developmental disability	
15 Infection control				
16 Medical nursing				
17 Oncology/palliative care				

## Enrolled nurse

A nurse who possesses at least a 1-year certificate (certificate IV) from a Vocational Education and Training institution or equivalent from a recognised hospital-based program, and is on the register maintained by the Nurses Board of South Australia to practise nursing in that state. It is necessary for a nurse to have practised in the field of nursing in the previous 5 years to maintain registration.

## Full-time equivalent (FTE)

FTE calculations in this report are based on the standard full-time working week for nurses/midwives in South Australia of 38 hours per week. The FTE (supply) in this report is based on the total hours worked, divided by 38 hours for all nurses/midwives.

## Hours worked

The total number of hours worked per week self-reported by responding nurses/midwives as the usual number of hours worked per week in all nursing-related jobs in the week prior to completing the survey form. 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 was limited to 125 hours per week for all jobs. In this publication 38 hours per week has been used for the cut-off for full-time and part-time work:

- *full-time*: 38 hours or more per week
- *part-time*: less than 38 hours per week.

## Geographic classification

There are several classifications used to differentiate between various regions in Australia. The Remoteness Area Structure of the Australian Standard Geographic Classification (ASGC), produced by the Australian Bureau of Statistics (ABS), was used in this publication to present regional data. This classification 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.
- } Metropolitan
- } Non-metropolitan

*For additional information, the ASGC Remoteness Areas for South Australia are shown on the state map in the main body of this report.*

## Midwife

A nurse holding a Bachelor of Midwifery and registered as a midwife with the South Australian Nurses Board.

## Nurse clinician

A registered/enrolled nurse or midwife who is mainly involved in the care and treatment of patients, including nursing diagnosis and preventive action.

## Nursing labour force

The nursing labour force (registered nurses/midwives and enrolled nurses) in South Australia includes nurses/midwives currently employed in nursing and nurses/midwives who are not employed in nursing but are looking for work in nursing. Nurses/midwives 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/midwives, those on extended leave have not been included.

## Nursing role

Describes the job function within the field of nursing of a person with nursing qualifications.

The categories are:

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

## Nursing workforce

The nursing workforce comprises nurses/midwives currently employed in nursing (excluding nurses/midwives on maternity or other extended leave for more than 3 months).

## Qualifications/field of study

The scope qualifications/field of study was narrowed in the 2003 survey to include only post-registration qualifications of 6 months or more duration and were not in-service or continuing education sessions.

## Registered nurse

A nurse holding at least a 3-year degree from a tertiary education institution or equivalent from a recognised hospital-based program, and is on the register of the Nurses Board of South Australia to practise nursing in that state. Registered nurses/midwives may have their practice certificate endorsed to work in a specific clinical area (eg, midwifery) on completion of a recognised postgraduate course. To maintain registration, a nurse must have practised in the field of nursing in the past 5 years.

# Symbols and other usages

Throughout this publication, data may not add to the totals shown due to the estimation process for non-response. Percentages may not add to 100.0 due to rounding. *Italics* within a table denote a subtotal. Where tables contain a 'not stated' category, percentage calculations exclude these figures.

.. denotes not applicable.

– denotes nil or rounded to zero.

n.a. denotes not available.

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Board Chair  
Hon. Peter Collins, AM, QC

Director  
Dr Richard Madden

Any enquiries about or comments on this publication should be directed to:

Labour Force and Rural Health Unit  
Australian Institute of Health and Welfare  
GPO Box 570  
Canberra ACT 2601  
Phone: (02) 6244 1156  
Email: labourforce@aihw.gov.au

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