

9 Explanatory notes

Background

In 1990, the Australian Health Ministers' Advisory Council (AHMAC) commissioned the Australian Institute of Health and Welfare to develop national health labour force statistics about the major registrable health professions. Data collections based on a national minimum data set were developed addressing the labour force planning needs of the health professions, government, service providers and educational institutions. In addition to nursing, published data from the collection are available for medicine, dentistry, pharmacy, podiatry and physiotherapy.

In 1997, the National Health Information Management Group of AHMAC reviewed national health labour information requirements and decided that future national collections would be conducted annually for medicine, biannually for nursing and on a rolling three-year cycle for dentistry and several allied health occupations.

Scope and coverage

The scope of the national nurse 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 has occurred during the preceding 12 months.

Method

The main data in this publication were obtained from a nurse labour force survey conducted by each State and Territory nurses board on behalf of the Institute. Each nurses board sent a survey questionnaire to all nurses included in the registration renewal process in 1995. Each State and Territory health authority forwarded a computer file of the survey data to the Institute for aggregation into a national data set.

Survey response

The proportion of the total of the registrations in each State and Territory represented by completed questionnaires in the 1995 survey was 79.3%. The proportion was 83.1% in New South Wales, 74.6% in Victoria, 80.6% in Queensland, 72.9% in Western Australia, 86.6% in South Australia, 55.5% in Tasmania, 51.4% in the Australian Capital Territory and 71.8% in the Northern Territory. The overall response rate can only be estimated, and cannot be 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. The incidence of this occurrence cannot be ascertained because matching survey records among States and Territories is not possible.

Furthermore, complete data were not available for all responding nurses, either because not all survey questions were completed or because nurses board initial registration data were incomplete or not provided.

Labour force estimates

Nurses may register in more than one State or Territory. In estimating the nursing labour force, it is therefore important to reduce as much as possible the consequent duplication in statistics.

The estimation of the number and characteristics of currently employed nurses in each State and Territory was based on the responses of those nurses employed solely or mainly in the State or Territory of registration. Nurses who were on leave for three months or more, although employed, were excluded from most tables of employed nurses because not all States and Territories collected data from nurses who were on leave.

It is assumed for all estimates that non-respondents to the survey had the same labour force characteristics as had respondents, and the survey data were scaled up to the registrations in each State and Territory by distributing the non-response numbers on the basis of this assumption. This process may have overestimated the numbers of nurses in the labour force in each State and Territory if non-respondents were more likely to be those with multiple registration or those not in the nurse 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.

One way of checking the AIHW estimates is to compare them with the estimates of the Australian Bureau of Statistics for 1995. The average of the Bureau's quarterly estimates for 1995 was 198,400 nurses employed as clinicians (Table 28). The comparable AIHW estimate was 198,286, comprising 195,692 clinicians and 2,594 employed nurses on extended leave (Table 1).

Collection timing

The labour force survey is conducted by the nurses' board in each State and Territory in conjunction with the annual renewal of practice licences. Therefore, the timing of the survey depends on the licence renewal procedure that operates in each State and Territory. Nurses registering for the first time are not included in the survey at initial registration because they would generally have no previous nursing job for which details could be provided.

The renewal of registration in New South Wales is due on the anniversary of initial registration, so the survey in that State is conducted throughout the calendar year.

South Australia has four renewal periods each year, with about one quarter of nurses registered in each period. The survey returns from each quarterly renewal period are accumulated for a calendar year.

The remaining States and Territories have annual renewals due by a fixed date: 1 April for the Australian Capital Territory; 30 June for Queensland and the Northern Territory; 31 August for Tasmania; 31 December for Victoria and Western Australia. The collection period in each State and Territory is shown schematically in Table 63.

Survey data collected during 1995 were used except for Tasmania and the Northern Territory. For Tasmania, the 1995 survey did not include the question about field of nursing. As this is an important question in terms of determining whether a nurse is working as a clinician or in some other field of nursing, 1996 data were scaled to 1995 registration numbers. For the Northern Territory, the survey was not conducted in 1995; so 1996 data were scaled to the 1995 registration numbers.

Table 63: Nurse labour force survey: data collection period, States and Territories, 1995

State/Territory	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
New South Wales														
Victoria														
Queensland														
Western Australia														
South Australia														
Tasmania														
Australian Capital Territory														
Northern Territory														

Identification of registered and enrolled nurses

The 1995 survey questionnaire did not include a question that identified whether a nurse was on the register or the roll in each State and Territory because it was assumed that this information would be readily available from the registering authority.

A means of positively identifying whether a survey respondent was on the register or the roll was provided for New South Wales, Queensland, Tasmania and the Northern Territory. For all other States and Territories, nurses were identified as registered or enrolled by the division in which they were registered (Table 64). Nurses identified as being both registered and enrolled were defined as registered in the survey database.

Use of the register to classify nurses as either registered or enrolled differed from the practice in previous years when job classification was used.

Table 64: Nurse labour force survey: method of classifying nurses as registered or enrolled, selected States and Territories, 1995

Classification	Victoria	Western Australia	South Australia	Australian Capital Territory
Enrolled	Enrolled (Div. 2) Mothercraft (Div. 5)	Enrolled Enrolled (comprehensive) Enrolled (mental health) Mothercraft Dental	Enrolled Mothercraft	Enrolled Mothercraft
Registered	Comprehensive (Div. 1) Psychiatric (Div. 3) Mental retardation (Div. 4)	General Comprehensive Psychiatric Mental health Child health Midwifery Other	General Midwifery Infant Mental health Mental deficiency Other	General Midwifery Infant Mental health Other

Additional data sources

Additional data were obtained as follows:

- full-time-equivalent nursing staff numbers in hospitals from the Australian Hospital Statistics database at the Australian Institute of Health and Welfare;
- students enrolled in and completing higher education courses from the Department of Employment, Education, Training and Youth Affairs;
- international migration from the Department of Immigration and Multicultural Affairs;
- overseas nurses assessed as eligible to practise in Australia from the Australian Nursing Council;
- employed nurses collected quarterly in the monthly labour force survey of the Australian Bureau of Statistics; and
- the numbers of certified nurses in other countries from the 1997 OECD Health Data File.

Glossary

Age

The number of completed years from year of birth to the year of the survey.

Area of clinical nursing

A classification of the area of nursing in which a nursing clinician is engaged.

A detailed classification of some 61 classes was used in New South Wales that does not precisely match the standard 21 classes used in other States and Territories. The concordance between the standard classification and the New South Wales classification is shown in Table 65.

Table 65: Area of clinical nursing concordance: New South Wales, 1995

Publication classification	New South Wales classification
Mixed medical and surgical	Mixed medical surgical
Medical	Medical group excluding aged care Diagnostic group
Surgical	Surgical group excluding operating theatre/recovery
Operating theatre	Operating theatre/recovery
Intensive care	Acute care group excluding casualty accident/emergency
Paediatric	
Obstetrics and gynaecology	Gynaecology Reproductive medicine
Midwifery	Obstetrics/midwifery
Psychiatric/mental health	Mental health group excluding drug and alcohol
Developmental disability	Developmental disability Mental health (drug and alcohol)
Gerontology/geriatric	Aged care
Accident and emergency	Casualty accident/emergency
Community	Community nursing—general
Child health	Child and family health
School medical	School children's health
District/domiciliary	
Occupational health	Occupational health
Private medical practice	
Independent practice	
No one principal area	No one area of practice
Other	Other Mothercraft Aboriginal health Women's health

Classification of job

The classification of registered nurses according to the industrial award in each State and Territory. New South Wales and Victoria have State awards while the other States and Territories operate with a federal award. The concordance among the reported classifications and the published classification is shown in Table 66.

Table 66: Registered nurses: classification of job concordance, States and Territories, 1995

Publication classification	Reported classification	NS	Vic	Qld	WA	SA	Tas	ACT	NT
Level 5 director of nursing	Management: area director of nursing/regional nursing officer	X							
	Management: area manager nurse education	X							
	Management: director of nursing	X							
	Management: deputy director of nursing	X							
	Grade 7 director of nursing		X						
	Grade 6 management/education		X						
	Level 5 director of nursing				X	X	X	X	X
Level 4 assistant director of nursing: clinical/management	Clinical: assistant director of nursing	X							
	Management: assistant director of nursing	X							
	Grade 5 clinical consultant/supervisor/educator		X						
	Level 4 assistant director of nursing: clinical/management			X					
	Level 4 clinical/management				X	X	X	X	X
Level 4 staff development/education/research	Management: manager nurse education	X							
	Level 4 staff development/education/research			X	X	X	X	X	X
Level 3 nurse manager	Clinical: nursing unit manager	X							
	Management: nursing unit manager	X							
	Grade 4 charge nurse/maternal and child health nurse/education		X						
	Level 3 nurse manager			X	X	X	X	X	X
Level 3 clinical nurse consultant/specialist	Clinical nurse consultant	X							
	Grade 3 clinical nurse consultant/associate charge nurse		X						
	Level 3 nurse practice coordinator			X					
	Level 3 clinical nurse consultant/specialist			X	X	X	X	X	X
Level 3 staff development/education/research	Education: clinical education	X							
	Education: staff development	X							
	Education: vocational education	X							
	Researcher	X							
	Level 3 staff development/education			X	X	X	X	X	X
	Level 3 research			X	X				
	Level 2 staff development/education				X				
Level 2 clinical nurse	Clinical nurse specialist	X							
	Clinical: midwife	X							
	Level 2 clinical nurse			X	X	X	X	X	X
	Level 2 area manager				X				
Level 1 registered nurse	Clinical: registered nurse	X							
	Grade 2 registered nurse		X						
	Grade 1 registered nurse		X						
	Psychiatric nurse (Division 3)		X						
	Level 1 registered nurse			X	X	X	X	X	X
Lecturer—higher education sector	Education: nurse academic	X							
	Lecturer—higher education sector		X		X	X	X	X	X
	Lecturer/tutor—higher education sector			X					
Other	Other	X	X	X	X	X	X	X	

Clinician

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

Country

The Australian Bureau of Statistics, *Australian Standard Classification of Countries for Social Statistics*, Catalogue No. 1269.0 has been used to classify country of initial qualification and country of birth into the following categories:

1. *Australia*
2. *New Zealand*
3. *United Kingdom and Ireland*: England, Scotland, Wales, Northern Ireland, Ireland
4. *Asia*: Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, Vietnam, People's Republic of China, Hong Kong, Japan, Democratic People's Republic of Korea (North Korea), Republic of Korea (South Korea), Macau, Mongolia, Formosa, Taiwan, Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, Sri Lanka
5. *Other countries*: all countries not specified above.

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 one-year diploma from a tertiary 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 five years to maintain enrolment. Enrolled nurses include mothercraft and dental nurses for whom the educational course requirements may be greater than one year but less than a three-year degree course or equivalent.

Geographic classification

The *Rural, Remote and Metropolitan Areas Classification* (RRMA), November 1994, has been used to classify the geographic location of the main job of responding nurses in the following seven categories. The data used in determining these categories are based on the 1991 population census.

Metropolitan areas:

1. *Capital cities* consist of the State and Territory capital cities: Sydney, Melbourne, Brisbane, Perth, Adelaide, Hobart, Darwin and Canberra.
2. *Other metropolitan centres* consist of one or more statistical subdivisions which have an urban centre of population of 100,000 or more in size: Newcastle, Wollongong, Queanbeyan (part of Canberra-Queanbeyan), Geelong, Gold Coast-Tweed Heads and Townsville-Thuringowa.

Rural zones:

3. *Large rural centres* are statistical local areas which have urban centres of population of 25,000 to 99,999: Albury-Wodonga, Dubbo, Lismore, Orange, Port Macquarie, Tamworth, Wagga Wagga (NSW); Ballarat, Bendigo, Shepparton-Mooroopna (Vic);

Bundaberg, Cairns, Mackay, Maroochydore–Mooloolaba, Rockhampton, Toowoomba (Qld); Whyalla (SA); and Launceston (Tas).

4. *Small rural centres* are statistical local areas in rural zones containing urban centres of population between 10,000 and 24,999. These centres are: Armidale, Ballina, Bathurst, Broken Hill, Casino, Coffs Harbour, Echuca–Moama, Forster–Tuncurry, Goulburn, Grafton, Griffith, Lithgow, Moree Plains, Muswellbrook, Nowra–Bomaderry, Singleton, Taree (NSW); Bairnsdale, Colac, Echuca–Moama, Horsham, Mildura, Moe–Yallourn, Morwell, Ocean Grove–Barwon Heads, Portland, Sale, Traralgon, Wangaratta, Warrnambool (Vic); Caloundra, Gladstone, Gympie, Hervey Bay, Maryborough, Tewantin–Noosa, Warwick (Qld); Mount Gambier, Murray Bridge, Port Augusta, Port Lincoln, Port Pirie (SA); Albany, Bunbury, Geraldton, Mandurah (WA); and Burnie–Somerset, Devonport (Tas).
5. *Other rural areas* are the remaining statistical areas within the rural zone: for example, Cowra Shire, Temora Shire, Guyra Shire (NSW); Ararat Shire, Cobram Shire (Vic); Cardwell Shire, Whitsunday Shire (Qld); Barossa, Pinnaroo (SA); Moora Shire, York Shire (WA); George Town, Ross (Tas); and Coomalie, Litchfield (NT).

Remote zones: these are generally less densely populated than rural statistical local areas and hundreds of kilometres from a major urban centre. Data in this publication are reported for the zone which comprises the two areas shown below.

6. *Remote centres* are statistical local areas in the remote zone containing urban centres of population of 5,000 or more: Blackwater, Bowen, Emerald, Mareeba, Moranbah, Mount Isa, Roma (Qld); Broome, Carnarvon, East Pilbara, Esperance, Kalgoorlie/Boulder, Port Hedland, Karratha (WA); and Alice Springs, Katherine (NT).
7. *Other remote areas* are the remaining areas within the remote zone: for example, Balranald, Bourke, Cobar, Lord Howe Island (NSW); French Island, Orbost, Walpeup (Vic); Aurukun, Longreach, Quilpie (Qld); Coober Pedy, Murat Bay, Roxby Downs (SA); Coolgardie, Exmouth, Laverton, Shark Bay (WA); King Island, Strahan (Tas); and Daly, Jabiru, Nhulunbuy (NT).

Hours worked

The total number of hours worked per week self reported by responding nurses as the usual number of hours worked per week in all nursing related jobs over the four weeks before the survey. Note that the Queensland and South Australian surveys did not specify the four-week period.

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 was limited to 99 hours per week for main, second and subsequent jobs and 126 hours per week for total hours worked.

The cut-off for full-time and part-time work varies among the States and Territories. In this publication the Australian Bureau of Statistics definition has been used:

- *full-time:* 35 hours or more per week;
- *part-time:* fewer 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 who 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 three months were 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 because not all States and Territories collected data on their employment characteristics before the commencement of leave.

Occupation

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

- *clinician*: a registered or enrolled nurse who is mainly involved in the care and treatment of patients, including nursing diagnosis and preventative action;
- *administrator*: a person who is mainly employed in nursing administration;
- *teacher/educator*: a person who is teaching or training persons in nursing for their initial qualification or in advanced skills after initial qualification;
- *researcher*: a person who is engaged in nursing research; and
- *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 three-year degree from a tertiary education institution or equivalent from a recognised hospital-based program. Registered nurses may have their practice certificate endorsed to practise in a specific clinical area (for example, midwifery) on completion of a recognised postgraduate course. To maintain registration, it is necessary for a nurse to have practised for a specified minimum period in the field of nursing in the past five years.

Work setting

The functional use of the premises where a nursing job is located. Table 67 presents the concordance between the description in the publication and the data as collected from each State and Territory.

Table 67: Work setting concordance, States and Territories, 1995

Publication description	Data collection description	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Public sector									
Acute/psychiatric hospital	Hospital inpatient	X	X		X	X	X	X	X
	Hospital outpatient	X	X		X	X	X	X	X
	Acute general/specialist hospital			X					
	Psychiatric hospital/service			X					
Nursing home	Nursing home	X	X		X	X	X	X	X
	Nursing home/aged care service			X					
Day procedure centre	Day procedure centre	X	X		X	X	X	X	X
Hostel	Hostel	X	X		X	X	X	X	X
Hospice	Hospice	X	X		X	X	X	X	X
Community health centre (a)	Community health centre/service	X	X	X	X	X	X	X	X
Agency	Agency		X		X	X	X	X	X
Developmental disability service	Developmental disability institution	X	X	X	X	X	X	X	X
School/child health service	School	X	X		X	X	X	X	X
	Maternal and child health service		X						
	Child health service			X					
Tertiary education institution	Tertiary/higher education institution	X	X	X	X	X	X	X	X
Prison medical service (b)	Prison medical service	X	X		X	X	X	X	X
Defence forces (b)	Defence forces	X	X	X	X	X	X	X	X
Other	Other	X	X	X	X	X	X	X	X
	Domiciliary nursing service			X					
	Government dept/statutory authority			X					
	Local government			X					
Private sector									
Acute/psychiatric hospital	Hospital inpatient	X	X		X	X	X	X	X
	Hospital outpatient	X	X		X	X	X	X	X
	Acute general/specialist hospital			X					
	Psychiatric hospital/service			X					
Nursing home	Nursing home	X	X		X	X	X	X	X
	Nursing home/aged care service			X					
Day procedure centre	Day procedure centre	X	X		X	X	X	X	X
	Day surgery centre/facility			X					
Hostel	Hostel	X	X		X	X	X	X	X
Hospice	Hospice	X	X		X	X	X	X	X
Private medical rooms	Private medical (Doctor's rooms)	X	X	X	X	X	X	X	X
Agency	Agency	X	X	X	X	X	X	X	X
Private nursing practice	Private nursing practice	X	X		X	X	X	X	X
Developmental disability service	Developmental disability service	X	X	X	X	X	X	X	X
School/child health service	School	X	X		X	X	X	X	X
	Maternal and child health service		X						
Tertiary education institution	Tertiary/higher education institution	X	X	X	X	X	X	X	X
Private sector	Private sector	X	X		X	X	X	X	X
	Industry/private enterprise			X					
Other	Other	X	X	X	X	X	X	X	X
	Domiciliary nursing service			X					

(a) Includes private community health centres for New South Wales.

(b) Includes private prison medical services and private defence forces for South Australia.

Abbreviations

ABS	Australian Bureau of Statistics
ACT	Australian Capital Territory
AHMAC	Australian Health Minister's Advisory Council
ANC	Australian Nursing Council
FTE	Full-time equivalent
n.e.c.	not elsewhere classified
n.f.d.	not further defined
NSW	New South Wales
NT	Northern Territory
OECD	Organisation for Economic Cooperation and Development
Qld	Queensland
SA	South Australia
Tas	Tasmania
UK	United Kingdom
USA	United States of America
Vic	Victoria
WA	Western Australia

Symbols and other usages

Data may not add to the totals shown as a result of the estimation process for non-response.

Percentages may not add to 100.0 as a result of rounding.

Italics within a table denote a subtotal.

Percentage printed as 0.0 may denote less than 0.05%.

. . denotes not applicable.

n.a. denotes not available.

Reference list

Australian Bureau of Statistics 1990. Australian standard classification of countries for social statistics. Catalogue No. 1269.0. Canberra: ABS.

Australian Nursing Council 1993, 1994, 1995, 1996, 1997. Annual Report. Canberra.

Department of Primary Industries and Energy. Department of Health and Family Services. 1994. Rural, remote and metropolitan areas classification. 1991 census edition. Canberra: AGPS.

Related publications

The following publications relating to the health labour force have been issued by the Australian Institute of Health and Welfare.

National health labour force series

- No. 1: *Pharmacy labour force 1992*
- No. 2: *Podiatry labour force 1992*
- No. 3: *Medical labour force 1992–93*
- No. 4: *Physiotherapy labour force 1993*
- No. 5: *Pharmacy labour force 1993*
- No. 6: *Medical labour force 1994*
- No. 7: *Podiatry labour force 1994*
- No. 8: *Pharmacy labour force 1994*
- No. 9: *Nursing labour force 1993 and 1994*
- No. 10: *Medical labour force 1995*

Other publications

- Australia's health 1994*
- Australia's health 1996*
- Australia's health 1998*
- Australia hospital statistics 1993–95: an overview*
- Australian hospital statistics 1995–96*
- Australian hospital statistics 1996–97*

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