

Pharmacy labour force 1998

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Abbreviations

ABS	Australian Bureau of Statistics
AIHW	Australian Institute of Health and Welfare
ACT	Australian Capital Territory
DEWRSB	Department of Employment, Workplace Relations and Small Business
DETYA	Department of Education, Training and Youth Affairs
DIMA	Department of Immigration and Multicultural Affairs
FTE	Full-time equivalent
GCCA	Graduate Careers Council of Australia Limited
n.e.c.	not elsewhere classified
NOOSR	National Office of Overseas Skills Recognition
NSW	New South Wales
NT	Northern Territory
OECD	Organisation for Economic Co-operation and Development
PBS	Pharmaceutical Benefits Scheme
Qld	Queensland
SA	South Australia
Tas	Tasmania
UK	United Kingdom
Vic	Victoria
WA	Western Australia

Symbols and other usages

Throughout this publication, data may not add to the totals shown due to the estimation process for non-response.

Throughout this publication, percentages may not add to 100.0 due to 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.

— denotes nil.

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Explanatory notes in respect of the national pharmacy labour force survey

Background

In 1990, the Australian Health Ministers' Advisory Council (AHMAC) commissioned the AIHW 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 workforce planning needs of the health professions, government, service providers and educational institutions. A national pharmacy labour force survey commenced in 1993 in conjunction with the annual registration renewal of pharmacists. In addition to pharmacy, published data are available for medicine, dentistry, nursing, podiatry and physiotherapy.

In February 1997 AHMAC reviewed national health workforce information requirements and decided that national collections should continue annually for medicine, biannually for nursing, and on a rolling three-year cycle for pharmacy, dentistry and several allied health occupations. National pharmacist labour force collections were undertaken in 1996 and 1999.

Scope and coverage

The scope of the data is all pharmacists registered with the pharmacy board in each State and Territory and eligible to practise.

Coverage may exclude pharmacists who registered for the first time during the current year. These pharmacists may not be required to renew their registration at the standard renewal date if the initial registration in that State or Territory occurred within the preceding year.

Method

Each pharmacy board, except for those in the Northern Territory and Tasmania, sent a survey questionnaire to pharmacists as part of the annual registration renewal process. The Northern Territory board registers pharmacists on application and has no annual renewal process. The pharmacy board of Tasmania did not conduct the labour force survey in 1996. Data have therefore been estimated for Tasmania and the Northern Territory by using the last available labour force proportions (that is, 1992 data for Tasmania and 1993 data for the Northern Territory), scaled to available registration numbers.

Timing

The Western Australian board dispatches its renewal notices in May; the Australian Capital Territory in September; New South Wales and South Australia dispatch in October; and Victoria and Queensland in December.

Response rate

Based on the total number of registrations in each State and Territory, the response rate to the survey (excluding Tasmania and the Northern Territory) was 83.8%. The estimated State response rate for those surveyed ranged from 88.7% in New South Wales to 70.8% in the Australian Capital Territory.

The overall response rate can only be estimated and not determined with complete accuracy. It is known that at least some pharmacists 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.

Pharmacy labour force: estimated survey response rate, States and Territories, 1996

	NSW	Vic	Qld	WA	SA	ACT	Total
	(per cent)						
Respondents	88.7	77.1	86.7	77.4	85.3	70.8	83.8
Non-respondents	11.3	22.9	13.3	22.6	14.7	29.2	16.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Complete data were not available for all responding pharmacists, either because not all survey questions were completed or because pharmacy boards' initial registration data were incomplete or not provided.

AIHW labour force estimates

Pharmacists may register in more than one State or Territory. In estimating the pharmacy 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 pharmacists in each State and Territory was based on the responses of those pharmacists employed solely or mainly in the State or Territory of registration. Pharmacists who were on leave for three months or more, although employed, were excluded from most tables of employed pharmacists because not all States and Territories collected data on pharmacists who were on leave.

Where data were unavailable for Tasmania and the Northern Territory in 1996, it was assumed that the labour force characteristics were in the same proportion of registrations in 1996 as the labour force characteristics in 1992 for Tasmania and 1993 for the Northern Territory. The proportions were applied to 1996 registration numbers to estimate the characteristics of the labour force in 1996, but were not considered reliable enough to estimate the number of pharmacists looking for work in pharmacy, and thus the number of pharmacists in the labour force.

It was assumed for all estimates that non-respondents to the survey in each State and Territory had the same labour force characteristics as had respondents, and the survey data were scaled up to the registration numbers by distributing the non-response numbers on the basis of this assumption. This process may overestimate the number of pharmacists in the labour force in each State and Territory if non-respondents are more likely to be those with multiple registrations not in their home State or Territory or those not in the pharmacy labour force. This survey error will be greater in the two Territories, which have higher proportions of pharmacists registered in other jurisdictions, and lower proportions of pharmacists practising solely in the Territories.

Revisions to 1995 data

The number of registrations and the estimated workforce in New South Wales has been revised for 1995, following advice from the Pharmacy Board of New South Wales.

Comparability with data for previous years

Most of the labour force data in this publication is directly comparable with previously published data for 1995. However, the survey question concerning classification of main and second job of community pharmacists in New South Wales was changed for the 1996 collection, and therefore this data may not be directly comparable with that for 1995.

Overview of the pharmacy labour force

This publication provides an overview of trends in the pharmacy labour force from 1992 to 1998, detailed information on the composition of the pharmacy labour force in 1996, and recent information concerning the demand for pharmacy services. Information on the pharmacy labour force is drawn from pharmacist registrations from 1992 to 1998, the 1991 and 1996 national population censuses, and the 1996 national pharmacy labour force survey. Also included is information on international pharmacist statistics in 1997, tertiary education of pharmacy students from 1989 to 1998, and migration of pharmacists to and from Australia from 1993 to 1998. Information on the utilisation of pharmacy services is drawn from the Bettering the Evaluation And Care of Health (BEACH) survey, the 1995 National Health Survey, the Pharmaceutical Benefits Scheme (PBS) and the Community Drug Use Database maintained by the Department of Health and Aged Care.

Principal pharmacy workforce planning issues include perceived shortages of pharmacists, and the adequacy of current training to address these shortages. In December 1999, the Department of Employment, Workplace Relations and Small Business (DEWRSB) found that there were national shortages of retail and hospital pharmacists, and shortages in all States except New South Wales (DEWRSB 1999). These shortages are being addressed to some extent, as in recent years the number of students in pharmacy courses has increased markedly. A 1999 study of the demand and supply of pharmacists by the Pharmacy Guild of Australia for the National Pharmacy Workforce Reference Group found that the market for hospital pharmacists may be nearly balanced in 2010, but that there may be a shortfall of community pharmacists. The study recommended addressing workforce losses rather than increasing the numbers of pharmacy students to remedy the potential shortfall (Health Care Intelligence Pty Ltd 1999).

Major workforce planning issues therefore include trends in supply, the ageing of the workforce, the rising proportion of females in the workforce, and shortages of pharmacists in certain rural areas.

The main features of this report include:

- The number of pharmacies remained almost unchanged between 1995 and 1999 (4,958 compared to 4,942) (Table 47). On the other hand, the number of prescriptions dispensed each year grew strongly, increasing by 16.5% in the five years from 1993 to 1998 (Table 50).
- There was workforce growth in line with this increase in prescriptions. There were an estimated 14,508 employed pharmacists in 1998, compared with 12,525 in 1992, an increase of 15.8%. The number of employed pharmacists per 100,000 population increased by 8.2% during this period (Table 1).
- Between the 1991 and 1996 population censuses, there was an increase in the number of pharmacists in the older age groups of the workforce. There was a 77.2% increase in the number of employed pharmacists aged 65 or more, and a 33.3% increase in the number of those aged between 55 and 64. During the same period, the number of employed pharmacists aged less than 25 increased by only 0.8%, the number aged between 25 and

34 by 16.2%, and the number aged between 35 and 44 by 19.6%. The number aged between 45 and 54 years dropped by 9.9% (Table 36).

- High rates of retirement from ageing of the pharmacist workforce, and the growth in female participation in the workforce, resulting in higher proportions of pharmacists working part-time, appears to have been largely responsible for current workforce shortages. In response, there has been a dramatic increase in the number of students undertaking pharmacy degrees. The number of Australian permanent resident students commencing undergraduate pharmacy courses increased by 50.3% between 1993 and 1998 (Table 25). The number of Australian permanent residents completing these courses increased by 27.7% from 354 in 1992 to 452 in 1997 (Table 27).
- 30% of the Australian population live in rural areas. In 1996, the proportion of young graduate community and hospital and clinic pharmacists practising in rural areas was much lower than this, at 16.4% (Table 20).

A more detailed overview of the key features of the workforce follows.

Pharmacy and pharmacist numbers

Pharmacies

During the 1980s, there were increasing concerns of an oversupply of pharmacies in metropolitan areas. In 1990 the Pharmacy Guild entered into an agreement with the Commonwealth Government to encourage a target of 1,000 suburban pharmacies to exit the industry. This agreement included assistance in redundancies, and by July 1995 there were 630 closures and 64 amalgamations, at a cost of \$42 million and \$4 million respectively. During this time, only 72 of 365 applications for new pharmacies received by the Pharmacy Restructuring Authority were approved, 28 of these under the un-met public needs criteria. The number of approved pharmacies therefore declined from 5,569 in 1989 to 4,958 in 1995, and stabilised at around that level. The greatest declines occurred in New South Wales, Victoria, South Australia and the Australian Capital Territory. Small increases have occurred in Western Australia and the Northern Territory (Table 47).

In 1999:

- there were 4,942 approved pharmacies (Table 47);
- nationally, there were 3,721 people per pharmacy in urban areas, and 3,987 in rural areas (Table 48); and
- the largest ratio of people per pharmacy was in Northern Territory rural areas, at 10,342 people per pharmacy, followed by the Australian Capital Territory and Northern Territory urban areas, at 5,222 and 4,810 people per pharmacy respectively, and rural areas in Western Australia and Victoria with 4,294 and 4,285 people per pharmacy respectively (Table 48).

Pharmacists

- Between the 1991 and 1996 population censuses, the number of practising pharmacists increased by 13.1%, the number of persons with a highest qualification in pharmacy increased by 9.6%, and the number of practising pharmacists per 100,000 population increased by 6.8% (Table 32).

- According to the 1996 national population census, 62.9% of persons with a highest qualification in pharmacy were employed as pharmacists, 13.4% were employed in other occupations, 1.8% were unemployed, and 21.9% were not in the labour force. Approximately half of those not in the labour force were aged 65 or more, and over 70% of the remainder were female (Table 39).
- There were 13 persons who identified themselves as Aboriginal or Torres Strait Islander with a highest qualification in pharmacy in the 1996 population census, and 6 that were employed as pharmacists (Table 44).
- Registrations of pharmacists with State and Territory pharmacy boards increased by 9.5% from 1992 to 1998, or from 16,685 to 18,270 (Table 1).
- There were 16,391 registered pharmacists in 1996 after adjusting for those registered in more than one State or Territory. Of these, 13,834 were employed — 11,126 as community pharmacists (80.4%), 1,940 as hospital or clinic pharmacists (14.0%), and 768 in industrial, administrative, educational or other occupations (5.5%) (Tables 2 and 3).

Geographic distribution

There were marked variations in the supply of pharmacists between the States and Territories, and between metropolitan and rural areas. In 1996, the geographic distribution of the pharmacist workforce had the following characteristics:

- Nationally, there were 63.0 full-time equivalent (FTE) pharmacists per 100,000 population. The Australian Capital Territory and Victoria each had a higher supply, at 72.6 and 67.1 per 100,000 population respectively, while the Northern Territory and South Australia had substantially lower supplies, with 36.9 and 55.8 per 100,000 population respectively (Table 19 and Figure 1).

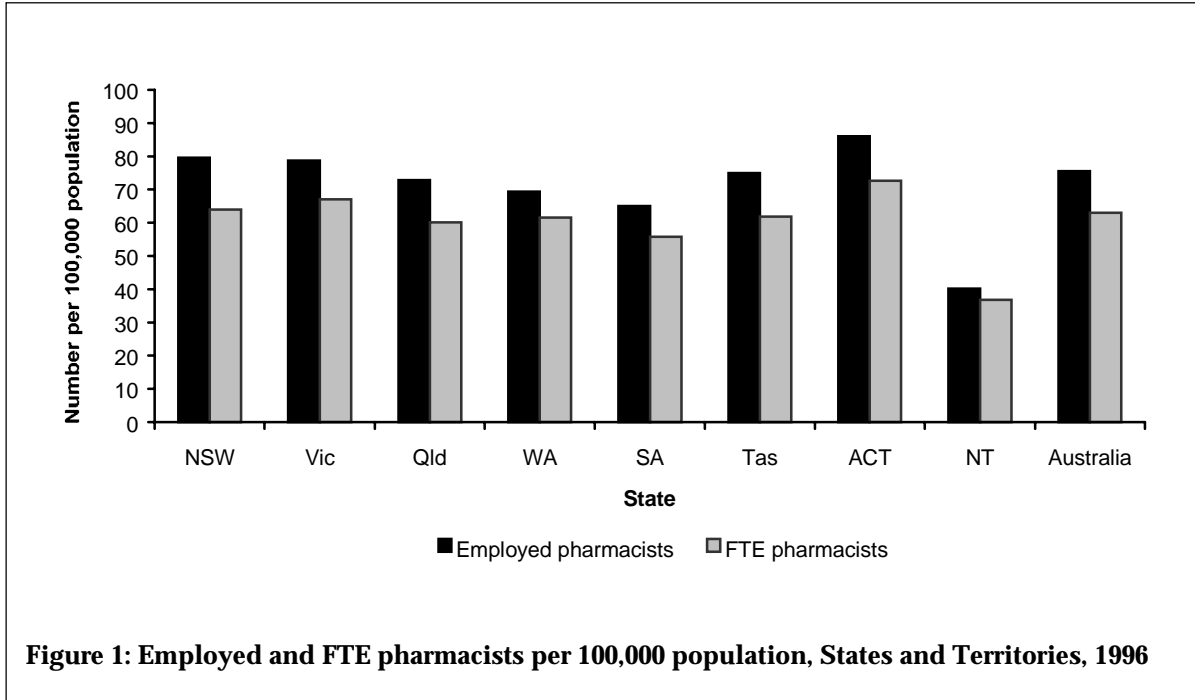
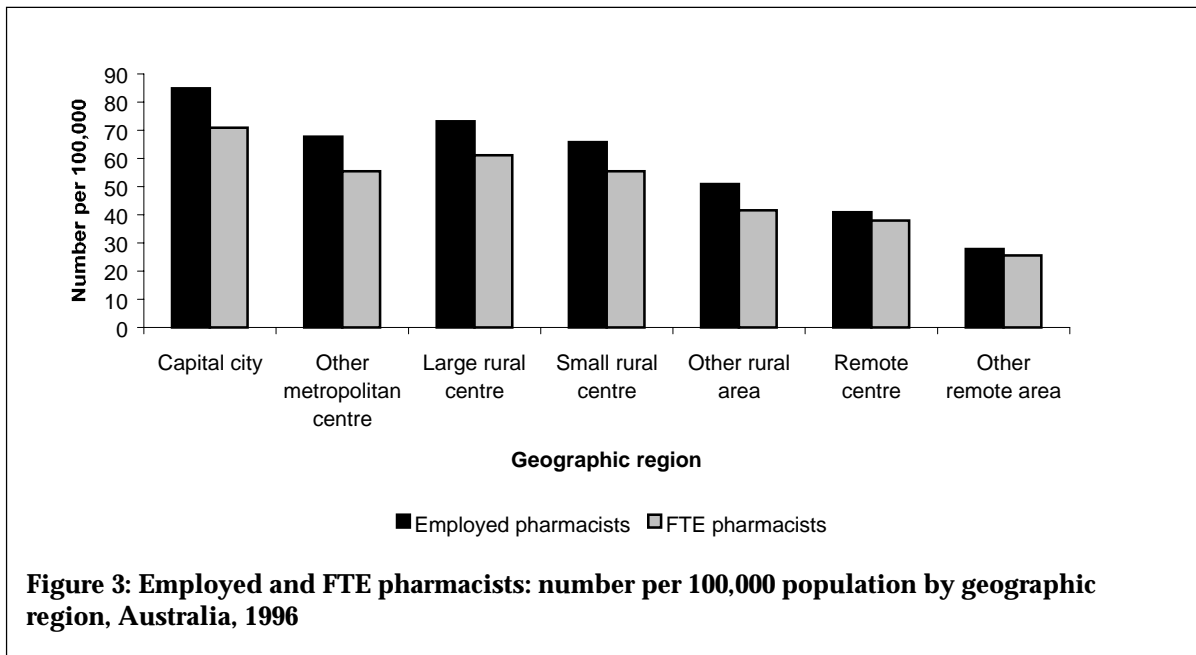
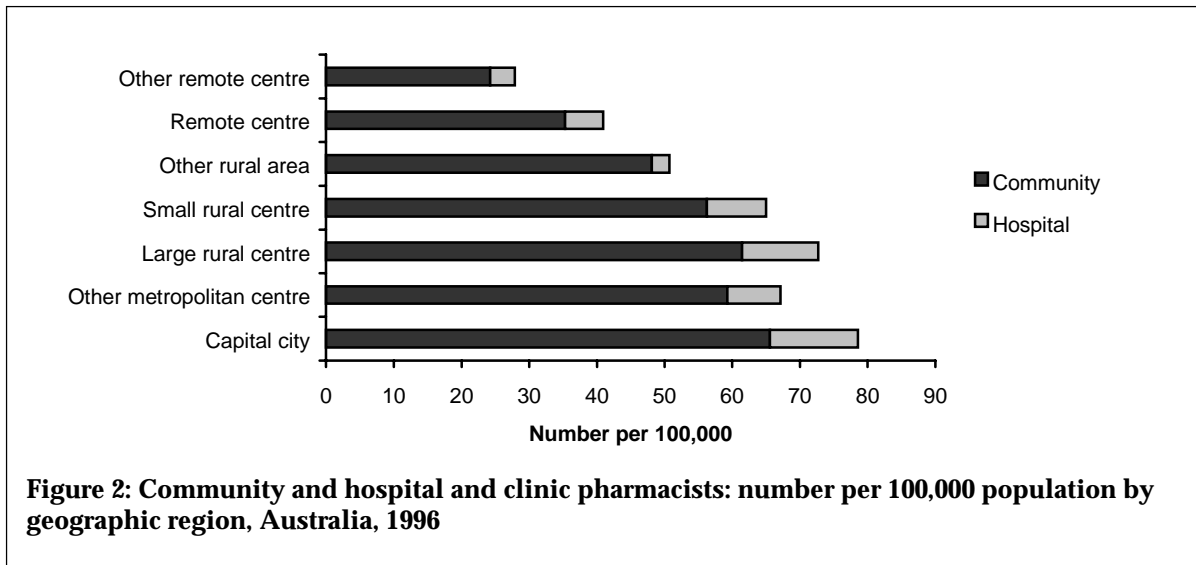


Figure 1: Employed and FTE pharmacists per 100,000 population, States and Territories, 1996

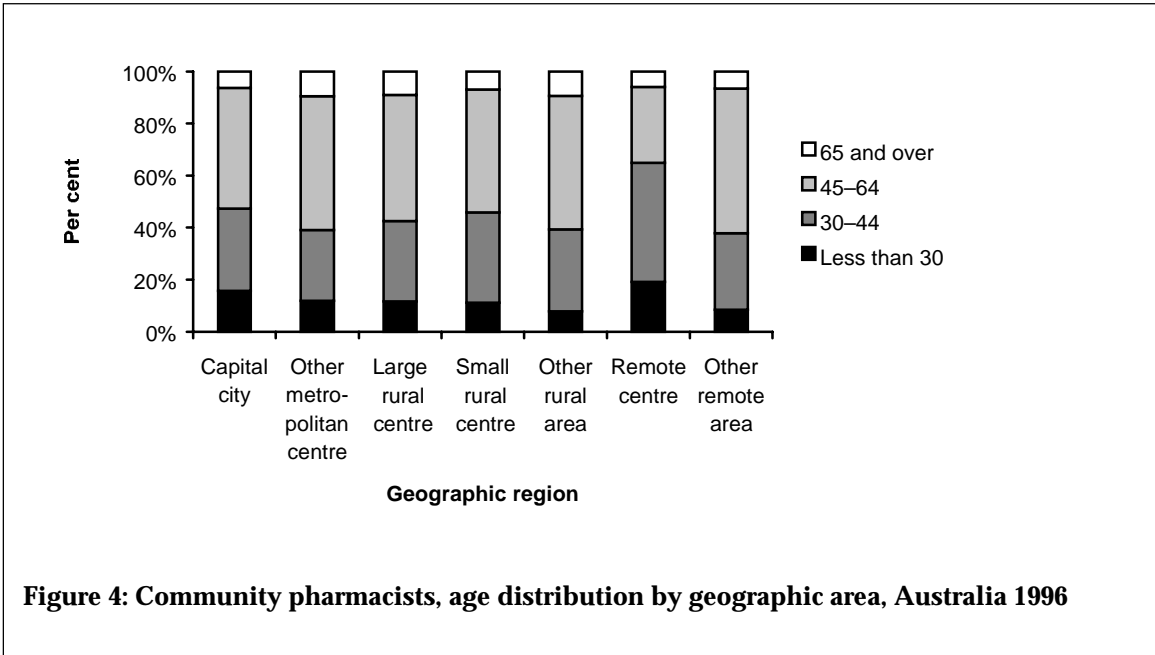
- There were declining numbers of FTE pharmacists per 100,000 population from capital cities to rural and remote areas. Capital cities had the most FTE pharmacists per 100,000

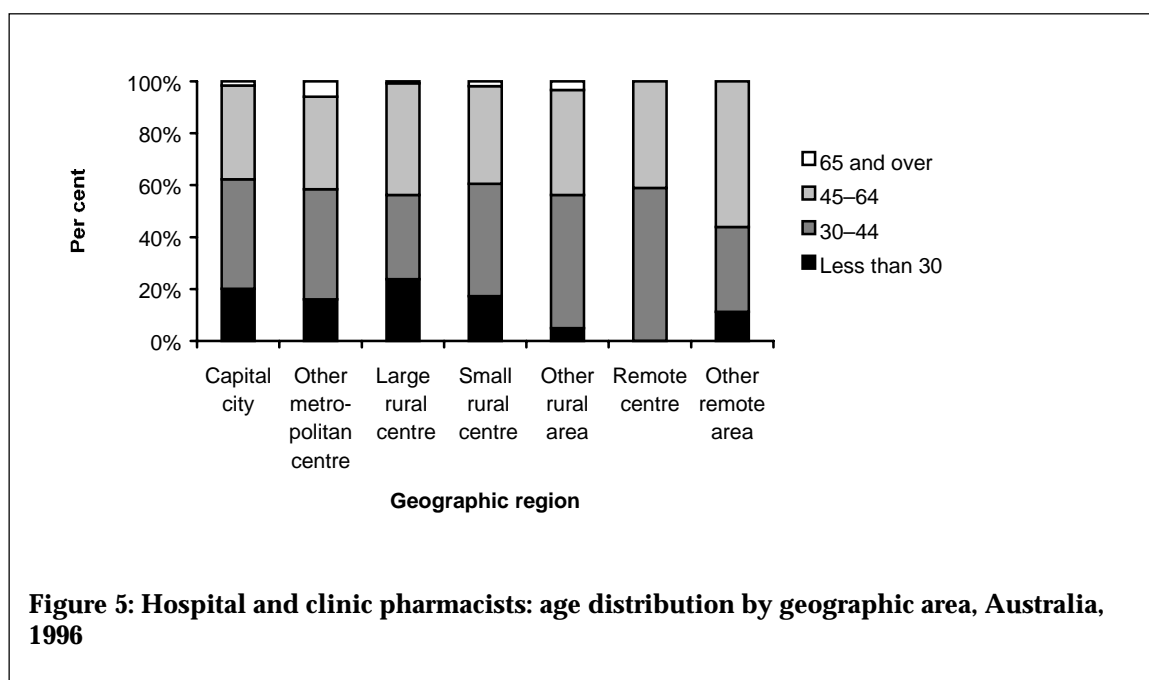
population, at 70.9, while large rural centres had 61.2, small rural centres had 55.4, other rural areas had 41.6, remote centres had 38.0 and other remote areas had 25.6. Other metropolitan centres were an exception to this trend, with 55.5 FTE pharmacists per 100,000 population, less than in large rural centres (Table 19 and Figure 3).

- This pattern was repeated in the numbers of community pharmacists per 100,000 population. There were 65.5 community pharmacists per 100,000 population in capital cities, 61.4 in large rural centres, 56.3 in small rural centres, 48.1 in other rural areas, 35.3 in remote centres and 24.3 in other remote areas, and 59.3 community pharmacists per 100,000 population in other metropolitan centres (Table 20 and Figure 2).



- The numbers of hospital and clinic pharmacists per 100,000 population followed a slightly different pattern. There were 13.0 in capital cities, 11.2 in large rural centres, 8.7 in small rural centres, 5.6 in remote centres and 3.6 in other remote areas. However rural areas other than rural centres had the lowest number per 100,000, at 2.6, and other metropolitan centres had less hospital and clinic pharmacists per 100,000 population than both large and small rural centres, at 7.8 (Table 20 and Figure 2).
- There were lower proportions of females employed as community pharmacists in all areas outside of capital cities. In capital cities 42.8% of community pharmacists were female, compared with 33.6% in other metropolitan centres, 35.7% in large rural centres, 37.8% in small rural centres, and 34.7% in other rural areas. Remote areas had higher proportions of females than rural areas, and less than capital cities, with 42.3% in remote centres and 39.0% in other remote areas (Table 20).
- In capital cities, 6.4% of community pharmacists were aged 65 or more, compared with 9.4% in other metropolitan centres, 8.9% in large rural centres, 6.9% in small rural centres and 9.3% in other rural areas. While only 6.2% of community pharmacists in remote areas other than centres were aged 65 or more, another 55.6% were aged 45–64, giving this region one of the oldest age structures. Remote centres, by comparison, had the youngest age structure of any region, with only 28.6% aged 45–64 and 6.5% aged 65 or more (Table 20 and Figure 4).
- Female hospital and clinic pharmacists accounted for approximately 68.0% of hospital and clinic pharmacists across all regions. There were higher proportions of hospital and clinic pharmacists aged less than 45 in capital cities than elsewhere—62.2% in capital cities, compared with 58.3% in other metropolitan centres, 56.2% in large rural centres, 60.5% in small rural centres, 56.2% in other rural areas, and 58.9% in remote centres. Other remote areas had the lowest proportion of hospital and clinic pharmacists aged less than 45, at 44.0% (Table 20 and Figure 5).

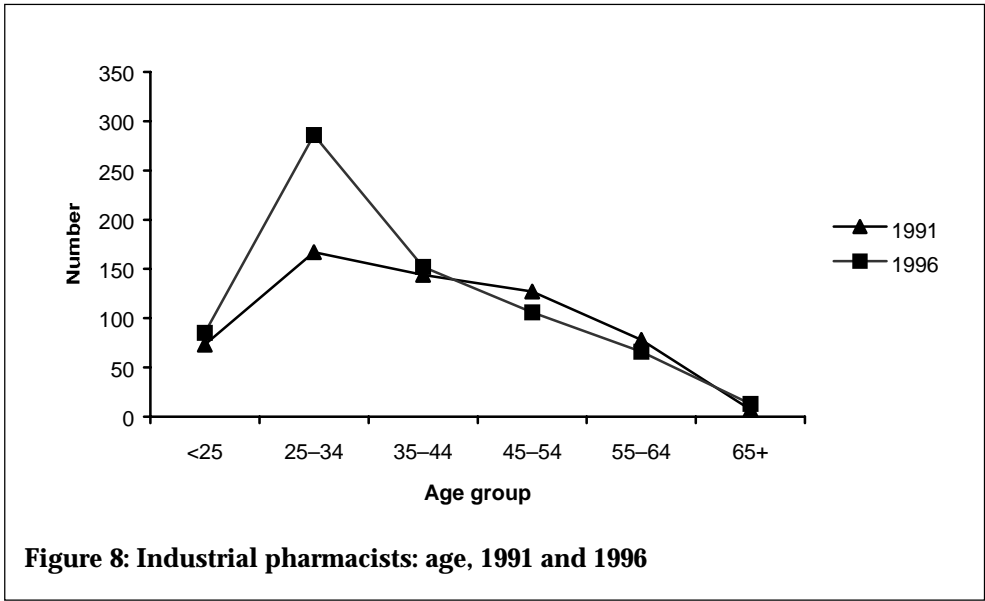
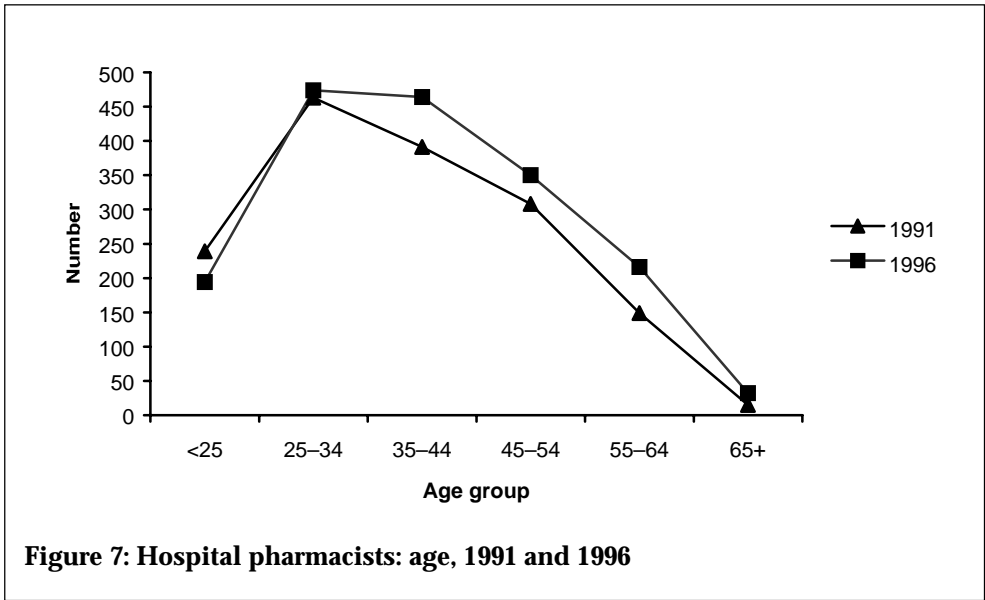
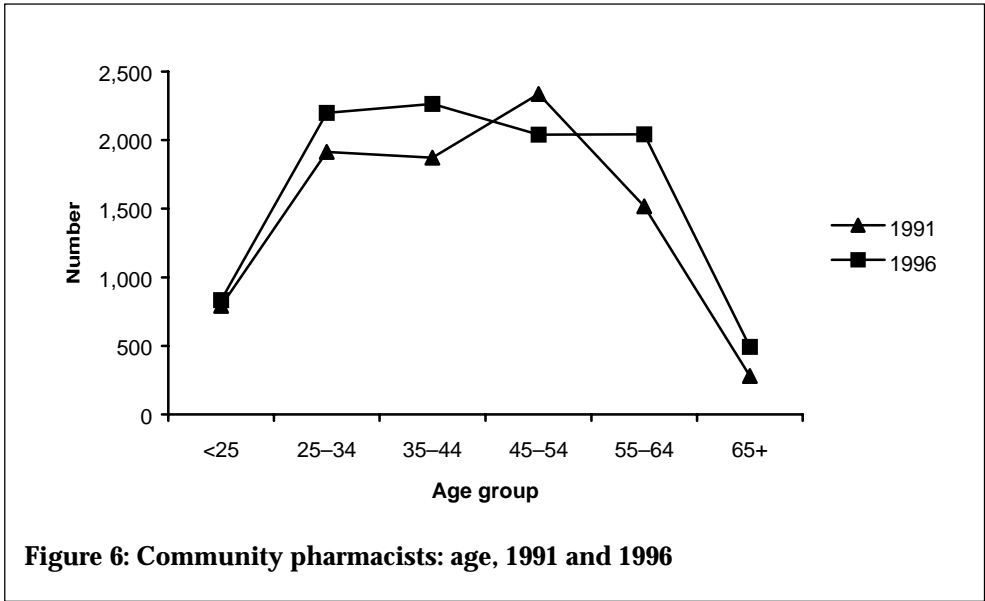


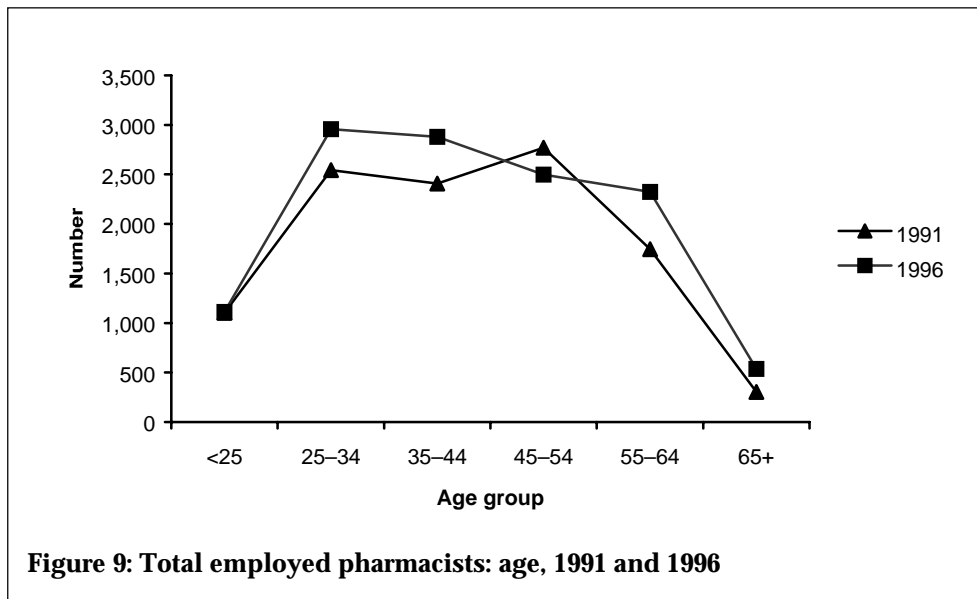


Age

Ageing of segments of the pharmacist workforce is a workforce planning concern, because of its effect on retirement rates and models of practice, as most retirees are male and most new workforce entrants are female with different practice patterns. In 1996:

- The proportion of community pharmacists that were aged 45 or more was 54.5%, including 7.1% that were aged 65 and over. The average age of all community pharmacists was 46.3 (Table 10).
- The proportion of hospital and clinic pharmacists that were aged 45 or more was 38.8%, and the average age of all hospital and clinic pharmacists was 41.6 (Table 20).
- Both hospital and community pharmacists in some rural and remote areas were older on average than those elsewhere, as were community pharmacists in metropolitan areas other than capital cities. For community pharmacists, the average age of those in metropolitan areas other than capital cities was 48.4, in rural areas other than centres it was 48.7, and in remote areas other than centres it was 48.6. For hospital and clinic pharmacists, the average age of those in rural areas other than centres was 47.7, in remote centres was 47.1, and in other remote areas was 45.5 (Table 20).
- The proportion of community pharmacists aged 65 or more was 9.4% in other metropolitan areas, 8.9% in large rural centres, and 9.3% in rural areas other than centres, compared with 6.4% in capital cities, 6.9% in small rural centres, 6.5% in remote centres and 6.2% in other remote areas (Table 20).
- Between the 1991 and 1996 population censuses, while the total number of employed pharmacists increased by 13.2%, there was a 77.2% increase in the number of employed pharmacists aged 65 or more, and a 33.3% increase in those aged 55–64. The number of those aged less than 25 increased by only 0.8%, and of those aged 25–34 by 16.2%. There was a 9.9% drop in the numbers of employed pharmacists aged between 45–54. The proportion of the workforce aged 55 or more increased from 18.8% to 23.2%, and the proportion aged 35–54 decreased from 47.6% to 43.7% (Table 36 and Figures 6–9).





Female pharmacists

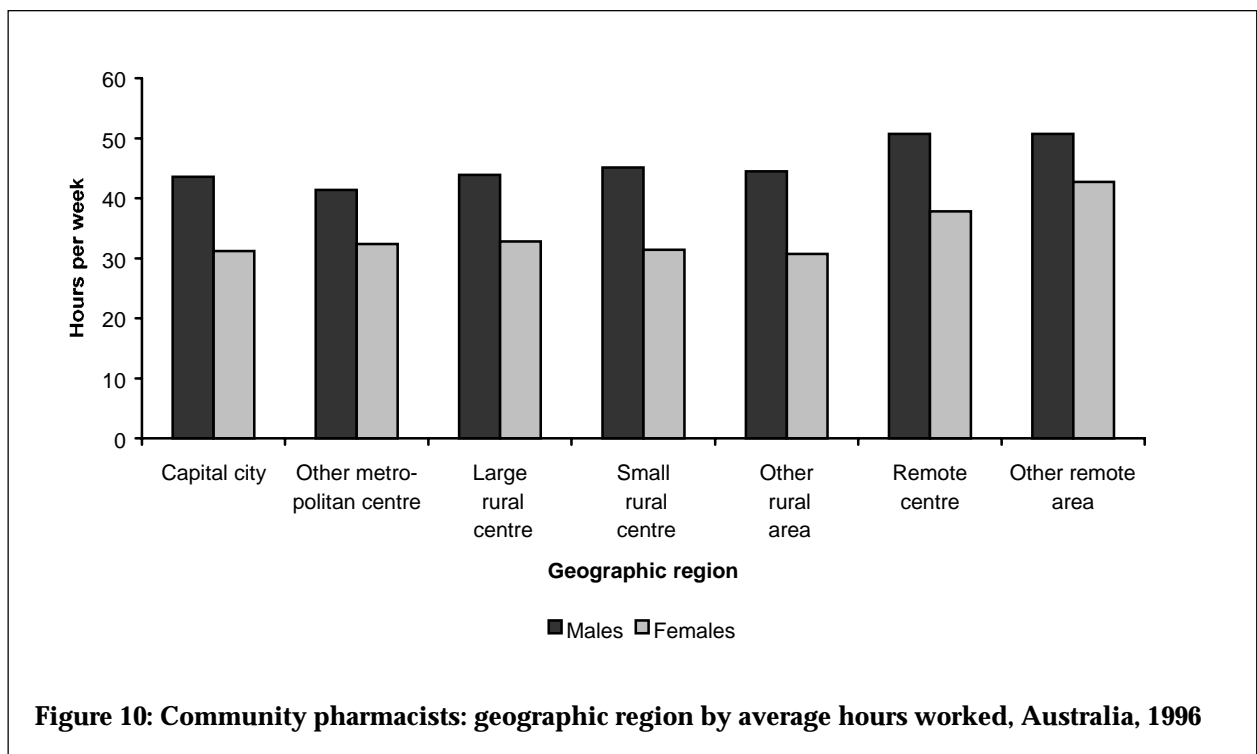
The proportion of females in the pharmacist workforce continued to rise:

- The proportion of female community pharmacists increased from 37.6% in 1992 to 40.5% in 1996, and the proportion of female hospital and clinic pharmacists increased from 64.0% to 68.3% during the same period (Table 6).
- The number of female employed pharmacists increased by 25.0% between the 1991 and 1996 population censuses, compared with a 4.1% increase in male employed pharmacists over the same period (Table 32).
- According to the 1996 labour force survey, the highest proportion of female community pharmacists was in the Australian Capital Territory, with 51.9%, and the lowest proportions were in the Northern Territory and South Australia, with 36.2% and 36.3% respectively. Female participation in the hospital and clinic pharmacist workforce was highest in the Australian Capital Territory, at 81.0%, and lowest in Western Australia, at 49.2% (Table 3).
- Of all Australian permanent resident pharmacy graduates in 1997, 60.4% were female, a similar proportion to that of the previous four years (Table 26).
- Female pharmacists were more likely to work part-time than male pharmacists in 1996. Of female community pharmacists, 51.7% worked part-time compared with 19.9% of males (Table 11), and 32.9% of female hospital and clinic pharmacists worked part-time compared with 8.2% of males (Table 16).
- According to the 1996 national population census, females with a highest qualification in pharmacy were less likely than males to be employed as pharmacists (57.0% compared with 69.3%), more likely to not be in the labour force (23.9% compared with 19.7%), more likely to be unemployed (2.3% compared with 1.3%) and more likely to be employed in other occupations (16.6% compared with 9.8%) (Table 39).

Hours worked

There were differences in the patterns of hours worked between male and female pharmacists, between different sectors of the workforce and between different geographic regions:

- The proportion of pharmacists that worked part-time continued to rise. For community pharmacists, there was a slight increase to 32.8% working part-time in 1996, compared with 32.4% in 1992. For hospital and clinic pharmacists the increase was greater, from 22.1% in 1992 to 25.1% (Table 6).
- Community pharmacists on average worked 38.6 hours per week in 1996. In part because nearly all community pharmacists in remote areas worked full-time, they averaged longer hours, with 45.3 hours per week in remote centres and 47.6 hours per week in other remote areas. Of the 82 community pharmacists in other remote areas, only 6.2% worked part-time, and 64.6% were sole proprietors. In capital cities, by comparison, 34.2% worked part-time, and 25.7% were sole proprietors (Table 20 and Figure 10).



- Hospital and clinic pharmacists worked an average of 36.8 hours per week in 1996. Those in large rural centres and remote areas worked longer on average, at 38.3 hours per week for large rural centres, 38.8 hours per week for remote centres, and 37.3 hours per week for other remote areas. These areas also had higher proportions of the workforce working full-time, at 78.9%, 100.0% and 93.9% respectively. Those in rural areas other than centres worked shorter hours on average, at 33.9 hours per week (Table 18).
- 59.6% of community pharmacists worked 40 hours or more per week, and 28.8% worked 50 or more hours per week (Table 12). For hospital and clinic pharmacists, 51.4% worked 40 hours or more per week, and 8.7% worked 50 or more hours per week (Table 18).
- In 1996, female community pharmacists worked on average 31.3 hours per week, compared with male community pharmacists at 43.4 hours per week (Table 12). Female

hospital and clinic pharmacists worked 35.0 hours per week on average, less than male hospital and clinic pharmacists at 40.4 hours per week (Table 18).

- According to the 1996 population census, a higher proportion of male community pharmacists were working part-time in 1996 than in 1991 (17.3% in 1996 compared with 14.0% in 1991), compared with a lower proportion of female community pharmacists (44.3% compared with 49.1%). The proportion of both male and female hospital pharmacists working part-time increased during the same period, from 10.3% to 11.4% for males, and from 30.3% to 33.8% for females (Table 45).
- Also according to the 1996 population census, 28.2% of all community pharmacists worked 49 or more hours in the week before the census, compared with 31.0% in 1991. In 1996, these included 40.3% of male community pharmacists and 12.8% of female community pharmacists (Table 45). Of all hospital pharmacists, 7.3% worked 49 or more hours in the week before the 1996 population census, compared with 5.1% in 1991 (Table 45).

Country of birth

Information on the country of birth for pharmacists nationally is available from the 1996 population census. Country of birth information was only collected in the 1996 labour force survey for registered pharmacists in Victoria, Queensland, South Australia and Western Australia. According to the population census data:

- 75.6% of all practising pharmacists were born in Australia, 8.7% in Asia, 4.8% in the United Kingdom or Ireland, 3.6% in other European countries, 2.1% in New Zealand, and 2.0% in the Middle East or North Africa (Table 37 and Figure 11).
- The proportion of practising pharmacists that were born in Australia declined from 85.3% in 1981 to 75.6% in 1996, while the proportion born in Asia increased from 2.7% to 8.7% in the same period, and the proportion born in Europe remained fairly stable at around 8% (Table 38).
- Australian-born persons with a highest qualification in pharmacy were more likely to be in the pharmacy labour force (67.5%) compared with overseas-born persons (51.7%). Overseas-born persons were more likely to be employed in other occupations (19.6% compared with 10.7% of Australian-born persons), to be unemployed (3.5% compared with 1.1%) and to not be in the labour force (25.0% compared with 20.6%) (Tables 40 and 41 and Figure 12).
- In 1997, of the 452 Australian permanent resident students completing undergraduate pharmacy courses, 51.5% were born in Australia and 37.6% were born in Asian countries, including 21.2% born in Vietnam, 5.3% born in Hong Kong, 5.3% born in other North-East Asian countries, and 3.5% born in Malaysia. There were also 4.6% born in the Middle East or North Africa (Table 27).

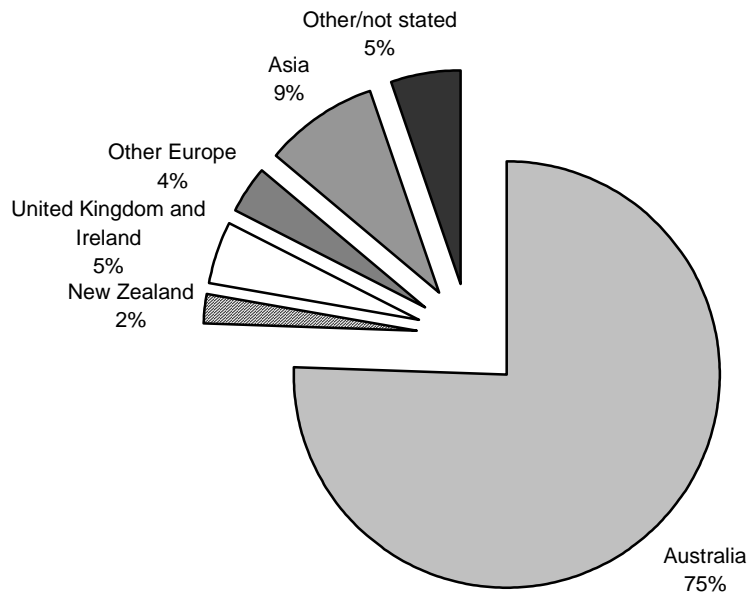


Figure 11: Employed pharmacists in the population census: country of birth, Australia, 1996

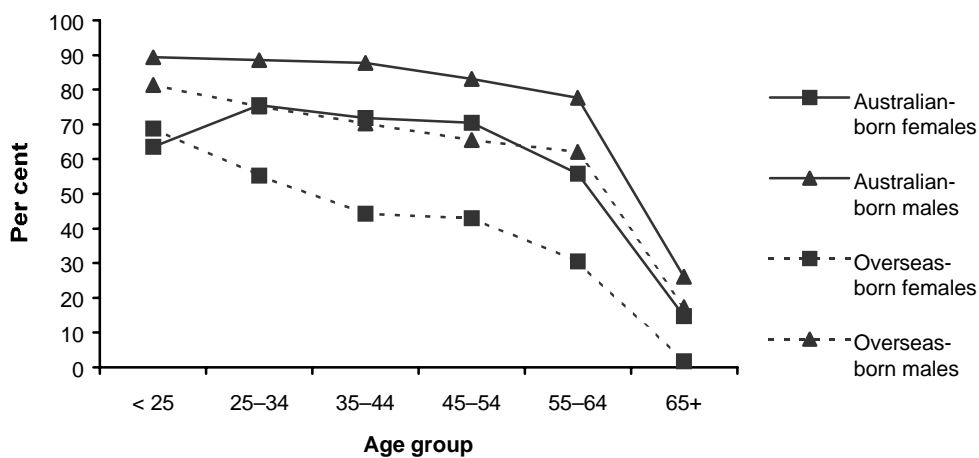


Figure 12: Employed pharmacists as a percentage of persons with a highest qualification in pharmacy: residency status, sex, and age, Australia, 1996

Community pharmacists

- According to the labour force survey data for the States that reported country of birth, community pharmacists born in Asia were more likely to be female and younger than the general population of pharmacists. Of Asian-born community pharmacists in the labour force survey, 50.1% were female, compared with 40.0% of all community pharmacists, and 31.6% were aged less than 30, compared with 13.7% overall. Asian-born

community pharmacists were less likely to work part-time, at 22.8% compared with 29.8% overall (Table 8).

- Of community pharmacists born in European countries other than the United Kingdom and Ireland, 69.6% were aged 45 or more. Community pharmacists born in New Zealand and the United Kingdom or Ireland were also generally older, at 57.4% and 55.8% aged 45 or more respectively, compared with 51.8% for all community pharmacists (Table 8).
- Community pharmacists born in Australia, New Zealand, and the UK or Ireland were more likely to work in rural or remote locations than those born elsewhere. Of those born in Australia, 26.6% worked in rural areas and 1.7% in remote areas. Of those born in New Zealand, 24.2% and 6.6% worked in rural and remote areas respectively, and of those born in the United Kingdom and Ireland, 25.1% and 2.8% worked in rural and remote areas respectively. Conversely, 92.4% of Asian-born community pharmacists worked in a capital city. Community pharmacists born in European countries other than the UK and Ireland were also more likely to work in capital cities, at 85.6% (Table 8).

Hospital and clinic pharmacists

- In the States that reported country of birth in the labour force survey, hospital and clinic pharmacists born in Asia were generally younger than those born elsewhere: 78.4% were aged less than 45, compared with 60.8% of all hospital and clinic pharmacists (Table 8).
- A smaller proportion of Asian-born hospital and clinic pharmacists (10.1%), and a greater proportion of those born in European countries other than the United Kingdom and Ireland (39.1%), worked part-time, compared with the overall proportion working part-time of 25.4% (Table 8).
- Of hospital and clinic pharmacists born in Asia, 87.1% worked in capital cities, compared with 75.4% of those born in the United Kingdom or Ireland and 78.9% of those born in Australia. All hospital and clinic pharmacists born in New Zealand and in other European countries worked in capital cities, but these comprised only 1.1% and 2.3% of all hospital and clinic pharmacists in these States (Table 8).

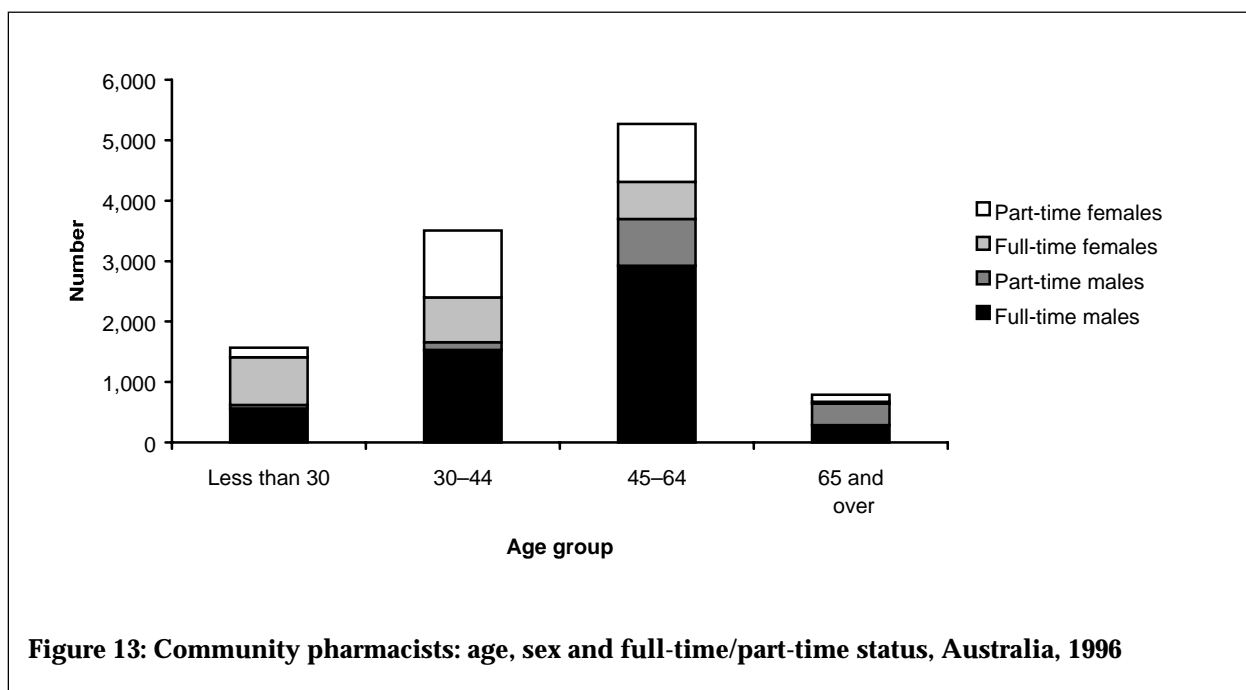
Community pharmacists

Community pharmacy and retail pharmacy are used synonymously in Australia to describe retail outlets for over the counter dispensing of prescriptions. In 1996, there were 11,126 pharmacists employed as community pharmacists in their main job, representing 80.4% of all employed pharmacists (Table 3). Of these:

- There were 14.1% of community pharmacists aged less than 30 years, of which 60.6% were female and 13.8% worked part-time (Table 11).
- There were 7.1% of community pharmacists aged 65 years or more, an increase from 6.4% in 1995 (Table 6). In 1996, 81.5% of these were male, and 59.8% worked part-time (Table 11).
- The average age of community pharmacists was 49.4 for males and 41.4 for females (Table 10).
- There was an increase in the number of community pharmacists in the older age groups between the 1991 and 1996 population censuses, with a 75.1% increase in the numbers of those aged 65 or more and a 34.6% increase in those aged 55 to 64. Over the same period there was only a 5.3% increase in those aged less than 25, a 14.8% increase in those aged

25 to 34, a 20.9% increase in those aged 35–44, and a 12.6% decrease in the number of those aged 45–54 (Table 36).

- Both male and female community pharmacists were more likely to work part-time in the older age groups—9.2% of males and 16.7% of females aged less than 30 worked part-time, compared with 7.6% and 59.9% respectively of those aged 30–44, and 20.9% and 60.9% respectively of those aged 45–64. Those aged 65 or more were most likely to work part-time, with 55.8% of males and 77.6% of females in this age group (Table 11 and Figure 13).
- Of all community pharmacists in 1996, 68.6% worked in capital cities, compared with 7.3% in other metropolitan areas, 22.6% in rural areas and 1.4% in remote areas (Table 20).

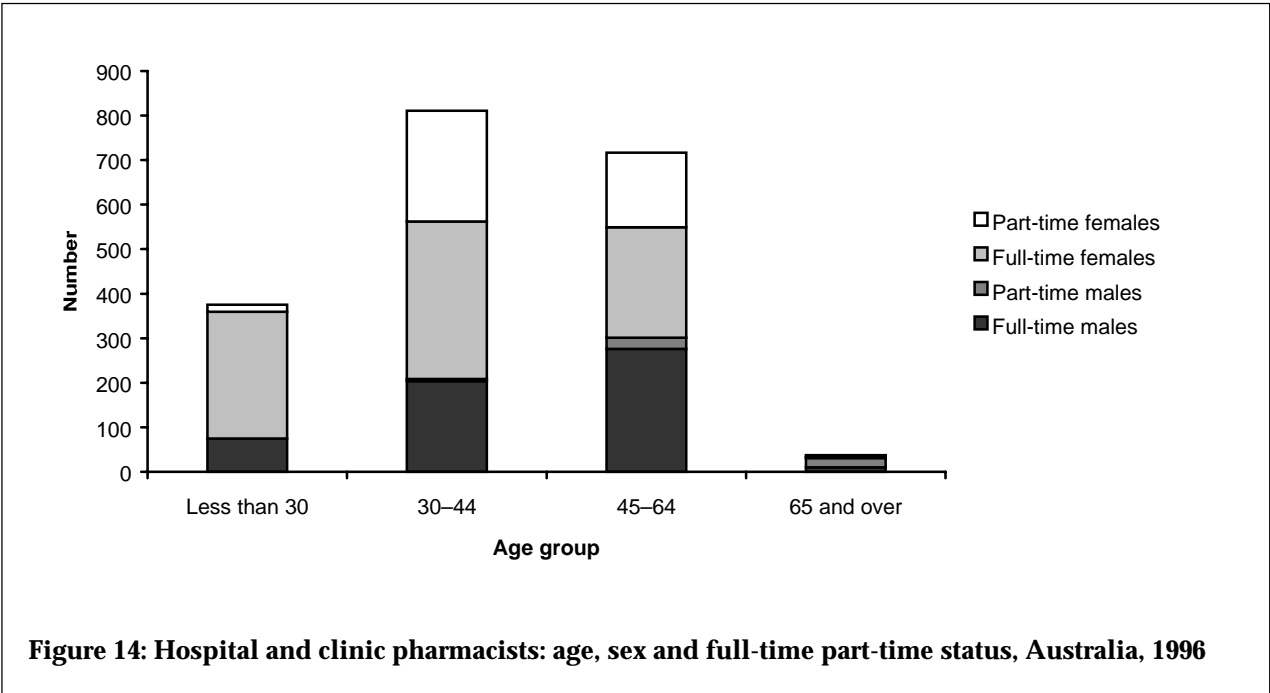


- The proportion of community pharmacists that were sole proprietors declined from 30.4% in 1992 to 27.3% in 1996. During the same period, the proportions that were relievers also declined, from 15.3% to 9.1% for relievers at regular locations and from 9.7% to 7.6% for relievers at various locations. Conversely, the proportion of pharmacists-in-charge increased from 17.4% to 27.4% in the same period (Table 6).
- Only a small proportion of sole proprietors were female (17.0%). Females were more likely to be permanent assistants (66.8% of all permanent assistants) or relievers at a regular location (62.1%) (Table 9).
- The main job of 71.5% of community pharmacists was located in a non-mall shopping centre. For 22.0% it was in a mall complex, for 6.2% it was in a medical centre, and for 0.3% it was elsewhere (Table 14).

Hospital pharmacists

Hospital and clinic pharmacists comprised 14.0% of employed pharmacists in 1996 (Table 3). They had the following characteristics:

- The age structure of the hospital and clinic pharmacy workforce was significantly younger than the community pharmacy workforce, indicating that some pharmacists start their careers in hospital pharmacy and then move on to a career in community pharmacy. Of all hospital and clinic pharmacists, 19.3% were aged less than 30, 41.8% were aged 30–44, 36.9% were aged 45–64, and 1.9% were aged 65 or over. This compares with the community pharmacist workforce proportions of 14.1% aged less than 30, 31.5% aged 30–44, 47.4% aged 45–64, and 7.1% aged 65 or more (Table 6).
- According to the population census, the hospital pharmacist workforce increased in the older age groups between the 1991 and 1996 population censuses. The numbers of those aged 65 or more increased from 15 to 32, and there was a 45.0% increase in those aged 55 to 64. The numbers of those aged less than 25 declined by 18.8%, and the numbers of those aged between 25 and 34 increased by only 2.4% (Table 36).
- In 1996, 68.3% of the hospital and clinic workforce were female, compared with 40.5% of community pharmacists (Table 6). Female hospital and clinic pharmacists were generally younger than male hospital and clinic pharmacists—68.2% of females were aged less than 45, compared with 46.1% of males (Table 16).
- Hospital and clinic pharmacists working part-time comprised 25.1% of the work force. Most (89.5%) of those working part-time were female, 52.2% were aged between 30 and 44, and 39.6% were aged between 45 and 64 (Table 16). Those working part-time represented 32.9% and 8.2% of female and male hospital and clinic pharmacists respectively (Table 16), compared with 51.7% and 19.9% of female and male community pharmacists respectively (Table 11 and Figure 14).



- The proportion of hospital and clinic pharmacists that worked in capital cities was 78.2%, in other metropolitan areas it was 5.6%, in rural areas it was 14.9% and in remote areas it was 1.2% (Table 20).

- Of all hospital and clinic pharmacists, 15.0% were directors, 5.6% were deputy directors, 17.4% were senior pharmacists, 23.1% were specialist pharmacists and 38.8% were staff pharmacists. Females were more likely to be specialist or staff pharmacists, comprising 79.6% and 79.5% respectively of pharmacists in these classifications. Only 39.2% of pharmacy directors were female (Table 15).
- There were lower proportions of pharmacists employed as hospital and clinic pharmacists in New South Wales (11.5%) and Queensland (12.5%). The Northern Territory had a much higher proportion, at 29.7% of all pharmacists. Victoria also had a somewhat higher proportion with 17.4%, as did the Australian Capital Territory with 16.8% and South Australia with 16.4%. The Western Australian and Tasmanian proportions were close to the overall Australian proportion, at 13.9% and 14.8% respectively (Table 3).
- The proportion of hospital and clinic pharmacists that worked in the public sector declined from 92.1% in 1993 to 87.9% in 1996 (Table 6). Of the 1,704 that worked in the public sector in 1996, 1,556 or 91.3% worked in hospitals other than psychiatric hospitals (Table 17).

Pharmacist migration

Many of the pharmacists that migrate to Australia each year do not enter the pharmacy labour force. In pharmacy, permanent migrants other than those who received their qualifications in New Zealand, the United Kingdom or Ireland, must have their qualifications assessed by the National Office for Overseas Skills Recognition (NOOSR). Those who are assessed as eligible to practise, and who wish to work in pharmacy, must then apply for registration to practise through a State or Territory pharmacy registration board.

In 1997–98:

- 101 overseas pharmacists permanently migrated to Australia. Of these, 33 were from Asia, 23 from the Middle East and Africa, 20 from the United Kingdom and Ireland, and 13 from New Zealand (Table 22).
- 43 overseas pharmacists migrated temporarily to Australia for short-term or long-term employment, and 36 migrated for education (Table 21).
- The number of overseas-trained pharmacists assessed by NOOSR as eligible to practise in Australia varies from year to year. In recent years it has ranged from a high of 38 in 1993–94 to a low of 10 in 1996–97. In 1998–99 it was 32 (Table 23).
- 19 Australian pharmacists permanently migrated from Australia. There were 62 who migrated temporarily overseas for employment for 12 months or more, an increase over previous years' figures of 45 in 1995–96 and 47 in 1996–97. The most popular destination in 1997–98 was the United Kingdom and Ireland (Tables 21 and 22).

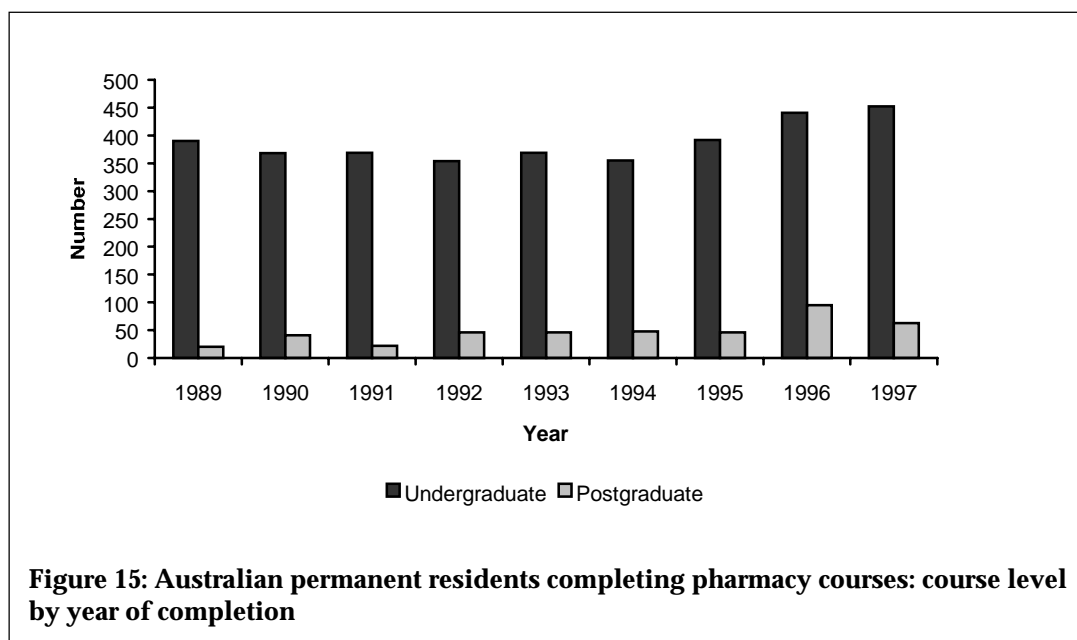
Pharmacist education

In view of shortages of pharmacists identified by DEWSRB, the numbers of pharmacy students being trained is important in addressing not only the shortages, but also ongoing growth of the workforce to meet the population need for prescription dispensing. There has been a considerable increase in the number of students undertaking pharmacy courses in recent years. The 1999 study of the pharmacist workforce by the Pharmacy Guild of

Australia recommended attempting to reduce the workforce attrition rate, rather than further increasing the number of students undertaking pharmacy courses, to avoid future shortfalls in the supply of community pharmacists (Health Care Intelligence Pty Ltd 1999).

Some features of pharmacist education in recent years include:

- The number of Australian permanent resident pharmacy students completing bachelor degrees increased from 354 in 1992 to 452 in 1997 (Table 26 and Figure 15).
- The number of Australian permanent resident students commencing undergraduate courses has increased steadily, from 465 in 1993 to 699 in 1998, a 50.3% increase (Table 24).



- The numbers commencing postgraduate courses, however, dropped from 114 in 1997 to 95 in 1998, the lowest level in four years (Table 24). There were 63 postgraduate completions by Australian students in 1997, a 34% decrease from 1996 (Table 26 and Figure 15).
- The number of fee-paying overseas students completing undergraduate pharmacy degrees in Australia increased from 14 in 1989 to 73 in 1996, then declined to 60 in 1997 (Table 26).
- The average age of Australian students commencing and completing bachelor courses remained fairly stable, at around 19 and 21 respectively (Table 28).

In the medical workforce, studies in Australia and overseas countries have found that doctors working in rural areas are more likely to have had rural origins than doctors working elsewhere. Therefore it is expected that medical students with a rural background are more likely to practise in rural areas after qualifying, and this rationale may be extended to pharmacy students.

- In 1998 there were 26.2 commencing pharmacy students per 100,000 of the population aged between 15 and 24 from metropolitan centres, 21.9 from large rural centres, 16.5 from small rural centres, 13.4 from other rural areas and 6.4 from remote areas (Table 29).

Unemployment rates are low for persons with a highest qualification in pharmacy, at 1.8% in 1996 (Table 39). Of new pharmacy graduates in 1997:

- 83.7% found full-time employment in 1998. There were 49.6% employed in health-related industries, 29.0% in business or other industry, 2.6% in education and 2.2% in other employment. An additional 13.9% remained in full-time education and 1.3% were still looking for full-time employment four months after graduating. Pharmacy graduates were less likely to be still seeking full-time employment than dentistry (8.2%), initial nursing (5.0%), occupational therapy (11.9%), physiotherapy (7.1%) and speech pathology/audiology (8.6%) graduates (Table 31).
- Pharmacy graduate starting salaries were ranked 17th by field of study in 1998 in the Graduate Destination Survey, lower than those of graduates in social work, education, agricultural science and art and design. The average annual salary for bachelor degree pharmacy graduates in their first full-time employment and aged less than 25 was \$23,000. This compares with averages of \$30,600 for graduates in social work, \$38,000 for those in optometry, \$30,000 for those in paramedical studies, and \$43,000 for those in dentistry (GCCA 1999).

Demand for pharmacy services

Demand for pharmacists is largely related to the volume of prescriptions for drugs made by medical practitioners, and to the use of non-prescribed medicines. There are several sources of information on drug prescription and use. These include:

Pharmaceutical Benefits Scheme

The Department of Health and Aged Care publishes information relating to the government's Pharmaceutical Benefits Scheme (PBS). It includes the following:

- From 1997–98 to 1998–99, there was a 3.1% increase in the volume of prescriptions issued under the Pharmaceutical Benefits Scheme (PBS), and a 9.1% increase in the total cost of PBS prescriptions, to \$3.4 billion. Of this, \$2.8 billion or 82.2%, was met by the government and \$0.6 billion was met by patient co-payments. Approximately 75% of prescriptions dispensed through community pharmacies came under the PBS, the remainder being priced below the PBS general patient co-payment amount or for drugs not listed on the PBS schedule (DHAC 1999b and Table 49).
- Nationally, an average 6.8 scripts per capita were issued under the PBS in 1998–99, at an average cost per capita of \$147.40. Tasmania had the highest number of scripts and cost per capita, at 7.8 and \$160.40 respectively. The Northern Territory had the lowest, at 2.4 and \$53.90 respectively, which may be partly accounted for by the low number of pharmacies in rural areas in the Territory (DHAC 1999b).

Community Drug Use Database

The Department of Health and Aged Care also maintains a Community Drug Use Database that combines information on PBS prescriptions with estimates of non-subsidised drug use from an ongoing survey of community pharmacies, conducted by the Pharmacy Guild of Australia. According to this database, in 1997–98:

- An estimated 182.8 million prescriptions were dispensed by community pharmacies in 1997–98 (Table 50). The top three drugs dispensed were amoxicillin (4.9 million scripts),

paracetamol (4.8 million scripts) and salbutamol (an asthma treatment, 4.6 million scripts) (DHAC unpublished data).

- The major drug groups prescribed were those for the nervous system, such as analgesics, psycholeptics and anti-depressants (35.9 million scripts), those for hypertension (28.9 million scripts) and those for asthma (11.5 million scripts) (Table 50).

National Health Survey

Data from the National Health Survey conducted by the ABS in 1995 is presented in *National Health Survey: Use of Medications* (ABS 1995). It includes the following information:

- An estimated 12.4 million Australians (68.8% of the population) used at least one form of medication in the 2 weeks before being interviewed. The proportion of the population that used medications was 59.1%, 25.8% used vitamins or minerals, and 9.4% used herbal remedies.
- The proportion of people taking medications decreased from 64% in 1989–90 to 59% in 1995, after age and sex standardisation. The most common medications used in 1995 were pain relievers (used by 24% of the population), medications for heart problems or blood pressure (11%), skin ointments and creams (10%), and medicines for coughs and colds (7%).
- The number of medications taken increased with age, with 17% of those aged 85 or more who had recently used medications using only one medication, 45% using 2 or 3, and 38% using 4 or more.
- The Northern Territory and Victoria had the lowest proportions using medications, and the Australian Capital Territory and Western Australia the highest, after sex and age standardisation.

BEACH

The BEACH (Bettering the Evaluation And Care of Health) report *General Practice Activity in Australia 1998–99* (AIHW 1999) presents data collected between April 1998 and March 1999 from a sample of general practitioners, including the following:

- General practitioners reported managing an average of 145.3 problems per 100 patient encounters. They prescribed, supplied or advised over the counter drugs at an overall rate of 109.7 per 100 encounters, or 75.5 per 100 problems. Prescriptions were the second most common reason given by patients for encounters, at 5.6% of all reasons, after check-ups at 9.3%.
- Of these medications, 85.3% were prescribed, 8.0% advised for over-the-counter purchase, and 6.7% were supplied. The most frequently prescribed drug was paracetamol (an analgesic, at 3.9 per 100 encounters), followed by amoxicillin (an antibiotic, at 3.5 per 100 encounters), then paracetamol and codeine (an analgesic, at 2.8 per 100 encounters). (Analgesics are cheaper for health care cardholders if prescribed rather than purchased over the counter). The most commonly prescribed drug groups were antibiotics (17.1% of all prescriptions), cardiovascular drugs (14.8%), central nervous system drugs (12.0%) and psychological drugs (8.3%). The most frequently advised over-the-counter drug was paracetamol, at 25% of all drugs advised, and the most frequently supplied drugs were vaccines, at 38.2% of all drugs supplied.

International comparison

The Organisation for Economic Co-operation and Development (OECD) publishes a range of demographic, health and economic statistics, including the numbers of health professionals for the major registered occupations. However, not all OECD countries use the same definition for practising community pharmacists, and these differences make comparisons between countries difficult. In addition, the practice of pharmacy varies between countries. For instance, in the United States some pharmacists manage drug stores within supermarkets.

In 1997, only the Czech Republic, France and Germany reported in full-time equivalents. Australia's 50.9 full-time equivalent community pharmacists per 100,000 population in 1996 was similar to the 57.4 per 100,000 population in Germany for 1997, given that the German figure included hospital and other pharmacists while the Australian figure did not. The French figure included all pharmacists entitled to practise, that is all registered pharmacists, and therefore at 100.3 over-represents the practising workforce. Australia's figure was also comparable to that of the United Kingdom, at 59.1 community pharmacists per 100,000 population, given that the United Kingdom figure represented a head count rather than a full-time equivalent figure (Table 51).

Comparison over time

To compare international trends in pharmacist numbers over time, it is necessary to use the Australian population census estimates of the total number of employed pharmacists in each census year, as pharmacy labour force data is not available for earlier than 1992. In addition to not reporting comparable data, many OECD countries do not report for a long time span, or have major discontinuities within their time series. The data that are most comparable to Australia are those for the United States and New Zealand. According to these, the number of practising pharmacists per 100,000 population declined in both New Zealand and Australia—by 15.9% from 1975 to 1996 in New Zealand, and by 13.8% from 1961 to 1998 in Australia. The New Zealand ratio for 1996 was 64.6 pharmacists per 100,000 population, which was similar to the Australian ratio of 66.8 for 1996. In the United States, however, the ratio increased by 23.9% between 1960 and 1995, to 69.3 practising pharmacists per 100,000 population. The ratios for the United States and Australia appear, therefore, to have converged (Table 52).

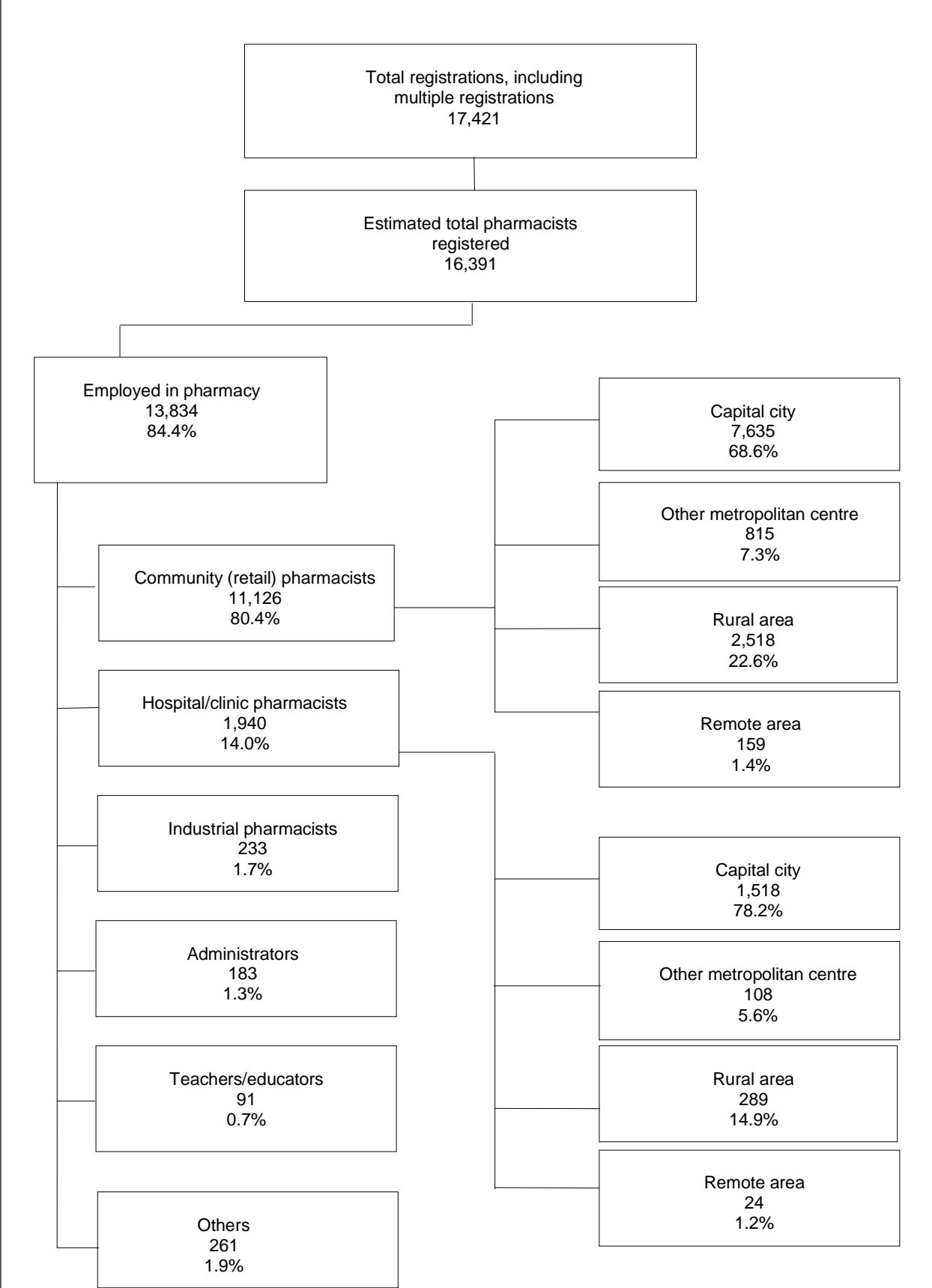


Figure 16: All registered pharmacists, Australia, 1996

Table 1: Pharmacy registration and employment trends, States and Territories, 1992–1998

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
Year	Registrations								
1992	6,175	4,350	2,845	1,332	886	456	368	273	16,685
1993	6,395	3,713	2,953	1,397	1,008	418	336	234	16,454
1994	6,452	4,340	2,961	1,429	1,068	446	345	251	17,292
1995	6,495	4,412	3,026	1,426	1,070	443	351	248	17,120
1996	6,520	4,212	3,100	1,434	1,089	448	353	265	17,421
1997	6,598	4,294	3,202	1,485	1,109	470	351	310	17,819
1998	6,668	4,450	3,263	1,601	1,127	470	345	346	18,270
% change 1992 to 1998:	8.0	2.3	14.7	20.2	27.2	3.1	-6.25	26.7	9.5
	Employed pharmacists								
1992	4,520	3,454	1,951	1,117	795	362	253	73	12,525
1993	4,758	3,490	2,253	1,185	897	358	240	67	13,248
1994	4,714	3,527	2,269	1,206	962	354	227	72	13,331
1995	4,769	3,757	2,311	1,211	958	352	254	73	13,427
1996	4,936	3,587	2,433	1,224	960	356	265	73	13,834
1997, estimated	4,995	3,657	2,513	1,267	977	373	264	85	14,150
1998, estimated	5,048	3,790	2,561	1,366	993	373	259	95	14,508
% change 1992 to 1998:	11.7	9.7	31.3	22.3	24.9	3.1	2.5	30.6	15.8
	Population ('000s)								
1992	5,962.6	4,455.0	3,030.0	1,658.0	1,456.5	469.8	294.7	168.1	17,494.7
1993	6,004.9	4,472.4	3,109.8	1,677.7	1,460.7	471.7	299.3	170.7	17,667.1
1994	6,060.2	4,487.6	3,187.1	1,703.0	1,466.1	472.9	301.5	173.4	17,854.7
1995	6,127.0	4,517.4	3,265.1	1,733.8	1,469.4	473.7	304.8	177.6	18,071.8
1996	6,204.7	4,560.2	3,338.7	1,765.3	1,474.3	474.4	308.3	181.8	18,307.6
1997	6,272.8	4,605.2	3,397.1	1,797.9	1,479.7	473.5	308.0	186.9	18,521.1
1998	6,333.5	4,654.9	3,453.5	1,829.1	1,486.4	471.7	308.1	189.9	18,727.1
% change 1992 to 1998:	6.2	4.5	14.0	10.3	2.1	0.4	4.5	13.0	7.0
	Employed pharmacists per 100,000 population								
1992	75.8	77.5	64.4	67.4	54.6	77.1	85.9	43.4	71.6
1993	79.2	78.0	72.4	70.6	61.4	75.9	80.2	39.3	75.0
1994	77.8	78.6	71.2	70.8	65.6	74.9	75.4	41.4	74.7
1995	77.8	83.2	70.8	69.8	65.2	74.3	83.3	41.1	74.3
1996	79.6	78.7	72.9	69.3	65.1	75.0	86.1	40.1	75.6
1997, estimated	79.6	79.4	74.0	70.5	66.0	78.8	85.7	45.7	76.4
1998, estimated	79.7	81.4	74.2	74.7	66.8	79.1	84.2	50.2	77.5
% change 1992 to 1998:	5.1	5.0	15.2	10.9	22.4	2.7	-1.9	15.6	8.2

Notes

1. The number of registrations and estimated workforce in New South Wales in 1995 has been revised since the publication of *Pharmacy labour force 1995*.
2. The number of employed pharmacists for 1997 and 1998 were estimated using the ratio of employed pharmacists to registered pharmacists for each State and Territory for 1996.

Sources: AIHW; ABS; State and Territory pharmacist registration authorities.

Table 2: All registered pharmacists: employment status and sex, States and Territories, 1996

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
Employment status	Males								
Employed in pharmacy, only or mainly in State/Territory	2,668	1,889	1,379	739	565	190	123	43	7,597
On extended leave ^(a)	2	3	n.a.	9	n.a.	n.a.	—	n.a.	n.a.
Looking for work in pharmacy:									
Employed elsewhere	18	11	2	4	2	n.a.	1	n.a.	n.a.
Not employed	17	19	6	3	6	n.a.	—	n.a.	n.a.
<i>Pharmacy labour force</i>	<i>2,706</i>	<i>1,921</i>	<i>1,387</i>	<i>755</i>	<i>574</i>	<i>n.a.</i>	<i>124</i>	<i>n.a.</i>	<i>n.a.</i>
Overseas	71	21	48	8	10	n.a.	6	n.a.	n.a.
Not looking for work in pharmacy:									
Employed elsewhere	229	75	53	20	18	n.a.	6	n.a.	n.a.
Not employed	213	71	115	27	23	n.a.	4	n.a.	n.a.
<i>Not in pharmacy labour force</i>	<i>513</i>	<i>167</i>	<i>216</i>	<i>55</i>	<i>50</i>	<i>n.a.</i>	<i>16</i>	<i>n.a.</i>	<i>n.a.</i>
<i>Total registered pharmacists</i>	<i>3,219</i>	<i>2,088</i>	<i>1,603</i>	<i>810</i>	<i>624</i>	<i>220</i>	<i>140</i>	<i>67</i>	<i>8,771</i>
Multiple registrations	254	67	154	15	21	16	28	85	639
Total registrations	3,472	2,155	1,757	825	645	236	168	152	9,410
	Females								
Employed in pharmacy, only or mainly in State/Territory	2,268	1,698	1,054	485	394	165	143	30	6,237
On extended leave ^(a)	24	25	n.a.	15	n.a.	n.a.	—	n.a.	n.a.
Looking for work in pharmacy:									
Employed elsewhere	22	8	1	1	1	n.a.	3	n.a.	n.a.
Not employed	33	37	8	12	6	n.a.	—	n.a.	n.a.
<i>Pharmacy labour force</i>	<i>2,346</i>	<i>1,768</i>	<i>1,064</i>	<i>513</i>	<i>401</i>	<i>n.a.</i>	<i>145</i>	<i>n.a.</i>	<i>n.a.</i>
Overseas	69	50	44	18	11	n.a.	1	n.a.	n.a.
Not looking for work in pharmacy:									
Employed elsewhere	214	77	57	10	11	n.a.	6	n.a.	n.a.
Not employed	270	106	117	50	15	n.a.	6	n.a.	n.a.
<i>Not in pharmacy labour force</i>	<i>553</i>	<i>232</i>	<i>219</i>	<i>79</i>	<i>36</i>	<i>n.a.</i>	<i>13</i>	<i>n.a.</i>	<i>n.a.</i>
<i>Total registered pharmacists</i>	<i>2,899</i>	<i>2,000</i>	<i>1,283</i>	<i>592</i>	<i>438</i>	<i>197</i>	<i>158</i>	<i>53</i>	<i>7,621</i>
Multiple registrations	148	58	60	17	6	15	27	60	391
Total registrations	3,048	2,057	1,343	609	444	212	185	113	8,011
	Persons								
Employed in pharmacy, only or mainly in State/Territory	4,936	3,587	2,433	1,224	960	356	265	73	13,834
On extended leave ^(a)	26	27	n.a.	24	n.a.	n.a.	—	n.a.	n.a.
Looking for work in pharmacy:									
Employed elsewhere	40	19	4	6	4	n.a.	4	n.a.	n.a.
Not employed	50	56	14	15	12	n.a.	—	n.a.	n.a.
<i>Pharmacy labour force</i>	<i>5,052</i>	<i>3,689</i>	<i>2,451</i>	<i>1,268</i>	<i>975</i>	<i>n.a.</i>	<i>270</i>	<i>n.a.</i>	<i>n.a.</i>
Overseas	140	71	93	27	20	n.a.	7	n.a.	n.a.
Not looking for work in pharmacy:									
Employed elsewhere	442	152	110	31	29	n.a.	11	n.a.	n.a.
Not employed	483	176	233	77	37	n.a.	10	n.a.	n.a.
<i>Not in pharmacy labour force</i>	<i>1,066</i>	<i>399</i>	<i>436</i>	<i>134</i>	<i>86</i>	<i>n.a.</i>	<i>28</i>	<i>n.a.</i>	<i>n.a.</i>
<i>Total registered pharmacists</i>	<i>6,118</i>	<i>4,088</i>	<i>2,886</i>	<i>1,402</i>	<i>1,062</i>	<i>417</i>	<i>298</i>	<i>120</i>	<i>16,391</i>
Multiple registrations	402	124	214	32	27	31	55	145	1,030
Total registrations	6,520	4,212	3,100	1,434	1,089	448	353	265	17,421

(a) On leave for three months or more. Collected for New South Wales, Victoria, Western Australia and the Australian Capital Territory in 1996.

Source: AIHW.

Table 3: Pharmacy labour force: occupation of main job and sex, States and Territories, 1996

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia ^(a)
Occupation of main job	Males								
Community (retail)	2,400	1,594	1,244	624	488	164	75	28	6,617
Hospital/clinic	140	190	105	87	60	16	8	9	616
Industrial	49	31	2	—	1	—	—	—	84
Administrator	27	26	14	15	10	3	25	6	126
Teacher/educator	14	13	1	7	5	5	1	—	46
Other	39	34	13	7	2	2	13	—	109
Total employed	2,668	1,889	1,379	739	565	190	123	43	7,597
On extended leave ^(b)	2	3	n.a.	9	n.a.	n.a.	—	n.a.	14
Looking for work in pharmacy	35	30	8	7	8	n.a.	1	n.a.	89
<i>Pharmacy labour force</i>	<i>2,706</i>	<i>1,921</i>	<i>1,387</i>	<i>755</i>	<i>574</i>	<i>n.a.</i>	<i>124</i>	<i>n.a.</i>	<i>7,700</i>
	Females								
Community (retail)	1,662	1,159	826	376	277	114	81	16	4,509
Hospital/clinic	427	433	198	84	97	37	36	12	1,324
Industrial	91	49	4	1	2	2	—	—	149
Administrator	16	8	7	4	2	5	16	—	58
Teacher/educator	14	12	6	7	4	2	—	—	45
Other	58	38	13	13	11	6	10	2	152
Total employed	2,268	1,698	1,054	485	394	165	143	30	6,237
On extended leave ^(b)	24	25	n.a.	15	n.a.	n.a.	—	n.a.	63
Looking for work in pharmacy	55	45	10	14	7	n.a.	3	n.a.	133
<i>Pharmacy labour force</i>	<i>2,346</i>	<i>1,768</i>	<i>1,064</i>	<i>513</i>	<i>401</i>	<i>n.a.</i>	<i>145</i>	<i>n.a.</i>	<i>6,433</i>
	Persons								
Community (retail)	4,062	2,753	2,070	999	765	278	156	44	11,126
Hospital/clinic	567	623	303	171	157	53	44	22	1,940
Industrial	140	80	6	1	4	2	—	—	233
Administrator	42	34	21	19	12	8	41	6	183
Teacher/educator	28	25	7	13	8	7	1	—	91
Other	97	72	26	20	13	8	23	2	261
Total employed	4,936	3,587	2,433	1,224	960	356	265	73	13,834
On extended leave ^(b)	26	27	n.a.	24	n.a.	n.a.	—	n.a.	77
Looking for work in pharmacy	90	75	18	21	16	n.a.	4	n.a.	223
<i>Pharmacy labour force</i>	<i>5,052</i>	<i>3,689</i>	<i>2,451</i>	<i>1,268</i>	<i>975</i>	<i>n.a.</i>	<i>270</i>	<i>n.a.</i>	<i>14,134</i>
	(per cent)								
Community (retail)	82.3	76.8	85.1	81.7	79.7	78.1	58.6	60.2	80.4
Hospital/clinic	11.5	17.4	12.5	13.9	16.4	14.8	16.8	29.7	14.0
Industrial	2.8	2.2	0.2	0.1	0.4	0.6	—	—	1.7
Administrator	0.9	0.9	0.9	1.5	1.3	2.3	15.5	7.7	1.3
Teacher/educator	0.6	0.7	0.3	1.1	0.9	1.9	0.5	—	0.7
Other	2.0	2.0	1.1	1.6	1.4	2.3	8.6	2.4	1.9
Total employed	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Employed pharmacists	97.7	97.2	99.3	96.5	98.4	n.a.	98.4	n.a.	97.9
On extended leave ^(b)	0.5	0.7	n.a.	1.9	n.a.	n.a.	—	n.a.	0.5
Looking for work in pharmacy	1.8	2.0	0.7	1.6	1.6	n.a.	1.6	n.a.	1.6
<i>Pharmacy labour force</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
	(females as a percentage of all persons)								
Community (retail)	40.9	42.1	39.9	37.6	36.3	40.9	51.9	36.2	40.5
Hospital/clinic	75.3	69.5	65.3	49.2	62.0	69.6	81.0	56.9	68.3
Industrial	64.9	60.7	61.4	100.0	67.1	100.0	—	—	64.0
Administrator	36.6	23.1	34.7	21.1	20.3	57.2	38.4	—	31.4
Teacher/educator	50.5	47.4	84.2	49.6	43.3	33.4	—	—	49.4
Other	60.3	52.8	51.5	66.3	82.1	71.4	44.2	100.0	58.1
Total employed	45.9	47.3	43.3	39.6	41.1	46.5	53.7	41.1	45.1
On extended leave ^(b)	91.3	90.5	n.a.	60.7	n.a.	n.a.	—	n.a.	81.6
Looking for work in pharmacy	61.1	60.2	54.9	67.4	46.7	n.a.	66.7	n.a.	60.0
<i>Pharmacy labour force</i>	<i>46.4</i>	<i>47.9</i>	<i>43.4</i>	<i>40.5</i>	<i>41.2</i>	<i>n.a.</i>	<i>53.9</i>	<i>n.a.</i>	<i>45.5</i>

(a) Excludes figures for some States and the Northern Territory, where these are not available.

(b) On leave for three months or more. Collected for New South Wales, Victoria, Western Australia and the Australian Capital Territory in 1996.

Source: AIHW.

Table 4: Employed pharmacists and full-time equivalent pharmacists, States and Territories, 1996

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
Population ('000) ^(a)	6,204.7	4,560.2	3,338.7	1,765.3	1,474.3	474.4	308.3	181.8	18,307.6
Employed pharmacists ^(b)	4,962	3,614	2,433	1,248	960	356	265	73	13,834
FTE pharmacists ^(c)	3,971.0	3,058.9	2,006.5	1,087.7	822.9	293.5	223.9	67.1	11,531.6
FTE pharmacists ^(d)	5,051.2	3,891.9	2,589.5	1,420.0	1,028.0	372.6	281.8	84.8	14,719.9
(number per 100,000 population)									
Employed pharmacists ^(b)	79.6	78.7	72.9	69.3	65.1	75.0	86.1	40.1	75.6
FTE pharmacists ^(c)	64.0	67.1	60.1	61.6	55.8	61.9	72.6	36.9	63.0
FTE pharmacists ^(d)	81.4	85.3	77.6	80.4	69.7	78.5	91.4	46.6	80.4

(a) Estimated resident population as at 30 June 1996.

(b) Persons employed as pharmacists, *including* those on extended leave.

(c) Calculated on the basis that all pharmacists working 35 or more hours per week are counted as one full-time equivalent (FTE) and all those working less than 35 hours per week are a portion of an FTE. This is the formula traditionally used to measure FTEs.

(d) Calculated on the basis that hours worked are divided by 35 for all pharmacists—that is, a pharmacist working 70 hours per week equals two FTEs; one working 21 hours equals 0.6 FTEs. This formula converts head counts to a more reliable measure of labour provision than formula (c) because there is variation among States and Territories in the proportions of pharmacists working more than 35 hours per week.

Source: AIHW; ABS.

Table 5: Registered pharmacists not practising pharmacy in Australia: professional employment status, sex and age, 1996

Professional employment status	Age (years)						Total
	<30	30-39	40-49	50-59	60-69	70+	
Males							
Practising in pharmacy overseas	36	55	22	43	7	0	164
Looking for work in pharmacy, employed elsewhere	1	8	6	18	4	3	39
Looking for work in pharmacy, not employed	1	0	5	15	27	2	50
Not looking for work in pharmacy, employed elsewhere	6	56	78	172	80	9	400
Not looking for work in pharmacy, not employed	1	14	17	79	217	124	453
<i>Total</i>	<i>46</i>	<i>132</i>	<i>129</i>	<i>327</i>	<i>335</i>	<i>137</i>	<i>1,106</i>
Females							
Practising in pharmacy overseas	91	66	28	6	3	0	194
Looking for work in pharmacy, employed elsewhere	8	0	18	10	0	0	37
Looking for work in pharmacy, not employed	13	22	29	15	13	4	97
Not looking for work in pharmacy, employed elsewhere	23	98	132	92	26	4	375
Not looking for work in pharmacy, not employed	27	138	99	123	134	42	563
<i>Total</i>	<i>162</i>	<i>324</i>	<i>307</i>	<i>247</i>	<i>176</i>	<i>50</i>	<i>1,266</i>
Persons							
Practising in pharmacy overseas	127	121	50	50	10	0	358
Looking for work in pharmacy, employed elsewhere	9	8	25	28	4	3	76
Looking for work in pharmacy, not employed	15	22	34	30	40	6	147
Not looking for work in pharmacy, employed elsewhere	29	153	210	264	106	12	775
Not looking for work in pharmacy, not employed	28	152	116	202	351	166	1,016
Total not working in pharmacy in Australia	208	456	435	574	511	187	2,371
(per cent)							
Males							
Practising in pharmacy overseas	22.0	33.3	13.6	26.5	4.5	0.0	100.0
Looking for work in pharmacy, employed elsewhere	3.2	19.4	16.1	45.2	9.7	6.5	100.0
Looking for work in pharmacy, not employed	2.3	0.0	9.3	30.2	53.5	4.7	100.0
Not looking for work in pharmacy, employed elsewhere	1.5	13.9	19.4	42.9	20.1	2.2	100.0
Not looking for work in pharmacy, not employed	0.3	3.1	3.9	17.5	47.9	27.3	100.0
<i>Total</i>	<i>4.1</i>	<i>11.9</i>	<i>11.6</i>	<i>29.6</i>	<i>30.3</i>	<i>12.4</i>	<i>100.0</i>
Females							
Practising in pharmacy overseas	46.7	34.2	14.5	3.3	1.3	0.0	100.0
Looking for work in pharmacy, employed elsewhere	21.9	0.0	50.0	28.1	0.0	0.0	100.0
Looking for work in pharmacy, not employed	13.9	22.8	30.4	15.2	13.9	3.8	100.0
Not looking for work in pharmacy, employed elsewhere	6.2	26.0	35.3	24.7	6.8	1.0	100.0
Not looking for work in pharmacy, not employed	4.8	24.5	17.5	21.8	23.9	7.5	100.0
<i>Total</i>	<i>12.8</i>	<i>25.6</i>	<i>24.2</i>	<i>19.5</i>	<i>13.9</i>	<i>3.9</i>	<i>100.0</i>
Persons							
Practising in pharmacy overseas	35.4	33.8	14.1	13.9	2.8	0.0	100.0
Looking for work in pharmacy, employed elsewhere	12.2	10.0	32.5	36.9	5.0	3.3	100.0
Looking for work in pharmacy, not employed	10.0	15.1	23.2	20.3	27.4	4.1	100.0
Not looking for work in pharmacy, employed elsewhere	3.8	19.8	27.1	34.1	13.7	1.6	100.0
Not looking for work in pharmacy, not employed	2.8	15.0	11.4	19.9	34.6	16.3	100.0
Total not working in pharmacy in Australia	8.8	19.2	18.4	24.2	21.6	7.9	100.0

Note: Excludes Tasmania and the Northern Territory.

Source: AIHW.

Table 6: Employed community, hospital and clinic pharmacists: selected characteristics, Australia, 1992–96

Characteristic	1992	1993	1994	1995	1996
	Per cent of community pharmacists				
Sex					
Female	37.6	38.2	38.7	39.9	40.5
Age					
Under 30 years	11.5	13.2	13.0	14.5	14.1
30–44 years	32.8	32.4	32.3	31.8	31.5
45–64 years	49.6	48.2	48.4	47.3	47.4
65 and over	6.1	6.1	6.3	6.4	7.1
Classification					
Sole proprietor	30.4	30.3	30.3	27.8	27.3
Partner proprietor	20.4	19.6	20.5	19.4	19.3
Pharmacist-in-charge	17.4	18.1	20.5	24.0	27.4
Permanent assistant	6.8	7.8	8.1	8.6	9.3
Reliever, regular location	15.3	15.1	14.4	11.9	9.1
Reliever, various locations	9.7	9.1	6.5	8.4	7.6
Practice location					
Mall complex	20.5	19.4	19.9	20.0	22.0
Non-mall shopping centre	74.5	75.1	75.0	74.3	71.5
Medical centre	4.0	5.2	4.8	5.4	6.2
Other	1.0	0.3	0.3	0.3	0.3
Working part-time	32.4	32.5	32.3	32.7	32.8
	Per cent of hospital/clinic pharmacists				
Sex					
Female	64.0	66.0	67.5	66.9	68.3
Age					
Under 30 years	19.7	20.9	21.5	19.7	19.3
30–44 years	46.0	44.2	43.0	43.6	41.8
45–64 years	33.0	33.7	34.3	35.1	36.9
65 and over	1.2	1.2	1.2	1.6	1.9
Classification					
Director	19.7	17.3	17.5	15.2	15.0
Deputy director	8.1	7.6	7.4	4.6	5.6
Senior pharmacist	16.3	18.8	18.7	17.2	17.4
Specialist pharmacist	33.3	30.9	26.4	22.5	23.1
Staff pharmacist	22.6	25.3	29.9	40.6	38.8
Sector					
Public	n.a.	92.1	90.2	89.4	87.9
Private	n.a.	7.9	9.8	10.6	12.1
Working part-time	22.1	23.9	23.2	23.6	25.1

Source: AIHW.

Table 7: Employed pharmacists: country of birth, Victoria, Queensland, South Australia and Western Australia, 1996

Country of birth	Vic	Qld	WA	SA	Total
Australia	2,797	1,805	790	896	6,288
New Zealand	51	62	23	1	138
Other Oceania	3	7	0	0	10
United Kingdom and Ireland	120	97	78	2	297
Other Europe	141	35	22	0	198
South Africa	22	10	13	2	48
Other Africa/Middle East	78	14	22	1	116
Malaysia	110	25	23	4	162
Vietnam	68	16	3	0	87
Hong Kong	61	27	5	0	93
Other Asia	60	20	13	0	93
Nth/Sth America	12	8	8	1	29
Other	31	23	4	0	58
Unknown	31	285	220	52	588
Total	3,587	2,433	1,224	960	8,204
	(per cent)				
Australia	78.0	74.2	64.5	93.4	76.6
New Zealand	1.4	2.6	1.9	0.1	1.7
Other Oceania	0.1	0.3	0.0	0.0	0.1
United Kingdom and Ireland	3.4	4.0	6.4	0.2	3.6
Other Europe	3.9	1.4	1.8	0.0	2.4
South Africa	0.6	0.4	1.1	0.2	0.6
Other Africa/Middle East	2.2	0.6	1.8	0.1	1.4
Malaysia	3.1	1.0	1.9	0.4	2.0
Vietnam	1.9	0.7	0.2	0.0	1.1
Hong Kong	1.7	1.1	0.4	0.0	1.1
Other Asia	1.7	0.8	1.1	0.0	1.1
Nth/Sth America	0.3	0.3	0.6	0.1	0.4
Other	0.9	0.9	0.3	0.0	0.7
Unknown	0.9	11.7	17.9	5.4	7.2
Total	100.0	100.0	100.0	100.0	100.0

Source: AIHW.

Table 8: Employed pharmacists: selected characteristics and country of birth, Victoria, Queensland, South Australia and Western Australia, 1996

Characteristics	Country of birth						Total	
	Australia	New Zealand	UK/Ireland	Other Europe	Asia	Other countries		Unknown
	(number)							
Type of pharmacist								
Community	5,121	119	197	154	283	215	500	6,588
Hospital/clinic	909	14	78	29	111	33	81	1,255
Industrial	57	3	9	3	14	5	0	91
Administrator	67	0	4	2	4	0	9	86
Teacher/educator	40	1	5	3	3	0	3	54
Other	101	3	3	3	11	3	9	131
Total	6,295	139	296	193	425	256	601	8,205
Community pharmacists								
Sex								
Males	3,064	84	108	99	141	136	317	3,950
Females	2,057	34	89	54	142	80	182	2,638
Age (years)								
Less than 30	702	7	18	6	89	27	56	905
30–44	1,711	44	69	40	139	115	151	2,269
45–64	2,364	62	101	98	52	68	255	3,000
65 and over	345	6	9	9	2	5	38	413
<i>Average</i>	<i>45.9</i>	<i>47.2</i>	<i>46.4</i>	<i>48.3</i>	<i>36.7</i>	<i>41.5</i>	<i>47.5</i>	<i>45.6</i>
Hours worked per week								
Part-time (under 35 hours)	1,577	31	59	48	65	55	127	1,963
Full-time (35 hours or more)	3,544	88	138	106	219	160	372	4,625
<i>Average</i>	<i>38.8</i>	<i>40.5</i>	<i>38.9</i>	<i>38.1</i>	<i>40.8</i>	<i>43.0</i>	<i>40.6</i>	<i>39.2</i>
Geographic location of main job								
Capital city	3,381	57	129	131	262	177	318	4,454
Other metropolitan centre	291	25	13	5	6	7	46	394
Large rural centre	378	12	19	5	5	11	42	471
Small rural centre	338	8	12	3	5	12	18	396
Other rural area	646	9	19	8	3	9	49	742
Remote centre	46	4	3	0	1	0	15	69
Other remote area	42	4	3	1	1	0	10	61
Hospital and clinical pharmacists								
Sex								
Males	313	8	32	2	42	14	31	442
Females	595	6	46	27	68	19	50	812
Age (years)								
Less than 30	179	4	5	4	26	8	27	252
30–44	362	4	37	10	60	16	21	511
45–64	342	6	32	14	24	9	31	458
65 and over	25	0	4	1	0	0	2	33
<i>Average</i>	<i>41.8</i>	<i>41.4</i>	<i>44.1</i>	<i>45.1</i>	<i>37.7</i>	<i>37.0</i>	<i>40.8</i>	<i>41.5</i>
Hours worked per week								
Part-time (under 35 hours)	250	3	21	11	11	6	15	318
Full-time (35 hours or more)	658	11	57	18	100	27	65	936
<i>Average</i>	<i>36.3</i>	<i>40.0</i>	<i>36.4</i>	<i>34.1</i>	<i>39.4</i>	<i>38.4</i>	<i>37.8</i>	<i>36.7</i>
Geographic location of main job								
Capital city	717	14	59	29	97	28	65	1,007
Other metropolitan centre	35	0	4	0	5	3	1	49
Large rural centre	60	0	3	0	7	1	3	73
Small rural centre	55	0	10	0	3	1	4	72
Other rural area	33	0	1	0	0	0	5	39
Remote centre	8	0	1	0	0	0	0	9
Other remote area	1	0	0	0	0	0	3	4

(continued)

Table 8 (continued): Employed pharmacists: characteristics and country of birth, Victoria, Queensland, South Australia and Western Australia, 1996

Characteristics	Country of birth							Total
	Australia	New Zealand	UK/Ireland	Other Europe	Asia	Other countries	Unknown	
	(per cent)							
Type of pharmacist								
Community	77.7	1.8	3.0	2.3	4.3	3.3	7.6	100.0
Hospital/clinic	72.4	1.1	6.2	2.3	8.8	2.6	6.5	100.0
Industrial	62.8	2.9	10.2	2.8	15.6	5.7	0.0	100.0
Administrator	78.2	0.0	4.4	2.9	4.3	0.0	10.2	100.0
Teacher/educator	73.7	2.4	9.7	4.7	4.7	0.0	4.8	100.0
Other	76.9	1.9	2.0	1.9	8.6	1.9	6.7	100.0
Total	76.7	1.7	3.6	2.3	5.2	3.1	7.3	100.0
Community pharmacists								
Sex								
Males	59.8	71.1	54.6	64.8	49.9	63.1	63.6	60.0
Females	40.2	28.9	45.4	35.2	50.1	36.9	36.4	40.0
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
Age (years)								
Less than 30	13.7	5.5	9.3	4.1	31.6	12.5	11.1	13.7
30–44	33.4	37.1	34.9	26.3	49.0	53.4	30.3	34.4
45–64	46.2	52.1	51.3	64.0	18.5	31.8	51.0	45.5
65 and over	6.7	5.3	4.5	5.6	0.9	2.3	7.6	6.3
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
Hours worked per week								
Part-time (under 35 hours)	30.8	25.8	30.1	31.1	22.8	25.7	25.5	29.8
Full-time (35 hours or more)	69.2	74.2	69.9	68.9	77.2	74.3	74.5	70.2
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
Geographic location of main job								
Capital city	66.0	48.4	65.3	85.6	92.4	82.3	63.7	67.6
Other metropolitan centre	5.7	20.9	6.8	3.4	2.2	3.0	9.3	6.0
Large rural centre	7.4	9.9	9.5	3.4	1.8	4.9	8.5	7.2
Small rural centre	6.6	6.6	6.1	1.7	1.8	5.5	3.7	6.0
Other rural area	12.6	7.7	9.5	5.1	0.9	4.3	9.9	11.3
Remote centre	0.9	3.3	1.4	0.0	0.4	0.0	3.1	1.0
Other remote area	0.8	3.3	1.4	0.8	0.4	0.0	2.0	0.9
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
Hospital and clinical pharmacists								
Sex								
Males	34.5	54.2	40.6	8.6	38.3	41.9	37.8	35.2
Females	65.5	45.8	59.4	91.4	61.7	58.1	62.2	64.8
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
Age (years)								
Less than 30	19.7	27.3	6.6	13.0	23.9	23.1	33.3	20.1
30–44	39.9	27.3	47.5	34.8	54.5	50.0	25.6	40.7
45–64	37.7	45.5	41.0	47.8	21.6	26.9	38.5	36.5
65 and over	2.8	0.0	4.9	4.3	0.0	0.0	2.6	2.6
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
Hours worked per week								
Part-time (under 35 hours)	27.6	18.2	26.7	39.1	10.1	19.2	19.0	25.4
Full-time (35 hours or more)	72.4	81.8	73.3	60.9	89.9	80.8	81.0	74.6
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
Geographic location of main job								
Capital city	78.9	100.0	75.4	100.0	87.1	84.0	80.3	80.3
Other metropolitan centre	3.9	0.0	5.3	0.0	4.7	8.0	1.6	3.9
Large rural centre	6.6	0.0	3.5	0.0	5.9	4.0	3.3	5.8
Small rural centre	6.0	0.0	12.3	0.0	2.4	4.0	4.9	5.8
Other rural area	3.6	0.0	1.8	0.0	0.0	0.0	6.6	3.1
Remote centre	0.9	0.0	1.8	0.0	0.0	0.0	0.0	0.7
Other remote area	0.1	0.0	0.0	0.0	0.0	0.0	3.3	0.3
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>

Source: AIHW.

Table 9: Community pharmacists: classification of main job and sex, States and Territories, 1996

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
Classification	Males								
Sole proprietor	940	596	449	295	131	85	20	7	2,525
Partner proprietor	527	446	294	137	128	38	17	4	1,590
Pharmacist-in-charge	556	267	232	110	108	9	16	9	1,308
Permanent assistant	114	123	51	18	18	6	7	6	342
Reliever, regular location	117	69	102	35	45	11	4	—	383
Reliever, various locations	145	94	117	29	58	15	10	2	470
Total	2,400	1,594	1,244	624	488	164	75	28	6,617
	Females								
Sole proprietor	235	94	93	44	24	14	8	5	517
Partner proprietor	210	160	103	36	28	16	5	2	559
Pharmacist-in-charge	740	474	221	147	99	25	31	4	1,741
Permanent assistant	231	246	103	44	37	7	20	—	688
Reliever, regular location	122	124	202	82	56	26	12	2	627
Reliever, various locations	124	61	103	23	33	25	5	4	377
Total	1,662	1,159	826	376	277	114	81	16	4,509
	Persons								
Sole proprietor	1,175	690	543	339	156	99	28	13	3,042
Partner proprietor	737	606	397	172	156	54	22	6	2,149
Pharmacist-in-charge	1,296	742	453	256	207	34	47	13	3,049
Permanent assistant	345	368	154	62	55	13	27	6	1,030
Reliever, regular location	239	193	304	117	101	38	17	2	1,009
Reliever, various locations	270	154	219	52	91	40	15	5	847
Total	4,062	2,753	2,070	999	765	278	156	44	11,126
	(per cent)								
Sole proprietor	28.9	25.1	26.2	33.9	20.3	35.5	18.1	29.1	27.3
Partner proprietor	18.1	22.0	19.2	17.3	20.3	19.4	14.1	12.5	19.3
Pharmacist-in-charge	31.9	26.9	21.9	25.7	27.1	12.4	30.3	29.3	27.4
Permanent assistant	8.5	13.4	7.4	6.2	7.2	4.5	17.5	12.8	9.3
Reliever, regular location	5.9	7.0	14.7	11.7	13.2	13.6	10.6	4.0	9.1
Reliever, various locations	6.6	5.6	10.6	5.2	11.9	14.5	9.4	12.3	7.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	(females as a percentage of all persons)								
Sole proprietor	20.0	13.6	17.2	13.0	15.7	14.0	27.6	41.4	17.0
Partner proprietor	28.5	26.4	26.1	20.7	18.0	29.8	21.2	32.1	26.0
Pharmacist-in-charge	57.1	64.0	48.8	57.2	47.8	73.4	66.5	27.4	57.1
Permanent assistant	66.9	66.7	67.1	70.9	67.1	54.6	73.7	—	66.8
Reliever, regular location	51.0	64.4	66.5	70.2	55.7	69.7	74.1	100.0	62.1
Reliever, various locations	46.1	39.4	46.7	44.5	36.2	62.9	31.6	65.4	44.5
Total	40.9	42.1	39.9	37.6	36.3	40.9	51.9	36.2	40.5

Source: AIHW.

Table 10: Community pharmacists: age and sex, States and Territories, 1996

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
Age (years)									
	Males								
Less than 30	243	143	118	51	34	15	9	4	617
30–44	467	462	301	219	130	59	9	11	1,659
45–64	1,395	875	707	316	268	76	50	11	3,698
65 and over	294	115	119	37	56	14	6	2	642
<i>Total</i>	2,400	1,594	1,244	624	488	164	75	28	6,617
<i>Average age</i>	50.9	48.2	49.4	47.1	49.9	46.1	50.2	43.3	49.4
	Females								
Less than 30	341	239	177	91	53	26	20	2	948
30–44	598	450	378	201	129	52	29	9	1,845
45–64	668	427	243	71	92	34	29	5	1,570
65 and over	55	42	28	13	4	1	3	—	146
<i>Total</i>	1,662	1,159	826	376	277	114	81	16	4,509
<i>Average age</i>	42.7	41.8	40.4	38.4	40.0	39.4	41.6	37.2	41.4
	Persons								
Less than 30	584	382	295	142	86	41	29	6	1,565
30–44	1,065	912	678	420	260	111	38	20	3,505
45–64	2,064	1,302	950	387	360	110	79	17	5,268
65 and over	349	157	147	50	59	15	9	2	788
Total	4,062	2,753	2,070	999	765	278	156	44	11,126
Average age	47.6	45.5	45.9	44.1	46.4	43.3	45.6	41.0	46.3
	(per cent)								
Less than 30	14.4	13.9	14.3	14.2	11.3	14.9	18.6	12.5	14.1
30–44	26.2	33.1	32.8	42.0	33.9	40.0	24.4	45.6	31.5
45–64	50.8	47.3	45.9	38.8	47.0	39.7	50.9	37.6	47.4
65 and over	8.6	5.7	7.1	5.0	7.8	5.4	6.1	4.3	7.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	(females as a percentage of all persons)								
Less than 30	58.3	62.6	60.1	63.8	60.7	63.8	68.7	32.1	60.6
30–44	56.1	49.3	55.7	47.9	49.8	46.5	76.0	44.0	52.6
45–64	32.4	32.8	25.6	18.4	25.5	31.2	36.5	32.1	29.8
65 and over	15.7	26.9	19.0	25.7	6.3	7.7	32.6	—	18.5
Total	40.9	42.1	39.9	37.6	36.3	40.9	51.9	36.2	40.5

Source: AIHW.

Table 11: Community pharmacists: full-time/part-time status, age and sex, Australia, 1996

Sex/full-time/part-time status	Age (years)				Total
	Less than 30	30-44	45-64	65 and over	
(number)					
Males					
Full-time	560	1,533	2,924	284	5,301
Part-time	57	127	774	358	1,316
<i>Total</i>	<i>617</i>	<i>1,659</i>	<i>3,698</i>	<i>642</i>	<i>6,617</i>
Females					
Full-time	790	740	614	33	2,176
Part-time	159	1,105	956	113	2,333
<i>Total</i>	<i>948</i>	<i>1,845</i>	<i>1,570</i>	<i>146</i>	<i>4,509</i>
Persons					
Full-time	1,350	2,273	3,538	317	7,477
Part-time	215	1,232	1,731	471	3,649
Total	1,565	3,505	5,268	788	11,126
(per cent)					
Males					
Full-time	90.8	92.4	79.1	44.2	80.1
Part-time	9.2	7.6	20.9	55.8	19.9
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
Females					
Full-time	83.3	40.1	39.1	22.4	48.3
Part-time	16.7	59.9	60.9	77.6	51.7
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
Persons					
Full-time	86.2	64.9	67.2	40.2	67.2
Part-time	13.8	35.1	32.8	59.8	32.8
Total	100.0	100.0	100.0	100.0	100.0
(per cent of full-time/part-time category)					
Males					
Full-time	10.6	28.9	55.2	5.4	100.0
Part-time	4.3	9.6	58.8	27.2	100.0
<i>Total</i>	<i>9.3</i>	<i>25.1</i>	<i>55.9</i>	<i>9.7</i>	<i>100.0</i>
Females					
Full-time	36.3	34.0	28.2	1.5	100.0
Part-time	6.8	47.4	41.0	4.9	100.0
<i>Total</i>	<i>21.0</i>	<i>40.9</i>	<i>34.8</i>	<i>3.2</i>	<i>100.0</i>
Persons					
Full-time	18.1	30.4	47.3	4.2	100.0
Part-time	5.9	33.8	47.4	12.9	100.0
Total	14.1	31.5	47.4	7.1	100.0

Source: AIHW.

Table 12: Community pharmacists: hours worked per week, geographic location of main job and sex, Australia, 1996

Hours worked per week	Geographic location							Total	
	Capital city	Other metropolitan centre	Large rural centre	Small rural centre	Other rural area	Remote centre	Other remote area	No.	%
Males									
1-9	158	25	27	8	41	—	—	260	3.9
10-19	231	36	19	12	41	—	1	340	5.1
20-29	274	46	19	24	37	1	—	401	6.1
30-34	207	31	11	22	19	1	—	292	4.4
35-39	313	46	22	27	24	3	—	435	6.6
40-49	1,478	170	148	151	247	10	21	2,223	33.6
50-59	1,189	146	135	129	280	22	20	1,920	29.0
60 and over	514	42	52	45	78	8	7	746	11.3
Total	4,364	541	433	418	767	45	50	6,617	100.0
<i>Average weekly hours</i>	<i>43.6</i>	<i>41.4</i>	<i>43.9</i>	<i>45.1</i>	<i>44.5</i>	<i>50.7</i>	<i>50.7</i>	<i>43.4</i>	
Females									
1-9	318	26	26	25	49	0	3	448	9.9
10-19	557	36	32	40	76	7	—	748	16.6
20-29	551	54	34	50	55	3	1	747	16.6
30-34	288	21	16	23	36	—	—	384	8.5
35-39	331	30	18	27	38	1	1	446	9.9
40-49	865	74	75	51	99	16	20	1,200	26.6
50-59	262	19	33	27	42	6	4	393	8.7
60 and over	100	13	5	12	11	—	3	145	3.2
Total	3,271	274	240	254	407	33	32	4,509	100.0
<i>Average weekly hours</i>	<i>31.2</i>	<i>32.4</i>	<i>32.8</i>	<i>31.4</i>	<i>30.7</i>	<i>37.8</i>	<i>42.7</i>	<i>31.3</i>	
Persons									
1-9	477	51	54	34	90	—	3	708	6.4
10-19	788	72	50	52	117	7	1	1,088	9.8
20-29	824	99	53	73	92	4	1	1,148	10.3
30-34	496	52	27	44	55	1	—	676	6.1
35-39	644	76	40	54	63	4	1	881	7.9
40-49	2,342	244	223	201	346	26	40	3,423	30.8
50-59	1,451	165	168	156	322	27	24	2,313	20.8
60 and over	614	56	57	57	89	8	10	890	8.0
Total	7,635	815	673	672	1,173	77	82	11,126	100.0
<i>Average weekly hours</i>	<i>38.4</i>	<i>38.4</i>	<i>40.0</i>	<i>39.9</i>	<i>39.8</i>	<i>45.3</i>	<i>47.6</i>	<i>38.6</i>	
(per cent)									
1-9	6.2	6.2	8.0	5.0	7.7	—	3.4	6.4	..
10-19	10.3	8.9	7.5	7.8	10.0	8.9	1.7	9.8	..
20-29	10.8	12.2	7.9	10.9	7.8	5.3	1.6	10.3	..
30-34	6.5	6.4	4.1	6.6	4.7	1.8	—	6.1	..
35-39	8.4	9.3	5.9	8.0	5.3	5.3	1.6	7.9	..
40-49	30.7	30.0	33.1	30.0	29.5	33.4	49.6	30.8	..
50-59	19.0	20.2	25.0	23.2	27.5	35.1	29.7	20.8	..
60 and over	8.0	6.8	8.4	8.5	7.6	10.3	12.3	8.0	..
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	..
<i>% Part-time</i>	<i>33.9</i>	<i>33.7</i>	<i>27.5</i>	<i>30.3</i>	<i>30.1</i>	<i>15.9</i>	<i>6.7</i>	<i>32.5</i>	<i>..</i>
<i>% Full-time</i>	<i>66.1</i>	<i>66.3</i>	<i>72.5</i>	<i>69.7</i>	<i>69.9</i>	<i>84.1</i>	<i>93.3</i>	<i>67.5</i>	<i>..</i>

Source: AIHW.

Table 13: Community pharmacists: year of initial qualification, selected States and Territories, 1996

Year of initial qualification	NSW	Qld	WA	SA	Tas	ACT	Total
	(number)						
Pre-1940	8	2	—	2	—	—	13
1940–49	53	41	13	22	4	—	134
1950–59	709	334	123	130	14	27	1,339
1960–69	1,018	590	234	193	47	50	2,131
1970–79	778	434	251	176	85	27	1,753
1980–89	841	502	287	170	84	29	1,913
1990 and later	654	165	91	71	44	21	1,047
Total	4,062	2,070	999	765	278	156	8,329
	(per cent)						
Pre-1940	0.2	0.1	—	0.3	—	—	0.2
1940–49	1.3	2.0	1.3	2.9	1.5	—	1.6
1950–59	17.5	16.2	12.3	17.0	5.0	17.6	16.1
1960–69	25.1	28.5	23.4	25.2	16.8	32.4	25.6
1970–79	19.1	21.0	25.2	23.1	30.8	17.6	21.0
1980–89	20.7	24.3	28.7	22.2	30.3	18.6	23.0
1990 and later	16.1	8.0	9.1	9.3	15.8	13.7	12.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: AIHW.

Table 14: Community pharmacists: practice location, States and Territories, 1996

Practice location	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
	(number)								
Mall complex	822	413	500	383	206	37	62	24	2,446
Non-mall shopping centre	3,071	2,217	1,287	496	533	234	94	20	7,952
Medical centre	164	107	276	116	24	7	—	—	693
Other	5	16	8	4	3	—	—	—	35
Total	4,062	2,753	2,070	999	765	278	156	44	11,126
	(per cent)								
Mall complex	20.2	15.0	24.2	38.3	27.0	13.2	39.6	54.2	22.0
Non-mall shopping centre	75.6	80.5	62.2	49.7	69.6	84.3	60.4	45.8	71.5
Medical centre	4.0	3.9	13.3	11.6	3.1	2.5	—	—	6.2
Other	0.1	0.6	0.4	0.4	0.3	—	—	—	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: AIHW.

Table 15: Hospital and clinic pharmacists: classification of main job and sex, States and Territories, 1996

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
Classification									
Males									
Director	42	56	27	25	15	5	4	4	177
Deputy director	14	15	7	7	6	2	—	—	50
Senior pharmacist	22	50	6	28	22	3	4	6	142
Specialist pharmacist	33	31	14	13	n.a.	—	—	n.a.	91
Staff pharmacist	29	38	51	13	17	6	—	—	155
Total	140	190	105	87	60	16	8	9	616
Females									
Director	58	29	15	—	4	1	2	5	114
Deputy director	19	16	10	4	1	1	5	2	58
Senior pharmacist	60	58	21	18	27	3	7	2	196
Specialist pharmacist	135	133	34	37	n.a.	3	14	n.a.	357
Staff pharmacist	155	197	118	25	66	28	7	4	599
Total	427	433	198	84	97	37	36	12	1,324
Persons									
Director	101	85	42	25	18	6	6	9	291
Deputy director	33	31	17	10	7	3	5	2	108
Senior pharmacist	82	109	27	46	49	7	11	7	338
Specialist pharmacist	168	163	48	51	n.a.	3	14	n.a.	449
Staff pharmacist	184	235	169	38	83	33	7	4	753
Total	567	623	303	171	157	53	44	22	1,940
(per cent)									
Director	17.7	13.6	13.7	14.7	11.6	10.9	13.6	41.6	15.0
Deputy director	5.8	4.9	5.6	6.0	4.7	6.5	12.1	8.1	5.6
Senior pharmacist	14.5	17.5	8.8	27.1	31.0	13.0	25.7	34.0	17.4
Specialist pharmacist	29.7	26.2	16.0	29.8	n.a.	6.5	32.4	n.a.	23.1
Staff pharmacist	32.4	37.7	55.9	22.5	52.7	63.1	16.2	16.3	38.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
(females as a percentage of all persons)									
Director	58.1	34.4	35.4	—	20.0	20.0	29.8	58.6	39.2
Deputy director	58.3	52.2	58.4	34.8	16.6	33.4	100.0	100.0	53.5
Senior pharmacist	72.8	53.7	78.1	38.6	54.9	50.0	63.0	23.9	58.0
Specialist pharmacist	80.1	81.3	71.1	73.7	n.a.	100.0	100.0	n.a.	79.6
Staff pharmacist	84.5	83.6	69.7	65.2	79.4	82.8	100.0	100.0	79.5
Total	75.3	69.5	65.3	49.2	62.0	69.6	81.0	56.9	68.3

Note: The questionnaires for South Australia and the Northern Territory excluded 'Specialist pharmacist' as an option.

Source: AIHW.

Table 16: Hospital and clinic pharmacists: full-time/part-time status, age and sex, Australia, 1996

	Age (years)				Total
	Less than 30	30-44	45-64	65 and over	
Sex/full-time part-time					
(number)					
Males					
Full-time	75	204	276	10	565
Part-time	—	5	25	21	51
<i>Total</i>	<i>75</i>	<i>209</i>	<i>301</i>	<i>31</i>	<i>616</i>
Females					
Full-time	285	354	248	3	889
Part-time	15	249	167	4	435
<i>Total</i>	<i>300</i>	<i>602</i>	<i>415</i>	<i>6</i>	<i>1,324</i>
Persons					
Full-time	360	557	524	13	1,454
Part-time	15	254	192	25	486
Total	375	811	716	37	1,940
(per cent)					
Males					
Full-time	100.0	97.7	91.7	33.0	91.8
Part-time	—	2.3	8.3	67.0	8.2
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
Females					
Full-time	94.9	58.7	59.7	40.8	67.1
Part-time	5.1	41.3	40.3	59.2	32.9
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
Persons					
Full-time	95.9	68.7	73.1	34.4	74.9
Part-time	4.1	31.3	26.9	65.6	25.1
Total	100.0	100.0	100.0	100.0	100.0
(per cent of full-time/part-time category)					
Males					
Full-time	13.3	36.0	48.9	1.8	100.0
Part-time	—	9.7	49.4	41.0	100.0
<i>Total</i>	<i>12.2</i>	<i>33.9</i>	<i>48.9</i>	<i>5.0</i>	<i>100.0</i>
Females					
Full-time	32.0	39.8	27.9	0.3	100.0
Part-time	3.5	57.2	38.4	0.9	100.0
<i>Total</i>	<i>22.7</i>	<i>45.5</i>	<i>31.4</i>	<i>0.5</i>	<i>100.0</i>
Persons					
Full-time	24.7	38.3	36.0	0.9	100.0
Part-time	3.2	52.2	39.6	5.1	100.0
Total	19.3	41.8	36.9	1.9	100.0

Source: AIHW.

Table 17: Hospital and clinic pharmacists: classification of main job and industry, Australia, 1996

Industry	Classification of main job					Total	
	Director	Deputy Director	Senior Pharmacist	Specialist Pharmacist	Staff Pharmacist	No.	%
Public sector							
Hospital (excl. psych. hospital)	233	90	276	382	577	1,556	80.2
Psychiatric hospital	11	1	12	13	36	74	3.8
Nursing home	4	—	4	1	7	17	0.9
Medical centre	1	—	1	5	5	13	0.7
Defence forces	2	1	6	—	9	18	0.9
Other	5	—	7	5	9	27	1.4
<i>Total public sector</i>	<i>255</i>	<i>92</i>	<i>306</i>	<i>407</i>	<i>643</i>	<i>1,704</i>	<i>87.9</i>
Private sector							
Hospital (excl. psych. hospital)	31	16	29	37	94	208	10.7
Other	4	—	3	5	16	28	1.4
<i>Total private sector</i>	<i>36</i>	<i>16</i>	<i>32</i>	<i>42</i>	<i>110</i>	<i>235</i>	<i>12.1</i>
Total	291	108	338	449	753	1,940	100.0

Source: AIHW.

Table 18: Hospital and clinic pharmacists: total hours worked per week, geographic location, main job and sex, Australia, 1996

Hours worked per week	Geographic location							Total Number
	Capital city	Other metropolitan centre	Large rural centre	Small rural centre	Other rural area	Remote centre	Other remote area	
Males								
1-9	8	—	—	1	2	—	1	12
10-19	10	—	—	—	—	—	—	10
20-29	20	2	—	—	1	—	—	23
30-34	8	—	1	1	—	—	—	10
35-39	120	13	12	10	8	3	1	166
40-49	250	11	20	21	9	1	2	315
50-59	47	5	5	1	—	—	—	58
60 and over	18	4	1	—	—	—	—	23
Total	482	34	39	33	20	4	4	616
<i>Average weekly hours</i>	<i>40.5</i>	<i>44.7</i>	<i>42.2</i>	<i>39.3</i>	<i>35.2</i>	<i>38.5</i>	<i>35.0</i>	<i>40.4</i>
Females								
1-9	32	1	—	—	1	—	—	34
10-19	102	6	13	10	2	—	—	132
20-29	133	13	8	16	11	—	—	181
30-34	70	9	5	3	2	—	—	89
35-39	220	11	17	21	11	4	3	287
40-49	402	30	39	16	17	4	6	513
50-59	60	3	3	3	—	—	—	70
60 and over	17	—	—	1	—	—	—	18
Total	1,036	74	84	71	43	8	8	1,324
<i>Average weekly hours</i>	<i>35.2</i>	<i>34.2</i>	<i>35.2</i>	<i>33.5</i>	<i>32.8</i>	<i>39.3</i>	<i>41.0</i>	<i>35.0</i>
Persons								
1-9	40	1	—	1	3	—	1	46
10-19	112	6	13	10	2	—	—	141
20-29	153	14	8	16	12	—	—	204
30-34	78	9	6	4	2	—	—	99
35-39	341	24	29	31	19	7	4	453
40-49	652	41	59	37	26	5	8	827
50-59	107	8	9	4	—	—	—	128
60 and over	35	4	1	1	—	—	—	41
Total	1,518	108	123	103	63	12	12	1,940
<i>Average weekly hours</i>	<i>36.8</i>	<i>36.9</i>	<i>38.3</i>	<i>36.1</i>	<i>33.9</i>	<i>38.8</i>	<i>37.3</i>	<i>36.8</i>
(per cent)								
1-9	2.6	1.0	—	0.8	5.4	—	6.1	2.4
10-19	7.3	5.4	10.2	9.4	2.5	—	—	7.3
20-29	10.1	13.3	6.4	15.7	18.9	—	—	10.5
30-34	5.2	8.7	4.6	4.0	2.5	—	—	5.1
35-39	22.5	22.2	23.4	29.5	29.7	57.8	29.1	23.4
40-49	43.0	37.8	47.8	35.4	41.2	42.2	64.9	42.7
50-59	7.0	7.6	7.0	4.0	—	—	—	6.6
60 and over	2.3	4.1	0.7	1.2	—	—	—	2.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>% Part-time</i>	<i>25.3</i>	<i>28.4</i>	<i>21.1</i>	<i>29.9</i>	<i>29.2</i>	<i>—</i>	<i>6.1</i>	<i>25.3</i>
<i>% Full-time</i>	<i>74.7</i>	<i>71.6</i>	<i>78.9</i>	<i>70.1</i>	<i>70.8</i>	<i>100.0</i>	<i>93.9</i>	<i>74.7</i>

Source: AIHW.

Table 19: Employed pharmacists and full-time equivalent pharmacists per 100,000 population: geographic location of main job, States and Territories, 1996

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
Geographic location	Number of employed^(a) pharmacists per 100,000 population^(b)								
Capital city	91.9	84.5	87.0	77.7	72.8	92.9	85.7	57.5	84.9
Other metropolitan centre	62.6	80.0	73.6	..	..	..	..	..	67.8
Large rural centre	69.9	72.7	77.3	..	48.4	74.0	..	..	73.1
Small rural centre	58.0	81.6	59.5	72.5	58.1	78.3	..	..	65.7
Other rural area	56.8	53.8	46.8	52.6	41.7	48.6	—	—	50.9
Remote centre	..	..	38.3	45.3	..	..	..	35.2	40.9
Other remote area	28.9	30.4	33.3	23.4	19.3	42.7	..	27.0	27.9
Total	79.6	78.7	72.9	69.3	65.1	75.0	86.1	40.1	75.6
	Full-time equivalents^(c) per 100,000 population								
Capital city	73.8	71.6	70.3	67.5	62.8	76.0	72.4	51.7	70.9
Other metropolitan centre	50.2	65.3	61.4	..	..	..	..	..	55.5
Large rural centre	55.7	63.2	64.4	..	44.0	62.8	..	..	61.2
Small rural centre	46.1	69.9	51.6	63.7	47.3	68.9	..	..	55.4
Other rural area	44.0	44.4	39.3	45.9	34.7	38.0	—	—	41.6
Remote centre	..	..	35.9	40.0	..	..	..	35.2	38.0
Other remote area	25.4	30.2	30.1	21.5	19.0	41.6	..	24.7	25.6
Total	64.0	67.1	60.1	61.6	55.8	61.9	72.6	36.9	63.0
	Full-time equivalents^(d) per 100,000 population								
Capital city	93.5	91.4	89.6	87.6	77.0	93.5	91.3	63.9	89.9
Other metropolitan centre	63.4	79.5	78.9	..	..	..	..	..	70.1
Large rural centre	72.4	79.2	83.8	..	57.7	84.8	..	..	79.2
Small rural centre	59.5	87.5	66.2	81.3	62.1	89.2	..	..	70.9
Other rural area	57.0	57.0	52.9	63.0	47.8	48.8	—	—	54.8
Remote centre	..	..	49.1	53.1	..	..	..	47.7	51.3
Other remote area	36.9	40.2	41.4	32.4	26.1	41.5	..	31.4	35.6
Total	81.4	85.3	77.6	80.4	69.7	78.5	91.4	46.6	80.4

(a) Persons employed as pharmacists, including those on extended leave.

(b) Based on estimated resident population as at 30 June 1996.

(c) Calculated on the basis that all pharmacists working 35 or more hours per week are counted as one full-time equivalent (FTE) and all those working less than 35 hours per week are a portion of an FTE.

(d) Calculated on the basis that hours worked are divided by 35 for all pharmacists—that is, a pharmacist working 70 hours per week equals two FTEs; one working 21 hours equals 0.6 FTEs.

Source: AIHW; ABS.

Table 20: Employed pharmacists: characteristics and geographic location of main job, Australia, 1996

	Geographic location						Total	
	Capital city	Other metropolitan centre	Large rural centre	Small rural centre	Other rural area	Remote centre		Other remote area
Characteristics	(number)							
Type of pharmacist								
Community	7,635	815	673	672	1,173	77	82	11,126
Hospital/clinic	1,518	108	123	104	63	12	12	1,940
Industrial	233	—	—	—	—	—	—	233
Administrator	173	3	1	5	1	—	—	183
Teacher/educator	91	—	—	—	—	—	—	91
Other	240	7	4	4	6	—	—	261
Total	9,889	933	801	785	1,243	89	94	13,833
Employed pharmacists per 100,000 population								
Community	65.5	59.3	61.4	56.3	48.1	35.3	24.3	60.8
Hospital/clinic	13.0	7.8	11.2	8.7	2.6	5.6	3.6	10.6
<i>All pharmacists</i>	<i>84.9</i>	<i>67.8</i>	<i>73.1</i>	<i>65.7</i>	<i>50.9</i>	<i>40.9</i>	<i>27.9</i>	<i>75.6</i>
Community pharmacists								
Sex								
Males	4,364	541	433	418	767	45	50	6,617
Females	3,271	274	240	254	407	33	32	4,509
Age (years)								
Less than 30	1,201	97	79	75	92	15	7	1,565
30–44	2,415	221	208	233	369	35	24	3,505
45–64	3,533	420	327	317	603	22	45	5,268
65 and over	486	77	60	46	109	5	5	788
<i>Average</i>	<i>45.3</i>	<i>48.4</i>	<i>47.0</i>	<i>46.6</i>	<i>48.7</i>	<i>41.5</i>	<i>48.6</i>	<i>46.3</i>
Hours worked per week								
Part-time (under 35 hours)	2,608	276	187	206	354	12	5	3,648
Full-time (35 hours or more)	5,027	538	486	466	820	65	76	7,478
<i>Average</i>	<i>38.4</i>	<i>38.4</i>	<i>40.0</i>	<i>39.9</i>	<i>39.8</i>	<i>45.3</i>	<i>47.6</i>	<i>38.6</i>
Classification								
Sole proprietor	1,962	230	160	175	435	27	53	3,042
Partner proprietor	1,391	159	154	155	274	9	8	2,149
Pharmacist-in-charge	2,337	200	155	150	168	28	12	3,049
Permanent assistant	750	59	64	75	77	5	—	1,030
Reliever, regular location	705	75	62	51	107	4	5	1,009
Reliever, various locations	489	93	79	66	113	4	4	847
Hospital and clinical pharmacists								
Sex								
Males	482	34	39	33	20	4	4	616
Females	1,036	74	84	71	43	8	8	1,324
Age (years)								
Less than 30	306	17	29	18	3	—	1	375
30–44	637	46	40	45	32	7	4	811
45–64	548	39	53	39	26	5	7	716
65 and over	25	6	1	2	2	—	—	36
<i>Average</i>	<i>40.9</i>	<i>42.4</i>	<i>43.1</i>	<i>43.3</i>	<i>47.7</i>	<i>47.1</i>	<i>45.5</i>	<i>41.6</i>
Hours worked per week								
Part-time (under 35 hours)	379	31	26	31	18	—	1	486
Full-time (35 hours or more)	1,138	77	97	74	45	12	11	1,454
<i>Average</i>	<i>36.8</i>	<i>36.9</i>	<i>38.3</i>	<i>36.1</i>	<i>33.9</i>	<i>38.8</i>	<i>37.3</i>	<i>36.8</i>
Classification								
Director	169	18	30	33	30	4	7	291
Deputy director	83	5	10	8	1	—	—	108
Senior pharmacist	278	20	13	8	9	4	5	338
Specialist pharmacist	383	33	15	11	5	1	—	449
Staff pharmacist	605	32	54	43	17	3	—	753

(continued)

Table 20 (continued): Employed pharmacists: characteristics and geographic location of main job, Australia, 1996

Characteristics	Geographic location						Total	
	Capital city	Other metropolitan centre	Large rural centre	Small rural centre	Other rural area	Remote centre		Other remote area
	(per cent)							
Type of pharmacist								
Community	68.6	7.3	6.1	6.0	10.5	0.7	0.7	100.0
Hospital/clinic	78.2	5.6	6.3	5.3	3.3	0.6	0.6	100.0
Industrial	100.0	—	—	—	—	—	—	100.0
Administrator	94.3	1.5	0.7	2.9	0.6	—	—	100.0
Teacher/educator	100.0	—	—	—	—	—	—	100.0
Other	92.1	2.7	1.4	1.5	2.3	—	—	100.0
Total	71.5	6.7	5.8	5.7	9.0	0.6	0.7	100.0
Community pharmacists								
Sex								
Males	57.2	66.4	64.3	62.2	65.3	57.7	61.0	59.5
Females	42.8	33.6	35.7	37.8	34.7	42.3	39.0	40.5
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
Age (years)								
Less than 30	15.7	11.9	11.7	11.2	7.8	19.5	8.6	14.1
30–44	31.6	27.1	30.9	34.7	31.5	45.5	29.6	31.5
45–64	46.3	51.5	48.5	47.2	51.4	28.6	55.6	47.3
65 and over	6.4	9.4	8.9	6.9	9.3	6.5	6.2	7.1
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
Hours worked per week								
Part-time (under 35 hours)	34.2	33.9	27.8	30.7	30.2	15.6	6.2	32.8
Full-time (35 hours or more)	65.8	66.1	72.2	69.3	69.8	84.4	93.8	67.2
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
Classification								
Sole proprietor	25.7	28.2	23.7	26.0	37.1	35.1	64.6	27.3
Partner proprietor	18.2	19.5	22.8	23.1	23.3	11.7	9.8	19.3
Pharmacist-in-charge	30.6	24.5	23.0	22.3	14.3	36.4	14.6	27.4
Permanent assistant	9.8	7.2	9.5	11.2	6.6	6.5	—	9.3
Reliever, regular location	9.2	9.2	9.2	7.6	9.1	5.2	6.1	9.1
Reliever, various locations	6.4	11.4	11.7	9.8	9.6	5.2	4.9	7.6
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
Hospital and clinical pharmacists								
Sex								
Males	31.8	31.5	31.7	31.7	31.7	33.3	33.3	31.8
Females	68.2	68.5	68.3	68.3	68.3	66.7	66.7	68.2
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
Age (years)								
Less than 30	20.2	15.9	23.9	17.3	4.9	—	11.2	19.3
30–44	42.0	42.4	32.3	43.2	51.3	58.9	32.8	41.8
45–64	36.1	35.8	43.1	37.7	40.4	41.1	56.0	36.9
65 and over	1.6	5.9	0.7	1.9	3.3	—	—	1.9
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
Hours worked per week								
Part-time (under 35 hours)	25.0	28.4	21.1	29.6	29.2	—	6.1	25.0
Full-time (35 hours or more)	75.0	71.6	78.9	70.4	70.8	100.0	93.9	75.0
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
Classification								
Director	11.1	16.7	24.6	32.0	48.4	33.3	58.3	15.0
Deputy director	5.5	4.6	8.2	7.8	1.6	—	—	5.6
Senior pharmacist	18.3	18.5	10.7	7.8	14.5	33.3	41.7	17.4
Specialist pharmacist	25.2	30.6	12.3	10.7	8.1	8.3	—	23.2
Staff pharmacist	39.9	29.6	44.3	41.7	27.4	25.0	—	38.8
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>

Source: AIHW.

Table 21: Temporary migration of pharmacists to and from Australia, 1992–93 to 1997–98

Category/country	1992–93	1993–94	1994–95	1995–96	1996–97	1997–98
Temporary migration to Australia						
For employment						
Long-term stay	10	6	10	15	25	29
Short-term stay	4	21	7	6	12	14
<i>Total</i>	14	27	17	21	37	43
For education						
Long-term stay	16	11	7	9	14	15
Short-term stay	6	7	15	6	5	21
<i>Total</i>	22	18	22	15	19	36
Migration to Australia by Australian residents returning after a long-term overseas stay						
Country of long-term stay						
New Zealand	2	1	2	4	1	2
United Kingdom and Ireland	60	45	50	45	47	59
Other Europe	8	10	3	2	6	8
Middle East/Africa	8	25	17	8	11	9
Asia	20	28	13	27	17	29
Nth/Sth America	15	9	8	11	13	9
Other countries	5	7	5	7	4	5
<i>Total</i>	118	125	98	104	99	121
Migration of Australian residents from Australia for a long-term overseas stay						
For employment						
Country of long-term overseas stay						
United Kingdom and Ireland	7	9	3	7	17	25
Middle East	9	6	6	3	6	4
Asia	17	19	12	22	16	18
Other countries	12	19	16	13	8	15
<i>Total</i>	45	53	37	45	47	62
For education	1	6	5	1	3	2
Temporary visitors departing after a long-term stay in Australia						
Country of future residence						
New Zealand	2	2	2	2	1	3
United Kingdom and Ireland	2	6	4	3	14	26
Other Europe	2	7	4	4	2	3
Asia	16	15	12	11	19	25
Nth/Sth America	1	2	1	1	—	4
Other countries	—	5	2	1	2	10
<i>Total</i>	23	37	25	22	38	71

Note: Long-term movements refer to those involving 12 months or more.

Source: AIHW analysis of DIMA data.

Table 22: Permanent migration of pharmacists to and from Australia, 1992–93 to 1997–98

Category/country	1992–93	1993–94	1994–95	1995–96	1996–97	1997–98
Permanent migration of overseas residents to Australia						
Country of previous residence						
New Zealand	4	4	8	12	12	13
United Kingdom and Ireland	10	13	10	20	20	20
Other Europe	13	5	14	13	7	7
Middle East/Africa	11	14	21	23	20	23
Asia	27	32	37	39	33	33
Nth/Sth America	9	3	6	8	6	4
Other countries	3	1	1	4	3	1
<i>Total</i>	<i>77</i>	<i>72</i>	<i>97</i>	<i>119</i>	<i>101</i>	<i>101</i>
Migration from Australia of Australian residents permanently departing						
Country of future residence						
New Zealand	4	8	3	9	6	3
United Kingdom and Ireland	3	4	7	8	8	9
Other Europe	2	—	1	3	1	1
Middle East/Africa	—	1	2	3	1	1
Asia	3	2	2	4	4	2
Nth/Sth America	2	4	1	3	4	3
Other countries	2	—	—	1	2	—
<i>Total</i>	<i>16</i>	<i>19</i>	<i>16</i>	<i>31</i>	<i>26</i>	<i>19</i>

Source: AIHW analysis of DIMA data.

Table 23: Assessment of skills of overseas-trained pharmacists for eligibility to practise in Australia, 1993–94 to 1998–99

Sex/assessment	1993–94	1994–95	1995–96	1996–97	1997–98	1998–99
Male						
Sat preliminary exam	10	20	5	15	35	39
Passed preliminary exam	6	13	2	7	16	26
Sat final exam	26	6	7	8	9	16
<i>Passed final exam</i>	<i>16</i>	<i>5</i>	<i>6</i>	<i>2</i>	<i>4</i>	<i>12</i>
Female						
Sat preliminary exam	27	37	23	28	49	58
Passed preliminary exam	15	26	14	14	20	30
Sat final exam	32	24	23	12	22	22
<i>Passed final exam</i>	<i>22</i>	<i>14</i>	<i>14</i>	<i>8</i>	<i>13</i>	<i>18</i>
Total ^(a)						
Sat preliminary exam	37	57	28	44	84	97
Passed preliminary exam	21	39	16	22	36	56
Sat final exam	58	30	30	20	31	40
Passed final exam	38	19	20	10	17	32

(a) Includes in some years applicants whose sex was not indicated.

Source: NOOSR in DETYA Annual Reports, 1993–94 to 1998–99.

Table 24: Australian permanent resident commencing pharmacy students: course level and year of enrolment, Australia, 1989–98

Course level	1989	1990	1991	1992	1993	1994	1995	1996	1997 ^(a)	1998
Undergraduate										
Bachelor honours	—	—	—	1	1	4	7	—	3	9
Bachelor pass	493	494	487	462	464	504	561	617	664	690
<i>Total undergraduate</i>	<i>493</i>	<i>494</i>	<i>487</i>	<i>463</i>	<i>465</i>	<i>508</i>	<i>568</i>	<i>617</i>	<i>667</i>	<i>699</i>
<i>% female</i>	<i>62.1</i>	<i>60.5</i>	<i>63.0</i>	<i>57.5</i>	<i>61.1</i>	<i>58.3</i>	<i>57.0</i>	<i>60.9</i>	<i>62.1</i>	<i>62.8</i>
Postgraduate (PG)										
PhD	4	9	12	21	18	18	17	14	21	17
MSc–research	13	19	11	19	16	10	9	15	7	1
MSc–coursework	2	2	2	2	—	2	5	9	20	27
PG qualifying	10	9	8	4	6	10	4	7	8	3
PG Diploma (new field)	14	29	13	14	18	13	28	24	17	9
PG Diploma (extends field)	12	—	13	24	30	9	31	31	33	29
Graduate certificate	—	—	—	—	—	—	3	4	8	9
<i>Total postgraduate</i>	<i>55</i>	<i>68</i>	<i>59</i>	<i>84</i>	<i>88</i>	<i>62</i>	<i>97</i>	<i>104</i>	<i>114</i>	<i>95</i>
<i>% female</i>	<i>70.9</i>	<i>52.9</i>	<i>64.4</i>	<i>66.7</i>	<i>59.1</i>	<i>66.1</i>	<i>68.0</i>	<i>69.2</i>	<i>68.4</i>	<i>68.4</i>
Total	548	562	546	547	553	570	665	721	781	794
<i>% female</i>	<i>63.0</i>	<i>59.6</i>	<i>63.2</i>	<i>58.9</i>	<i>60.8</i>	<i>59.1</i>	<i>58.6</i>	<i>62.1</i>	<i>63.0</i>	<i>63.5</i>

(a) Includes New Zealand citizens, which were included with Australian permanent resident students data for 1997 by DETYA.

Source: AIHW analysis of DETYA data.

Table 25: Australian permanent resident commencing pharmacy students: university and course level, Australia, 1989–98

	1989	1990	1991	1992	1993	1994	1995	1996	1997 ^(a)	1998
University	Undergraduate									
Charles Sturt University	—	—	—	—	—	—	—	—	45	55
Curtin University	51	64	61	77	78	78	85	90	90	107
Monash University	145	128	133	112	116	142	115	107	155	120
University of Queensland	75	89	72	83	81	81	121	132	115	130
University of South Australia	44	33	36	36	37	42	59	70	65	73
University of Sydney	157	161	168	138	131	146	160	186	163	179
University of Tasmania	21	19	17	17	22	19	28	32	34	35
<i>Total undergraduate</i>	<i>493</i>	<i>494</i>	<i>487</i>	<i>463</i>	<i>465</i>	<i>508</i>	<i>568</i>	<i>617</i>	<i>667</i>	<i>699</i>
	Postgraduate									
Curtin University	15	34	13	9	15	14	6	7	11	3
Monash University	19	12	19	33	37	9	28	12	24	5
University of Adelaide	—	—	—	—	—	—	—	10	—	17
University of Melbourne	—	—	—	—	—	—	23	12	7	7
University of NSW	—	—	—	—	—	—	—	—	8	18
University of Queensland	4	5	7	18	16	9	17	17	22	16
University of South Australia	1	3	3	1	5	6	13	19	—	11
University of Sydney	16	12	17	21	14	19	8	21	33	18
University of Tasmania	—	2	—	2	1	5	2	6	9	—
<i>Total postgraduate</i>	<i>55</i>	<i>68</i>	<i>59</i>	<i>84</i>	<i>88</i>	<i>62</i>	<i>97</i>	<i>104</i>	<i>114</i>	<i>95</i>
	All students									
Charles Sturt University	—	—	—	—	—	—	—	—	45	55
Curtin University	66	98	74	86	93	92	91	97	101	110
Monash University	164	140	152	145	153	151	143	119	179	125
University of Adelaide	—	—	—	—	—	—	—	10	—	17
University of Melbourne	—	—	—	—	—	—	23	12	7	7
University of NSW	—	—	—	—	—	—	—	—	8	18
University of Queensland	79	94	79	101	97	90	138	149	137	146
University of South Australia	45	36	39	37	42	48	72	89	65	84
University of Sydney	173	173	185	159	145	165	168	207	196	197
University of Tasmania	21	21	17	19	23	24	30	38	43	35
Total	548	562	546	547	553	570	665	721	781	794

(a) Includes New Zealand citizens, which were included with Australian permanent resident students data for 1997 by DETYA.

Source: AIHW analysis of DETYA data.

Table 26: Pharmacy course completions: course level, residency and year of completion, Australia, 1989–97

	1989	1990	1991	1992	1993	1994	1995	1996 ^(a)	1997
Course level	Australian citizens and permanent resident students								
Undergraduate									
Bachelor honours	6	8	11	17	7	18	19	17	12
Bachelor pass	384	360	358	337	362	337	373	424	440
<i>Total undergraduate</i>	<i>390</i>	<i>368</i>	<i>369</i>	<i>354</i>	<i>369</i>	<i>355</i>	<i>392</i>	<i>441</i>	<i>452</i>
% female	67.2	57.1	66.7	65.0	61.0	62.3	61.2	61.0	60.4
Postgraduate (PG)									
Higher doctorate or PhD	4	9	5	8	7	8	21	20	7
MSc–research	5	10	2	6	6	6	7	14	1
MSc–coursework	3	1	—	1	—	—	1	1	1
Postgraduate qualifying	4	4	7	6	3	1	5	4	6
PG Diploma (new field)	4	5	8	13	11	10	5	30	20
PG Diploma (extends field)	—	12	—	12	19	23	6	26	23
Graduate certificate	—	—	—	—	—	—	1	—	5
<i>Total postgraduate</i>	<i>20</i>	<i>41</i>	<i>22</i>	<i>46</i>	<i>46</i>	<i>48</i>	<i>46</i>	<i>95</i>	<i>63</i>
% female	50.0	46.3	54.5	67.4	73.9	70.8	67.4	60.0	65.1
Total	410	409	391	400	415	403	438	536	515
% female	66.3	56.0	66.0	65.3	62.4	63.3	61.9	60.8	61.0
	Overseas students								
Undergraduate									
Bachelor honours	—	3	—	1	1	4	8	1	10
Bachelor pass	14	18	19	28	52	45	52	72	50
<i>Total undergraduate</i>	<i>14</i>	<i>21</i>	<i>19</i>	<i>29</i>	<i>53</i>	<i>49</i>	<i>60</i>	<i>73</i>	<i>60</i>
% female	71.4	47.6	68.4	55.2	73.6	75.5	71.7	72.6	70.0
Postgraduate (PG)									
PhD	1	3	2	2	6	4	1	3	2
MSc–research	2	—	2	1	5	3	3	2	4
MSc–coursework	1	—	—	—	—	—	—	—	4
Postgraduate qualifying	1	1	—	—	—	1	2	1	2
PG Diploma (new field)	—	4	1	—	—	—	1	—	1
PG Diploma (extends field)	—	—	—	—	—	1	—	—	3
<i>Total postgraduate</i>	<i>5</i>	<i>8</i>	<i>5</i>	<i>3</i>	<i>11</i>	<i>9</i>	<i>7</i>	<i>6</i>	<i>16</i>
% female	80.0	62.5	60.0	33.3	27.3	33.3	71.4	50.0	43.8
Total	19	29	24	32	64	58	67	79	76
% female	73.7	51.7	66.7	53.1	65.6	69.0	71.6	70.9	64.5
	All students								
Undergraduate									
Bachelor honours	6	11	11	18	8	22	27	18	22
Bachelor pass	398	378	377	365	414	382	425	496	490
<i>Total undergraduate</i>	<i>404</i>	<i>389</i>	<i>388</i>	<i>383</i>	<i>422</i>	<i>404</i>	<i>452</i>	<i>514</i>	<i>512</i>
% female	67.3	56.6	66.8	64.2	62.6	63.9	62.6	62.6	61.5
Postgraduate (PG)									
Higher doctorate or PhD	5	12	7	10	13	12	22	23	9
MSc–research	7	10	4	7	11	9	10	16	5
MSc–coursework	4	1	—	1	—	—	1	1	4
Postgraduate qualifying	5	5	7	6	3	2	7	5	8
PG Diploma (new field)	4	9	9	13	11	10	6	30	22
PG Diploma (extends field)	—	12	—	12	19	24	6	26	26
Graduate certificate	—	—	—	—	—	—	1	—	5
<i>Total postgraduate</i>	<i>25</i>	<i>49</i>	<i>27</i>	<i>49</i>	<i>57</i>	<i>57</i>	<i>53</i>	<i>101</i>	<i>79</i>
% female	56.0	49.0	55.6	65.3	64.9	64.9	67.9	59.4	60.8
Total	429	438	415	432	479	461	505	615	591
% female	66.7	55.7	66.0	64.4	62.8	64.0	63.2	62.1	61.4

(a) Includes New Zealand citizens, which were included with Australian permanent resident students data for 1996 by DETYA.

Source: AIHW analysis of DETYA data.

Table 27: Australian permanent resident undergraduate students completing pharmacy courses: country of birth and year of completion, Australia, 1991–97

Country of birth	1991	1992	1993	1994	1995	1996 ^(a)	1997
	(number)						
Australia	271	241	249	219	223	250	233
New Zealand	2	4	3	—	—	3	2
Other Oceania	2	6	6	4	4	3	2
United Kingdom and Ireland	10	9	4	6	8	5	8
Other Europe and Russia	3	8	8	7	6	11	10
Middle East and North Africa	3	14	8	14	17	17	21
Asia							
Malaysia	11	9	5	8	11	9	16
Vietnam	13	33	43	53	58	73	96
Other Southeast Asia	6	4	9	9	13	17	7
Hong Kong	6	12	9	15	23	24	24
Other Northeast Asia	1	4	7	9	13	17	24
Southern Asia	2	3	4	2	4	5	3
Total	39	65	77	96	122	145	170
Nth/Cntrl/Sth America	3	2	1	2	4	2	1
Africa	3	2	5	3	5	5	4
Not known	33	3	8	4	3	—	1
Total	369	354	369	355	392	441	452
	(per cent)						
Australia	73.4	68.1	67.5	61.7	56.9	56.7	51.5
New Zealand	0.5	1.1	0.8	—	—	0.7	0.4
Other Oceania	0.5	1.7	1.6	1.1	1.0	0.7	0.4
United Kingdom and Ireland	2.7	2.5	1.1	1.7	2.0	1.1	1.8
Other Europe and Russia	0.8	2.3	2.2	2.0	1.5	2.5	2.2
Middle East and North Africa	0.8	4.0	2.2	3.9	4.3	3.9	4.6
Asia							
Malaysia	3.0	2.5	1.4	2.3	2.8	2.0	3.5
Vietnam	3.5	9.3	11.7	14.9	14.8	16.6	21.2
Other Southeast Asia	1.6	1.1	2.4	2.5	3.3	3.9	1.5
Hong Kong	1.6	3.4	2.4	4.2	5.9	5.4	5.3
Other Northeast Asia	0.3	1.1	1.9	2.5	3.3	3.9	5.3
Southern Asia	0.5	0.8	1.1	0.6	1.0	1.1	0.7
Total	10.5	18.2	20.9	27.0	31.1	32.9	37.6
Nth/Cntrl/Sth America	0.8	0.6	0.3	0.6	1.0	0.5	0.2
Africa	0.8	0.6	1.4	0.8	1.3	1.1	0.9
Not known	8.9	0.8	2.2	1.1	0.8	—	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	(per cent females)						
Australia	67.5	66.0	59.8	58.4	60.1	60.4	62.2
New Zealand	100.0	75.0	66.7	—	—	33.3	50.0
Other Oceania	50.0	66.7	66.7	75.0	75.0	33.3	50.0
United Kingdom and Ireland	80.0	44.4	25.0	66.7	75.0	100.0	12.5
Other Europe and Russia	33.3	62.5	87.5	85.7	50.0	63.6	50.0
Middle East and North Africa	66.7	57.1	75.0	57.1	58.8	47.1	52.4
Asia							
Malaysia	81.8	55.6	60.0	62.5	45.5	88.9	68.8
Vietnam	53.8	66.7	55.8	69.8	67.2	60.3	57.3
Other Southeast Asia	100.0	25.0	66.7	88.9	61.5	70.6	57.1
Hong Kong	50.0	66.7	33.3	60.0	73.9	66.7	66.7
Other Northeast Asia	—	100.0	100.0	55.6	69.2	70.6	70.8
Southern Asia	100.0	66.7	50.0	50.0	—	40.0	66.7
Total	69.2	64.6	58.4	67.7	63.9	64.8	61.8
Nth/Cntrl/Sth America	33.3	—	100.0	100.0	75.0	50.0	100.0
Africa	66.7	100.0	60.0	66.7	20.0	20.0	50.0
Not known	57.6	100.0	87.5	75.0	66.7	—	100.0
Total	66.7	65.0	61.0	62.3	61.2	61.0	83.6

(a) Includes New Zealand citizens, which were included with Australian permanent resident students data for 1996 by DETYA.

Source: AIHW analysis of DETYA data.

Table 28: Average age of Australian permanent resident students commencing and completing pharmacy courses: level of course, sex, and year of commencement or completion, 1989–98

	1989	1990	1991	1992	1993	1994	1995	1996 ^(a)	1997 ^(b)
Course level	Commencing students								
Males									
Undergraduate	18.4	18.4	18.8	19.5	18.9	19.0	19.2	19.5	19.7
Postgraduate	30.1	25.2	28.6	27.0	27.7	28.1	28.9	29.3	31.9
Females									
Undergraduate	18.4	18.5	18.4	18.5	18.7	18.5	18.8	18.8	18.6
Postgraduate	26.7	27.8	26.3	26.3	27.8	25.9	30.0	28.5	28.3
Persons									
Undergraduate	18.4	18.5	18.6	19.0	18.8	18.7	19.0	19.1	19.0
Postgraduate	27.7	26.6	27.1	26.6	27.7	26.6	29.7	28.7	29.4
	Completing students								
Males									
Undergraduate	21.0	21.1	20.9	21.4	21.5	21.1	21.2	21.1	20.9
Postgraduate	34.7	29.3	31.1	28.3	31.6	28.2	31.7	31.4	27.5
Females									
Undergraduate	20.4	20.4	20.6	20.6	20.4	21.3	20.9	21.0	20.7
Postgraduate	33.1	30.3	26.2	27.4	27.7	26.6	27.2	29.5	29.3
Persons									
Undergraduate	20.6	20.7	20.7	20.9	20.8	21.2	21.0	21.0	20.8
Postgraduate	33.9	29.7	28.4	27.7	28.7	27.0	28.7	30.3	28.7

(a) Completing students includes New Zealand citizens, which were included with Australian permanent resident students data for 1996 by DETYA.

(b) Commencing students includes New Zealand citizens, which were included with Australian permanent resident students data for 1997 by DETYA.

Source: AIHW analysis of DETYA data.

Table 29: Australian permanent resident students commencing undergraduate pharmacy courses by sex and source geographic area of residence per 100,000 population aged 15–24, 1998

Sex/item	Source geographic area of residence						Total
	Metro-politan centre	Large rural centre	Small rural centre	Other rural centre	Remote area	Not stated/overseas	
Male students							
Number	195	13	8	12	2	30	260
Per cent	84.8	5.7	3.5	5.2	0.9	..	100.0
Female students							
Number	325	24	18	26	3	43	439
Per cent	82.1	6.1	4.5	6.6	0.8	..	100.0
All students							
Number	520	37	26	38	5	73	699
Per cent	83.1	5.9	4.2	6.1	0.8	..	100.0
Population aged 15–24 ('000) ^(a)	1,988.4	168.9	157.4	284.0	78.0	..	2,676.8
Per cent	74.3	6.3	5.9	10.6	2.9	..	100.0
Number of students per 100,000 population	26.2	21.9	16.5	13.4	6.4	..	26.1

(a) Estimated resident population aged 15–24 as at 30 June 1998.

Note: Calculations of percentages exclude 'Not stated/overseas'.

Source: AIHW analysis of DETYA data.

Table 30: All pharmacy students: course level and residency, Australia, 1989–98

	1989	1990	1991	1992	1993	1994	1995	1996	1997 ^(a)	1998
Course level	Australian citizens and permanent resident students									
Undergraduate										
Bachelor honours	6	8	10	18	10	15	23	15	18	24
Bachelor pass	1,352	1,394	1,404	1,399	1,398	1,438	1,542	1,726	1,890	2,069
<i>Total undergraduate</i>	<i>1,358</i>	<i>1,402</i>	<i>1,414</i>	<i>1,417</i>	<i>1,408</i>	<i>1,453</i>	<i>1,565</i>	<i>1,741</i>	<i>1,908</i>	<i>2,093</i>
% female	61.1	59.8	62.4	60.6	60.2	59.5	59.0	59.3	60.5	61.2
Postgraduate (PG)										
PhD	10	20	38	52	67	73	80	75	75	78
MSc–research	46	56	38	45	40	35	32	31	19	15
MSc–coursework	7	6	6	3	—	2	6	15	23	51
PG qualifying	29	33	28	17	12	18	23	17	21	16
PG Diploma (new field)	20	35	18	20	19	18	34	46	29	15
PG Diploma (extends field)	13	11	13	39	53	34	43	64	58	55
Graduate certificate	—	—	—	—	—	—	3	4	9	10
<i>Total postgraduate</i>	<i>125</i>	<i>161</i>	<i>141</i>	<i>176</i>	<i>191</i>	<i>180</i>	<i>221</i>	<i>252</i>	<i>234</i>	<i>240</i>
% female	52.8	53.4	58.9	63.1	61.8	61.7	61.1	62.3	66.7	69.2
Total	1,483	1,563	1,555	1,593	1,599	1,633	1,786	1,993	2,142	2,333
% female	60.4	59.1	62.1	60.9	60.4	59.7	59.2	59.7	61.2	62.0
	Overseas students									
Undergraduate										
Bachelor honours	0	3	1	1	1	4	7	2	9	2
Bachelor pass	93	98	134	177	211	231	253	242	235	258
<i>Total undergraduate</i>	<i>93</i>	<i>101</i>	<i>135</i>	<i>178</i>	<i>212</i>	<i>235</i>	<i>260</i>	<i>244</i>	<i>244</i>	<i>260</i>
% female	59.1	54.5	65.2	68.5	69.8	70.2	64.6	68.9	66.8	70.4
Postgraduate (PG)										
PhD	10	17	19	22	19	18	15	15	14	11
MSc–research	8	8	10	8	9	9	6	7	6	8
MSc–coursework	1	—	—	—	—	3	4	3	2	4
PG qualifying	3	2	1	3	—	2	5	1	3	—
PG Diploma (new field)	1	5	1	—	—	—	1	—	1	2
PG Diploma (extends field)	—	—	—	—	1	1	1	1	2	—
Graduate certificate	—	—	—	—	—	—	—	—	—	2
<i>Total postgraduate</i>	<i>23</i>	<i>32</i>	<i>31</i>	<i>33</i>	<i>29</i>	<i>33</i>	<i>32</i>	<i>27</i>	<i>28</i>	<i>27</i>
% female	43.5	43.8	38.7	39.4	44.8	48.5	65.6	59.3	57.1	63.0
Total	116	133	166	211	241	268	292	271	272	287
% female	56.0	51.9	60.2	64.0	66.9	67.5	64.7	67.9	65.8	69.7
	All students									
Undergraduate										
Bachelor honours	6	11	11	19	11	19	30	17	27	26
Bachelor pass	1,445	1,492	1,538	1,576	1,609	1,669	1,795	1,968	2,125	2,327
<i>Total undergraduate</i>	<i>1,451</i>	<i>1,503</i>	<i>1,549</i>	<i>1,595</i>	<i>1,620</i>	<i>1,688</i>	<i>1,825</i>	<i>1,985</i>	<i>2,152</i>	<i>2,353</i>
% female	59.1	54.5	65.2	61.0	69.8	70.2	64.6	68.9	66.8	62.2
Postgraduate (PG)										
PhD	20	37	57	74	86	91	95	90	89	89
MSc–research	54	64	48	53	49	44	38	38	25	23
MSc–coursework	8	6	6	3	—	5	10	18	25	55
PG qualifying	32	35	29	20	12	20	28	18	24	16
PG Diploma (new field)	21	40	19	20	19	18	35	46	30	16
PG Diploma (extends field)	13	11	13	39	54	35	44	65	60	56
Graduate certificate	—	—	—	—	—	—	3	4	9	12
<i>Total postgraduate</i>	<i>148</i>	<i>193</i>	<i>172</i>	<i>209</i>	<i>220</i>	<i>213</i>	<i>253</i>	<i>279</i>	<i>262</i>	<i>267</i>
% female	51.4	51.8	55.2	59.3	59.5	59.6	61.7	62	65.7	68.5
Total	1,599	1,696	1,721	1,804	1,840	1,901	2,078	2,264	2,414	2,620
% female	60.1	58.5	61.9	61.3	61.3	60.8	60.0	60.7	61.7	62.9

(a) Includes New Zealand citizens, which were included with Australian permanent resident students data for 1997 by DETYA.

Source: AIHW analysis of DETYA data.

Table 31: Destinations of Bachelor degree graduates in selected health fields that completed studies in 1997

Destination	Pharmacy	Dentistry	Initial nursing	Optometry	Medicine	Occu- pational therapy	Physio- therapy	Speech pathology /audiology	Total health
	(per cent)								
In full-time employment									
Government	0.3	27.3	0.8	1.2	1.5	6.9	1.6	7.1	3.6
Private practice, business or industry	29.0	41.9	1.1	6.1	0.2	2.7	1.3	0.5	5.2
Health									
Public	19.0	6.4	59.5	2.5	91.4	51.5	65.5	47.0	48.7
Private/Other	30.6	1.7	14.3	80.2	3.0	13.7	16.3	8.1	12.8
<i>Total</i>	<i>49.6</i>	<i>8.1</i>	<i>73.8</i>	<i>82.7</i>	<i>94.4</i>	<i>65.2</i>	<i>81.8</i>	<i>55.1</i>	<i>61.5</i>
Education	2.6	3.5	0.6	—	0.3	2.1	1.0	15.2	1.4
Other	2.2	0.6	1.1	1.2	0.2	2.1	0.8	1.0	1
<i>Total</i>	<i>83.7</i>	<i>81.4</i>	<i>77.4</i>	<i>91.2</i>	<i>96.6</i>	<i>79.0</i>	<i>86.5</i>	<i>78.9</i>	<i>72.6</i>
Seeking full-time employment									
Working part-time	0.3	7.0	3.8	—	—	8.6	5.8	6.1	3.8
Not working	1.0	1.2	1.2	1.2	0.1	3.3	1.3	2.5	1.7
<i>Total</i>	<i>1.3</i>	<i>8.2</i>	<i>5.0</i>	<i>1.2</i>	<i>0.1</i>	<i>11.9</i>	<i>7.1</i>	<i>8.6</i>	<i>5.6</i>
Not seeking full-time employment									
Working part-time	—	5.2	10.0	1.2	0.2	6.5	4.2	6.6	11.7
Not working, seeking part-time employment	—	—	0.7	—	—	0.3	0.3	0.5	0.5
<i>Total</i>	<i>—</i>	<i>5.2</i>	<i>10.7</i>	<i>1.2</i>	<i>0.2</i>	<i>6.8</i>	<i>4.5</i>	<i>7.1</i>	<i>12.1</i>
In full-time study	13.9	5.2	4.5	6.1	2.6	1.2	1.9	3.0	7.6
Unavailable for full-time work or study	1.0	—	2.1	—	0.3	1.2	—	2.5	2.1
Total									
%	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	310	172	3,208	81	934	336	380	198	9,223

Source: Graduate Careers Council of Australia Limited.

Table 32: Persons with a highest qualification in pharmacy and practising pharmacists: States and Territories, 1991 and 1996

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust	%
1991										
Practising pharmacists										
Males	2,098	1,682	1,105	569	475	146	82	35	6,192	56.9
Females	1,690	1,304	777	364	299	122	100	32	4,688	43.1
Persons	3,788	2,986	1,882	933	774	268	182	67	10,880	100.0
Persons with a highest qualification in pharmacy										
Males	3224	2395	1566	771	760	205	148	60	9,129	51.1
Females	3304	2374	1464	643	534	187	178	59	8,743	48.9
Persons	6,528	4,769	3,030	1,414	1,294	392	326	119	17,872	100.0
% practising pharmacists of qualified pharmacists										
Males	65.1	70.2	70.6	73.8	62.5	71.2	55.4	58.3	67.8	..
Females	51.2	54.9	53.1	56.6	56.0	65.2	56.2	54.2	53.6	..
Persons	58.0	62.6	62.1	66.0	59.8	68.4	55.8	56.3	60.9	..
Population ('000s)	5,898.7	4,420.4	2,961.0	1,636.1	1,446.3	466.8	289.3	165.5	17,284.0	..
Practising pharmacists per 100,000 population	64.2	67.6	63.6	57.0	53.5	57.4	62.9	40.5	62.9	..
Persons with a highest qualification in pharmacy per 100,000 population	110.7	107.9	102.3	86.4	89.5	84.0	112.7	71.9	103.4	..
1996										
Practising pharmacists										
Males	2,200	1,679	1,171	644	485	155	87	23	6,444	52.4
Females	2,090	1,617	958	485	414	147	119	32	5,862	47.6
Persons	4,290	3,296	2,129	1,129	899	302	206	55	12,306	100.0
Persons with a highest qualification in pharmacy										
Males	3,288	2,365	1,624	874	754	205	144	55	9,309	47.5
Females	3,835	2,748	1,694	825	678	212	207	80	10,279	52.5
Persons	7,123	5,113	3,318	1,699	1,432	417	351	135	19,588	100.0
% practising pharmacists of qualified pharmacists										
Males	66.9	71.0	72.1	73.7	64.3	75.6	60.4	41.8	69.2	..
Females	54.5	58.8	56.6	58.8	61.1	69.3	57.5	40.0	57.0	..
Persons	60.2	64.5	64.2	66.5	62.8	72.4	58.7	40.7	62.8	..
Population ('000s)	6,204.7	4,560.2	3,338.7	1,765.3	1,474.3	474.4	308.3	181.8	18,307.7	..
Practising pharmacists per 100,000 population	69.1	72.3	63.8	64.0	61.0	63.7	66.8	30.3	67.2	..
Persons with a highest qualification in pharmacy per 100,000 population	114.8	112.1	99.4	96.2	97.1	87.9	113.9	74.3	107.0	..
% increase from 1991 to 1996										
Practising pharmacists										
Males	4.9	-0.2	6.0	13.2	2.1	6.2	6.1	-34.3	4.1	..
Females	23.7	24.0	23.3	33.2	38.5	20.5	19.0	0.0	25.0	..
Persons	13.3	10.4	13.1	21.0	16.1	12.7	13.2	-17.9	13.1	..
Persons with a highest qualification in pharmacy										
Males	2.0	-1.3	3.7	13.4	-0.8	—	-2.7	-8.3	2.0	..
Females	16.1	15.8	15.7	28.3	27.0	13.4	16.3	35.6	17.6	..
Persons	9.1	7.2	9.5	20.2	10.7	6.4	7.7	13.4	9.6	..
Population ('000s)	5.2	3.2	12.8	7.9	1.9	1.6	6.6	9.8	5.9	..
Practising pharmacists per 100,000 population	7.7	7.0	0.3	12.2	13.9	10.9	6.2	-25.3	6.8	..
Persons with a highest qualification in pharmacy per 100,000 population	3.7	3.9	-2.9	11.4	8.6	4.7	1.0	3.3	3.5	..

Source: National population census, ABS.

Table 33: Community and hospital pharmacists: statistical region of usual residence, Australia, 1996

Statistical region	Community pharmacists	Hospital pharmacists	Total	Population	Population per pharmacist	Pharmacists per 100,000 popn.
NSW						
Inner Sydney	115	50	165	269,869	1,636	61.1
Eastern Suburbs	267	41	308	242,046	786	127.2
St George-Sutherland	332	42	374	411,173	1,099	91.0
Canterbury-Bankstown	139	16	155	303,097	1,955	51.1
Fairfield-Liverpool	97	14	111	313,400	2,823	35.4
Outer South Western Sydney	57	3	60	215,877	3,598	27.8
Inner Western Sydney	182	28	210	155,101	739	135.4
Central Western Sydney	99	20	119	279,973	2,353	42.5
Outer Western Sydney	92	17	109	301,829	2,769	36.1
Blacktown-Baulkham Hills	189	26	215	365,416	1,700	58.8
Lower Northern Sydney	262	48	310	280,612	905	110.5
Hornsby-Ku-ring-gai	341	46	387	248,878	643	155.5
Northern Beaches	179	17	196	223,460	1,140	87.7
<i>Total Sydney</i>	<i>2,351</i>	<i>368</i>	<i>2,719</i>	<i>3,610,731</i>	<i>1,328</i>	<i>75.3</i>
Gosford-Wyong	125	15	140	270,405	1,931	51.8
Hunter	235	41	276	555,154	2,011	49.7
Illawarra	180	25	205	372,860	1,819	55.0
South Eastern	77	10	87	178,939	2,057	48.6
Richmond-Tweed	76	14	90	200,542	2,228	44.9
Mid-North Coast	121	14	135	262,441	1,944	51.4
Northern	73	10	83	178,579	2,152	46.5
Far West-North Western	56	4	60	142,607	2,377	42.1
Central West	67	14	81	172,438	2,129	47.0
Murray-Murrumbidgee	99	14	113	260,032	2,301	43.5
<i>NSW excluding Sydney</i>	<i>1,109</i>	<i>161</i>	<i>1,270</i>	<i>2,593,997</i>	<i>2,043</i>	<i>49.0</i>
<i>Total NSW</i>	<i>3,460</i>	<i>529</i>	<i>3,989</i>	<i>6,204,728</i>	<i>1,555</i>	<i>64.3</i>
Victoria						
Inner Melbourne	180	51	231	227,066	983	101.7
Inner Eastern Melbourne	620	122	742	568,056	766	130.6
North Eastern Melbourne	193	48	241	408,737	1,696	59.0
North Western Melbourne	87	19	106	257,552	2,430	41.2
Southern Melbourne	357	56	413	380,728	922	108.5
South Eastern Melbourne	70	10	80	323,469	4,043	24.7
Outer Eastern Melbourne	119	29	148	369,148	2,494	40.1
Outer Western Melbourne	241	40	281	521,532	1,856	53.9
Mornington Peninsula	99	11	110	226,990	2,064	48.5
<i>Total Melbourne</i>	<i>1,966</i>	<i>386</i>	<i>2,352</i>	<i>3,283,278</i>	<i>1,396</i>	<i>71.6</i>
Barwon-Western District	156	42	198	339,687	1,716	58.3
Central Highlands-Wimmera	74	27	101	186,864	1,850	54.1
Loddon-Mallee	101	21	122	244,496	2,004	49.9
Goulburn-Ovens-Murray	129	26	155	271,770	1,753	57.0
All Gippsland	103	21	124	234,060	1,888	53.0
<i>Victoria excluding Melbourne</i>	<i>563</i>	<i>137</i>	<i>700</i>	<i>1,276,877</i>	<i>1,824</i>	<i>54.8</i>
<i>Total Victoria</i>	<i>2,529</i>	<i>523</i>	<i>3,052</i>	<i>4,560,155</i>	<i>1,494</i>	<i>66.9</i>
Queensland						
Brisbane City Inner Ring	358	105	463	364,019	786	127.2
Brisbane City Outer Ring	342	72	414	455,573	1,100	90.9
South and East BSD Balance	102	13	115	330,885	2,877	34.8
North and West BSD Balance	129	19	148	369,517	2,497	40.1
<i>Total Brisbane</i>	<i>931</i>	<i>209</i>	<i>1,140</i>	<i>1,519,994</i>	<i>1,333</i>	<i>75.0</i>
South and East Moreton	202	18	220	338,861	1,540	64.9
North and West Moreton	128	16	144	279,367	1,940	51.5
Wide Bay-Burnett	86	11	97	224,282	2,312	43.2
Darling Downs-South West	110	14	124	226,414	1,826	54.8
Mackay-Fitzroy-Central West	107	12	119	310,880	2,612	38.3
Northern-North West	77	13	90	228,126	2,535	39.5
Far North	93	11	104	210,766	2,027	49.3
<i>Queensland excluding Brisbane</i>	<i>803</i>	<i>95</i>	<i>898</i>	<i>1,818,696</i>	<i>2,025</i>	<i>49.4</i>
<i>Total Queensland</i>	<i>1,734</i>	<i>304</i>	<i>2,038</i>	<i>3,338,690</i>	<i>1,638</i>	<i>61.0</i>

Table 33 (continued): Community and hospital: statistical region of usual residence, Australia, 1996

Statistical region	Community pharmacists	Hospital pharmacists	Total	Population	Population per pharmacist	Pharmacists per 100,000 popn.
South Australia						
Northern Adelaide	93	21	114	334,883	2,938	34.0
Western Adelaide	111	20	131	208,691	1,593	62.8
Eastern Adelaide	246	44	290	218,867	755	132.5
Southern Adelaide	161	33	194	316,671	1,632	61.3
<i>Total Adelaide</i>	<i>611</i>	<i>118</i>	<i>729</i>	<i>1,079,112</i>	<i>1,480</i>	<i>67.6</i>
Northern and Western SA	52	3	55	160,593	2,920	34.2
Southern and Eastern SA	77	3	80	234,548	2,932	34.1
<i>South Australia excluding Adelaide</i>	<i>129</i>	<i>6</i>	<i>135</i>	<i>395,141</i>	<i>2,927</i>	<i>34.2</i>
<i>Total South Australia</i>	<i>740</i>	<i>124</i>	<i>864</i>	<i>1,474,253</i>	<i>1,706</i>	<i>58.6</i>
Western Australia						
Central Metropolitan	169	37	206	117,962	573	174.6
East Metropolitan	77	10	87	213,094	2,449	40.8
North Metropolitan	222	48	270	395,829	1,466	68.2
South West Metropolitan	157	20	177	266,987	1,508	66.3
South East Metropolitan	154	23	177	301,220	1,702	58.8
<i>Total Perth</i>	<i>779</i>	<i>138</i>	<i>917</i>	<i>1,295,092</i>	<i>1,412</i>	<i>70.8</i>
Lower Western WA	80	8	88	237,217	2,696	37.1
Remainder—balance WA	69	9	78	232,947	2,987	33.5
<i>Western Australia excluding Perth</i>	<i>149</i>	<i>17</i>	<i>166</i>	<i>470,164</i>	<i>2,832</i>	<i>35.3</i>
<i>Total Western Australia</i>	<i>928</i>	<i>155</i>	<i>1,083</i>	<i>1,765,256</i>	<i>1,630</i>	<i>61.4</i>
Tasmania						
Greater Hobart-Southern	146	29	175	230,187	1,315	76.0
Mersey-Lyell	39	4	43	110,209	2,563	39.0
Northern	67	11	78	134,047	1,719	58.2
<i>Total Tasmania</i>	<i>252</i>	<i>44</i>	<i>296</i>	<i>474,443</i>	<i>1,603</i>	<i>62.4</i>
Northern Territory						
Darwin	27	7	34	82,232	2,419	41.3
Balance Northern Territory	14	7	21	99,611	4,743	21.1
<i>Total Northern Territory</i>	<i>41</i>	<i>14</i>	<i>55</i>	<i>181,843</i>	<i>3,306</i>	<i>30.2</i>
Australian Capital Territory						
Australian Capital Territory	167	32	199	308,251	1,549	64.6
Australia	9,870	1,730	11,600	18,307,619	1,578	63.4

Note: These statistics are derived from responses based on place of residence of the pharmacist, not place of practice. The data on distribution of pharmacists within metropolitan areas, in particular, should therefore be interpreted with caution.

Source: National population census, ABS.

Table 34: Community and hospital pharmacists: statistical region of usual residence, Australia, 1991 and 1996

Statistical region	Community pharmacists 1991	Community pharmacists 1996	% change 1991 to 1996	Hospital pharmacists 1991	Hospital pharmacists 1996	% change 1991 to 1996
NSW						
Inner Sydney	108	115	6.5	36	50	38.9
Eastern Suburbs	259	267	3.1	37	41	10.8
St George-Sutherland	315	332	5.4	33	42	27.3
Canterbury-Bankstown	106	139	31.1	16	16	—
Fairfield-Liverpool	49	97	98.0	6	14	133.3
Outer South Western Sydney	45	57	26.7	6	3	(50)
Inner Western Sydney	156	182	16.7	20	28	40.0
Central Western Sydney	97	99	2.1	18	20	11.1
Outer Western Sydney	91	92	1.1	16	17	6.3
Blacktown-Baulkham Hills	167	189	13.2	17	26	52.9
Lower Northern Sydney	271	262	-3.3	44	48	9.1
Hornsby-Ku-ring-gai	293	341	16.4	39	46	17.9
Northern Beaches	177	179	1.1	21	17	-19.0
<i>Total Sydney</i>	<i>2,134</i>	<i>2,351</i>	<i>10.2</i>	<i>309</i>	<i>368</i>	<i>19.1</i>
Gosford-Wyong	97	125	28.9	8	15	87.5
Hunter	218	235	7.8	39	41	5.1
Illawarra	154	180	16.9	24	25	4.2
South Eastern	81	77	-4.9	6	10	66.7
Richmond-Tweed	82	76	-7.3	6	14	133.3
Mid-North Coast	104	121	16.3	10	14	40.0
Northern	65	73	12.3	6	10	66.7
Far West-North Western	48	56	16.7	3	4	33.3
Central West	61	67	9.8	6	14	133.3
Murray-Murrumbidgee	91	99	8.8	6	14	133.3
<i>NSW excluding Sydney</i>	<i>1,001</i>	<i>1,109</i>	<i>10.8</i>	<i>114</i>	<i>161</i>	<i>41.2</i>
<i>Total NSW</i>	<i>3,135</i>	<i>3,460</i>	<i>10.4</i>	<i>423</i>	<i>529</i>	<i>25.1</i>
Victoria						
Inner Melbourne	139	180	29.5	54	51	-5.6
Inner Eastern Melbourne	518	620	19.7	130	122	-6.2
Other Melbourne	977	1067	9.2	231	202	-12.6
Mornington Peninsula	104	99	-4.8	15	11	-26.7
<i>Total Melbourne</i>	<i>1,738</i>	<i>1,966</i>	<i>13.1</i>	<i>430</i>	<i>386</i>	<i>-10.2</i>
Barwon-Western District	141	156	10.6	34	42	23.5
Central Highlands-Wimmera	79	74	-6.3	25	27	8.0
Loddon-Mallee	106	101	-4.7	18	21	16.7
Goulburn-Ovens-Murray	79	129	63.3	23	26	13.0
All Gippsland	91	103	13.2	15	21	40.0
<i>Victoria excluding Melbourne</i>	<i>496</i>	<i>563</i>	<i>13.5</i>	<i>115</i>	<i>137</i>	<i>19.1</i>
<i>Total Victoria</i>	<i>2,234</i>	<i>2,529</i>	<i>13.2</i>	<i>545</i>	<i>523</i>	<i>-4.0</i>
Queensland						
Brisbane City	643	700	8.9	133	177	33.1
South and East BSD Balance	75	102	36.0	9	13	44.4
North and West BSD Balance	99	129	30.3	21	19	-9.5
<i>Total Brisbane</i>	<i>817</i>	<i>931</i>	<i>14.0</i>	<i>163</i>	<i>209</i>	<i>28.2</i>
South and East Moreton	164	202	23.2	8	18	125.0
North and West Moreton	105	128	21.9	—	16	n.a.
Wide Bay-Burnett	69	86	24.6	6	11	83.3
Darling Downs-South West	97	110	13.4	9	14	55.6
Mackay-Fitzroy-Central West	109	107	-1.8	9	12	33.3
Northern-North West	70	77	10.0	9	13	44.4
Far North	70	93	32.9	13	11	-15.4
<i>Queensland excluding Brisbane</i>	<i>684</i>	<i>803</i>	<i>17.4</i>	<i>54</i>	<i>95</i>	<i>75.9</i>
<i>Total Queensland</i>	<i>1,501</i>	<i>1,734</i>	<i>15.5</i>	<i>217</i>	<i>304</i>	<i>40.1</i>

(continued)

Table 34 (continued): Community and hospital pharmacists: statistical region of usual residence, Australia, 1991 and 1996

Statistical region	Community pharmacists 1991	Community pharmacists 1996	% change 1991 to 1996	Hospital pharmacists 1991	Hospital pharmacists 1996	% change 1991 to 1996
South Australia						
Northern Adelaide	77	93	20.8	14	21	50.0
Western Adelaide	91	111	22.0	18	20	11.1
Eastern Adelaide	195	246	26.2	34	44	29.4
Southern Adelaide	147	161	9.5	38	33	-13.2
<i>Total Adelaide</i>	<i>510</i>	<i>611</i>	<i>19.8</i>	<i>104</i>	<i>118</i>	<i>13.5</i>
Northern and Western SA	46	52	13.0	6	3	-50.0
Southern and Eastern SA	65	77	18.5	6	3	-50.0
<i>South Australia excluding Adelaide</i>	<i>111</i>	<i>129</i>	<i>16.2</i>	<i>12</i>	<i>6</i>	<i>-50.0</i>
<i>Total South Australia</i>	<i>621</i>	<i>740</i>	<i>19.2</i>	<i>116</i>	<i>124</i>	<i>-6.9</i>
Western Australia						
Central Metropolitan	145	169	16.6	30	37	23.3
East Metropolitan	68	77	13.2	8	10	25.0
North Metropolitan	163	222	36.2	41	48	17.1
South West Metropolitan	113	157	38.9	31	20	-35.5
South East Metropolitan	98	154	57.1	16	23	43.8
<i>Total Perth</i>	<i>587</i>	<i>779</i>	<i>32.7</i>	<i>126</i>	<i>138</i>	<i>9.5</i>
Lower Western WA	75	80	6.7	3	8	166.7
Remainder—balance WA	57	69	21.1	—	9	n.a.
<i>Western Australia excluding Perth</i>	<i>132</i>	<i>149</i>	<i>12.9</i>	<i>3</i>	<i>17</i>	<i>466.7</i>
<i>Total Western Australia</i>	<i>719</i>	<i>928</i>	<i>29.1</i>	<i>129</i>	<i>155</i>	<i>20.2</i>
Tasmania						
Greater Hobart-Southern	130	146	12.3	26	29	11.5
Mersey-Lyell	38	39	2.6	6	4	-33.3
Northern	59	67	13.6	13	11	-15.4
<i>Total Tasmania</i>	<i>227</i>	<i>252</i>	<i>11.0</i>	<i>45</i>	<i>44</i>	<i>-2.2</i>
Northern Territory						
Darwin	27	27	—	3	7	133.3
Balance Northern Territory	21	14	-33.3	7	7	—
<i>Total Northern Territory</i>	<i>48</i>	<i>41</i>	<i>-14.6</i>	<i>10</i>	<i>14</i>	<i>40.0</i>
Australian Capital Territory						
Australian Capital Territory	130	167	28.5	29	32	10.3
Australia	8,713	9,870	13.3	1,556	1,730	11.2

Note: These statistics are derived from responses based on place of residence of the pharmacist, not place of practice. The data on distribution of pharmacists within metropolitan areas, in particular, should therefore be interpreted with caution.

Source: National population census, ABS.

Table 35: Employed pharmacists: occupation and capital city/other, Australia, 1996

	Community	Hospital	Industry	Total
Usual residence	(number)			
Sydney/ACT	2,643	415	266	3,324
Balance of NSW	989	148	35	1,172
Melbourne	1,967	386	225	2,578
Balance of Victoria	565	139	14	718
Brisbane	931	209	61	1,201
Balance of Queensland	810	98	20	928
Adelaide	611	118	34	763
Balance of SA, NT	172	18	3	193
Perth	724	126	37	887
Balance of WA	206	29	7	242
Tasmania	252	44	5	301
Total	9,870	1,730	707	12,307
	(per cent)			
Sydney/ACT	26.8	24.0	37.6	27.0
Balance of NSW	10.0	8.6	5.0	9.5
Melbourne	19.9	22.3	31.8	20.9
Balance of Victoria	5.7	8.0	2.0	5.8
Brisbane	9.4	12.1	8.6	9.8
Balance of Queensland	8.2	5.7	2.8	7.5
Adelaide	6.2	6.8	4.8	6.2
Balance of SA, NT	1.7	1.0	0.4	1.6
Perth	7.3	7.3	5.2	7.2
Balance of WA	2.1	1.7	1.0	2.0
Tasmania	2.6	2.5	0.7	2.4
Total	100.0	100.0	100.0	100.0

Source: National population census, ABS.

Table 36: Employed pharmacists: occupation, age and sex, Australia, 1991 and 1996

Year/category	Age group						Total
	<25	25-34	35-44	45-54	55-64	65+	
Community pharmacists							
1991							
Males	301	935	963	1,644	1,176	232	5,251
Females	490	980	910	692	341	49	3,462
Persons	791	1,915	1,873	2,336	1,517	281	8,713
1996							
Males	300	918	1,108	1,267	1,559	390	5,542
Females	533	1,280	1,156	774	483	102	4,328
Persons	833	2,198	2,264	2,041	2,042	492	9,870
% change 1991 to 1996							
Males	-0.3	-1.8	15.1	-22.9	32.6	68.1	5.5
Females	8.8	30.6	27.0	11.8	41.6	108.2	25.0
Persons	5.3	14.8	20.9	-12.6	34.6	75.1	13.3
Hospital pharmacists							
1991							
Males	62	137	133	141	95	6	574
Females	177	326	258	167	54	9	991
Persons	239	463	391	308	149	15	1,565
1996							
Males	45	107	117	131	126	25	551
Females	149	367	347	219	90	7	1,179
Persons	194	474	464	350	216	32	1,730
% change 1991 to 1996							
Males	-27.4	-21.9	-12.0	-7.1	32.6	316.7	-4.0
Females	-15.8	12.6	34.5	31.1	66.7	-22.2	19.0
Persons	-18.8	2.4	18.7	13.6	45.0	113.3	10.5
Industrial pharmacists							
1991							
Males	29	93	96	95	60	7	380
Females	44	74	48	32	18	—	216
Persons	73	167	144	127	78	7	596
1996							
Males	40	121	65	68	47	10	351
Females	45	165	87	38	19	3	357
Persons	85	286	152	106	66	13	708
% change 1991 to 1996							
Males	37.9	30.1	-32.3	-28.4	-21.7	42.9	-7.6
Females	2.3	123.0	81.3	18.8	5.6	n.a.	65.3
Persons	16.4	71.3	5.6	-16.5	-15.4	85.7	18.8
Total pharmacists							
1991							
Males	392	1,165	1,192	1,880	1,331	245	6,205
Females	711	1,380	1,216	891	413	58	4,669
Persons	1,103	2,545	2,408	2,771	1,744	303	10,874
1996							
Males	385	1,146	1,290	1,466	1,732	425	6,444
Females	727	1,812	1,590	1,031	592	112	5,864
Persons	1,112	2,958	2,880	2,497	2,324	537	12,308
% change 1991 to 1996							
Males	-1.8	-1.6	8.2	-22.0	30.1	73.5	3.9
Females	2.3	31.3	30.8	15.7	43.3	93.1	25.6
Persons	0.8	16.2	19.6	-9.9	33.3	77.2	13.2

Source: National population census, ABS.

Table 37: Employed pharmacists: occupation by country of birth, Australia, 1996

Country of birth	Community	Hospital	Industrial	Total	%
Australia	7,614	1,226	466	9,306	75.6
New Zealand	218	25	12	255	2.1
Other Oceania	84	14	—	98	0.8
United Kingdom and Ireland	398	137	53	588	4.8
Other Europe	346	59	35	440	3.6
Middle East and North Africa	196	31	18	245	2.0
Other Africa	126	32	15	173	1.4
Asia	800	185	89	1,074	8.7
America	51	14	14	79	0.6
Not stated	37	7	3	47	0.4
Total	9,870	1,730	705	12,305	100.0

Source: National population census, ABS.

Table 38: Employed pharmacists: country of birth, percentage distribution, Australia, 1981–1996

Country of birth	1981	1986	1991	1996
Australia	85.3	82.9	80.1	75.6
Oceania	2.3	2.5	2.8	2.9
Europe	8.1	8.2	8.5	8.4
Middle East and North Africa ^(a)	n.a.	n.a.	1.4	2.0
Other Africa	1.1	1.6	1.3	1.4
Asia	2.7	4.1	5.6	8.7
America	0.4	0.4	0.5	0.6
Not stated	—	0.3	0.1	0.4
Total	100.0	100.0	100.0	100.0

(a) The Middle East was included in Asia and North Africa was included in Other Africa in 1981 and 1986.

Source: National population census, ABS.

Table 39: Persons with a highest qualification in pharmacy: labour force status by age and Australia, 1996

Sex/status	Age group					
	< 25	25-34	35-44	45-54	55-64	65+
	(number)					
Males						
Employed as pharmacist	385	1,146	1,290	1,466	1,732	425
Employed, other	—	122	216	305	193	73
Unemployed	12	24	24	16	34	7
Not in the labour force	46	70	50	84	345	1,235
Not stated	—	—	—	3	6	—
<i>Total</i>	<i>443</i>	<i>1,362</i>	<i>1,580</i>	<i>1,874</i>	<i>2,310</i>	<i>1,740</i>
Females						
Employed as pharmacist	727	1,812	1,590	1,031	592	112
Employed, other	204	381	552	407	137	28
Unemployed	61	57	58	39	14	3
Not in the labour force	124	399	385	225	461	867
Not stated	3	3	6	4	—	—
<i>Total</i>	<i>1,119</i>	<i>2,652</i>	<i>2,591</i>	<i>1,706</i>	<i>1,204</i>	<i>1,010</i>
Persons						
Employed as pharmacist	1,112	2,958	2,880	2,497	2,324	537
Employed, other	204	503	768	712	330	101
Unemployed	73	81	82	55	48	10
Not in the labour force	170	469	435	309	806	2,102
Not stated	3	3	6	7	6	—
Total	1,562	4,014	4,171	3,580	3,514	2,750
	(per cent)					
Males						
Employed as pharmacist	86.9	84.1	81.6	78.2	75.0	24.4
Employed, other	—	9.0	13.7	16.3	8.4	4.2
Unemployed	2.7	1.8	1.5	0.9	1.5	0.4
Not in the labour force	10.4	5.1	3.2	4.5	14.9	71.0
Not stated	—	—	—	0.2	0.3	—
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
Females						
Employed as pharmacist	65.0	68.3	61.4	60.4	49.2	11.1
Employed, other	18.2	14.4	21.3	23.9	11.4	2.8
Unemployed	5.5	2.1	2.2	2.3	1.2	0.3
Not in the labour force	11.1	15.0	14.9	13.2	38.3	85.8
Not stated	0.3	0.1	0.2	0.2	—	—
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
Persons						
Employed as pharmacist	71.2	73.7	69.0	69.7	66.1	19.5
Employed, other	13.1	12.5	18.4	19.9	9.4	3.7
Unemployed	4.7	2.0	2.0	1.5	1.4	0.4
Not in the labour force	10.9	11.7	10.4	8.6	22.9	76.4
Not stated	0.2	0.1	0.1	0.2	0.2	—
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: National population census, ABS.

Table 40: Australian-born persons with a highest qualification in pharmacy: labour force age and sex, Australia, 1996

Sex/status	Age group					
	< 25	25–34	35–44	45–54	55–64	65+
	(number)					
Males						
Employed as pharmacist	276	814	905	1,129	1,490	370
Employed, other	—	70	106	175	126	57
Unemployed	8	9	8	5	16	5
Not in the labour force	25	27	13	47	285	990
Not stated	—	—	—	3	3	—
<i>Total</i>	<i>309</i>	<i>920</i>	<i>1,032</i>	<i>1,359</i>	<i>1,920</i>	<i>1,422</i>
Females						
Employed as pharmacist	513	1,292	1,154	763	496	107
Employed, other	176	213	264	191	79	22
Unemployed	42	16	14	16	5	3
Not in the labour force	77	187	174	113	309	594
Not stated	—	3	—	—	—	—
<i>Total</i>	<i>808</i>	<i>1,711</i>	<i>1,606</i>	<i>1,083</i>	<i>889</i>	<i>726</i>
Persons						
Employed as pharmacist	789	2,106	2,059	1,892	1,986	477
Employed, other	176	283	370	366	205	79
Unemployed	50	25	22	21	21	8
Not in the labour force	102	214	187	160	594	1,584
Not stated	—	3	—	3	3	—
Total	1,117	2,631	2,638	2,442	2,809	2,148
	(per cent)					
Males						
Employed as pharmacist	89.3	88.5	87.7	83.1	77.6	26.0
Employed, other	—	7.6	10.3	12.9	6.6	4.0
Unemployed	2.6	1.0	0.8	0.4	0.8	0.4
Not in the labour force	8.1	2.9	1.3	3.5	14.8	69.6
Not stated	—	—	—	0.2	0.2	—
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
Females						
Employed as pharmacist	63.5	75.5	71.9	70.5	55.8	14.7
Employed, other	21.8	12.4	16.4	17.6	8.9	3.0
Unemployed	5.2	0.9	0.9	1.5	0.6	0.4
Not in the labour force	9.5	10.9	10.8	10.4	34.8	81.8
Not stated	—	0.2	—	—	—	—
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
Persons						
Employed as pharmacist	70.6	80.0	78.1	77.5	70.7	22.2
Employed, other	15.8	10.8	14.0	15.0	7.3	3.7
Unemployed	4.5	1.0	0.8	0.9	0.7	0.4
Not in the labour force	9.1	8.1	7.1	6.6	21.1	73.7
Not stated	—	0.1	—	0.1	0.1	—
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: National population census, ABS.

Table 41: Overseas-born persons with a highest qualification in pharmacy: labour force status by age and sex, Australia, 1996

Sex/status	Age group					
	< 25	25-34	35-44	45-54	55-64	65+
	(number)					
Males						
Employed as pharmacist	109	332	385	337	242	55
Employed, other	—	52	110	130	67	16
Unemployed	4	15	16	11	18	2
Not in the labour force	21	43	37	37	60	245
Not stated	—	—	—	—	3	—
<i>Total</i>	<i>134</i>	<i>442</i>	<i>548</i>	<i>515</i>	<i>390</i>	<i>318</i>
Females						
Employed as pharmacist	214	520	436	268	96	5
Employed, other	28	168	288	216	58	6
Unemployed	19	41	44	23	9	—
Not in the labour force	47	212	211	112	152	273
Not stated	3	—	6	4	—	—
<i>Total</i>	<i>311</i>	<i>941</i>	<i>985</i>	<i>623</i>	<i>315</i>	<i>284</i>
Persons						
Employed as pharmacist	323	852	821	605	338	60
Employed, other	28	220	398	346	125	22
Unemployed	23	56	60	34	27	2
Not in the labour force	68	255	248	149	212	518
Not stated	3	—	6	4	3	—
Total	445	1,383	1,533	1,138	705	602
	(per cent)					
Males						
Employed as pharmacist	81.3	75.1	70.3	65.4	62.1	17.3
Employed, other	—	11.8	20.1	25.2	17.2	5.0
Unemployed	3.0	3.4	2.9	2.1	4.6	0.6
Not in the labour force	15.7	9.7	6.8	7.2	15.4	77.0
Not stated	—	—	—	—	0.8	—
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
Females						
Employed as pharmacist	68.8	55.3	44.3	43.0	30.5	1.8
Employed, other	9.0	17.9	29.2	34.7	18.4	2.1
Unemployed	6.1	4.4	4.5	3.7	2.9	—
Not in the labour force	15.1	22.5	21.4	18.0	48.3	96.1
Not stated	1.0	—	0.6	0.6	—	—
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
Persons						
Employed as pharmacist	72.6	61.6	53.6	53.2	47.9	10.0
Employed, other	6.3	15.9	26.0	30.4	17.7	3.7
Unemployed	5.2	4.0	3.9	3.0	3.8	0.3
Not in the labour force	15.3	18.4	16.2	13.1	30.1	86.0
Not stated	0.7	—	0.4	0.4	0.4	—
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: National population census, ABS.

Table 42: Overseas-born persons with a highest qualification in pharmacy obtained after 1996: labour force status by age and sex, Australia, 1996

Sex/status	Age group					
	< 25	25-34	35-44	45-54	55-64	65+
	(number)					
Males						
Employed as pharmacist	53	113	36	9	—	—
Employed, other	10	19	19	—	4	—
Unemployed	—	4	4	3	—	—
Not in the labour force	9	11	4	3	—	—
Not stated	—	—	—	—	—	—
<i>Total</i>	<i>72</i>	<i>147</i>	<i>63</i>	<i>15</i>	<i>4</i>	<i>—</i>
Females						
Employed as pharmacist	126	206	37	5	—	—
Employed, other	26	53	26	3	—	—
Unemployed	10	4	—	3	—	—
Not in the labour force	23	51	11	3	—	—
Not stated	—	—	—	—	—	—
<i>Total</i>	<i>185</i>	<i>314</i>	<i>74</i>	<i>14</i>	<i>—</i>	<i>—</i>
Persons						
Employed as pharmacist	179	319	73	14	—	—
Employed, other	36	72	45	3	4	—
Unemployed	10	8	4	6	—	—
Not in the labour force	32	62	15	6	—	—
Not stated	—	—	—	—	—	—
Total	257	461	137	29	4	—
	(per cent)					
Males						
Employed as pharmacist	73.6	76.9	57.1	60.0	—	—
Employed, other	13.9	12.9	30.2	—	100.0	—
Unemployed	—	2.7	6.3	20.0	—	—
Not in the labour force	12.5	7.5	6.3	20.0	—	—
Not stated	—	—	—	—	—	—
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>—</i>
Females						
Employed as pharmacist	68.1	65.6	50.0	35.7	—	—
Employed, other	14.1	16.9	35.1	21.4	—	—
Unemployed	5.4	1.3	—	21.4	—	—
Not in the labour force	12.4	16.2	14.9	21.4	—	—
Not stated	—	—	—	—	—	—
<i>Total</i>	<i>100.0</i>	<i>100</i>	<i>100.0</i>	<i>100.0</i>	<i>—</i>	<i>—</i>
Persons						
Employed as pharmacist	69.6	69.2	53.3	48.3	—	—
Employed, other	14.0	15.6	32.8	10.3	100.0	—
Unemployed	3.9	1.7	2.9	20.7	—	—
Not in the labour force	12.5	13.4	10.9	20.7	—	—
Not stated	—	—	—	—	—	—
Total	100.0	100	100.0	100.0	100.0	—

Source: National population census, ABS.

Table 43: Community and hospital pharmacists: employment setting, Australia, 1996

Employment setting	Community pharmacists		Hospital pharmacists	
	Number	%	Number	%
Hospitals (except psychiatric)	228	2.3	1,276	73.7
Psychiatric hospitals	9	0.1	34	2.0
Nursing homes	8	0.1	3	0.2
General medical practice services	28	0.3	4	0.2
Specialist medical services	—	—	5	0.3
Dental services	—	—	3	0.2
Pathology services	—	—	8	0.5
Community health services	38	0.4	27	1.6
Other health industry	37	0.4	16	0.9
Community services, undefined	3	0.0	—	—
Child care services	—	—	—	—
Accommodation for the aged	—	—	—	—
Residential care services, n.e.c.	4	0.0	—	—
Non-residential care services, n.e.c.	3	0.0	6	0.3
Government administration	73	0.7	16	0.9
Defence	27	0.3	6	0.3
Education	23	0.2	12	0.7
All other industries, and not stated	9,389	95.1	315	18.2
Total	9,870	100.0	1,731	100.0

Source: National population census, ABS.

Table 44: Aboriginal and Torres Strait Islander pharmacists, Australia, 1996

Persons with a highest qualification in pharmacy	13
Employed pharmacists	6

Source: National population census, ABS.

Table 45: Community and hospital pharmacists: hours worked during the week before the census, Australia, 1991 and 1996

Year/category	Hours worked during previous week							Not stated	Total
	None	1–15	16–24	25–34	35–39	40–48	49+		
Community pharmacists									
1991									
Males	75	247	160	253	471	1,684	2,302	44	5,236
Females	91	672	536	414	454	887	400	32	3,486
Persons	166	919	696	667	925	2,571	2,702	76	8,722
1996									
Males	118	243	230	368	525	1,782	2,231	45	5,542
Females	139	618	563	599	670	1,148	555	36	4,328
Persons	257	861	793	967	1,195	2,930	2,786	81	9,870
As a percentage									
1991									
Males	1.4	4.7	3.1	4.8	9.0	32.2	44.0	0.8	100.0
Females	2.6	19.3	15.4	11.9	13.0	25.4	11.5	0.9	100.0
Persons	1.9	10.5	8.0	7.6	10.6	29.5	31.0	0.9	100.0
1996									
Males	2.1	4.4	4.2	6.6	9.5	32.2	40.3	0.8	100.0
Females	3.2	14.3	13.0	13.8	15.5	26.5	12.8	0.8	100.0
Persons	2.6	8.7	8.0	9.8	12.1	29.7	28.2	0.8	100.0
As % increase from 1991 to 1996									
Males	57.3	-1.6	43.8	45.5	11.5	5.8	-3.1	2.3	5.8
Females	52.7	-8.0	5.0	44.7	47.6	29.4	38.8	12.5	24.2
Persons	54.8	-6.3	13.9	45.0	29.2	14.0	3.1	6.6	13.2
Hospital pharmacists									
1991									
Males	24	3	8	25	175	284	59	3	581
Females	35	80	121	68	259	411	22	8	1,004
Persons	59	83	129	93	434	695	81	11	1,585
1996									
Males	14	11	15	23	145	269	72	3	552
Females	44	82	145	127	256	463	55	7	1,179
Persons	58	93	160	150	401	732	127	10	1,731
As a percentage									
1991									
Males	4.1	0.5	1.4	4.3	30.1	48.9	10.2	0.5	100.0
Females	3.5	8.0	12.1	6.8	25.8	40.9	2.2	0.8	100.0
Persons	3.7	5.2	8.1	5.9	27.4	43.8	5.1	0.7	100.0
1996									
Males	2.5	2.0	2.7	4.2	26.3	48.7	13.0	0.5	100.0
Females	3.7	7.0	12.3	10.8	21.7	39.3	4.7	0.6	100.0
Persons	3.4	5.4	9.2	8.7	23.2	42.3	7.3	0.6	100.0
As % increase from 1991 to 1996									
Males	-41.7	266.7	87.5	-8.0	-17.1	-5.3	22.0	—	-5.0
Females	25.7	2.5	19.8	86.8	-1.2	12.7	150.0	-12.5	17.4
Persons	-1.7	12.0	24.0	61.3	-7.6	5.3	56.8	-9.1	9.2

Source: National population census, ABS.

Table 46: Employed community pharmacists: annual income and hours worked during the week before the census, Australia, 1996

Annual income	Hours worked during previous week					Total	%
	None	1-34	35-48	49+	Not stated		
Nil	3	6	7	20	—	36	0.4
<\$10,399	11	200	19	15	5	250	2.5
\$10,400-\$20,799	23	536	233	72	6	870	8.8
\$20,800-\$41,599	79	1,210	1,449	591	23	3,352	34.0
\$41,600-\$77,999	104	477	1,890	1,273	23	3,767	38.2
\$78,000+	34	165	465	744	14	1,422	14.4
Not stated	3	27	62	71	10	173	1.8
Total	257	2,621	4,125	2,786	81	9,870	100.0

Source: National population census, ABS.

Table 47: Approved pharmacies by States and Territories, 1989–99

State/Territory	1989	1990	1991	1992	1993	1994	1995	1996 ^(r)	1997 ^(r)	1998	1999
New South Wales	2,023	2,005	1,995	1,816	1,773	1,753	1,739	1,731	1,729	1,727	1,724
Victoria	1,344	1,369	1,378	1,276	1,247	1,231	1,218	1,200	1,190	1,181	1,169
Queensland	1,025	1,046	1,039	957	938	934	930	942	952	959	959
Western Australia	475	487	481	462	461	456	456	467	470	474	477
South Australia	446	444	445	404	395	390	385	386	385	383	386
Tasmania	158	154	151	146	144	144	143	143	144	143	140
Australian Capital Territory	74	76	76	62	60	59	61	58	57	58	59
Northern Territory	24	25	27	27	25	26	26	26	27	27	28
Australia	5,569	5,606	5,592	5,150	5,043	4,993	4,958	4,953	4,954	4,952	4,942

(r) Revised since the publication of *Pharmacy Labour Force 1995*.

Source: DHAC 1999b.

Table 48: Approved pharmacies: urban and rural areas, 1998–99

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
Number of pharmacies									
Urban	1,313	904	592	363	282	63	59	18	3,594
Rural	411	265	367	114	104	77	—	10	1,348
People per pharmacy									
Urban	3,649	3,900	3,441	3,697	3,859	3,095	5,222	4,810	3,721
Rural	3,772	4,285	3,868	4,294	3,836	3,596	—	10,342	3,987

Source: DHAC 1999a.

Table 49: Pharmaceutical Benefits Scheme: prescriptions by significant drug groups, 1998–99

Drug group	Prescription volume	Group cost (\$)	% of total cost	% increase over 1997–98 cost
Serum lipid reducing agents	7,782,201	422,499,059	12.4	31.2
Antacids, drugs for treatment of peptic ulcers	8,489,989	396,847,224	11.7	5.7
Agents acting on renin-angiotensin system	10,818,873	326,935,446	9.6	2.9
Anti-asthmatics	9,379,905	273,773,944	8.1	3.6
Psychoanaleptics	7,416,154	229,429,230	6.8	14.9
Calcium channel blockers	7,366,808	185,722,551	5.5	-5.5
Anti-bacterials for systemic use	11,462,183	165,509,147	4.9	-1.2
Psycholeptics	8,209,701	127,372,822	3.7	39.7
Anti-diabetic therapy	3,025,216	109,543,303	3.2	11.8
Analgesics	9,264,145	101,297,045	3.0	6.0
Sex hormones and modulators of the genital system	5,234,322	97,118,801	2.9	5.2
Endocrine therapy	328,135	70,396,479	2.1	14.4
Anti-epileptics	1,290,837	68,026,281	2.0	-2.2
Ophthalmologicals	4,708,129	66,083,567	1.9	8.2
Cardiac therapy	3,236,469	64,431,637	1.9	61.1
Anti-inflammatory and anti-rheumatics	4,259,757	53,875,601	1.6	0.3
Anti-virals for systemic use	241,573	51,616,733	1.5	98.4
Beta blocking agents	3,636,455	45,746,571	1.3	-15.3
Anti-neoplastic agents	212,162	39,484,548	1.2	0.6
Immunostimulants	27,653	31,051,627	0.9	33.7
Anti-acne preparations	166,021	30,860,843	0.9	9.3
Diuretics	2,615,143	30,460,050	0.9	2.6
Anti-diarrhoeals, intestinal anti-inflammatory agents	881,124	28,213,755	0.8	4.5
Anti-spasmodic and anti-cholinergics agents	1,226,425	27,124,817	0.8	37.8
Corticosteroids, dermatological	2,482,559	25,473,082	0.7	-4.5
Drugs for treatment of bone diseases	301,245	22,791,768	0.7	35.5
Vitamins	371,113	22,059,286	0.6	17.2
Anti-Parkinson drugs	534,451	21,950,082	0.6	33.6
Nasal preparations	1,109,837	21,816,046	0.6	-40.0
Anti-thrombotic agents	1,482,371	21,466,669	0.6	-1.8
Other groups	11,360,212	218,002,818	6.4	-1.7
Total	128,921,168	3,396,980,832	100.0	9.15

Note: Includes patients' contributions and "Doctor's Bag" but excludes expenditure on miscellaneous items.

Source: DHAC 1999b.

Table 50: Community Drug Use Data Base: prescriptions by major therapeutic drug groups, Australia, 1992-93 to 1997-98

Drug group/subgroup	Year ending 30 June						% change 1992-93 to 1997-98
	1993	1994	1995	1996	1997	1998	
	('000s)						
For hypertension	21,993	23,525	24,536	26,225	27,611	28,854	31.2
Non-steroidal anti-inflammatory drugs	8,920	8,319	8,089	8,161	7,806	7,806	-12.5
For peptic ulcers/reflux	5,288	6,377	7,183	7,908	8,501	8,861	67.6
For asthma	11,609	11,186	10,522	11,211	11,294	11,471	-1.2
Nervous system							
Analgesics	10,649	11,832	12,687	13,281	13,416	13,865	30.2
Psycholeptics	11,077	11,076	10,999	11,217	11,065	11,181	0.9
Anti-depressants	5,205	5,622	5,978	6,587	7,141	7,833	50.5
Other nervous system	2,335	2,786	2,943	3,066	3,079	2,995	28.3
Total nervous system	29,266	31,315	32,607	34,151	34,702	35,873	22.6
Other drug groups	77,416	80,883	82,479	84,657	81,733	83,116	7.4
Total	156,865	164,283	168,616	176,577	177,095	182,770	16.5

Source: DHAC unpublished data.

Table 51: Practising community pharmacists: OECD countries, 1997

Country	Practising pharmacists ^(a)	Population ('000)	Per cent of population aged 65+	Pharmacists per 100,000
Australia (1996) ^{(c)(d)}	9,314	18,311	12	50.9
Austria	4,264	8,072	14.7	52.8
Belgium (1995) ^(b)	13,926	10,137	15.8	137.4
Canada ^(c)	18,187	30,287	12.1	60
Czech Republic ^(d)	4,171	10,304	12.5	40.5
Denmark (1996) ^(c)	941	5,262	15	17.9
Finland ^(e)	7,367	5,140	14.3	143.3
France ^{(b)(d)}	58,760	58,608	15.6	100.3
Germany ^{(d)(f)}	47,139	82,061	15.4	57.4
Greece (1994) ^(g)	8,147	10,476	16.4	77.8
Hungary	4,389	10,155	14	43.2
Iceland (1994) ^(b)	261	266	11.3	98.1
Ireland ^{(b)(h)(i)}	2,649	3,661	11	72.4
Italy (1992) ^(c)	54,693	56,859	15.1	96.2
Japan (1996)	118,854	125,864	14.7	94.4
Korea	n.a.	45,991	5.9	n.a.
Luxembourg ^(b)	284	422	14	67.3
Mexico	n.a.	93,561	4.5	n.a.
Netherlands (1996) ^{(b)(h)(i)}	2,622	15,494	13.2	16.9
New Zealand (1996) ^(j)	2,401	3,714	11.4	64.6
Norway (1996) ^{(f)(i)}	1,854	4,370	15.7	42.4
Poland ^(c)	20,652	38,650	11.3	53.4
Portugal ^(b)	7,334	9,946	15	73.7
Spain (1995) ^(b)	41,387	39,210	15	105.6
Sweden (1996) ^{(b)(i)}	6,035	8,844	17.1	68.2
Switzerland (1990) ^(f)	3,342	6,796	14.4	49.2
Turkey (1996)	19,681	62,695	5.3	31.4
United Kingdom (1993) ^(c)	34,418	58,191	15.8	59.1
United States (1996) ^(b)	185,000	265,557	12.5	69.7
Total	678,072	1,088,904	..	62.3

(a) The OECD definition of practising pharmacists is the number of pharmacists self-employed or employed by others, including foreign pharmacists licensed to practise. It excludes full-time salaried pharmacists working in hospitals and in pharmaceutical manufacturing corporations as well as pharmacists working abroad. However, most countries have included pharmacists working in hospitals, and those that are known not to have done are noted. Numbers should be reported as full-time equivalents, but in most cases are reported counts: those that are reported as full-time equivalents are noted.

(b) Refers to pharmacists entitled to practise.

(c) Excludes pharmacists working in hospitals.

(d) Refers to full-time equivalents.

(e) Refers to pharmacists entitled to practise aged up to 62 years.

(f) Includes pharmacists working in industry, administration and research.

(g) Refers to the number of pharmacies.

(h) Includes pharmaceutical assistants.

(i) Includes physicians with pharmacy.

(j) Excludes assistant pharmacists.

Source: 1999 OECD Health Data File; Australian population census.

Table 52: Practising pharmacists per 100,000 population: Australia, New Zealand and the United States, 1960–96

Country/year	Practising pharmacists	
	No.	No. per 100,000 population
Australia		
1961	8,351	77.5
1966	8,374	70.6
1971	9,466	72.4
1976	9,876	70.4
1981	10,189	68.3
1986	10,637	66.4
1991	10,813	62.6
1996	12,234	66.8
<i>% change 1961–1996</i>	<i>46.5</i>	<i>–13.8</i>
<i>% change 1976–1996</i>	<i>23.9</i>	<i>–5.1</i>
United States		
1960	101,000	55.9
1965	104,100	53.6
1970	112,600	54.9
1975	122,480	56.7
1980	142,400	62.5
1985	153,500	64.4
1990	166,700	66.7
1995	182,300	69.3
<i>% change 1960–1995</i>	<i>80.5</i>	<i>23.9</i>
<i>% change 1975–1995</i>	<i>48.8</i>	<i>22.1</i>
New Zealand		
1975	2,374	76.9
1980	2,277	72.4
1986	2,499	76.3
1991	2,223	65.3
1996	2,401	64.6
<i>% change 1975–1996</i>	<i>1.1</i>	<i>–15.9</i>

Source: 1999 OECD Health Data File; Australian population census.

Glossary

Country

The Australian Standard Classification of Countries for Social Statistics (ABS 1990) has been used to classify country of birth, and country of previous and future residence for immigration data.

Geographic classification

The *Rural, Remote and Metropolitan Areas Classification* (Department of Primary Industries and Energy & Department of Health and Family Services 1994) has been used to classify the geographic location of the job of responding medical practitioners. The geographic boundaries of these categories are based on the 1991 population census. The classes of geographic location are listed below.

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 that have an urban centre of population of 100,000 or more: Newcastle, Wollongong, Queanbeyan (part of Canberra–Queanbeyan), Geelong, Gold Coast–Tweed Heads, Townsville–Thuringowa.

Rural zone

3. *Large rural centres* are statistical local areas where most of the population reside in urban centres of population of 25,000 to 99,999. These centres are: 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. Examples are 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 zone

These are generally less densely populated than rural statistical local areas and are 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. Examples are: 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); Daly, Jabiru, Nhulunbuy (NT).

Hours worked

The total number of hours worked per week as reported by responding pharmacists. Excludes time spent on travel between work locations (except travel to calls-out) and unpaid professional and/or voluntary activities. The ABS definition of full-time and part-time work has been used:

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

Occupation

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

- community pharmacist: a pharmacist mainly involved in the compounding and dispensing of pharmaceuticals in retail outlets;
- hospital and clinic pharmacist: a pharmacist employed in preparing and dispensing pharmaceuticals, drugs and medicines in hospitals or medical clinics;
- industrial pharmacist: a person undertaking research, testing and analysis related to the development, production, storage, quality control and distribution of drugs;
- administrator: a person mainly employed in pharmacy administration;
- teacher/educator: a person teaching or training persons in pharmacy for their initial qualification or in advanced skills after initial qualification;
- other: a job function in pharmacy which is not one of the above.

Pharmacy labour force

Defined for each State and Territory as:

- pharmacists employed in pharmacy, including the practice of pharmacy, or work which is principally concerned with the discipline of pharmacy (for example, pharmacy research, administration, or the teaching of pharmacy); plus
- pharmacists not employed in pharmacy but looking for work in pharmacy.

Pharmacists counted as being employed in pharmacy include those on maternity or other extended leave of more than three months.

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