

Context

This chapter commences with an overview of the broad changes in population over the previous five years, without which it would be difficult to place in context the workforce and industry changes that have occurred since 1996. For example, it is clear that changes in the age profile of the population will alter the prevalence of certain health conditions as well as the mix of health and community services needed. Similarly, changes in the geographic distribution of the population will affect the need for the provision of health and community services in those areas experiencing high population growth or decline. Any growth or decline in the numbers of workers in an area needs to be interpreted against population change in that area.

Overall need for health and community services is also affected by population growth and ageing. Much of government policy over recent years is focussed on maintaining an appropriate level of services into the future. Governments also monitor the proportion of the economy dedicated to government and private sector expenditure on health and welfare.

Labour costs are a major component in the cost of health and community services. Although not the whole story, changes in the structure (i.e. the proportion of the labour force employed in the industries and the occupation mix), the average weekly working hours of those employed in the industries, and salary and wage levels are some of the factors affecting national health and welfare expenditure.

Changing patterns of service delivery may also lead to changes in the characteristics of the industries and occupations (for example, providing services to clients in a community setting rather than an institution). A response to shortages of particular occupations, perhaps as a result of population change, may lead to substitution of another occupation to perform some functions. An above-average increase in remuneration for one occupation may provide an incentive to substitute lower paid staff to perform some functions. An increase in less skilled, lower paid staff will act to minimise increases in the overall cost of providing services, particularly in conditions where there is an increased demand.

The following sections illustrate some of the changes in population size and distribution, expenditure on health and welfare services, numbers employed and occupational mix in the health and community services industries, income and hours worked, by relevant occupations.

Population

Changes in the age profile

The Australian population grew steadily in the two decades to 2001. It has increased by around 6% to 8% in each inter-census period since 1981 reaching 19.4 million at the 2001 census. Lower birth rates, changing migration patterns and lower death rates are changing the structure of the Australian population. The proportion of the population aged less than 30 years declined from 50.7% in 1981 to 41.4% in 2001. There were increases in the proportions of the population aged 45 to 59 years, which in 2001 includes all the so-called 'baby-boomers', and those over the age of 75 years (Table 1). As people grow older they tend

to rely more on health and community services, and more is spent on their health and personal care, which is why large increases in the number and proportion of older people are of interest.

Table 1: Age distribution, Australia, 1981, 1986, 1991, 1996, 2001

Year	Age group						Total	Persons	Per cent increase from previous census
	0–14	15–29	30–44	45–59	60–74	75+			
	(per cent)							(number)	
1981	25.0	25.7	20.4	15.1	10.4	3.5	100.0	14,923,260	
1986	23.1	25.2	22.2	14.6	11.0	4.0	100.0	16,018,350	7.3
1991	21.9	24.1	23.4	15.1	11.1	4.4	100.0	17,284,036	7.9
1996	21.4	22.4	23.2	17.1	11.0	5.0	100.0	18,310,714	5.9
2001	20.5	20.9	22.9	18.9	11.0	5.7	100.0	19,413,240	6.0

Source: ABS, Census of Population and Housing, 1981, 1986, 1991, 1996 and 2001.

Changes in geographical distribution

Over the decade to 2001 there have been several steady patterns of population drift. Among the states and territories, the population share for Queensland and Western Australia grew, while the shares of the other states and territories declined (except for the Northern Territory, which maintained its population share of 1.0%) (Table 2).

As well as population movements between the states and territories, there was also a broad and consistent flow from less densely populated areas to more densely populated areas. Although there was a small increase in the proportion of the estimated resident population living in capital cities (from 63.6% in 1991 to 63.7% in 2001), this represents growth of some 1,370,000 people. There was much stronger proportional increase in Other metropolitan centres (from 7.3% to 7.8%, a growth of around 253,000 people). The share of the population in small rural centres remained the same on 6.5%, while the proportions living in the rural and remote areas declined (Table 2).

When viewed by remoteness category (the geographic classification principally used in this publication), the picture is similar: a small percentage population increase in Major cities (from 66.0% to 66.3%, representing an increase of 1,457,000 people), a larger increase in Inner regional areas (20.1% to 20.7%, or 550,000 more people) and declines in Outer regional areas, Remote areas and Very remote areas (Table 2).

Within capital cities, the growth areas were typically around the outer fringes, with some degree of urban infill occurring in the city centres in Sydney and Melbourne. Other regions experiencing growth were coastal areas in New South Wales and Queensland, particularly for people who have reached retirement age (ABS 2000).

As most of the above changes are projected to continue for the foreseeable future (ABS 2001a), they can be taken into account in informing policies concerned with the distribution of health and community services workforces.

Table 2: Population geographical distribution, Australia, 1991, 1996, and 2001

	1991	1996	2001
State/territory			
New South Wales	34.1	33.9	33.9
Victoria	25.6	24.9	24.7
Queensland	17.1	18.2	18.7
Western Australia	9.5	9.6	9.8
South Australia	8.4	8.1	7.8
Tasmania	2.7	2.6	2.4
Australian Capital Territory	1.7	1.7	1.6
Northern Territory	1.0	1.0	1.0
Geographic region^(a)			
Capital city	63.6	63.6	63.7
Other metropolitan centre	7.3	7.5	7.8
Large rural centre	5.9	6.0	6.0
Small rural centre	6.5	6.5	6.5
Other rural area	13.5	13.3	13.2
Remote centre	1.3	1.2	1.1
Other remote area	2.0	1.8	1.7
Remoteness^(b)			
Major city	66.0	66.1	66.3
Inner regional area	20.1	20.5	20.7
Outer regional area	10.9	10.7	10.4
Remote area	1.9	1.8	1.7
Very remote area	1.0	0.9	0.9
<i>Australia</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>

(a) Rural, Remote and Metropolitan Areas (RRMA) geographical classification.

(b) Australian Standard Geographical Classification (ASGC) Remoteness category.

Source: ABS, Census of Population and Housing, 1991, 1996 and 2001.

Health and welfare services in the economy

The ratio of Australia's health and welfare expenditure to Gross Domestic Product (GDP) provides an indication of the proportion of overall economic activity contributed by the health and community services sectors.

Using this measure, Australians spend comparatively more on health (9.0% of GDP in 2000) than the people in the OECD countries of Japan, New Zealand and the United Kingdom but less than Canada, France, Germany and the United States of America. Government expenditure on welfare was higher in Australia (1.4% of GDP in 1998) than Japan, New Zealand, the United Kingdom and the United States, but lower than in Canada, France and Germany. In all of the OECD countries shown in Table 3, government welfare expenditure made up a much smaller proportion of GDP than health expenditure.

Table 3: Health and government welfare expenditure as a proportion of GDP, Australia and other selected OECD countries, 1991 to 2000

Country	Health expenditure (per cent)			Government welfare expenditure (per cent)		
	1991	1996	2000	1992	1996	1998
Australia	8.2	8.5	9.0	1.1	1.2	1.4
Canada	9.7	8.9	9.1	1.2	2.7	2.4
France	8.9	9.6	9.5	1.1	2.0	1.9
Germany	n.a.	10.9	10.6	1.3	1.5	1.6
Japan	5.9	7.0	7.8	0.3	0.5	0.6
New Zealand	7.4	7.2	8.0	0.2	0.1	0.1
UK	6.5	7.0	7.3	1.1	1.3	1.3
USA	12.6	13.2	13.0	0.7	0.7	0.6

Source: AIHW, *Health Expenditure Australia 2000-01*; AIHW, welfare services expenditure database; OECD, unpublished data.

Expenditure on health services

It is estimated that spending on health accounted for 9.0% of GDP in 2000-01, up from 8.5% in 1996-97 (Table 4). Moreover, over the five years between 1995-96 and 1999-00 expenditure on health in Australia grew by 21.2% (Table A.1). Hospitals, which comprise the largest proportion of health expenditure (34.3% in 1999-00), grew by 18.2% over the period (Table A.1). Most of this growth can be attributed to drugs, medical and surgical supplies (which increased by 18.6% relative to GDP between 1995-96 and 1999-00), administrative expenses (which increased by 11.7% relative to GDP) and food supplies (11.4%) (Table A.3).

Services are the growth area in the Australian economy. Health and community services, as service industries, could expect to share in, and contribute to, the general growth in this area of the economy, particularly if demand increases due to demographic and other changes.

National health expenditure data are based on the industry classification (ABS 1993) and there is a relationship between industry and many of the health occupations. Some groups of the health occupations can be linked to areas of expenditure in the national health expenditure data. In the following analysis, changes in national expenditure are calculated only where there is a relatively direct relationship between the expenditure area and the occupations.

While health expenditure as a proportion of GDP has been increasing, some areas of expenditure grew at a greater rate than others. The broad area of most rapid growth in recurrent expenditure has been pharmaceuticals, aids and appliances (6.7%), followed by hospital and ambulance services (4.8%) (Tables 4 and A.2).

Within the broad groupings, however, there was more variation, ranging from increases in research (up 16.3%) and aids and appliances (up 9.7%) to decreases in public psychiatric hospitals (down 13.1%), community and public health (down 9.2%) and dental services (down 8.1%) (Table A.2).

Table 4: Total health and welfare services expenditure as a proportion of GDP, 1996-97 to 2000-01

Area of expenditure	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	Per cent increase 1996-97 to 1999-00
	(per cent)						
Health expenditure							
Hospitals, nursing homes and ambulance services	3.7	3.7	3.8	3.8	3.9	n.a.	4.8
Medical and other professional services	1.8	1.9	1.8	1.9	1.9	n.a.	1.4
Pharmaceuticals, aids and appliances	1.2	1.2	1.2	1.2	1.3	n.a.	6.7
Other services ^(a)	1.3	1.3	1.3	1.3	1.3	n.a.	-1.9
<i>Total health recurrent expenditure</i>	<i>7.9</i>	<i>8.0</i>	<i>8.1</i>	<i>8.1</i>	<i>8.3</i>	<i>n.a.</i>	<i>3.2</i>
Capital expenditure and consumption	0.5	0.5	0.5	0.6	0.6	n.a.	12.3
Total	8.4	8.5	8.6	8.7	8.8	9.0	3.7
Welfare expenditure							
Family and children's services	0.4	0.4	0.4	0.5	0.5	0.5	16.6
Aged persons	0.3	0.3	0.4	0.4	0.3	0.3	0.7
People with a disability	0.3	0.3	0.3	0.4	0.4	0.5	32.4
Purpose not defined ^(b)	0.8	0.8	0.8	0.8	0.8	0.8	2.8
Total	1.8	1.9	1.9	2.0	2.1	2.0	10.7

(a) Includes other non-institutional services (community and public health, dental services and administration) and research.

(b) Includes estimated expenditure by the private sector.

(c) Break in time series.

Note: Government welfare expenditure has a break in the time series between 1997-98 and 1998-99.

Source: Table A.2 and AIHW, *Welfare expenditure Australia 2000-01*.

Expenditure on welfare services

The total value of welfare services provided in 2001 was estimated at \$43.1 billion (AIHW 2003). Of this, \$29.5 billion is the imputed value of services where no payments or expenses were actually incurred. The remaining \$13.7 billion relates to services for which expenditure was incurred, nearly all of which (\$13.5 billion) was incurred by governments and non-government community services organisations, making up 2.0% of GDP in 2000-01. (The remaining \$0.2 billion comprised estimated payments by households for informal paid childcare services provided within the households sector – that is, non-regulated care provided by family members, friends or neighbours, paid babysitters and nannies.)

Expenditure data on community services by the three levels of government are available by area of expenditure, but expenditure by individuals is not. Relative to GDP, government welfare expenditure increased by 10.7% between 1996-97 and 1999-00, much faster than the increase in health expenditure although from a smaller base. The largest increase was in expenditure for people with a disability, which increased by 32.4%. There was an 0.7% rise in expenditure on aged care to almost 1.0% of GDP when health expenditure on nursing homes, of which aged people are the principal clients, is combined with that on aged persons, which is delivered in a community setting. Expenditure on family and children's services rose by 16.6% (Table 4).

Industry changes

The gradual redistribution of the age profile of the population has been accompanied by changes in policies that place a greater emphasis on care within a community environment rather than in an institution (AIHW 2001). A comparison of the 2001 and 1996 censuses shows that there have been changes to the occupational profiles of the health and community services industries (Table 5).

Table 5: Employed persons in health and community services industries, Australia, 1996 and 2001

Industry	1996	2001	Difference	% difference
Health				
Hospitals & nursing homes, undefined	2,816	1,803	-1,013	-36.0
Hospitals (excl. psychiatric hospitals)	219,640	211,363	-8,277	-3.8
Psychiatric hospitals	8,431	2,370	-6,061	-71.9
Nursing homes	80,574	65,884	-14,690	-18.2
Medical & dental services, undefined	—	2,428	2,428	. . #
General practice medical services	57,254	62,345	5,091	8.9
Specialist medical services	20,914	24,612	3,698	17.7
Dental services	24,896	29,426	4,530	18.2
Pathology services	10,869	15,707	4,838	44.5
Optometry & optical dispensing	8,236	9,281	1,045	12.7
Ambulance services	7,068	8,515	1,447	20.5
Community health centres	31,992	19,445	-12,547	-39.2
Physiotherapy services	6,722	8,428	1,706	25.4
Chiropractic services	4,384	5,086	702	16.0
Health services, nec	29,564	42,561	12,997	44.0 #
Health services, undefined	19,786	45,564	25,778	130.3 #
Other health services, undefined	4,208	2,963	-1,245	-29.6
Community services				
Child care services	66,424	64,385	-2,039	-3.1
Community care services, undefined	—	4,324	4,324	. . #
Accommodation for the aged	16,516	17,958	1,442	8.7
Residential care services, nec	24,357	19,056	-5,301	-21.8
Non-residential care services, nec	62,753	80,669	17,916	28.6 #
Community services, undefined	8,036	14,992	6,956	86.6
Health & community services, undefined	6,199	39,130	32,931	531.2 #
Total health and community services	721,639	798,295	76,656	10.6

Note: A hash (#) marks the industry data most affected by change in the data collection methodology.

Source: ABS, Census of Population and Housing, 2001.

Comparisons are complicated by a change in the methodology of collecting data on the employing business of census respondents, which resulted in large numbers of employees being classified to 'health and community services not further defined' in 2001. In 1996, 128,155 employed persons (17.8% of total employment) were in 'undefined' and 'not elsewhere classified' industry classes compared to 210,929 employed persons (26.4% of total employment) in 2001. (The industries most affected are marked with a hash (#) in Table 5.)

These data uncertainties make it difficult to conduct a definite quantitative analysis of change in the structure of the health and community service delivery industries since the 1996 census, but some trends are evident. For example, Table 5 shows a decrease in employment in institutional settings (hospitals, nursing homes and other residential care services), consistent with recent moves from institutional to community-based care in several health and community services industries (AIHW 2001a).

A considerable number of respondents to the census identified an area health council, by various names depending on state, as their employer. These councils have been included in ANZSIC in the health services 'not elsewhere classified' (n.e.c.) category, which increased by 13,000 employed persons from 4.1% of total employment in 1996 to 5.3% in 2001. The increase in the number of employed persons in health services n.e.c., and an almost equal decrease in numbers employed in community health centres between 1996 and 2001, are consistent with this classification change.

Changes in occupational mix

The increase in employment in occupations in the health and community services industries was uneven, with a 14.7% increase in occupations designated as health and community services occupations and a much smaller 3.3% increase in the occupations providing managerial and other support services (Table 6). The largest growth tended to occur among the community services occupations.

The main feature of the increases in the health and community services occupations was an adjustment to the mix of the nursing and nursing assistant occupations within the nursing workforce. There was an increase in registered nurses that kept pace with the general population increase, and a decrease in enrolled nurses and their apparent replacement with a larger number of lower paid carers and aides. The number of medical professionals increased at a slightly lower rate (11.2%) than the overall increase in employment in health and community services occupations.

The apparent 35% reduction in the number of education professionals was the result of a change in the census coding of some of these workers from the health and community services industries to the education industry. There was an overall increase of 11.3% in the number of pre-primary and special needs teachers (Table A.11 and AIHW 1996).

There was a decrease of 2,976 (9.3%) in those employed in hospitality and food preparation occupations, and a decrease of 7,835 (19.2%) in plant operators, labourers and cleaners (Table 6). This may indicate some degree of outsourcing of food preparation, cleaning and maintenance services. While most occupations in the tradespersons and related workers group recorded decreases, there was an increase in the number of drivers (264 or 6.6%), mainly employed in the pathology services industry, and for 'other associate professionals' (296 or 28.0%), which includes security officers (Table 6 and unpublished data).

Increasing computerisation of administrative functions was evident, associated with a restructuring in the administrative occupations. There was a decrease of 1,974 (12.2%) in secretaries, personal assistants and advanced clerks and an increase in business and computing associate professionals, and intermediate clerical workers of 7,144 (44.5%) and 10,462 (13.9%) respectively.

Table 6: Employed persons in health and community services industries: occupation, Australia, 1996 and 2001

Occupation	1996	2001	Difference	% difference
Health and community services occupations				
Natural & physical science/engineering professionals	7,525	9,500	1,975	26.2
Medical professionals	41,447	46,073	4,626	11.2
Registered nurses	152,652	161,736	9,084	6.0
Allied and complementary health professionals	41,857	50,401	8,544	20.4
Education professionals	6,579	4,273	-2,306	-35.1
Social welfare professionals	34,443	42,529	8,086	23.5
Natural & physical science/engineering associate professionals	8,318	12,943	4,625	55.6
Enrolled nurses	23,140	18,194	-4,946	-21.4
Ambulance/dental/A&TSI health workers/inspectors	11,150	15,510	4,360	39.1
Welfare associate professionals	8,575	12,129	3,554	41.4
Carers and aides—health	41,734	50,222	8,488	20.3
Carers and aides—community services	83,703	102,526	18,823	22.5
Dental assistants/personal care consultants	14,052	17,524	3,472	24.7
<i>Total</i>	<i>475,175</i>	<i>543,560</i>	<i>68,385</i>	<i>14.4</i>
Other occupations				
Managers	24,260	26,722	2,462	10.1
Business/computing professionals	11,590	13,551	1,961	16.9
Business/computing associate professionals	16,059	23,203	7,144	44.5
Hospitality/accommodation/sales associate professionals	8,366	7,776	-590	-7.1
Mechanical/building/electrical tradespersons	11,217	8,902	-2,315	-20.6
Food tradespersons	7,261	6,642	-619	-8.5
Secretaries and personal assistants/advanced clerical	16,140	14,166	-1,974	-12.2
Intermediate clerical/sales and service	75,086	85,548	10,462	13.9
Plant & machine operators/drivers	6,694	6,524	-170	-2.5
Elementary clerical and sales	6,360	7,164	804	12.6
Guards/porters/housekeepers	7,261	8,314	1,053	14.5
Labourers and cleaners	34,195	26,530	-7,665	-22.4
Food labourers	16,494	14,727	-1,767	-10.7
Not stated	5,481	4,872	-609	-11.1
<i>Total</i>	<i>246,464</i>	<i>254,641</i>	<i>8,177</i>	<i>3.3</i>
Total^(a)	721,639	798,201	76,562	10.6

(a) Includes those whose occupation was not stated or could not be further defined.

Source: ABS, Census of Population and Housing, 1996 and 2001.

Changes in income and hours worked

Income

The census collects data on income from all sources within specified ranges and cannot provide average income by occupation, nor can it separate out wage and salary earnings derived from employment in the occupation from other sources of income. Hence, data presented here for comparisons of wage and salary earnings differentials between persons who are employees in these occupations, and estimates of the effects on the salary and wages of occupational restructuring, are drawn from the Australian Bureau of Statistics (ABS) Employee Earnings and Hours surveys of 1996 and 2002. Base pay, which excludes overtime and allowances, is used as the basis of comparison between occupations drawn from this source. These surveys provide good estimates for broad occupational groupings, but not all

specific occupations are accurately measured. For occupations at the finer level of classification, income data from the census is used in this report as an approximation.

For example, between the 1996 and 2001 census the number of registered nurses increased by 6%, while the number of enrolled nurses, a lower paid category of nursing care (\$720.80 base pay per week in 2002 for full-time workers, compared with \$936.30 for registered nurses), decreased by 21%. At the same time, personal carers and nursing assistants (\$631.40 base pay per week), occupations that are lower paid than enrolled nurses, increased by 20.3%, apparently substituting for enrolled nurses or taking over some of the less skilled tasks of registered or enrolled nurses (Tables A.20 and A.24).

Table 7: Health and community services: selected adult non-managerial employees, weekly earnings, 1996 and 2002

Occupations	Full-time adults: ordinary time earnings, base pay (dollars)		Per cent change
	1996	2002	
Medical practitioners	1,261.70	1,404.40	11.3
Nursing professionals	784.20	936.30	19.4
Enrolled nurses	558.70	720.80	29.0
Personal care and nursing assistants	509.00	631.40	24.0
Secretaries and personal assistants	561.20	633.00	12.8
Intermediate clerical workers	506.30	634.50	25.3
Computing professionals	775.60	848.80	9.4
Finance associate professionals	790.40	908.60	15.0
Accountants, auditors and corporate treasurers	813.30	930.80	14.4
Sales, marketing and advertising professionals	791.90	769.30	-2.9
Miscellaneous labourers and related workers	460.80	444.80	-3.5

Note: based on current prices, not adjusted for inflation.

Source: ABS, Survey of Employee Earnings and Hours.

The computerisation of clerical functions mentioned in the previous section may also have had an effect on wages and salaries. The base pay of secretaries and personal assistants increased by 12.8% between 1996 and 2002, but fell behind the increases of 25.3% for intermediate clerical workers. While the number of business/computing professionals and associate professionals grew by 16.9% and 44.5%, respectively, the base pay of computing professionals increased by 9.4%, also below increases of 15.0% in the base pay of finance associate professionals and 14.4% for accountants, auditors and corporate treasurers.

Occupations for which the base pay decreased within the health and community services industries between 1996 and 2002 included sales, marketing and advertising professionals (a drop of 2.9%) and miscellaneous labourers and related workers (down 3.5%).

Hours worked

For both males and females in health and community services occupations there is a greater tendency to work part-time than in many other industries. In 2001, 52.6% of females and 21.6% of males in these occupations worked part-time (compared with 43.6% and 13.4% across all occupations) (ABS 2002a). This was an increase in part-time work from 1996, when the proportions were 50.9% and 18.7%, respectively. The health and community services

occupations are also major employers of females: the proportion of all females working in those occupations rose slightly from 77.8% in 1996 to 78.5% in 2001.

There was a greater propensity in 2001 for both males and females in community services occupations than in health occupations to perform part-time work. For those working part-time, the male proportions were 17.6%, 35.1%, and 21.6% in health occupations, community services occupations and all of those occupations respectively. The female proportions were more consistent at 51.3%, 54.5% and 52.6%, respectively.

Table 8: Distribution of hours worked per week in health and community services occupations, Australia, 1996 and 2001

	Proportion working 1–15 hrs			Proportion working < 35 hrs ^(a)			Proportion working 49+ hrs		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
	(per cent)								
Health occupations									
1996	3.7	10.4	8.7	15.4	50.0	41.3	30.7	4.4	11.1
2001	4.0	9.5	8.2	17.6	51.3	42.9	33.1	7.8	14.1
Community services occupations									
1996	11.4	18.3	17.4	31.1	52.3	49.5	10.3	6.3	6.8
2001	11.7	17.5	16.8	35.1	54.5	52.1	12.3	7.8	8.3
Health and community services occupations									
1996	5.3	13.4	11.7	18.7	50.9	44.1	26.4	5.2	9.6
2001	5.8	12.8	11.3	21.6	52.6	46.3	28.3	7.8	12.0

^(a) Includes those working 1–15 hours.

Note: The published hours worked data for 1996 did not include all the occupations in this report. The 2001 data in this table are for the same occupations as the 1996 data and do not match calculations based on the full list of occupations in this report.

Source: ABS, Census of Population and Housing, 1996 and 2001.

At the other end of the scale, for those working 49 or more hours per week, the male proportions were 33.1%, 12.3% and 28.3% in the health, community services and all occupations, respectively. The female proportion was consistent at 7.8% in all three.

Table 8 compares 1996 and 2001 for the same occupations and shows that:

- The percentage of males working 15 hours or less per week increased while that for females decreased.
- The percentage of males and females working less than 35 hours per week (part-time) increased, with males increasing at a greater rate than females.
- The percentage of males and females working 49 or more hours per week increased.

The result of these differing movements was an overall decrease between 1996 and 2001 in the average hours worked in both the health and the community services occupations (from 30.9 to 30.8 per week and from 30.2 to 29.6 per week, respectively) (ABS 2003b).

Ambulance services provide a good example of the interaction of changes in occupational mix and wages and salaries. Between the 1996 and 2001 census, the number of ambulance officers and paramedics increased by 12.5% but the proportion of intensive care ambulance paramedic officers increased from 31% to 52% of the total. Paramedics have higher incomes than ambulance officers, with 82% of paramedics having incomes of \$41,600 or more per year compared with 63% of ambulance officers (Table A.22). This higher income may be partly due to the longer hours worked by paramedics – 64% of paramedics compared to 54% of

ambulance officers worked more than 40 hours per week (Table A.16). The greater staffing costs from this change in the occupational mix would amount to around \$8 million based on a rough estimate using the data in Table A.22.

As noted above, there were also apparent changes to the way nursing and related care is delivered, with increases in the highest paid category of registered nurses, and in the lowest paid category of personal carers and nursing aides, together with decreases in the number of enrolled nurses. Enrolled nurses have a younger age profile than the other two nursing groups, with 7.3% aged 55 or over, compared with 11.1% for registered nurses and 12.7% for personal care assistants and nursing assistants. This change in the mix of nursing occupations has resulted in an older age profile of nursing workers (11.2% were aged 55 years and over in 2001, compared with 7.6% in 1996) and a decrease in average hours worked (50.9% worked part-time in 2001, compared with 33.8% in 1996) (Tables A.14 and A.16, and AIHW 1996). In combination, the effect has been a lower proportion in 2001 of nursing workers with incomes under \$41,600 (73.4%) than in 1996 (73.5%), but these are in actual dollars for each of those years rather than real terms (Table A.22 and AIHW 1996). Data on nursing pay rates is not available from the employee earnings and hours data.

These are only two examples, however, and a more detailed analysis of changes for all the major health and community services occupations is provided in later chapters.